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Habitats Regulations Appraisal of Draft Plan for Offshore Wind Energy in Scottish Territorial Waters: Appropriate Assessment Information Review

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Habitats Regulations Appraisal of Draft Plan for Offshore Wind Energy in Scottish Territorial Waters: Appropriate Assessment Information Review

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Summary

In May 2010, a Draft Plan for Offshore Wind Energy (OWE) in Scottish Territorial Waters was published by Marine Scotland (2010a). The purpose of this Draft Plan is to consider the potential of Scottish Territorial Waters to accommodate OWE developments from a national perspective. It makes proposals and defines potential areas as short, medium and long-term options for OWE generation.

A Strategic Environmental Assessment (SEA) of the Draft OWE Plan (Marine Scotland, 2010b) identified the potential for a likely significant effect (LSE) on sites designated for their nature conservation interest at a European Level ("European sites"). Accordingly, a Habitats Regulations Appraisal (HRA) of the Draft OWE Plan needs to be undertaken under The Conservation (Natural Habitats, &c.) Regulations, which implement the EC Birds and Habitats Directive in the UK. As Competent Authority, Marine Scotland is carrying out this HRA and will produce an Appropriate Assessment (AA) in fulfilment of obligations under these Regulations.

ABP Marine Environmental Research Ltd (ABPmer) was commissioned by Marine Scotland to complete the 'screening' and 'AA information production' stages of this HRA for both the short-term and medium-term options identified in the Draft OWE Plan[1]. The locations of these proposed short-term and medium-term option areas are shown in Figure 1. With respect to the long-term options, it has been determined that these do not need to be addressed at this stage because they are too broad in scale and scope to require or allow an HRA to be undertaken.

The HRA process for the Draft OWE Plan is being overseen by a Project Steering Group (PSG). The PSG comprises representatives of Marine Scotland, The Scottish Government Environmental Assessment Team, DG Energy, Scottish Enterprise (SE), Highlands and Islands Enterprise (HIE), Scottish Natural Heritage (SNH), Joint Nature Conservation Committee (JNCC), The Crown Estate (TCE), Scottish Renewables, the Whale and Dolphin Conservation Society (WDCS), Scottish Environment Link and Royal Society for the Protection of Birds (RSPB).

Pre-Screening (Report 1)

As a first stage for this HRA work, two pre-screening studies were undertaken to identify the possible impacts of the short-term options (Halcrow, 2010) and the medium-term options (ABPmer, 2010a). This pre-screening work satisfies the requirements of Stages 1 to 3 and 5 of the HRA process which are defined stages of a 13-step process for Plan-level HRAs identified within SNH guidance (David Tyldesley and Associates, 2010). This process has been followed throughout this HRA work. The results of the pre-screening process for the short term options were brought forward into the subsequent phase of the HRA with the pre-screening review of the medium term options (ABPmer, 2010a) setting the context for this integrated HRA work. The pre-screening review of the medium term options included three tables which summarised the findings of this analysis by showing:

[1] In addition to a pre-screening study that had already been completed for the short-term options only (Halcrow 2010)

- The environmental impact pathways that are relevant to the plan (i.e. the mechanisms by which an activity arising from the offshore windfarm developments (that are proposed within the Plan) could affect a relevant habitat or species);
- The designated European/Ramsar sites that are present within the OWE option areas and within 100km of these areas; and
- The designated European/Ramsar sites and their key qualifying interest features that have initially been screened into the assessment process (and those that have been screened out).

The 100km boundary that has been used here, has been applied because it defines a quantifiable and objective area that is likely to encompass many of the mobile species interest features (fish, seabirds and mammals) within designated sites which could be indirectly affected by the medium term OWE options. However, it has not been used to limit further review of more distant locations or to presume that all relevant features within this area for which impact pathway exists are necessarily affected. In particular, it is recognised that impacts (especially to migratory and foraging bird species, marine mammals and anadromous fish) may extend to sites beyond this 100km boundary and this aspect has been considered during subsequent stages of the assessment process.

As part of this pre-screening process qualifying interest features of designated European/Ramsar sites were screened out for sites and interest features where no impact pathway exists at a broad scale (i.e. at the Plan level). This included the following non-coastal terrestrial habitats and species interest features within the 100km area:

- Woodland, peatlands, heaths and bogs as well as species associated with such terrestrial habitats;
- Freshwater habitats and species which have no connectivity with the Draft OWE Plan; and
- Birds which are entirely resident within inland terrestrial habitats, do not forage at sea and do not migrate internationally.

Following the initial pre-screening of the medium terms options, a total of 355 European/Ramsar sites were identified as having a LSE and requiring further consideration in the HRA (from a total of 566 sites which were identified from the initial sweep of all sites within the 100km boundary). Of these 355 sites, 11 are located within the boundary of one of the 25 medium term options and could be subject to both direct and indirect effects while 344 lie outside of these options and could be indirectly affected. This list was further revised following the re-screening of each of the 34[2] short and medium term options as described further below.

Working paper (Report 2)

The pre-screening work was followed by the production of a working paper (ABPmer, 2010b) which set out the proposed approach for the screening of issues and assessment stages (for both the short and medium term options) following completion of the two pre-screening phases of the HRA. By reviewing these methods this working paper met the discretionary requirements for Stage 4 of the 13-stage HRA

[2] Please note that the draft Plan for OWE in Scottish territorial waters included 10 short term options, since publication one of the options – Bell Rock – was dropped due to irresolvable issues with radar impacts.

process as set out in the SNH guidance. These methods were described so that they could form the focus for early consultations with the PSG.

Re-screening and Appropriate Assessment Information (Report 3)

In light of the findings from the pre-screening studies and the working paper, and the subsequent consultations that were held with the PSG, this report now sets out the findings of the screening and assessment work (for both the short and medium term options). This assessment work constitutes Stages 4 to 10 of the Plan-level HRA process and comprised the following HRA stages:

- Revisiting Stages 4 and 5 followed by Stages 6 and 7 of the HRA (Pre-screening and re-screening having applied initial mitigation measures): Taking account of plan-level (referred to as 'initial') mitigation measures that are set out in the Draft OWE Plan and the SEA for this Draft Plan (Marine Scotland, 2010a; b), each of the 34 short and medium term option areas were re-screened to identify the final list of designated sites for which there is a LSE. As part of this work, a 100km boundary was set around each of the zones to form the basis of re-screening for each option. This re-screening was then pursued according to the methods set out in the working paper and in the light of the initial mitigation measures.
- Stages 8 and 9 of the HRA (Assessment and Application of Additional Mitigation): The relevant qualifying interest features that have been screened into the assessment were reviewed under the following grouped-feature categories: Habitats (including coastal (supralittoral), intertidal and subtidal habitats and associated species); Birds; Marine Mammals (cetaceans and pinnipeds); Fish and Otter. The sensitivities of each of these features to the activities and impact pathways associated with the draft OWE Plan were also described. An assessment of the effects of the Draft OWE Plan was then undertaken in the context of the conservation objectives to identify if there is an adverse effect on the integrity of any European/Ramsar site or whether from the information available it cannot be concluded with certainty that there will be no adverse effect on integrity. Where it could not be determined that there would be no adverse effect on integrity in the light of the initial mitigation measures, then 'additional' mitigation measures were identified for each of the impact pathways that had been identified during the HRA process to seek to avoid any adverse effect on site integrity. Consideration was also given to the cumulative and in-combination impacts of this plan with other plans and projects. Tabular and mapping outputs were produced throughout that clearly summarise the findings.
- Stage 10 of the HRA (draft HRA Record): As required under Stage 10 this report presents a draft record of the HRA to inform consultation with SNH and the stakeholders that are represented on the PSG.

Following the Stage 5 screening of all the 34 short and medium term option areas, updates were made to the overall number of sites that were screened in at a Plan-level. One SPA site (Bowland Fells) was added following an increase in the extent of the 100km buffer that was made to accommodate all the short-term option areas. Also, 23 SAC sites were screened out at a plan-wide level because they support inland populations of otter for which there is no likelihood of an indirect physical effect from a turbine array and no likelihood either that a cable will be aligned though these sites (most of which are greater than 10km from the open coast). In addition the Darwin Mounds SCI and the Wyville Thomson Ridge Candidate SAC were removed because they lie to seaward of all option areas and therefore they

will not be affected by any windfarm proposal or associated cable alignment. A further 39 SPA sites which lie outside the 100km zone were also screened in because they support bird qualifying interest species that forage over greater than 100km. When determining the sites to be screened in or out, advice was provided by SNH and JNCC during the HRA consultation process.

Therefore, a final total of 370 European/Ramsar were screened in at a plan-wide level. These changes were noted in updated versions of the pre-screening tables (presented in Appendix A) and in the individual option screening schedules (presented in Appendix B). As part of this Stage 5 screening a few European/Ramsar sites were screened out during some of the individual option area screening reviews and these are indicated in the Appendix B schedules and on the individual screening maps that are presented in Appendix C. Table S1 presents a summary of the screening process.

Table S1. Screening summary showing the number of sites included and excluded from assessment

Site	Total	Excluded at Pre-screening	Included at Pre-screening	Excluded After Screening	Included After Screening
SPA	174*	24	149*	none	149
SAC	308	173	135	23	112
Ramsar	73	11	62	none	62
SCI	3	none	3	1	2
cSAC	5	1	4	1	3
pSAC	3	none	3	none	3
pSPA	1	1	0	none	0
SPA (>100km)	-	-	-	-	39
Total	567*	210	356*	25	370

* NB - One SPA site (Bowland Fells) was added after the pre-screening report when the short-term option areas were also included – see Table 3 of the main report text.

For the review of mitigation measures, the re-screening and then the assessment of impacts that took place on these screened in sites for the subsequent of the HRA, the key consideration is that details about how the Plan and its individual project components (options) will be implemented are not well understood at this stage. These unknown developmental aspects include: the possible generation capacities and turbine densities, the temporal and spatial phasing of developments across the option areas (beyond the understanding that short term options precede the medium term options) and/or details about the cable alignments and landfall locations. Also there are a number of uncertainties which relate to the sensitivities of qualifying features (e.g. the impacts of turbine arrays on migratory seabirds). This uncertainty is relevant for the assessment of cumulative effects in the same way as for the assessment of the Plan.

As a result of these uncertainties and also because the initial mitigation measures on their own do not provide sufficient assurances of no LSE, few European/Ramsar sites could be screened out during the individual option area screening reviews (i.e. beyond those that had been removed at a Plan-wide level). The exceptions included some SAC sites for which anadromous fish or otter are qualifying features but where there is no impact pathway. These reasons for such screening out are as set out in the working paper. No SPAs were screened out at any stage.

As described above, in order to achieve the necessary level of certainty that there will be no adverse effect on site integrity (as required by the Habitats Regulations), 'additional mitigation measures' have

been applied where proposed initial mitigation measures were not sufficient to ensure that there would be no LSE and no adverse effect on the integrity of European/Ramsar sites via all pathways. These mitigation measures are outlined in Section 9.1 of the main report and in Table A2b and A2c in Appendix A. These additional mitigation measures build upon the initial and generic measures which are set out in the Draft OWE Plan and the Draft Plan SEA (Marine Scotland, 2010a; b) but revise and update these measures and add extra detail and actions where required to address gaps identified during the assessment work.

One of the two central principles of these additional measures is that there needs to be a clear process for the implementation of the Plan. In particular, the process needs to involve a phased and iterative approach to offshore wind farm deployment linked to ongoing monitoring with the findings from such monitoring feeding back into the next phases of work. To ensure that such a process is adopted the Scottish Government has undertaken to revisit the OWE SEA and review the OWE Plan every 2 years.

This Iterative Plan Review (IPR) approach sets out the mechanism by which projects are pursued and by which monitoring data is collected to validate conclusions (including in-combination assessments) that are made for successive project-level AAs. This process will involve the project-level assessments and monitoring review work being undertaken over time in a phased way as developments are identified, assessed and implemented. In addition to this temporal component, the process will inherently also require consideration of the spatial/regional context (e.g. the effects of those on the east or west coast) for project-level AAs to ensure that there are no adverse effects on the integrity of European/Ramsar sites from projects either individually or in-combination with other plans or projects. To understand how IPR will be applied over this biennial cycle, the key components of this process over the first few years of implementation (up to the start of 2017) have been presented in outline in the report text.

Another central principle of the additional mitigation measures is that, as a matter of law, a project will be required to undergo project-level AA wherever the possibility of LSE on a European/Ramsar site cannot be excluded. Each individual project will need to review the baseline conditions and undertake work in a manner that does not have an adverse effect on site integrity. However, this Plan-level AA gives direction to these future project level AAs by identifying measures that should be required at that stage to avoid an adverse effect on the integrity of European/Ramsar sites. Equally, as described above, the project-level assessments and the associated monitoring review work will be linked to (and will inform) regular reviews of the Plan as part of the IPR sequence that will be pursued.

Based on the findings of this review, and considering particularly the manner in which the Plan is to be implemented (based on the mitigation measures identified), it has been concluded that there will be no adverse effect on the integrity of a European/Ramsar site arising from the OWE Plan.

Abbreviations

µPa	Micro Pascal
µT	Micro Telsa
1SW	1-Sea Winter (Salmon grilse)
AA	Appropriate Assessment
ABPmer	ABP Marine Environmental Research Ltd
AC	Alternating Current
ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
AULFS	University of Aberdeen's Lighthouse Field Station
BERR	Business, Enterprise and Regulatory Reform
BD	Biological Disturbance
BDC	Biodiversity Committee
BLI	BirdLife International
BTO	British Trust for Ornithology
CES	Celtic Sea (plus South-west Ireland, Irish Sea & Western Channel)
CMACS	Centre for Marine and Coastal Studies
CRM	Collision Risk Modelling
cSAC	Candidate Special Area of Conservation
dB	Decibel
dBht	Decibel Hearing Threshold
DC	Direct Current
DECC	Department of Energy and Climate Change
DECOMM	Decommissioning
DO	Dissolved Oxygen
DOENI	Department of Environment for Northern Ireland
EC	European Commission
ECS	European Cetacean Society
EEZ	Exclusive Economic Zone
EGPS	Electricity Generation Policy Statement
EIA	Environmental Impact Assessment
EM	Electromagnetic
EMF	Electromagnetic Field
EPS	European Protected Species
FAD	Fish Aggregation Device
FAME	The Future of the Atlantic Marine Environment
FARL	European Inland Fisheries Advisory Commission
H'	Shannon Wiener Diversity Index
HDD	Horizontal Directional Drilling
HELCOM	Helsinki Commission
HIE	Highlands and Islands Enterprise
HRA	Habitats Regulations Appraisal
HRGN	Habitats Regulations Guidance Note
HVDC	High Voltage Direct Current
HWDT	Hebridean Whale and Dolphin Trust

Hz	Hertz
iE	Induced Electric
Interreg	Community initiative that aims to stimulate interregional cooperation in the European Union
IPR	Iterative Plan Review
IROPI	Imperative Reasons for Overriding Public Interest
JNCC	Joint Nature Conservation Committee
kHz	Kilo Hertz
km	Kilometre
LSE	Likely Significant Effect
MarLIN	Marine Life Information Network
mg/l	Milligram per litre
MPA	Marine Protected Area
MSW	Multi-Sea Winter (Salmon)
NPD	Non-Physical Disturbance
N-RIP	National Renewables Infrastructure Plan
NENS	North Eastern North Sea & Skagerrak
NTC	Non-Toxic Contamination
NWIS	North-west Ireland & West Scotland
ODPM	Office of Deputy Prime Minister
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
OWE	Offshore Wind Energy
PD	Physical Damage
PFSA	Pentland Firth Strategic Area
PLG	Physical Loss or Gain
PPT	Permanent Threshold Shift
PAH	Polyaromatic Hydrocarbons
POP	Persistent Organic Pollutant
pSAC	Possible Special Area of Conservation
PSG	Project Steering Group
pSPA	Proposed Special Protection Area
Ramsar	Wetland sites of international importance designated under the Ramsar Convention
RSPB	Royal Society for the Protection of Birds
R3OWF	Round 3 Offshore Wind Farm
SAC	Special Area of Conservation
SAMS	Scottish Association for Marine Science
SCI	Site of Community Importance
SCOS	Special Committee on Seals
SE	Scottish Enterprise
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SG	Scottish Government
SMRU	Sea Mammal Research Unit
SNCA	Statutory Nature Conservation Agency
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SPL	Sound Pressure Level

spp.	Species (plural)
SPP	Scottish Planning Policy
STW	Scottish Territorial Water
SWNS	Southwestern North Sea & Eastern Channel
TC	Toxic Contamination
TCE	The Crown Estate
TTS	Temporary Threshold Shift
UK	United Kingdom
UNEP	United Nations Environment Programme
WAG	Welsh Assembly Government
WDCS	Whale and Dolphin Conservation Society
WWT	Wildfowl and Wetlands Trust

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1. Introduction

In May 2010, a Draft Plan for Offshore Wind Energy (OWE) in Scottish Territorial Waters was published by Marine Scotland (2010a). The purpose of this Draft Plan is to consider the potential of Scottish Territorial Waters to accommodate OWE developments from a national perspective. It made proposals and defined potential areas as short, medium and long-term option areas for OWE generation. The locations of the short-term and medium-term options identified in the Draft OWE Plan are shown in Figure 1. It is important to note that the locations for the medium-term option areas which are shown in Figure 1 are 'areas of search' within which offshore wind energy generation could take place. Therefore, they should not be viewed as fixed boundaries marking the full extents of definitive development activities.

The Draft OWE Plan also sits alongside the National Renewables Infrastructure Plan (N-RIP), which supports the development of a globally competitive offshore renewables industry (including wind, wave and tidal energy) based in Scotland. N-RIP aims to establish how site owners can provide sites in the locations that the offshore renewables industry favours and in a way that fits with the principles of sustainable development and the timescales for use within the industry. This Draft OWE Plan has been, and is being, fundamentally shaped by a Strategic Environmental Assessment (SEA) which is being undertaken in accordance with the Environmental Assessment (Scotland) Act 2005. The Environmental Report for the SEA (Marine Scotland, 2010b) identified the potential for likely significant effect (LSE) on sites designated for their nature conservation interest at a European Level[3] (hereafter referred to as "European sites") and international level (namely Ramsar sites). Accordingly, a Habitats Regulations Appraisal (HRA) of the OWE options requires to be undertaken under the Habitats Regulations which implement the EC Birds and Habitats Directive in the UK[4]. As Competent Authority, Marine Scotland is carrying out this HRA and will produce an Appropriate Assessment (AA) in fulfilment of obligations under these Regulations. Alongside the SEA, the outcome from this HRA will help to shape the OWE Plan, in particular by identifying relevant additional mitigation measures that will need to be adopted within the Plan.

As a first stage for this HRA work, two pre-screening studies were undertaken to identify the possible impacts of the short-term options (Halcrow, 2010) and the medium-term options (ABPmer, 2010a). This pre-screening work satisfies the requirements of Stages 1 to 3 and 5 of the HRA process which are defined stages of a 13-step process for Plan-level HRAs identified within Scottish Natural Heritage (SNH) guidance (David Tyldesley and Associates, 2010). This process has been followed throughout this HRA work. The results of the pre-screening process for the short term options were brought forward into the subsequent phase of the HRA with the pre-screening review of the medium term options (ABPmer, 2010a) setting the context for this integrated HRA work. In summary, the pre-screening report and subsequent

3 Sites designated for their nature conservation interest at a European level comprise designated Special Areas of Conservation (SACs) and classified Special Protection Areas (SPAs), as well as candidate SACs and possible SPAs. Collectively these are referred to European sites while those SACs and SPAs which are wholly or partially marine are referred to as European Marine Sites or European Marine Offshore Sites.

4 Each EC Member State is ultimately responsible for implementation of the Directives in their territory and in Scotland, the EC Habitats Directive is transposed through a combination of the Conservation of Habitats and Species Regulations 2010 (in relation to reserved matters) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as well as Scottish Statutory amendments made between 2004 and 2007).

consultation identified those relevant European/Ramsar sites and associated interest features (both habitats and species) within the sites which could be affected.

A working paper was then produced by ABPmer (2010b) which addresses the requirements for the (discretionary) Stage 4 of the HRA by setting out the proposed approach to the screening of issues and assessment stages which will be undertaken for integrated Plan-level HRA of both the short and medium term options together. This paper presented the methods for taking account of plan-level mitigation measures and re-screening (Stages 6 and 7 of the HRA), and outlined the approach to be adopted in the subsequent AA phases, including the assessment of cumulative and in-combination impacts (Stages 8 to 10 of the HRA).

ABP Marine Environmental Research Ltd (ABPmer) has also been commissioned by Scottish Government to undertake the remaining 'screening' and 'AA information production' stages of this Plan-level HRA for both the short-term and medium-term options identified in the Draft OWE Plan[5]. This report, therefore, presents the results of the screening and AA work to satisfy the requirements of Stages 4 to 10 of the HRA process. With respect to the long-term options, it has been agreed in discussion with the PSG (meeting dated 22 October 2010), that these do not need to be addressed at this stage because they are too broad in scale and scope to require or allow an HRA to be undertaken.

The HRA process for the Draft OWE Plan is being overseen by a Project Steering Group (PSG) that comprises representatives of Marine Scotland, the Scottish Government, Scottish Enterprise (SE), Highlands and Islands Enterprise (HIE), SNH, Joint Nature Conservation Committee (JNCC), The Crown Estate (TCE), Scottish Renewables, the Whale and Dolphin Conservation Society (WDCS), Scottish Environment Link and Royal Society for the Protection of Birds (RSPB).

1.1 Draft Offshore Wind Energy (OWE) Plan

In 2009, TCE identified 10 areas where it was prepared to grant commercial leases and enter into 'exclusivity agreements' for offshore wind energy developments. Collectively, these areas have generation capacity of around 6.4GW. Marine Scotland subsequently progressed a Strategic Environmental Assessment (SEA) of offshore wind in territorial waters which led to the publication of the Draft Plan for OWE (Marine Scotland, 2010a) and an SEA Environmental Report (Marine Scotland, 2010b).

The Draft Plan provides a strategic overview of where OWE development could be progressed in the short, medium and long term. The Plan has been developed to meet Scottish Ministers' commitment to realising the environmental benefits associated with renewable energy and providing Scotland with a better mix of sources of power by reducing dependence on fossil fuels.

The overall objectives of the Draft Plan are to:

5 In addition to a pre-screening study that had already been completed for the short-term options only (Halcrow 2010)

- Define a national strategy for the development of OWE in Scotland's seas over the short, medium and long term;
- Set out a regional framework for offshore wind energy development, based on an assessment of environmental and technical capacity; and
- Identify where options could be prioritised for development, and other areas where development may require further assessment and planning before progressing, as a result of their environmental and technical sensitivities.

The Crown Estate's initial 10 options were included in the Draft Plan, but subsequent to this one of the sites (Bell Rock) proved technically unsuitable for development and the developer has withdrawn from the scheme. The Draft Plan identified a further 25 medium term options that were considered to be potentially acceptable in environmental terms. These short and medium-term options are included in Table 1 and their locations are shown in Figure 1. It is important to note that these options should be viewed as 'areas of search' within which offshore wind energy generation could take place.

Table 1. Short and medium-term options for offshore wind energy

Area*	Short-Term Option	Medium-Term Option
East	Inch Cape	E1
	Bell Rock	
	Neart na Gaoithe	
	Forth Array	
North		N1
		N4
		N5
		N6
		N7
		N8
North-East	Beatrice	NE1
		NE2
		NE3
North-West		NW2
		NW4
		NW5
		NW6
		NW7
		NW8
South-West	Solway Firth	SW1
	Wigtown Bay	SW3
		SW4
		SW5
		SW6
West	Argyll Array	W1
	Islay	W2
	Kintyre	W3
		W4

NB1. Medium-term options N2, N3, SW2, NW1 and NW3 were removed from the Draft Plan following the technical and environmental assessment (Marine Scotland, 2010b).
* - See Figure 1 for map.

Given the level of uncertainty with each of these medium term options, the Draft Plan recommends further work across all of the sites be undertaken to confirm their suitability for offshore wind energy generation. This includes taking action on the basis of the findings of this HRA. Therefore, at this Plan-level stage they should not be viewed as fixed boundaries marking the full extents of definitive developmental activities.

It is expected that the Draft OWE Plan will evolve over time and that some of the medium term sites are likely to prove more feasible for development than others. Thus, it is a characteristic of the Draft Plan that it is inherently flexible and this, in turn, means that the assessment of likely significant effect (LSE) and AA of Plan-level impacts in this report has been made in more general terms.

The Draft Plan for OWE in Scottish Territorial Waters sits alongside the National Renewables Infrastructure Plan (N-RIP). The focus of the N-RIP is on the on-shore sites which could provide infrastructure support for the development of the offshore wind sector.

1.2 Legislative Context and Project Approach

Where a plan or project is not directly connected with or necessary for the management of designated European sites or offshore European sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), and where the possibility of a likely significant effect (LSE) on these sites cannot be excluded, either alone or in combination with other plans or projects, an Appropriate Assessment (AA) should be undertaken in view of the site's conservation objectives by the Competent Authority in compliance with the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). In the UK, it is Government policy (as indicated in the following documents: Scottish Government (SG), 2010; Office of Deputy Prime Minister (ODPM), 2005; Welsh Assembly Government (WAG), 2010; Department of Environment for Northern Ireland (DOENI), 1997), that these requirements are also extended to the consideration of effects on sites that are proposed for designation such as proposed SPAs (pSPAs) and possible SACs (pSACs), and this would also include any proposed extensions or additions to existing European sites.

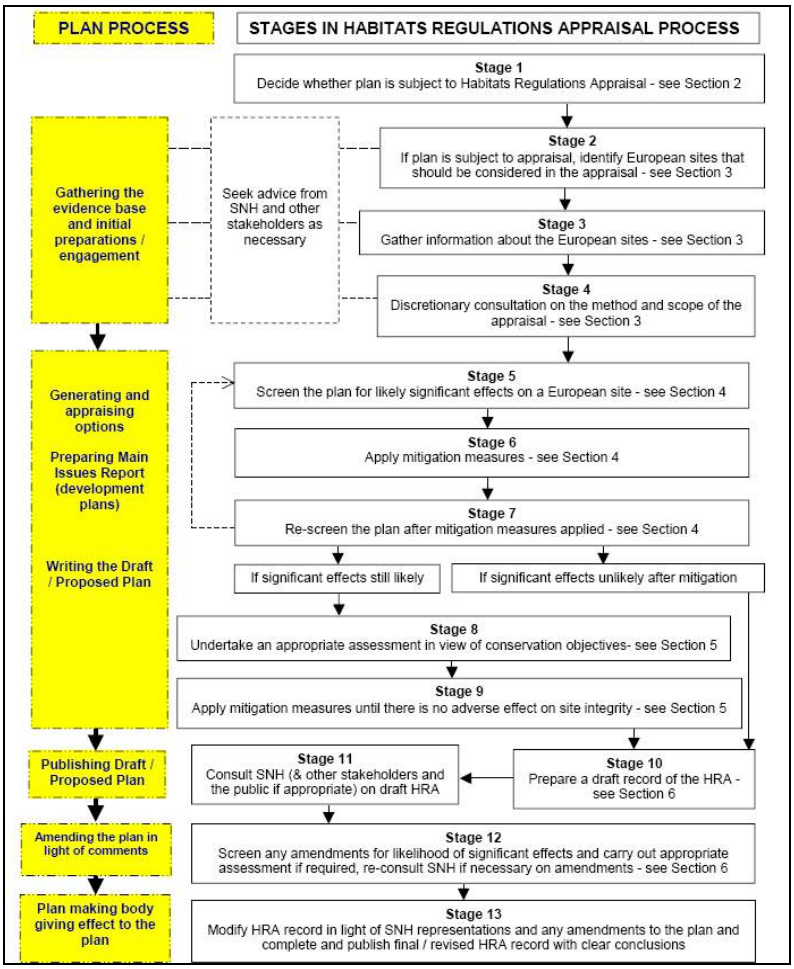
In Scotland, it is also a matter of policy as set out in the February 2010 Scottish Planning Policy (SPP) document (SG, 2010) that international Ramsar sites[6] are 'also Natura sites and/or Sites of Special Scientific Interest and are protected under the relevant statutory regimes'. Therefore, in Scotland, where the interests of Ramsar sites correspond with those of overlapping European sites, there is no need to consider them separately. In the rest of the UK it is also a matter of policy that Ramsar sites should receive the same protection as designated SPAs and SACs. In recognition of this, sites protected either by law under the Habitats Regulations, or by Government policy, are referred to throughout the HRA process as European/Ramsar sites.

When evaluating the effects on these designated sites as part for the HRA process, if Marine Scotland, as Competent Authority, cannot conclude that the Draft OWE Plan will not have an

6 Ramsar sites are wetlands designated under the Ramsar Convention on Wetlands of International Importance, especially as waterfowl habitat.

adverse effect on the integrity of a European/Ramsar site (either alone or in combination with other plans or projects) the plan can only be adopted if it has been ascertained that there are no alternative solutions and it is necessary for Imperative Reasons for Overriding Public Interest (IROPI), including those of a social or economic nature[7]. In such cases, compensatory measures must be taken to ensure that the overall coherence of the network of Natura 2000 sites is maintained.

For this HRA, an iterative and auditable process will be followed to ensure that there is as much clarity as possible in the process and also to ensure that the relevant documentation can be readily accessed, interpreted and interrogated. In particular, this iterative process draws upon the agreed guidance for undertaking HRAs for plans in Scotland which has been set out in the report produced on behalf of SNH by David Tyldesley and Associates (2010). This guidance document sets out the 13 stages to be pursued in a flow diagram format and this figure is reproduced here in Image 1.



(David Tyldesley and Associates, 2010)

Image 1. Key stages of HRA process for plans

7 Article 6 of the Habitats Directive also states that, where the site concerned hosts a priority natural habitat, type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

In outline the HRA for the Draft OWE Plan will cover these 13 stages in the following iterative steps:

- Pre-screening Reports: Two reports by Halcrow (2010) and ABPmer (2010a) covered Stages 1 to 3 and 5 of the HRA process for the short and medium term options respectively. These act as an initial 'sifting' exercise for which the aim is to identify the relevant European/Ramsar sites and interest features for which there is a potential for LSE (or where such a LSE cannot be excluded) and then ensure that these sites are taken forward into the assessment process.
- Working Paper: This technical note by ABPmer (2010b) covered the discretionary Stage 4 by setting out (for consultation with the PSG) the methods to be adopted in the screening and AA phases of the HRA.
- Draft Screening Review and AA Information Report (this document): In light of the agreements reached with consultees on the working paper (as part of Stage 4), the Stage 5 LSE judgments were revisited to formally scope the assessment. Then the screening review (Stages 6 and 7) was undertaken to re-screen the plan following the application of initial mitigation measures. Finally the information for AA (Stages 8 to 10) has been prepared which considers the remaining, screened in impact pathways[8], habitat and species sensitivities, and the application of additional mitigation measures to seek to further avoid any adverse effect on site integrity at plan-level. To ensure full transparency in the process, this report includes all the findings from the screening and assessment work (Stages 1 to 10) as a single iterative and coherent document covering both the short and medium term options for OWE in the Draft Plan.
- Consultations with Stakeholders (Steering Group) and Final AA Information Report: To cover Stages 11 to 13, final draft versions of this Screening Review and AA Information Report were forwarded to the PSG for consultation (Stage 11) and a final assessment document will be produced in the light of this consultation work. The final AA will be produced by Marine Scotland as the Competent Authority.

1.3 Current Understanding about Plan Activities

For this Plan-level HRA, it is important to note that many of the details about the activities that will be undertaken are not known at this stage. The location of the short-term option areas are well understood but the details about the projects are not known. Fewer details are available for the medium-term option areas and their locations (Figure 1) are themselves 'areas of search' and not definitive boundaries of proposed developments.

This assessment has, therefore, taken account of the likely range of development options and activities by ensuring that the potential impacts which are identified encompass an envelope of potential change (identified through the application of a precautionary approach) and that the requirements for additional mitigation measures are clearly identified. In addition the assessment process has been presented in an auditable manner to ensure that the requirements of the Habitats Regulations and the constraints on developments are clearly

8 i.e the mechanisms by which an activity arising from the offshore windfarm developments (that are proposed within the Plan) could affect a relevant habitat or species.

understood. These aspects are also considered further under the methods review (see Section 2.3).

It is of note that no details about generation capacity have been made or are possible for the purposes of this HRA. The Scottish Ministers have produced a draft 'Electricity Generation Policy Statement' (EGPS). This statement sets out what level of installed electricity generation capacity is likely to be needed for Scotland to meet its generation needs for 2030. It considered that a relatively modest 1,500MW of offshore wind capacity would be required by 2020, and 3,000MW by 2030. This EGPS provides an initial consideration about the future installed capacity but it is understood that this is still in draft form and that any objectives flexible and will be subject to ongoing review through the process of offshore windfarm development in Scotland. In particular this Statement will be revised in response to the findings from this HRA and a separate assessment of the socio-economic impacts of the draft OWE Plan. It will also be influenced by the process of marine spatial planning in response to the Marine (Scotland) Act 2010. Therefore no capacity targets have been used for the purposes of this HRA. Instead this HRA has, as described above, been pursued on the basis that the plan will be iterative and will have a broad spatial and temporal scale and will result in a, currently, unquantifiable envelope of change.

1.4 Report Structure

The report has been structured as follows:

- Section 1 provides background to the Draft OWE Plan and the legislative context of this Plan-level HRA;
- Section 2 provides information on the screening and assessment approach (Stages 5 to 10 of the HRA);
- Section 3 presents the results of the screening and re-screening following application of initial mitigation measures (Stages 4 to 7 of the HRA);
- Sections 4 to 8 presents the results of the AA information work by considering the screened in impact pathways, habitat and species sensitivities and the effects on site integrity at plan-level (Stages 8 to 10 of the HRA); and
- Section 9 provides conclusions on the assessment, including additional mitigation requirements, cumulative and in-combination effects and project-level HRA requirements.

2. Screening and Assessment Approach

2.1 HRA Stages 4 and 5 - Methods for Screening

This section summarises the methods, criteria and considerations that can be applied to review the pre-screening results and undertake the next screening stages of the HRA process. These next stages involve selecting the final list of the sites and interest features which are to be 'screened into' the AA either because there is a LSE or because a LSE cannot be excluded via the identified impact pathways. The impact pathways and impacting activities are listed in

Tables A1 and A2a in Appendix A. Therefore, this screening stage of the process determines which of these impact pathways needs to be taken into the assessment process because they represent a LSE. More detailed information on the screening approach, which was developed from approaches taken during previous Plan-level HRAs and through consultation with the PSG, is provided in the working paper (ABPmer, 2010b).

It should be noted that LSE is not defined in the Habitats Regulations. The English Nature Habitats Regulations Guidance Note 3 (English Nature, 1999) identifies LSE as a more than '*de minimis'* change or, in other words, any effect "that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the site was designated, but excluding trivial or inconsequential effects". The European Court Waddenzee judgement[9] provides further clarification on this aspect where it concludes that 'any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects'. Furthermore, the same judgement adds 'where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light *inter alia* of the characteristics and specific environmental conditions of the site concerned by such a plan or project.'

Given the need for a high level of certainty to meet Habitats Regulations requirements, there is a presumption in favour of 'screening issues in' at this stage, following the precautionary approach. This is important also for undertaking any detailed assessments (at this Plan-level or in future Project-level assessment work) where there needs to be sufficient confidence in the evidence base and that the delivery of projects under the plan can be sufficiently controlled to avoid adverse effect on integrity. This will include consideration both of the potential flexibilities in the plan (location and scale of development) as well as initial mitigation measures where necessary (see Section 2.2).

When considering the relevant screening methods to determine LSE, it is therefore understood that there again needs to be a presumption in favour of including rather than excluding interest features and designated sites in the HRA process at this stage. This precautionary approach is also enshrined in the process by which judgments are made (during the subsequent AA) about whether the integrity of sites are affected. In particular, under the Habitats Regulations, there is a need for a high level of certainty in the assessment conclusions (also following the precautionary principle). This is also highlighted within the Waddenzee judgement which concluded that 'a plan or project [that is] likely to have significant effect on the site is only to be authorised if it is ascertained that it will not adversely affect the integrity of the site (i.e. where no reasonable scientific doubt remains as to the absence of such effects)'.

As described in more detail in the working paper (ABPmer, 2010b), the screening approach has been developed based on precedents that were followed for two previous Plan-level HRAs:

9 Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij, C-172/02, [2005] Env LR 14.

- The Pentland Firth Strategic Area (PFSA) HRA (ABPmer, 2010c; 2010d) which related to the wave and tidal energy leasing round; and
- The Round 3 Offshore Windfarm (R3OWF) HRA (Entec 2009a; 2009b) which related to the plan for nine large-scale wind farm developments around the UK.

Taking account of these precedents ensures that the HRA for the Draft OWE Plan builds upon and learns from this previous work. Equally, it helps to ensure that this HRA does not depart from agreed methods and relevant guidance unless there is a clear rationale for doing so in the context of the specific issues associated with the Draft OWE Plan.

The following sections present the iterative series of tasks that have been undertaken for each of the 34[10] short and medium term options under each of the grouped features:

- Habitats (including coastal, intertidal and subtidal habitats and associated species) (Section 2.1.1);
- Birds (Section 2.1.2);
- Marine mammals (cetaceans and pinnipeds) (Section 2.1.3);
- Anadromous fish and freshwater pearl mussel (Section 2.1.4); and
- Otter (Section 2.1.5).

The initial screening work undertaken as part of the preceding pre-screening report focused on qualifying interest features of the designated sites. As advised by SNH, at the next stage of this screening process, further consideration will also be given to supporting components of individual qualifying interest features within marine SACs (e.g. sparling (the European smelt *Osmerus operlanus*) is a fish of conservation concern listed as a typical species of habitat features within the Forth of Tay and Eden SAC).

2.1.1 Habitats

- Step 1: Agree the list of relevant qualifying features with the PSG and screen out non-coastal habitats and species.
- Step 2: Identify the best understanding about possible cable alignments and landfall positions to make assumptions and, if possible, identify 'areas of search' for these locations. It has been identified in discussion with the PSG that this understanding will be insufficient to define areas with the high level of certainty required under the Habitats Regulations.
- Step 3: Screen in all designated sites and associated habitat and non-mobile species interest features (recognising that these include prey species for non-mobile birds, fish and marine mammals) that will be directly affected. This is where there is spatial overlap between the short and medium term options areas.
- Step 4: Undertake a review of tidal excursion patterns around the boundaries of each of the 34 short and medium term option areas. Then draw a new boundary at a

10 Please note that the draft Plan for OWE in Scottish territorial waters included 10 short term options, since publication one of the options – Bell Rock – was dropped due to irresolvable issues with radar impacts.

distance of tidal ellipse form these boundaries where it is possible to do so with the requisite certainty (Figure 2).

- Step 5: Screen in all designated sites and associated habitat and non-mobile species interest features (recognising that these include prey species for non-mobile birds, fish and marine mammals) that could be indirectly affected because they lie at distances of less than one tidal excursion from any short and medium term options areas.
- Step 6: Alter the pre-screening tables to indicate the coastal, intertidal and subtidal qualifying interest features that have been screened in or out for each of the 34 short and medium term option areas. Identify any designated sites that can be screened in or out on the basis of the above review (i.e. because there is no LSE for any of their qualifying interest features).
- Step 7: Record the findings on the screening maps that have been prepared for each of the 34 short and medium term option areas.

2.1.2 Birds

- Step 1: Agree the list of relevant qualifying features with the PSG and screen out bird qualifying interest features where they are confined to inland terrestrial habitats and do not migrate internationally.
- Step 2: Identify the best understanding about possible cable alignments and landfall positions to make assumptions and, if possible, identify areas of search for these locations. It has been identified in discussion with the PSG that this understanding will be insufficient to define areas with the high level of certainty required under the Habitats Regulations.
- Step 3: Screen in the bird qualifying interest features that forage over distances of >100km (Atlantic Puffin, Black-legged Kittiwake, Common Guillemot, Common Scoter, Manx Shearwater, Northern Fulmar and Northern Gannet) and could potentially feed within or across the short or medium term option areas. The location of SPA and Ramsar sites supporting each of the seabirds with maximum foraging distances greater than 100km are presented in Figures 5a to 5g.
- Step 4: Screen out birds qualifying interest features (and where possible the relevant designated sites) that forage on the coastal zone but at distances of greater than one tidal excursion from the short or medium term options areas (but recognising that these species may still be affected during migratory movements).
- Step 5: Review flyway data to identify any overlap of migratory routes with short or medium term options areas to identify sites (both in UK and rest of Europe) for which LSE on features are possible.
- Step 6: Consult further with PSG to agree the strategy for identifying the LSE on migratory bird species in the context of available information and the past approaches detailed above.
- Step 7: Alter the pre-screening tables to indicate the bird qualifying interest features that have been screened in or out for each of the 34 short and medium term option areas. Identify any designated sites that can be screened in or out on the basis of the above review (i.e. because there is no LSE for any of their qualifying interest features).
- Step 8: Record the findings on the screening maps that have been prepared for each of the 34 short and medium term option areas and any defined areas of search for cable alignments.

2.1.3 Marine Mammals

- Step 1: Agree the list of relevant qualifying features with the PSG.
- Step 2: Identify the best understanding about possible cable alignments and landfall positions to make assumptions and, if possible, identify areas of search for these locations. It has been identified in discussion with the PSG that this understanding will be insufficient to define areas with the high level of certainty required under the Habitats Regulations.
- Step 3: Screen in all designated sites and associated seal species interest features that lie within 100km of any short and medium term options areas.
- Step 4: Screen in the Moray Firth SAC and associated bottlenose dolphin interest feature for short and medium term options areas that lie within the North Sea Population Management unit (Figure 3).
- Step 7: Alter the pre-screening tables to indicate the marine mammal species qualifying features that have been screened in or out for each of the 34 short and medium term option areas. Identify any designated sites that can be screened in or out on the basis of the above review (i.e. because there is no LSE for any of their qualifying interest features)
- Step 8: Record the findings on the screening maps that will be prepared for each of the 34 short and medium term option areas and any defined areas of search for cable alignments.

2.1.4 Anadromous Fish and Freshwater Pearl Mussel

- Step 1: Agree the list of relevant qualifying features with the PSG.
- Step 2: Identify the best understanding about possible cable alignments and landfall positions to make assumptions and, if possible, identify areas of search for these locations. It has been identified in discussion with the PSG that this understanding will be insufficient to define areas with the high level of certainty required under the Habitats Regulations.
- Step 3: Screen in all designated sites and associated anadromous fish interest features that will be directly affected. This is where there is spatial overlap between the short and medium term options areas.
- Step 4: Screen in all designated sites and anadromous fish interest features that could be indirectly affected because they lie at distances of less than one tidal excursion distance from any short and medium term options areas.

  Step 5: Screen in anadromous fish interest features (i.e. salmon and lamprey species) for those short and medium term option areas that have the potential to affect fish migration around the coast and into designated estuaries or rivers. The location and extent of coastal regions to be used for screening anadromous fish qualifying interests is presented in Figure 4. The approach to be taken here depends upon the region in which the areas are located (ABPmer, 2010b). The approach is as follows:
  - Areas in the 'South West' need to screen in SACs within this region only;
  - Areas in the 'West' need to screen in SACs across all regions (N.B. Shetland does not have any SAC that is designated for anadromous fish interests);

- Areas in the 'North' and in 'Shetland' need to screen in SACs in the north and east regions; and
- Areas in the 'East' need to screen in SACs within this region only.

- Step 6: Screen in freshwater pearl mussel for those short and medium term option areas using the approach adopted in Step 5 but recognising in this case that Atlantic salmon does not need to be a qualifying feature of the SAC for a site to be screened in.
- Step 7: Alter the pre-screening tables to indicate the anadromous fish and freshwater pearl mussel qualifying features that have been screened in or out for each of the 34 short and medium term option areas. Identify any designated sites that can be screened in or out on the basis of the above review (i.e. because there is no LSE for any of their qualifying interest features).
- Step 8: Record the findings on the screening maps that have been prepared for each of the 34 short and medium term option areas.

2.1.5 Otter

- Step 1: Identify the best understanding about possible cable alignments and landfall positions to make assumptions and, if possible, identify 'areas of search' for these locations. It has been identified in discussion with the PSG that this understanding will be insufficient to define areas with the high level of certainty required under the Habitats Regulations.
- Step 2: Screen in otter for those short and medium term option areas (including cable route areas where known) that lie at distances of less than 10km from the designated sites.
- Step 3: Alter the pre-screening tables to indicate the otter qualifying interest features that have been screened in or out for each of the 34 short and medium term option areas. Identify any designated sites that can be screened in or out on the basis of the above review (i.e. because there is no LSE for any of their qualifying interest features)
- Step 4: Record the findings on the screening maps that have been prepared for each of the 34 short and medium term option areas.

2.2 HRA Stages 6 and 7 - Approach to Mitigation Measures and Re-Screening

Stages 6 and 7 of the process involves re-screening the revised list of sites and features identified in Stages 4 and 5 following the application of initial mitigation measures and then finalising the scope of the AA. For this two-step process, the generic impacts associated with the Draft OWE Plan (see Tables A1 and A2a in Appendix A) have been reviewed against a set of initial standard mitigation measures which seek to reduce the impact to acceptable levels and avoid LSE. These initial mitigation measures are set out in the SEA Environmental Report (Marine Scotland, 2010b) and are divided into two categories 'strategic level' and 'project level'. The distinction is that strategic level measures apply across all impact pathways while the 'project level' measures are those identified in the SEA Environmental Report that pertain to impacts to 'water'; 'geology sediments and coastal processes' and 'biodiversity, flora and fauna. Therefore 'project-level' in this context does not refer to (or impose) specific requirements on projects at this stage but they refer to the generic impact pathways arising from Plan activities. These initial measures are reproduced below and also in Table A2b in Appendix A.

The initial strategic level mitigation measures (that apply across all impact pathways) were as follows:

- There may be a requirement to remove further options from the Plan on the basis of the findings of a strategic level HRA. This would assess the likely significant effects of the draft Plan on internationally protected sites (SPAs, SACs and Ramsar Sites). It may be necessary to change the draft Plan where adverse effects on European nature conservation sites are identified in this process, and other forms of mitigation are considered insufficient to avoid such effects arising;
- Continue communications (consultation and participation) with the SEA consultation authorities (SEPA, SNH and Historic Scotland), regulators, key organisations (e.g. Scottish Fishermen's Federation), developers (including those that have been awarded exclusivity leases for areas inside Scottish Territorial Water (STW)), Offshore Wind Industry Group and the public to seek appropriate site-specific mitigation. Developers must be engaged in the process as early as possible together with the shipping and commercial fishing industries to develop appropriate mitigation;
- Consider the potential requirement to identify and provide habitat to help offset non-designated/nationally designated habitat losses resulting from offshore wind farm development;
- Consider the implementation and scheduling of components of offshore wind projects within STW (in combination with other planned offshore developments) to minimise strategic adverse impacts on species (e.g. migratory fish, marine mammals etc, habitats and landscape), including consideration of the cumulative and in-combination effects with other identified schemes, projects or activities; and
- Undertake the further work recommended at the strategic level.

The initial 'project level' mitigation measures (that apply across selected types of impact pathway) pertaining to impacts to 'water'; 'geology sediments and coastal processes' and 'biodiversity, flora and fauna' were as follows:

- Water: Further assessment work is required for all options to reduce uncertainty regarding potential impacts on water quality (including Shellfish Waters). This includes a recommendation for hydrodynamic and water quality modelling at project level;
- Water: Specific impacts during construction, operation and decommissioning should be reduced through the selection and use of appropriate methods to reduce pollution risks, e.g. through the use of best practice marine construction procedures for prevention and control of spillages and discharges of harmful substances (such as antifouling agents, sacrificial anodes, biocides, grouts etc.) to the marine environment; for sediment mobilisation and associated turbidity and secondary impacts to avoid unacceptable impacts on marine and benthic fauna;
- Geology Sediments and Coastal Processes: Further assessment work is required for all options to reduce uncertainty regarding potential impacts on coastal processes. This includes a recommendation for sediment dynamic modelling at project level;
- Geology Sediments and Coastal Processes: Optimise the location and arrangement of structures and their arrangement during the design process to mitigate any issues of erosion or deposition and resulting impacts on sensitive receptors;

- Biodiversity, Flora and Fauna: Key areas for species and habitats of nature conservation (e.g. legally designated sites, Important Bird Areas, flight corridors and migratory routes) and fisheries value (e.g. spawning grounds) should be avoided, where known, through the positioning and subsequent design of the development;
- Biodiversity, Flora and Fauna: Specific impacts on species and habitats (including fisheries) should be reduced through appropriate design (e.g. minimising footprint of the development to minimise loss or damage to seabed habitat), and selection and use of appropriate construction (e.g. timing to avoid key seasons; selection of low noise and minimal vibration installation technologies; utilisation of 'soft start' practices for plant and vessels to minimise disturbance and allow mobile species to move away from areas of disturbance) and operation methods (e.g. use of noise attenuation technologies); and
- Biodiversity, Flora and Fauna: Further work is required at a strategic and project level to determine impacts on international nature conservation sites - to be assessed through the HRA process.

2.3 HRA Stages 8 to 10 - Methods for Assessment

For this plan level assessment, it is recognised that there is often limited information on the precise location and scale of development or about the relevant construction methods and associated activities. This aspect has been highlighted previously in Section 1.3.

This limited information about the detail of project-level activities is particularly evident for the medium term option areas for which there is no information available beyond a general indication of the relevant 'areas of search' (see Section 1.1 and Figure 1). However, it is also true of the short-term option areas. Although the short-term projects are more advanced (many of which are at the scoping stage for project-level Environmental Impact Assessments) and, certainly, more detail is known about their location, many details about the projects to be undertaken are not yet known. This includes details about cable alignments and landfall locations which are insufficiently understood (following a review of information and discussions with the PSG) to allow clear areas of activity to be defined at this stage. This uncertainty about the details of the work at a project level, whether for the short or medium term option areas, has been recognised throughout the screening and assessment work.

The assessment has, therefore, taken account of the likely range of development options and activities based on typical/previous offshore windfarm projects but recognising also that the OWE plan has a broad spatial scope and a long-term temporal component which can each influence the range of potential impacts. The temporal aspects of the Plan's implementation, and the scale of the impacts associated, will also be influenced by technological advances that take place over time with respect to offshore wind energy developments. These will influence the scale of potential impacts and inform proposals for the future 'repowering' or upgrading of wind generating technologies in established areas. In this context therefore it is has been essential that, to achieve this assessment, no specific assumptions about project-level activities (e.g. turbine size, generation capacity) are made in the absence of available information and that the potential impacts that are identified encompass a full envelope of potential change (through the application of a precautionary approach).

This potential envelope of change has therefore been determined to identify the potential effects on features and any requirements for restrictions on development or for additional mitigation measures. Documentation of these constraints has been undertaken and the requirements for additional mitigation measures have been highlighted. These are viewed as being very important in providing the audit trail as the plan is implemented. In particular, this approach provides transparency in the process and ensures that developers are fully aware of any European/Ramsar constraints associated with particular locations or activities and also provides confidence in delivering the requirements of the Habitats Regulations.

The screening process matrices have identified where features within individual sites are at risk of LSE and the detailed assessment has built on this by considering the particular environmental pressures/changes that give rise to these risks and providing a generic assessment of the impact having regard to site conservation objectives.

2.3.1 Key Stages of the Assessment Process

As described in Section 1, this report provides the information that is needed by Marine Scotland, as competent authority, to carry out an AA for the Draft OWE Plan. For the AA, Marine Scotland is required to ascertain that the Plan will not adversely affect the integrity of any European/Ramsar sites. This judgment needs to be made in the context of the Conservation Objectives for the relevant European/Ramsar sites.

To prepare the information that is needed for this AA, a step-wise process has been undertaken and, where relevant, tabular outputs have been produced that clearly summarise the findings. The information is presented according to the relevant qualifying features and sub-features that are affected and divided into the following sections:

- Section 4: Habitats (including coastal, intertidal and subtidal habitats and associated species);
- Section 5: Birds;
- Section 6: Marine mammals (Cetaceans and Pinnipeds);
- Section 7: Anadromous Fish and Freshwater Pearl Mussel; and
- Section 8: Otter.

For each of the interest feature groups listed above, a standardised iterative assessment process has been undertaken. The individual steps in this process are set out in the following sections.

2.3.2 Step 1: Identify European/Ramsar Sites and Features to be Considered

The first stage of the assessment process was to compile an initial list of the qualifying interest features (and the associated European/Ramsar sites) that need to be considered within the AA because there is a LSE (or because the potential for a LSE cannot be excluded) even with the application of initial mitigation measures (Tables A3 and A4 in Appendix A). This list has been drawn directly from the findings of the screening and re-screening following initial mitigation phases (Sections 2.1 and 2.2) and represents a summary of the conclusions from that preceding work. Maps have been produced which show where these sites are located relative

to the short and medium term options areas (Appendix C). Such an approach was taken for the PFSA screening work which identified the relevant features and the relevant European/Ramsar sites (ABPmer, 2010c; d). For the OWE HRA however, it will also be necessary to tabulate the designated sites and features that are pertinent to each of the short and medium term options areas. This is because these areas cover a wide area of Scottish territorial waters (unlike the PFSA which was large but localised) and this means that not all of the interest features or all of the screened designated sites need to be addressed for all the short or medium term options areas.

2.3.3 Step 2: Review Interest Feature Sensitivities

Following the initial audit of relevant qualifying interest features and sub-features in Step 1, a review of the sensitivities of these qualifying habitats and species (i.e. their intolerance from damage or death from an external factor) has been undertaken. This review identifies the external factors or environmental changes which influence these sensitivities and, in some cases, also presents initial details about the Draft Plan activities that will, or might, cause these changes. These sensitivities are reviewed under the following relevant standard '*categories of operations which may cause deterioration or disturbance'* (UK Marine SAC project, 2001) which are based on those applied within Regulation 33 advice documents:

- Physical loss (of habitats) from removal or smothering;
- Physical damage (of habitats and species) from siltation, erosion or physical injury/death;
- Non-physical (indirect) disturbance from noise or visual presence and reduced availability or displacement of species (including prey);
- Toxic contamination from the introduction of synthetic compounds, introduction of non-synthetic contaminants;
- Non-toxic contamination from nutrient enrichment, organic enrichment, changes in suspended sediment and turbidity, changes in salinity or changes to the thermal regime; and
- Biological disturbance from introduction of microbial pathogens, the introduction of invasive non-native species and translocation or from selective extraction of selected species.

2.3.4 Step 3: Review Draft OWE Plan Activities to Which Features are Sensitive

Based on the information about habitat and species sensitivities, the individual Draft Plan activities that might affect the relevant features are reviewed and tabulated. Each relevant interest feature is considered and the activities are identified from the information within the Draft OWE Plan (Marine Scotland, 2010a; b) as well as from previous, strategy and assessment documents, in particular the Scottish Marine Renewables SEA (Scottish Executive, 2007) and the R3OWF HRA (Entec, 2009a; b). For each feature, the factors to which they are sensitive are tabulated against the activities which are known to, or could, cause a relevant environmental change. For ease of reference and consistency, standard Natura 2000 sensitivity categories have been used to inform the assessments, linked to specific development activities (see Section 2.3.3). For example, noise disturbance from construction activity would be classified as a form of non-physical disturbance etc.

In these tables, a judgment is also made about the level of risk (low, medium or high) of the features being damaged or disturbed by the changes that arise via each of the relevant impact pathways. These judgments about risk are based on the available information provided in preceding studies (in particular Scottish Executive, 2007; Marine Scotland, 2010b) which were in turn based on a range of preceding literature reviews, research projects and previous project examples. For many of the more common impact pathways (e.g. contaminant release or damage to habitats) the levels of risk cited in these strategic documents and used in this assessment are well understood. Other pathways are less well understood (e.g. collision risk for migrating birds in particular) and within this assessment the levels of risk are, necessarily, informed by expert judgment in the absence of an established evidence base. In these latter cases, the risks are often identified as being relatively uncertain because of the paucity of available information. In order to ensure that this process is clear and transparent, the reasons for a given level being assigned have been provided with reference to empirical evidence where possible.

It should be noted that, while there are variations in risk, and differences in the level of certainty associated with those risks (and that it is important that these are understood), a precautionary approach has been taken in line with the Habitats Regulations for the assessment of impacts and the determination of mitigation measures, which means that all potential impact pathways are addressed irrespective of these variations.

These sensitivity tables also indicate the stages in the implementation process for individual projects at which the impact pathways are relevant (i.e. survey, construction, operation or decommissioning). The risks associated with each of these stages are then also indicated in these tables.

2.3.5 Step 4: Assessment of Draft OWE Plan Effects on European/Ramsar Sites

Prior to assessing the effects arising from each of the impact pathways identified in Steps 1 to 3, the Conservation Objectives for each of the relevant European/Ramsar sites were identified from online sources such as the SNH and JNCC websites, and through consultation with both SNH and JNCC. For some sites, generic conservation objectives have been used. Based on these specific and generic objectives, the potential effects on each designated site via each of the relevant impact pathways is reviewed. An initial view is then taken and advice provided (in advance of the formal judgment that is to be made by Marine Scotland, in consultation with the key stakeholders for the AA in Stage 12 of the HRA) about the effect on site integrity of the proposed Draft OWE Plan both alone and in-combination with other extant plans or projects. The views expressed about the effects on site integrity are based on: current scientific understanding; the proposed manner in which the Plan is to be implemented and the proposal for 'initial' mitigation measures to avoid or reduce impacts. These initial mitigation measures were identified in the SEA Environmental Report for this Draft OWE Plan (Marine Scotland, 2010b) and were identified in Stages 6 and 7 of the HRA (see also Section 2.2 and Table A2b in Appendix A).

Where the information indicates that there could be an effect on integrity based on application of the Draft OWE Plan and these accompanying initial mitigation measures, then proposals are presented for 'additional' Plan-level mitigation measures that should be adopted to avoid such an effect (Stage 9 of the HRA). In order to ensure that the Draft Plan has no adverse effects on the integrity of European/Ramsar sites, a single revised and updated list of these 'additional' mitigation measures has been produced through which all the identified risks (of an adverse effect on integrity) will be addressed. These additional measures are presented at the end of this Appropriate Assessment information review (within Section 9.1 of the main report and in Table A2b and A2c of Appendix A). These additional mitigation measures have been applied and the plan re-assessed to seek to further avoid any adverse effect on site integrity. This report with these measures included will provide a draft record of the assessment (Stage 10 of the HRA).

3. Results of Screening Review (HRA Stages 4 to 7)

3.1 Pre-Screening (HRA Stages 4 and 5)

In the initial pre-screening report (which addressed the requirements Stages 1 to 3 along with an initial a Stage 5 screening review), a total of 355 sites were identified for which the Draft OWE Plan had a LSE. Of these sites, 11 are located within the boundary of one of the 25 medium term option areas and therefore could be subject to both direct and indirect effects. The remaining sites lie outside these option areas and could be indirectly affected by the array construction and operation work (and, in some instances, could also be directly affected by a cable alignment and landfall -depending upon the final route that is chosen).

Following this initial pre-screening review and reporting, the Stage 4 screening methods were applied for each of 34 short and medium term option areas using the approaches described in Section 2.1 and the Stage 5 LSE judgments were revisited to formally scope the assessment. The European/Ramsar sites and qualifying interest features and sub-features were reviewed for LSE in an iterative manner on a site-by-site basis as part of this updated pre-screening process. These results are presented in tabular format for each of the 34 short and medium term options in Appendix B. The search areas for the options in relation to these designated sites are shown in the screening maps included in Appendix C. Some of these sites had more than one feature for which there was a LSE, or a potential LSE that could not be excluded.

Following this updated pre-screening process revisions were made to the overall number of sites that were screened in at a Plan-level. These changes have been noted in the updated pre-screening tables (in Appendix A) and the individual option screening schedules (in Appendices B). They are also summarised in Table S1 above. One SPA site (Bowland Fells) was added following an increase in the extent of the 100km buffer that was made to accommodate the short-term option areas and 23 SAC sites were screened out which support inland populations of otter for which there is no likelihood of an indirect physical effect from a turbine array and no likelihood either that a cable will be aligned though these sites (most of which are greater than 10km from the open coast). In addition the Darwin Mounds SCI and the Wyville Thomson Ridge Candidate SAC were removed because they lie to seaward of all

option areas and therefore they will not be affected by any windfarm proposal or associated cable alignment. A further 39 SPA sites which lie outside the 100km zone were also screened in because they support bird qualifying interest species that forage over greater than 100km. When determining whether these sites could be screened out these sites, advice was provided by SNH and JNCC during the HRA consultation process. This meant that a total of 370 European/Ramsar sites were screened into the HRA at a Plan-wide level. A list of these sites that were added or removed at screening and an outline of the reasons why they were screened in or out following this review is set out in Table 2.

For each of the 34 short and medium term option areas there were between 18 (Option Area N8) and 88 (Option Area W2) European/Ramsar sites that were screened in within 100km of their boundaries. To these option-specific screening lists can be added, in each case, the other SPA sites outside the 100km zone that support bird long-distance foraging birds (see Table B1 in Appendix B). Following some of the option area screening reviews, a few European/Ramsar sites were screened out and these are indicated in the screening schedule tables that are shown in Appendix B. For some of the option areas, though, no European/Ramsar sites could be screened out at this stage. Where sites have been screened out during each of these individual option screening reviews then these are indicated on the maps in Appendix C. There is a distinction that can be made here between the results obtained following the screening of the majority of the sites, for which there is no existing information about the cable alignment, and the screening of the Forth Array[11] and Neart na Gaoithe[12] options which do have this information. For these two sites it was possible to screen out a few more coastal SAC sites than was the case for many other option areas.

11 The initial proposed developer (Fred Olsen Renewables Ltd) for the Forth Array short-term option area is no longer proposing to take this option forward. However, this short-term option still forms part of the Draft OWE Plan and has still been included as part of this HRA along with the details about the cable alignment and location that had been originally proposed (as set out in the Scoping Report that was prepared for this site (Fred Olsen Renewables Ltd 2010)). These cable alignment details are used because they represent the outcome of a realistic and informed proposal. However, it is recognised that they may change if a new developer takes this short-term option forward and the fact that these Scoping Report details are used in this HRA here does not imply a requirement on any future developer to adopt this approach. Instead the developer will be required to undertake project-level HRA (including a re-screening) based on the detail of any development that is proposed in this option area.

12 As for the Forth Array, the cable alignment was identified in the Scoping Report that was prepared for Neart na Gaoithe (Mainstream Renewable Power 2009). It is understood, from advice provided from the PSG, that this should not be treated as final and definitive as this site (and indeed none of the 34 options under review) have completed their project assessments and have not received licences yet. However, as with the Forth Array, the scoping report information has been treated as a realistic and informed proposal that has been useful for undertaking an initial screening of this option at this stage. Again, this does not imply a requirement on the developer to adopt this approach and it is recognised that the developer will be required to undertake project-level HRA (including a re-screening) based on the final proposal details.

Table 2. Further sites screened in and out at plan level at Stage 5 screening (after pre-screening study)

Designated Site	Reasons for Screening Change (see Table A3 in Appendix A)
Bowland Fells SPA	Screened in when short term options were included and the 100km plan-wide boundary was extended to accommodate these. Ingleborough Complex SAC also fell within this extended zone but was scoped out by virtue of supporting inland terrestrial habitats
Darwin Mounds SCI	Sites supporting reef feature and included at pre-screening but screened out later because they are seaward of any option areas and there is no likelihood that a cable will be aligned through to the relevant designated site or that there will be an indirect physical effect from a turbine array.
Wyville Thomson Ridge cSAC	
Caithness and Sutherland Peatlands SAC	23 sites supporting otter population that were included at pre-screening but screened out later in Stage 5 following advice from SNH and JNCC (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)
Glen Creran Woods SAC	
Kinloch and Kyelakin Hills SAC	
Lewis Peatlands SAC	
Loch Etive Woods SAC	
Loch Ruthven SAC	
Loch Fada SAC	
Loch Maree Complex SAC	
Loch of Ibister SAC	
Morvern Woods SAC	
Mull Oakwoods SAC	
Taynish and Knapdale Woods SAC	
Tayvallich Juniper and Coast SAC	
Strathglass Complex SAC	
Glen Tanar SAC	
Ness Woods SAC	
Insh Marshes SAC	
Loch Lomond Woods SAC	
Cairngorms SAC	
Muir of Dinnet SAC	
Ballochbuie SAC	
Merrick Kells SAC	
Dunkeld-Blairgowrie Lochs SAC	
Flamborough Head and Bempton Cliffs SPA	Sites in Republic of Ireland (and 1 in England) that were screened in because they lie outside the Plan-wide 100km buffer but support bird qualifying interest species that forage over greater than 100km. Therefore, they could forage within one or more of the option areas.
Saltee Islands SPA	
Puffin Island SPA	
Skelligs SPA	
Horn Head SPA	
Rockabill SPA	
Baldoyle Bay SPA	
The Raven SPA	
Old Head Of Kinsale SPA	
Inner Galway Bay SPA	
Lough Corrib SPA	
Lough Arrow SPA	

Designated Site	Reasons for Screening Change (see Table A3 in Appendix A)
Lough Conn SPA	
Lough Cullin (Mayo) SPA	
Lough Ree SPA	
The Bull And The Cow Rocks SPA	
High Island (Galway) SPA	
Lambay Island SPA	
Stags Of Broad Haven SPA	
Tory Island SPA	
Illanmaster SPA	
Inishtrahull SPA	
Duvillaun Islands SPA	
Helvick Head Coast SPA	
Illaunonearaun SPA	
Ireland's Eye SPA	
Loop Head SPA	
Skerries Islands SPA	
Slyne Head Islands SPA	
Tormore Island SPA	
Wicklow Head SPA	
Aughris Head SPA	
Grassholm SPA	
Skokholm & Skomer SPA	
Farne Islands SPA	
Coquet Island SPA	
Ribble & Alt Estuaries SPA	
Glannau Aberdaron and Ynys Enlli / Aberdaron Coast & Bardsey Island SPA	

3.2 Re-Screening Following Mitigation (HRA Stages 6 and 7)

The initial mitigation measures that were identified in the SEA to reduce the impact to acceptable levels and avoid LSE are presented in Section 2.2. These initial mitigation measures have not resulted in any of the initially screened in qualifying interest features or designated sites (following Stages 4 and 5 of the HRA) being excluded from the scope of the AA. This is because of the inherent uncertainties that are associated with offshore wind developments and the need to adhere to the precautionary principle. As part of the subsequent assessment phase, therefore, 'additional' mitigation measures were identified for each of the impact pathways that had been identified during the HRA process to seek to further avoid any adverse effect on site integrity (see Section 9.1).

4. Potential for Adverse Effects on Habitat Features

4.1 European/Ramsar Sites and Features to be Considered

Following the screening and re-screening process (Stages 4 to 7 of HRA), a total of 370 European/Ramsar sites were identified for which there is a LSE (or the potential for a LSE

cannot be excluded). Of these sites, a large number of European/Ramsar sites were identified at which it was not possible to conclude that there would be no LSE from the Draft OWE Plan for some, or all, of the qualifying habitat features specifically. In total there were 78 SACs, SCIs, cSACs and pSACs and a further 11 Ramsar Sites with qualifying habitat interest features that were screened in. The relevant qualifying habitat features within these sites includes a range of coastal, intertidal and sublittoral interests and these interests are summarised below in Section 4.1.1.

In view of the large number of sites that have been screened in, it has been agreed (with the PSG) that it is not necessary to individually review the full list of all the screened in sites and the qualifying interest features that they support within this report[13]. However these sites and all these features are presented in the Screening Tables for each of the 34 short and medium term option areas (see Appendices A and B). The locations of the SAC and Ramsar sites with qualifying habitat features specifically are also illustrated on the figures that accompany these screening tables for the short-term (see Figure ST1 to 9) and medium term (see Figures MT1 to 25). These screening maps are presented in Appendix C.

Some of these SAC and Ramsar sites also contained other interest and supporting features (i.e. other than habitat) for which it could not be concluded that there was no LSE (e.g. bottlenose dolphin and sparling) and these are reviewed separately under the relevant section(s) of the AA that deal with these other species groups. In addition, where there are interest features at these sites which have been 'screened out' because there will be no LSE then these are also recorded as part of the screening phase which is presented in the tables in Appendix A.

4.1.1 Interest Features Summary

In summary, the screening phase concluded that there is a possibility of a LSE (or that it was not possible to conclude no LSE) for a range of Annex 1 qualifying habitat features which are listed below. For the purposes of this review have been divided into five broad categories as follows:

1) Morphological features encompassing a range of habitats:
   - Estuaries (1130) which will encompass sub-feature habitats such as Saltmarsh, Eelgrass, Mussel Reefs as well as many of the other Annex 1 habitats that are cited separately below;
   - Large shallow inlets and bays (1160) which, as with estuaries, encompass a range of other feature and sub-feature habitats.
2) Subtidal habitats with typically soft-sediment habitat:
   - Subtidal sandbanks (i.e. 'Sandbanks which are slightly covered by seawater at all time' 1110).
3) Subtidal habitats with typically hard-substratum habitat:
   - Reefs (1170);
   - Submarine structures made by leaking gases (1180);
   - Submerged or partially submerged sea caves (8330).

[13] This information is provided in SNH and JNCC online sources.

4) Intertidal habitats (including saltmarshes):
   - Intertidal mudflats and sandflats (i.e. 'Mudflats and sandflats not covered by seawater at low tide' 1140);
   - Annual vegetation of drift lines (1210);
   - Salicornia and other annuals colonising mud and sand (1310);
   - Spartina swards (1320);
   - Atlantic salt meadows (1330);
   - Mediterranean and thermo-Atlantic halophilous scrubs.
5) Supralittoral habitats:
   - Coastal lagoons (1150);
   - Supralittoral dune habitats encompassing the following
     - 2130 Fixed dunes with herbaceous vegetation (`grey dunes`);
     - 2150 Atlantic decalcified fixed dunes (*Calluno-Ulicetea*);
     - 2170 Dunes with *Salix repens* spp. argentea (*Salicion arenariae*);
     - 2250 Coastal dunes with *Juniperu*s spp;
     - 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes`);
   - Perennial vegetation of stony banks (1220);
   - Vegetated sea cliffs (1230).

In addition to these habitats there will also be individual habitats that are identified within Ramsar citations (e.g. "sand and shingle spit") although these individual features are not listed. There are also sub-features of SACs which include a range of habitats and fish species which, include the following that have not been cited as qualifying features and listed above:

- Rocky shore communities;
- Kelp forest communities;
- Sublittoral faunal turf communities;
- Mussel bed communities;
- Eelgrass communities;
- Intertidal sea cave communities;
- Subtidal sea cave communities;
- Rocky and coarse sediment shores;
- Extensive reedbeds in the inner Firth of Tay;
- A population of the nationally rare fish the smelt or sparling in the Firth of Tay;
- Rocky scar communities; and
- Infralittoral gravel and sand communities.

The impact pathways for these supporting features are considered to be the same as for the qualifying habitat interest features with particular distinctions being possible between soft sediment, hard substratum, intertidal and supralittoral categories as identified above. Therefore, the impacts to these specific habitats have not been considered separately as part of this assessment.

To assess whether there is any adverse effect on the integrity of the European/Ramsar sites that were identified, Section 4.2 reviews the sensitivities of these habitat features. Section 4.3

then identifies the conservation objectives for these features and assesses, in tabular format, the effects arising in the context of the proposed additional plan-level mitigation measures.

For the purposes of these reviews the qualifying habitat features and sub-features that are listed above have been divided into four categories (reefs, subtidal sandflats, intertidal (including saltmarsh) and supralittoral habitats) which encompass the impact pathways that are relevant for each of the above-listed qualifying habitat features and sub-features.

4.2 Sensitivities of Habitat Interest Features to Draft OWE Plan Activities

This section reviews the sensitivities that are relevant for the habitat interest features. Initially a generic review of the sensitivities is presented under the impact pathway identified during the screening phase:

- Physical loss/gain of habitat (see Section 4.2.1);
- Physical damage to habitats or species (see Section 4.2.2);
- Toxic contamination (see Section 4.2.3); and
- Biological disturbance (see Section 4.2.4).

Following this review, the individual characteristics and sensitivities for each of the relevant habitat interest features are presented and reviewed against the relevant OWE activities that could cause a LSE following the (generic) mitigation that is set out in the Draft OWE Plan and the SEA for this Draft Plan (Marine Scotland 2010a; 2010b). Information on the relative sensitivities of habitat features have been based on professional judgment and sensitivity assessments available for relevant habitat biotopes on the Marine Life Information Network (MarLIN website). These interest feature reviews are set out in the following sections which are representative of the broad categories identified above and have been used to understand the impacts pathways and sensitivities that are pertinent to the full list of Annex 1 habitats that have been screened into this assessment.

1) Estuaries (as an example of feature encompassing a range of habitats[14]) (Section 4.2.5);
2) Reefs (i.e. hard-substratum habitat) (Section 4.2.6);
3) Subtidal sandbanks (i.e. soft-sediment habitat) (Section 4.2.7);
4) Intertidal habitats (including saltmarshes) (Section 4.2.8); and
5) Supralittoral habitats (Section 4.2.9).

4.2.1 Physical Loss/Gain of Habitat

Intertidal, subtidal and supralittoral interest feature habitats are sensitive to a physical loss or gain of habitat at locations where new structures are introduced to, or removed from, the sea bed or coastal habitats (i.e. within the developmental 'footprint' of these structures). Thus the key activities that are relevant are those which introduce permanent or temporary structures

[14] Estuaries support species in addition to habitats. Supporting qualifying species are reviewed separately under the relevant section(s) of the AA that deal with these specific species groups (e.g. the sub-feature sparling is considered in the fish assessment, Section 7).

that lie on or protrude from the seabed and cause a direct loss (whether permanent or temporary) of habitat. For the Draft OWE Plan, one of the main activities causing habitat loss or gain will clearly be the installation, presence and then removal of the wind turbine bases on the sea bed where these are located within the area of an interest feature habitat. The potential for direct loss/gain effects to occur from turbines placed on qualifying habitat features within designated sites exists at the 6 SACs (and also a further 5 SPAs) where short and medium term option areas spatially overlap with the boundaries of these designated sites (see Table A3 in Appendix A).

The installation or removal of cables or cable armouring within a habitat interest feature area will also result in direct loss (whether permanent or temporary) of habitat through excavations. However, the alignments of the cables are not known at this stage for 32 of the 34 options areas and therefore it is unclear whether any cable routes will pass through the boundaries of a European/Ramsar site. For this reason, all SAC/Ramsar sites which support habitat features and lie within 100km of each options has been screened in (see Appendices A and B) for these 32 option areas. For the remaining two option areas (Forth Array and Neart na Gaoithe[15]) where the cable alignments have been identified it is known that these do not directly pass through and directly affect designated habitats. This has therefore been reflected in the screening tables and mapping outputs for these two options (see Appendix B) which illustrate that some coastal SACs and selected interest features can be removed from the assessment scope for these sites (whereas this is usually not possible at any of the other sites.

For the most part therefore, all the SACs and Ramsar sites supporting marine habitat qualifying interests that were screened in following the pre-screening stage have been retained following subsequent screening. The only exception (aside from the screening table changes that could be made at the Forth Array and Neart na Gaoithe) were the removal from the Plan HRA of the Darwin Mounds SAC and the Wyville Thompson Ridge SAC, these reef habitat features within these sites will not be affected by the Draft OWE plan because they lie at a sufficient distance seaward of the option areas and there is no likelihood of a cable passing through these areas and there will be indirect effect from hydrodynamic change from the turbines (as indicated by the tidal excursion distances as shown on figures in Appendix C).

It is recognised that direct loss of habitat can be mitigated by avoiding designated habitats at the project planning and design phase and the SEA Environmental Report identifies generic mitigation measures that seek to address this aspect (See Table A2b in Appendix A) although further additional measures will be needed as discussed later in this section (see Table 7).

15 As noted in Section 3.1, the initial proposed developer (Fred Olsen Renewables Ltd) for the Forth Array short-term option area is no longer proposing to take this option forward. Therefore the information on cable alignment that is presented (from the original Scoping Report Fred Olsen Renewables Ltd 2010) is presented here as an indication of what is considered to be realistic and informed proposal. It is recognised that they may change if a new developer takes this short-term option forward. In the same manner the cable alignment prepared for Neart na Gaoithe was identified in the relevant scoping report (Mainstream Renewable Power 2009). That this should not be treated as final and definitive as this site (and indeed none of the 34 options under review) have completed their project assessments and have not received licences yet. However, these details have been used for undertaking an initial screening of this option in this HRA. This does not imply a requirement on the developer to adopt this approach and it is recognised that the developer will be required to undertake project-level HRA (including a re-screening) based on the final proposal details.

In addition to the consideration about whether the Plan activity will occur within the designated site itself, the risk and magnitude of these direct habitat effects (whether from turbine placement or cabling work) are also dependent on a range of factors such as the habitat type, the extent of habitat affected, the location and the nature of activities (e.g. whether invasive or non-invasive Horizontal Direction Drilling (HDD) approaches can be adopted) and whether they are temporary or permanent. In the future it will also be dependent on technological advances that could occur with turbine or cable laying work. It is also recognised that for turbine bases or for cable armouring, the potential also exists for the structures themselves to become surfaces for the settlement of reef forming species and thus there could be impacts from both the initial installation and at the removal phase. This is noted by Wilson *et al*., (2010) who observe that the marine system is able to adjust to new structures in the sea, and they may even have the potential to act as a benefit to their receiving environment. They also note that 'as more wind farms come into operation, it is essential to obtain a greater knowledge base of what actually happens around the bases of the turbines, and how they are colonised by benthic communities. Work has shown how scour protection and towers may create hard substrata and thus act as artificial reefs, thereby increasing production on these 'reefs' and creating organic material as enrichment for the local marine environment. However, this potential benefit needs to be studied in greater detail, allowing it to be taken into consideration when undertaking impact assessments on the benthic community'.

4.2.2 Physical Damage to Habitats or Species (inc. from hydrodynamic change)

In addition to the direct impacts at the footprint of the structures and turbine that were outlined in the preceding section, intertidal and subtidal interest feature habitats are sensitive to a direct and indirect physical damage from a range of activities associated with the installation and removal of structures and cables.

Damage can occur during the baseline surveys where these occur within the designated interest feature and where they involve the physical retrieval of samples or bed materials and can include borehole surveying or ecological trawl sampling. For turbine bases that require piling, surveys to assess subsurface geological structure and suitability for installation can involve the collection of a large number of cores and the use of drilling equipment from jack-up barges in addition to those that will be required for the installation of the device.

The construction activities will also cause damage to the seabed outwith the direct losses/gains caused within the footprint. Such activities will/could include the use of jack-up legs, piling, and activities involved in cable installation. These are likely to result in short-term, localised changes to the marine environment from direct disturbance or from increased suspended sediments and disturbance of contaminated sediments. The water quality issues associated with sediment and contaminant redistribution were discussed previously but in the event of a substantial resuspension then the potential exists from the settlement of materials to cause a smothering of the seabed and especially reef habitats. In particular, the risk of damage from smothering is highest in areas where there is dredging for the placement of device foundations and the accompanying disposal of waste sedimentary materials on the sea bed. The risk and magnitude of such effects will be dependent upon the nature of the activities undertaken, the particle size of the sediments, the hydrodynamic conditions and the distance from interest feature habitats. Settlement of coarse material is most likely to occur within 20-200m (BERR,

2008) and therefore there is unlikely to be a significant risk of smothering from excavation activities at distances of greater than 200m.

During the operation phase of the Plan activities, the presence of the structures (piled device, cable armouring, anchorages etc.) have the potential to cause scour effects in soft sediment systems. The mooring chains associated with anchored turbine also have the potential to cause an abrasion of the adjacent substratum. The risk and magnitude of the scour effects will depend on the size of the structures, the composition of the seabed substratum, the hydrodynamic conditions, and the distance of the structures from designated interest feature habitats.

A distance of one tidal ellipse[16] away from a cable route or a zone boundary was used (ABPmer, 2010b) to determine the zone of indirect influence of Plan activities as a result of hydrodynamic changes (erosion), sediment disturbance and transport (including any adverse effects from suspended sediment increase, water quality/toxicity or smothering) (Figure 2). This was based on evidence from plume studies that even fine particles mobilised from the sea bed settle out again to a large extent within the distance of one tidal excursion. While a plume may be visible beyond this point the concentrations of suspended solids are usually within the range of natural variation and much of the visible plume is due to lipids from damaged benthic animals (Coastline Surveys Ltd, 1998; Clay *et al*., 2008). This observation was also supported by wave and sediment processes studies carried out for the Round 1 and Round 2 offshore wind farms and the tidal ellipse distance as an indicator of indirect effects was also applied for the R3OWF HRA (Entec, 2009a).

There are also sensitivities to activities associated with maintenance visits because the vessels used are likely to cause small-scale localised damage from shipwash or from chains and anchor. The risk and magnitude will be dependent upon the amount of shipping activity as well as the size and speed of the vessels and, again, the distance of such activities from the designated interest features.

For all of the above activities, the rate at which habitats recover from damage will also be a key factor influencing the risk and magnitude of effect. This will be strongly related to the ecology of the habitats and reef features and richer mudflat habitats for instance are likely to be more susceptible and take longer to recover than sandflats. The sensitivities of the relevant interest features for the three European/Ramsar sites identified for this part of the AA are reviewed against the Draft OWE Plan activities that are relevant to these sensitivities in the following sections.

4.2.3 Toxic Contamination

Intertidal and subtidal interest feature habitats are sensitive to toxic contaminations as a result of either the release of synthetic contaminants such as fuels, oils, construction material or from the releases of sediments (and any contaminants that may be present with these) during all stages of the construction and decommissioning work.

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16 The distance defined by a single tidal excursion has also been defined as encompassing the 'far-field' effects of windfarm devices as opposed to the near-field effects which have been defined as 10 times the diameter of the devices (Wilson *et al* 2010).

Spillage of oils and fluids from construction vessels and machinery into the marine environment could adversely affect sediment or water quality potentially impacting on benthic communities. In addition, in the areas being excavated or disturbed for the installation/removal of turbines or cables there will be an increase in suspended sediment concentrations during the period of the activity. Where this release of suspended sediments occurs then the potential also exists for the release of sediment-bound contaminants in areas where such contaminants are present. Sediment contamination is only likely to be evident in areas close to the coastline of industrial locations or in coastal areas where water and sediments have been subject to historical contamination. For activities taking place outwith such locations, then there is unlikely to be a LSE on relevant interest features.

The risk of mobilising sediments and contaminated sediments and the magnitude of the effect is dependent upon the level of contamination; the proximity of the Plan activity to the designated site(s); the type of activity occurring; the manner in which that activity is pursued (including the extent and duration); the particle size of the disturbed sediments and the hydrodynamic conditions.

It has been indicated that settlement of sediment is most likely to occur within 20-200m of a cable for a wind farm (BERR, 2008) but contaminants are almost always associated with fine sediments and could travel further than this in some areas where there is a large tidal excursion and strong tidal flows.

4.2.4 Biological Disturbance

The introduction of new surfaces in the form of new turbine bases, cable armouring or anchorages has the potential to facilitate the encroachment of invasive non-native species. This is because they will be initially barren with no competition from indigenous species which could allow invasive non-native species to potentially colonise these surfaces. This is based on the assumption that the current spread of such species is limited by the prevailing physical regime and lack of new colonising substrata. Therefore any development which causes a change in physical processes or provides new colonising space (especially large expanses of such space) would be expected to pose a risk. The species composition and the rate of colonisation will depend upon the time of year and the availability of larval/juvenile stages.

4.2.5 Estuaries

Estuaries are defined as the downstream part of a river valley, subject to the tide and extending from the limit of brackish waters (EC, 2007). River estuaries are coastal inlets where, unlike 'large shallow inlets and bays' there is generally a substantial freshwater influence. The mixing of freshwater and sea water and the reduced current flows in the shelter of the estuary lead to deposition of fine sediments, often forming extensive intertidal sand and mudflats (Section 4.2.8). Where the tidal currents are faster than flood tides, most sediments deposit to form a delta at the mouth of the estuary. Baltic river mouths, considered as an estuary subtype, have brackish water and no tide, with large wetland vegetation (halophytic) and luxurious aquatic vegetation in shallow water areas. The sensitivity of this Annex 1 habitat to the relevant Draft OWE Plan activities that might affect it is not presented separately in this section. Instead

these sensitivities are considered to be reflected in the sensitivities of the component habitats (reefs; subtidal sandbanks; intertidal mudflats, sandflats and saltmarshes and supralittoral/coastal habitats[17]); and these are presented in the following sections. This consideration will also apply to 'Large shallow inlets and bays' as a feature which encompasses a range of other features and sub-feature habitats.

4.2.6 Reefs

Reefs can be either biogenic concretions or of geogenic origin (EC, 2007). They are hard compact substrata on solid and soft bottoms, which arise from the sea floor in the sublittoral and littoral zone. Reefs may support a zonation of benthic communities of algae and animal species as well as concretions and corallogenic concretions. The sensitivities of this habitat to the relevant Draft OWE Plan activities that might affect this Annex 1 habitat are shown in Table 3.

Table 3. Potential sensitivities of reef features to the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical Loss/gain of habitat	Direct loss of habitat and species under the footprint of the turbine and cable armouring from the installation of these new structures.				
PD	Physical Damage to habitat	Direct effects from sampling work (boreholes, trawls) during environmental baseline surveys				
PD	Physical Damage to habitat	Direct (physical) damage by excavation/piling activities associated with the construction, decommissioning and maintenance of structures (cables and turbines) including the use of jack-up legs and mooring.				
PD	Physical Damage to habitat	Re-deposition of sediments mobilised during cable/turbine installation or decommissioning causing an increase in suspended sediment concentrations and smothering.				
PD	Physical Damage to habitat	Indirect changes to the habitat surrounding the turbine and cable armouring structures due to hydrodynamic and physical changes (including sediment scour).				
TC	Toxic Contamination - Reduction in water quality	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (turbine and cables) or during survey/maintenance.				
TC	Toxic Contamination - Reduction in water quality	Release of contaminants associated with the redistribution of suspended sediments during installation or removal of structures (turbine and cables).				
NTC	Non-Toxic Contamination - Changes in turbidity	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (turbine and cables).				
BD	Biological Disturbance Introduce non-native species	Introduction of new structures providing new substratum that facilitates the colonisation and ingress of invasive non-native species.				
BD	Biological Disturbance Introduce non-native species	Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 4 (including Table 7) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

[17] Supporting qualifying species of estuaries, namely sparling, is reviewed separately in the fish assessment (Section 7).

4.2.7 Subtidal Sandbanks

Sandbanks are defined as elevated, elongated, rounded or irregular topographic features, permanently submerged and predominantly surrounded by deeper water (EC, 2007). They consist mainly of sandy sediments, but larger grain sizes, including boulders and cobbles, or smaller grain sizes including mud may also be present on a sandbank. Banks where sandy sediments occur in a layer over hard substrata are classed as sandbanks if the associated biota are dependent on the sand rather than on the underlying hard substrata. "Slightly covered by sea water all the time" means that above a sandbank the water depth is seldom more than 20 m below chart datum. Sandbanks can, however, extend beneath 20m below chart datum. It can, therefore, be appropriate to include in designations such areas where they are part of the feature and host its biological assemblages. The sensitivity of this Annex 1 habitat to the activity that might affect it is shown in Table 4. These are very much the same as for reef features although there is a recognition that soft sediment habitats will have a lower sensitivity to sediment smothering events during construction work.

Table 4. Potential sensitivities of sandbank features to the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical Loss/gain of habitat	Direct loss of habitat and species under the footprint of the turbine and cable armouring from the installation of these new structures.				
PD	Physical Damage to habitat	Direct effects from sampling work (boreholes, trawls) during environmental baseline surveys				
PD	Physical Damage to habitat	Direct (physical) damage by excavation/piling activities associated with the construction, decommissioning and maintenance of structures (cables and turbines) including the use of jack-up legs and mooring.				
PD	Physical Damage to habitat	Re-deposition of sediments mobilised during cable/turbine installation or decommissioning causing an increase in suspended sediment concentrations and smothering.				
PD	Physical Damage to habitat	Indirect changes to the habitat surrounding the turbine and cable armouring structures due to hydrodynamic and physical changes (including sediment scour).				
TC	Toxic Contamination - Reduction in water quality	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (turbine and cables) or during survey/maintenance.				
TC	Toxic Contamination - Reduction in water quality	Release of contaminants associated with the redistribution of suspended sediments during installation or removal of structures (turbine and cables).				
NTC	Non-Toxic Contamination - Changes in turbidity	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (turbine and cables).				
BD	Biological Disturbance - Introduce non-native species	Introduction of new structures providing new substratum that facilitates the colonisation and ingress of invasive non-native species.				
BD	Biological Disturbance - Introduce non-native species	Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 4 (including Table 7) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

4.2.8 Intertidal Habitats (including saltmarshes)

Intertidal mudflats and sandflats are defined as the sands and muds of the coasts of the oceans, their connected seas and associated lagoons, not covered by sea water at low tide, devoid of vascular plants, usually coated by blue algae and diatoms (EC, 2007). They are of particular importance as feeding grounds for wildfowl and waders. Saltmarshes occur in stable intertidal environments typically with fine sediment above the mean high water neap level where vascular plants can survive and can further stabilise the habitat (Boorman, 2003). Once a cover of vegetation has become established the rate of sedimentation (accretion) often increases as more of the incoming sediment is intercepted and trapped by the increased surface roughness. In addition, the vegetation also reduces the resuspension of deposited material and, at the same time, organic matter is added to the marsh surface.

There is a range of Annex 1 saltmarsh habitats depending upon the tidal height and vegetation type and these are as listed in Section 4.1.1. The sensitivity of these habitats to the activity that might affect it is shown in Table 5. This sensitivities table is similar to those for soft sediment sandbank habitats with the impacts being associated principally with cable laying across the intertidal.

Table 5. Potential sensitivities of intertidal habitats to the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical Loss/gain of habitat	Direct loss of habitat and species under the footprint of the cable armouring from the installation of these new structures.				
PD	Physical Damage to habitat	Direct effects from sampling work (boreholes, trawls) during environmental baseline surveys				
PD	Physical Damage to habitat	Direct (physical) damage by excavation/piling activities associated with the construction, decommissioning and maintenance of structures (cables).				
PD	Physical Damage to habitat	Re-deposition of sediments mobilised during cable installation or decommissioning causing an increase in suspended sediment concentrations and smothering.				
PD	Physical Damage to habitat	Indirect changes to the habitat surrounding the cable armouring structures due to hydrodynamic and physical changes (including sediment scour).				
TC	Toxic Contamination - Reduction in water quality	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (cables) or during survey/maintenance.				
TC	Toxic Contamination - Reduction in water quality	Release of contaminants associated with the redistribution of suspended sediments during installation or removal of structures (cables).				
NTC	Non-Toxic Contamination - Changes in turbidity	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (cables).				
BD	Biological Disturbance - Introduce non-native species	Introduction of new structures providing new substratum that facilitates the colonisation and ingress of invasive non-native species.				
BD	Biological Disturbance - Introduce non-native species	Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 4 (including Table 7) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

4.2.9 Supralittoral Habitats

The range of coastal habitat interest features were scoped into this assessment because they could be affected by cable laying operations. This includes dune habitats, vegetated cliffs and coastal lagoons. The sensitivity of these habitats to the activity that might affect it is shown in Table 6. In each case issues such as the impacts associated with surveys or hydrodynamic effects are not relevant and it is mainly the potential habitat loss/damage from cabling installations. Also the risk of construction spillage is relevant at all cable laying locations while the issue of sediment resuspension will also be pertinent for lagoonal habitats.

Table 6. Potential sensitivities of supralittoral habitat to the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical Loss/gain of habitat	Direct loss of habitat and species under the footprint of the cable armouring from the installation of these new structures.				
PD	Physical Damage to habitat	Direct (physical) damage by excavation/piling activities associated with the construction, decommissioning and maintenance of structures (cables).				
PD	Physical Damage to habitat	Re-deposition of sediments mobilised during cable installation or decommissioning causing an increase in suspended sediment concentrations and smothering (only pertinent to inland aquatic habitats such as coastal lagoons)				
TC	Toxic Contamination - Reduction in water quality	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (cables) or during survey/maintenance.				
TC	Toxic Contamination - Reduction in water quality	Release of contaminants associated with the redistribution of suspended sediments during installation or removal of structures (cables). (only pertinent to inland aquatic habitats such as coastal lagoons)				
NTC	Non-Toxic Contamination - Changes in turbidity	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (cables).				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 4 (including Table 7) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

4.3 Potential Effects on Designated Sites of the Draft OWE Plan

4.3.1 Introduction

On the basis of the sensitivities of the relevant interest features the following sections review the conservation objectives for these features and review the potential effects arising for each of the European/Ramsar sites.

4.3.2 Conservation Objectives

The conservation objectives for the qualifying habitats that are relevant to this HRA are the same for both of the European sites screened into the assessment above (SNH 2006a; b).

These objectives seek to avoid deterioration of the qualifying habitats, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features. The conservation objectives are to ensure for the qualifying habitats that the following are maintained in the long term:

- Extent of the habitat on site;
- Distribution of the habitat within site;
- Structure and function of the habitat;
- Processes supporting the habitat;
- Distribution of typical species of the habitat;
- Viability of typical species as components of the habitat; and
- No significant disturbance of typical species of the habitat.

4.3.3 Environmental Effects

Taking account of the conservation objectives and the Plan-level activities to which the key interest features are sensitive, this section reviews the effects of the Draft OWE Plan on the integrity of the designated sites. The results are presented in Table 7.

Table 7. Assessment of the potential effects of the Draft OWE Plan on the habitat features of relevant European/Ramsar sites

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 4.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 4.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) ▪ Supralittoral habitats	Physical Loss/gain of habitat Direct loss of habitat and species under the footprint of the cable armouring from the installation of these new structures	Risk Level(s) The risks are considered to be low or medium for all habitats (see Tables 3-6 for detail and colour code) Commentary/Risk Review The amount of habitat that is lost is influenced by the size of the structures and their location but typically it is around 2–5% of actual habitat loss over the development area will arise from the turbines themselves (Wilson *et al*., 2010). The new structures may also change the species compositions locally (the potential for introduction of invasive non-native species is considered separately) and become new habitats. The potential for direct effects to habitats within designated sites is relevant at the 11 European/Ramsar sites whose boundaries overlap with a medium term option area. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives, the majority are considered to be relevant to impacts from the loss/gain during the operational phase of the project with only the objective relating to the processes affecting habitats being less pertinent. Therefore the following 6 objectives all need to be considered. ▪ Extent of the habitat on site; ▪ Distribution of the habitat within site; ▪ Structure and function of the habitat; ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Physical Damage to habitat Direct effects from sampling work (boreholes, trawls) during environmental baseline surveys	Risk Level(s) The risks are considered to be low for all habitats (see Tables 3-6 for detail and colour code) Commentary/Risk Review For the most part, any changes are likely to be localised and of short-term consequence due to the small amount of material extracted for research and the short duration of activity compared to construction. It is recognised that are large area of STW has been identified for potential development but the effects of surveys are still considered to be low given the small, localised and temporary nature of the effects. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives, the majority are considered to be relevant to impacts from physical damage during sampling work however the following 4 are considered to be most relevant because they relate to the composition and distribution of the habitats and species present rather than the broader extent, structure, function of the habitats and the processes affecting them: ▪ Distribution of the habitat within site; ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 4.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 4.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) ▪ Supralittoral habitats ▪ (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Physical Damage to habitat Direct (physical) damage by excavation/piling activities associated with the construction, decommissioning and maintenance of structures (cables and turbines) including the use of jack-up legs and mooring.	Risk Level(s) The risks are considered to be low to medium depending upon habitat type and development stage (see Tables 3-6 for detail and colour code) Commentary/Risk Review In general, most of the construction activities of concern, such as the use of jack-up legs, piling and activities involved in cable installation, are likely to result in short-term, localised changes to the marine environment (e.g. increased suspended sediments and turbidity, disturbance of contaminated sediments and direct disturbance). It is likely that the benthic communities will recover quickly from such effects (e.g. PMSS, 2007; IECS, 2007) although this is strongly influenced by the ecology and recoverability of the habitats that are affected. The type of activity is also a major consideration, piled devices tend to require greater use of heavy machinery and jack-up barges for drilling and pile-driving compared to anchored or weighted devices. In some cases, it may be necessary to level the seabed where the jack-up feet and gravity bases will sit on the seabed (Scottish Executive, 2007) resulting in longer-term impacts on substrata, habitat and species. Mooring blocks are more easily installed on the seabed, compared to piles, minimising levels of disturbance and suspended sediments. Activities involved in decommissioning are similar to those of construction but generally of shorter duration and therefore, potentially resulting in less significant impacts. It is anticipated that following removal of the devices and associated cables the local benthic community will recover rapidly to its original state in the higher energy of the environment. The greatest risks of impact will be at locations that have a lower energy condition or are on stable/exposed substrata (with an epifauna-dominated assemblage). Hence the risks posed to reef, intertidal and supralittoral habitat has been identified as being greater (low to medium) than for subtidal sandflats (low). Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives, the majority are considered to be relevant to impacts from physical damage during construction and decommissioning work however the following 4 are most pertinent because they relate to the composition and distribution of the habitats and species present rather than the broader extent, structure, function of the habitats and the processes affecting them: ▪ Distribution of the habitat within site; ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs)	Physical Damage to habitat Re-deposition of sediments mobilised during cable/turbine installation or decommissioning causing an increase in suspended sediment concentrations	Risk Level(s) The risks are considered to be low to medium depending upon habitat type and development stage (see Tables 3-6 for detail and colour code) Commentary/Risk Review Any excavation work associated with the installation of turbines or cable has the potential (depending on the in situ sediment type) to cause redistribution of sediment and potentially adverse effects ion surrounding habitats. The extent of this effect has been defined within this HRA (based on past work for the R3OWF) as the area that extends to one tidal excursion distance of the cable/device/array. The greatest risks of impact will be at locations that have a lower energy condition or are on stable subtidal substrata. Hence the risks posed to reef and intertidal habitat has been identified as being greater (low to	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect further work would be required at project-level to ascertain LSE and need for proposed additional final plan	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 4.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 4.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Intertidal habitats (including saltmarshes) ▪ Supralittoral habitats (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	and smothering.	medium) than for subtidal sand flats (low). It has also been identified as low to medium for supralittoral habitats although it is clearly only pertinent to inland aquatic habitats above the intertidal zone such as coastal lagoons. The disposal of construction material from installations and piled devices also has the potential to cause loss of or change to habitats. In some cases the material can be re-used locally as scour protection around pile. The effect is likely to be temporary and localised and with appropriate site selection unlikely to have any adverse effect on the integrity of a designated site. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives, the following are considered to be most relevant to impacts from toxic contamination/spillage events because they relate to the composition and distribution of the species present rather than the broader extent, distribution and functionality of habitats and the processes affecting them: ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	mitigation measures. See also Tables A2a and A2b	
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Physical Damage to habitat Indirect changes to the habitat surrounding the turbine and cable armouring structures due to hydrodynamic and physical changes (including sediment scour).	Risk Level(s) The risks are considered to be low to medium depending upon habitat type and development stage (see Tables 3-6 for detail and colour code) Commentary/Risk Review The extent of the effects arising will be greatly influenced by the type and location of the devices that are introduced but hydrodynamic changes will result in a re-distribution of tidal flow. As with the effects of sediment redistribution (see above), the extent of this effect has been defined within this HRA (based on past work for the R3OWF) as the area that extends to one tidal excursion distance of the cable/device/array. Localised scouring of seabed and benthic communities may result on the directly beneath the turbine rotors. The scour of sediments around devices and their associated moorings is generally of low significance (PMSS, 2007). Mooring blocks and gravity-weighted devices will tend to bury themselves in the sediment reducing potential for scour. However, in slack-moored systems, the mooring chain (and associated scour on the seabed) can increase the area of habitat lost and/or disturbed. Scour is more often a concern for piled devices and the potential for impact (substratum loss) is dependent on the particular abiotic environment (tidal flow, seabed sediments) of a development site. Micro-siting of devices and re-use of arisings from drillings as scour protection can reduce the likelihood of any impacts. Once again the greatest risks of impact will be at locations that have a lower energy condition or are on stable substrata (with an epifauna-dominated assemblage). Hence the risks posed to reef, intertidal habitat has been identified as being greater (low to medium) than for subtidal sandflats (low). Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives listed, the majority are considered to be relevant to impacts from physical damage during waste material deposition work however the following 4 are most pertinent because they relate to the composition and distribution of the habitats and species present rather than the broader extent, structure, function of the habitats and the processes affecting them: ▪ Distribution of the habitat within site;	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures.	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 4.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 4.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
		▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.		
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) ▪ Supralittoral habitats ▪ (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Toxic Contamination Spillage of fluids, fuels and/or construction materials during installation or removal of structures (turbine and cables) or during survey/maintenance	Risk Level(s) The risks are considered to be low for all habitats (see Tables 3-6 for detail and colour code) Commentary/Risk Review For all stages of the work from the construction to decommissioning and including operational/maintenance works, there is the potential for accidental discharges/spillages from machinery and vessels associated although the risk is comparatively low. In particular the probability of spillage is low because a range of standard navigational safety measures are employed in the marine environment. The consequence for subtidal and coastal benthic communities if it happened is also likely limited in scale (due to small quantities of material and slight acute toxicity). Relevant Conservation Objectives (see Section 4.3.3) The Conservation Objectives are designed to avoid deterioration of the qualifying habitats thus ensure that the integrity of the site is maintained. As they are broad-ranging and generic in their scope most activities have the potential to lead to a failure of most, if not all, objectives. However, of the 7 objectives listed, the following are considered to be most relevant to impacts from toxic contamination/spillage events because they relate to the composition and distribution of the species present rather than the broader extent, distribution and functionality of habitats and the processes affecting them: ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) ▪ Supralittoral habitats ▪ (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Toxic Contamination Release of contaminants associated with the redistribution of suspended sediments during installation or removal of structures (turbine and cables).	Risk Level(s) The risks are considered to be low for all habitats (see Tables 3-6 for detail and colour code) Commentary/Risk Review There is a low likelihood of contaminated sediments occurring across the short and medium term option area because of their offshore locations and limited amount of depositional conditions or proximity to industrial areas. Linked to the limited spatial extent and brief duration of the installation or removal periods the effects are therefore considered to be low. As with all impacts a thorough understanding of the habitats types locally (especially along any proposed cable alignments that will be identified in the future) will be need to understand the sensitivities. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives, the following are considered to be most relevant to impacts from toxic contamination/spillage events because they relate to the composition and distribution of the species present rather than the broader extent, distribution and functionality of habitats and the processes affecting them: ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 4.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 4.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) ▪ Supralittoral habitats ▪ (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Non-Toxic Contamination Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	Risk Level(s) The risks are considered to be low to medium depending upon habitat type and development stage (see Tables 3-6 for detail and colour code) Commentary/Risk Review The issues associated with turbidity increases and their non-toxic effect will be the same as for the impacts pathway 'Re-deposition of sediments mobilised during cable/turbine installation or decommissioning causing an increase in suspended sediment concentrations and smothering' as described above. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives, the following are considered to be most relevant to impacts from toxic contamination/spillage events because they relate to the composition and distribution of the species present rather than the broader extent, distribution and functionality of habitats and the processes affecting them: ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Biological Disturbance Introduction of new structures providing new substratum that facilitates the colonisation and ingress of invasive non-native species.	Risk Level(s) The risks are considered to be low for all habitats (see Tables 3-6 for detail and colour code) Commentary/Risk Review The placement of structures underwater introduces new, and initially barren, surfaces which have the potential to facilitate the spread of invasive non-native species where, in the absence of competition from indigenous species they are able to colonise. It is difficult to quantify the risk of introduction of invasive non-native species in this manner and the extent to which this occurs the amount of new 'surface' will be comparatively small and the subsequent colonisation. On the assumption that the current spread of such species is limited by the prevailing physical regime and the lack of new colonizing substrate, the options which cause the greatest change in physical processes and provide the greatest colonizing space would be expected to pose the greatest risk. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives listed, the following 3 are considered to be most relevant to impacts from invasive species introductions because they have the potential to affect the balance pf species within the habitats: ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 4.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 4.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Morphological Features encompassing a range of habitats ▪ Subtidal habitats with typically soft-sediment habitat ▪ Subtidal habitats with typically hard-substratum habitat (Reefs) ▪ Intertidal habitats (including saltmarshes) (these are generic categories refer to Section 4.1.1 and Screening Tables in Appendix B for full list)	Biological Disturbance Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.	Risk Level(s) The risks are considered to be low for all habitats (see Tables 3-6 for detail and colour code) Commentary/Risk Review The possibility also exists that invasive non-native species could be introduced on the vessels and equipment that are used to construct, maintain or decommission the devices. The risks are considered to be low because all such equipments is expected to be efficiently maintained and cleaned at regular intervals. However, the risk is dependent upon this inspection regime being in place and on the provenance of the vessels ands equipment being used. Relevant Conservation Objectives (see Section 4.3.3) Of the 7 objectives listed, the following 3 are considered to be most relevant to impacts from invasive species introductions because they have the potential to affect the balance of species within the habitats: ▪ Distribution of typical species of the habitat; ▪ Viability of typical species as components of the habitat; and ▪ No significant disturbance of typical species of the habitat.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

5. Potential for Adverse Effects on Bird Features

5.1 European/Ramsar Sites and Features to be Considered

Following the screening and re-screening (Stages 4 to 7 of HRA), a total of 370 European/Ramsar sites were identified for which there is a LSE (or the potential for a LSE cannot be excluded). Of these sites, a large number of European/Ramsar sites were identified at which it was not possible to conclude that there would be no LSE from the Draft OWE Plan for some, or all, of the qualifying bird interest features specifically. In total there were 149 SPAs and a further 60 Ramsar Sites with qualifying bird interest features that were screened in. The relevant qualifying bird interest features within these sites are summarised below in Section 5.1.1.

In view of the large number of sites that have been 'screened in' it has been agreed (with the PSG) that it is not necessary to individually review the full list of all the screened in sites and the qualifying interest features that they support in the main text of this report. However, these sites and all these features are presented in the Screening Tables for each of the 34 short and medium term option areas (see Appendix B). The locations of the European/Ramsar sites with qualifying bird features specifically are also illustrated on the figures that accompany these screening tables for the short term (see Figures ST1 to 9) and medium term (see Figures MT1 to 25). These screening maps are presented in Appendix B.

Some of the Ramsar sites also contained other interest features for which it could not be concluded that there was no LSE (e.g. eelgrass) and these are reviewed separately under the relevant section(s) of the AA that deal with these other habitat/species groups. In addition, where there are interest features at these sites which have been 'screened out' because there will be no LSE then these are also recorded as part of the screening phase which is presented in the tables in Appendix A.

5.1.1 Interest Features Summary

In summary, the screening phase concluded that there was a possibility of a LSE (or that it was not possible to conclude no LSE) following the application of initial Draft OWE Plan mitigation measures to qualifying bird interest features.

To assess whether there is any adverse effect on the integrity of relevant European/Ramsar sites, Section 5.2 reviews the sensitivities of the associated bird features. Section 5.3 then identifies the conservation objectives and assesses, in tabular format, the effects arising in the context of the proposed additional plan-level mitigation measures.

5.2 Sensitivities of Bird Interest Features to Draft OWE Plan Activities

This section reviews the sensitivities that are relevant for the qualifying bird interest features. A generic review of the sensitivities of relevant bird features is presented under the impact pathways identified during the screening phase:

- Physical loss/gain of habitat (Section 5.2.1);
- Physical damage to species (Section 5.2.2);
- Non-physical (indirect) disturbance including noise and visual (Section 5.2.3);
- Toxic contamination (Section 5.2.4); and
- Non-toxic contamination (Section 5.2.5).
- Following this review, the general characteristics and sensitivities of relevant bird interest features are presented and the relevant Draft OWE Plan activities that could cause a LSE following the application of initial mitigation measures as informed by the SEA (Marine Scotland, 2010b) are identified and tabulated. This interest feature review is set out in Section 5.2.6.

Appendix D reviews the foraging and migration behaviour of birds in more detail.

Different species will have different sensitivities to effects according to a number of factors including:

- Whether they forage by diving or at the surface;
- Whether they forage nocturnally/crepuscularly or diurnally; and
- Whether they are ground/burrow/crevice-nesting species or cliff-nesters.

This categorisation of species is summarised in Table 8. However, it should be noted that these categories are not mutually exclusive.

Table 8. Breeding/foraging parameters of breeding seabirds which influence sensitivities

Breeding Receptors	Foraging Mode	Nocturnal Flight/Diving Activity	Nesting Location
Red-throated Diver	Pursuit-diver	No	Ground
Fulmar	Surface feeder	Yes	Cliff
Manx Shearwater	Surface/Pursuit-diver	Yes	Burrow/crevice
Storm Petrel	Surface feeder	Yes	Burrow/crevice
Leach's Petrel	Surface feeder	Yes	Burrow/crevice
Gannet	Plunge/Pursuit-diver	No	Ground/cliff
Cormorant	Pursuit-diver	No	Cliff/above ground
Shag	Pursuit-diver	No	Cliff
Common Scoter	Diver/Pursuit-diver	No	Ground
Arctic Skua	Surface feeder	No	Ground
Great Skua	Surface feeder	No	Ground
Herring Gull	Surface feeder	Yes	Ground
Great B-b Gull	Surface feeder	Yes	Ground
Kittiwake	Surface feeder	Yes	Cliff
Arctic Tern	Surface feeder	No	Ground
Guillemot	Pursuit-diver	Crepuscular	Cliff
Razorbill	Pursuit-diver	Crepuscular	Cliff
Puffin	Pursuit-diver	Crepuscular	Burrow/crevice

(Sources: Gaston and Jones, 1998; Garth and Hüppop, 2004)

5.2.1 Physical Loss/Gain of Habitat

Seabed habitat important for foraging seabirds and their prey may be lost as a result of the installation of cables and turbines. Similar temporary losses of habitat will also occur during decommissioning. Scouring of seabed habitats, particularly sandy sediments may be particularly important for seabirds as a large proportion of the species that have been screened into the assessment rely heavily on sandeels for feeding both themselves and their young (Winslade, 1974). The risk and magnitude of such direct effects on the seabed habitats will be dependent on a range of factors such as the habitat type, the extent of habitat affected, the location and the nature of activities and whether they are temporary or permanent.

The direct loss of onshore habitats as a result of cable installation also poses a risk. Loss of breeding habitat within any designated site would obviously cause a significant effect that would be likely to be more detrimental than any loss of foraging habitat. Wintering waterbird species (such as Bar-tailed Godwit, Purple Sandpiper, Turnstone, Ringed Plover and Sanderling) also may be affected by any loss of intertidal habitat due to onshore activities and developments associated with any scheme.

5.2.2 Physical Damage to Species

All bird species that have been scoped into this assessment are at some risk of colliding with wind turbine structures during the operational phase of the Draft OWE Plan. Collision risk mortality depends on a range of factors related to bird species, numbers, foraging modes and migration behaviour, weather conditions and topography and the nature of the offshore structure itself, including the use of lighting (DECC, 2009).

Collision rates are variable with average collision rates per turbine ranging from 0.01 to 23 bird collisions annually (Drewitt and Langston, 2006; Everaert *et al*., 2001; Pettersson; 2005). Collision Risk Modelling (CRM) has been extensively used for both onshore and offshore sites globally, including a range of UK offshore developments. This CRM modelling tool has predicted collision rates for the UK Round 1 and Round 2 developments and for a range of different species on an annual basis. The maximum predicted collision rates for most species were in the order of a few tens (per year, per development) (DECC, 2009) but they are dependent on the parameters and avoidance rate for individual species and so will be specific to individual developments. It should also be noted that such numerical predictions are highly sensitive to assumptions on avoidance rates.

Whilst birds are generally manoeuvrable, they are nonetheless at risk during foraging and migration flights, especially during the night. Furthermore, although many breeding birds remain at their nest sites on land at night, some may roost at sea (Gaston, 2004). Some species such as Shag forage only during daylight, whereas a proportion of foraging activity of Guillemots and Razorbills occurs around dawn and dusk (Daunt *et al*., 2005; 2006; Thaxter *et al*., 2009; 2010) possibly rending them more likely to be at risk of effects. Moreover, Manx Shearwaters and both petrel species arrive at breeding burrows overnight thus travelling at sea overnight, rendering them more at risk from surface collisions. This may be further exacerbated by their low flight height. Those seabirds that fly and forage during the night are

considered to have a medium sensitivity to collision risk. Diurnally foraging species can be considered to have a low sensitivity to the risk of collision mortality. The risk may also be greater in sounds and channels where topography may prevent flying birds from avoiding structures.

It is recognised that it is difficult to assess the collision risk of birds as species may make random migration and forage flights or may repeatedly fly over the same routes. Identifying distinct flyway routes is complex both because of the nature and limitations of available information on the subject and because these movements are likely to occur across broad fronts rather than along clearly definable routes.

There are also a number of variables involved in flight direction including:

- Spatial variation in food abundance (including anthropogenic factors such as fishing vessels);
- The risk of predation/kleptoparasitism by other bird species;
- The importance of nest attending to incubate eggs and protect nest from predators; and
- Weather and climatological factors (ABPmer, 2010d).

For instance, waterfowl may relocate to other sites during periods of adverse weather during the winter months, outside of the main migratory periods. Therefore, it is likely that few if any bird qualifying features are likely to be excluded solely on the basis that their main foraging habitats are not directly or indirectly affected by the proposed Draft OWE Plan.

Hamer *et al*. (2007) suggested that birds remember directions to feeding sites and use this knowledge on subsequent foraging trips. However this foraging behaviour has not been observed in all studies and is considered to be linked to the spatial and temporal predictability of prey resources.

Flight heights have also been observed to be highly variable between species. Birds tend to fly at the altitude that maximises flight efficiency, whether this is at high elevations, well above turbine height, when unimpeded or at low elevations over the water when making short sea crossings or during bad weather or strong headwinds (Langston, 2010). However birds have been observed apparently increasing flight height to avoid offshore wind farm areas (Griffin *et al*., 2010).

Appendix D reviews the current literature on migration and foraging behaviour of birds in more detail. The review found that most birds typically forage within 100km of breeding sites with the exception of a number of species; including Puffin, Kittiwake, Guillemot, Scoter, Manx Shearwater, Fulmar, Gannet and Razorbill (Table D2 in Appendix D). These species which forage over long distances are likely to be more significantly affected by the wind farm developments and may be at a higher risk of collision. Gannets have also been observed on occasion repeatedly foraging over a narrow range of bearings in the North Sea. However, conversely to this, in the Celtic Sea, birds at a much smaller site did not show this pattern. It was concluded that differences in the consistency of foraging locations were related mainly to

differences in the spatial and temporal predictability of prey resources in the two study areas (Hamer *et al.,* 2007).

Wildlife and Wetland Trust carried out a tracking study into migration routes of Whooper Swans between UK and Iceland in relation to offshore wind farms. They concluded that migration routes varied between the coasts of Britain with swans migrating along the east coast preferring to stick close to land and thus away from the footprints of proposed or existing offshore wind farms. However, swans migrating along the west coast preferred to fly over coastal waters and thus into close contact with the footprints of several offshore wind farms (Griffin *et al.,* 2010).

A further consideration in respect of the impacts from collision, is the lighting of offshore wind farms. A lot of work has been done to investigate the collision risk posed by very high towers (>200m) on land to flying birds and such towers have been shown to cause large numbers of collisions. Therefore, offshore wind turbines could, when lit at night, could pose a risk that is similar to communication towers (Ecology Consulting 2001). This study also highlighted evidence that altering the type of lighting (e.g. flashing/strobing) and/or the light's colour spectrum can reduce the risk of attracting birds and therefore reduce such collision risks.

5.2.3 Non-Physical Disturbance

5.2.3.1 Reduction in foraging habitat quality

Avoidance of areas of habitat by birds due to disturbance represents an indirect form of habitat loss, and in the case of offshore wind farms at least, represents one of the most significant effects. This factor may occur during the pre-construction survey, construction, operation and decommissioning phases of any offshore wind farm development.

Exclusion from habitats essentially prevents access to prey sources. Such exclusion could reduce other effects, notably collision mortality. However, reductions in the availability of habitat and access to prey could lead to many changes in the way individuals forage, including increased individual stress levels and alterations to individual time budgets owing to travelling further to find food (Scottish Executive, 2007). Evidence from other wind farm developments suggests that species such as Red-throated Diver and Common Scoter may be displaced up to 2-4 km from the development during non-breeding seasons.

Although alternative foraging areas may exist, the quality of the foraging habitat that species are forced to use may be lower, as well as more distant, thus increasing searching and foraging time needed to meet energetic needs. Species may have little flexibility to alter their time budgets to encompass extra foraging/travel to destinations. Species may also be reliant on a particular prey source at a location and may have less ability to switch to a different prey source. Effects at the colony and nest sites would be experienced through a reduced attendance time (due to lower feeding rates of chicks and longer foraging trips), possibly with increased neglect of chicks increasing predation risk or attacks from conspecifics. Furthermore, reduction in available habitat can generate increased competition to find food with knock-on implications for neighbouring areas (i.e. not included in the assessment). These

disturbances may, therefore, cause a reduction in foraging success, decreases in breeding success, and effects on individual fitness.

All seabird species screened into the assessment are at some risk of disturbance from the indirect loss of foraging habitat. Effects will be temporary during initial survey phases, causing most likely minimal disruption. However, more significant effects may occur in the construction, operation and decommissioning phases.

The effect these changes have on birds will depend on how flexible the species are at coping with changes. For instance, Garthe and Hüppop (2004) evaluated the sensitivity of species to offshore wind farms, and their score for flexibility in habitat use provides a useful measure to the sensitivity of species to this effect. As suggested by evidence from offshore wind farms, Red-throated Divers and Common Scoters (both diving species) may be particularly sensitive to disturbance and thus the effects of indirect habitat loss. The breeding success of some surface-feeding species, such as Terns and Kittiwakes, is negatively affected by changes in food availability due to reliance of prey brought to the sea surface (Furness and Tasker, 2000). However, those species with higher burdens to energy costs of flight and foraging (such as auks) may find it harder to increase foraging ranges to more distant prey resources (if such a change were to occur), than for instance Gannets that are generally less sensitive to natural changes in the availability of food, and can forage over a much wider area. Diving species with high wing loading have high energetic cost during flight, thought to be linked with adaptation of wings for underwater locomotion (Gaston and Jones 1998; Thaxter *et al*., 2010). Thus, while they have the potential to forage far from colonies, their typical ranges may be smaller than those of other species, i.e. 20-40 km (Thaxter *et al*., 2009; 2010), and may be less flexible in making changes in the event of reduced prey availability (Enstipp *et al*., 2006). In summary, diving species are considered to have a medium sensitivity to this effect, and surface-feeding species have a low sensitivity.

5.2.3.2 Noise and visual disturbance

Noise and visual disturbance may occur during the pre-construction survey work (seismic exploration, geophysical surveys), construction/decommissioning (installation/removal of cables and turbines, vessel movements) and turbine operation. The extent to which birds are affected by sources of noise and visual disturbance has been the subject of a lot of previous research and monitoring work. Disturbance to birds can stop feeding and roosting behaviour, with possible long-term effects of repeated disturbance including loss of weight, condition and a reduction in reproductive success. The effect of such disturbance is linked to the amount of times it occurs and the status of the conditions that are prevalent.

Studies generally show that birds are disturbed by a sudden large noise but have the ability to habituate (become accustomed to) to regular noises. For instance, with respect to piling specifically, it has been concluded that although piling has the potential to create most noise during construction, it often consists of rhythmic “bangs”, which, after a short period, birds are likely to become accustomed to (ABP Research, 2001). Other research has also indicated that in general, birds appear to habituate to continual noises as long as there is no large amplitude ‘startling’ component (Hockin *et al*., 1992).

As part of the construction work for ABB Power Generation Ltd (Pyewipe), winter bird monitoring showed that there was no large-scale disturbance due to construction work on the site. Although some localised disturbance was recorded in response to two sudden events, this was not considered to have a major effect on surrounding bird populations and was found to be no greater than the effect arising from third party disturbance, including walkers and stopped cyclists, which were unrelated to the work carried out by ABB (ERM, 1996). Observations suggested that it was the initial sudden bang during piling activities, which caused the disturbance, and that subsequent bangs typically resulted in reduced disturbance, demonstrating habituation.

These findings were supported by the studies carried out for the Humber International Terminal development, which again indicated that the key factor in triggering disturbance was human presence (ABP Research, 2000). Over 12 separate visits, disturbance by construction activities (which involved piling and reclamation of part of the foreshore) was observed on 3 occasions and in each case birds were disturbed over a small area and then rapidly resettled within the zone of disturbance (i.e. they did not leave the area). More recently, surveys of the birds around the Immingham Outer Harbour in the Humber (using the same methods) have also indicated that such disturbance events are limited and are often attributable to non-Port related activities such as the presence of Peregrine Falcons or walkers on the mudflat (ABPmer, 2010e).

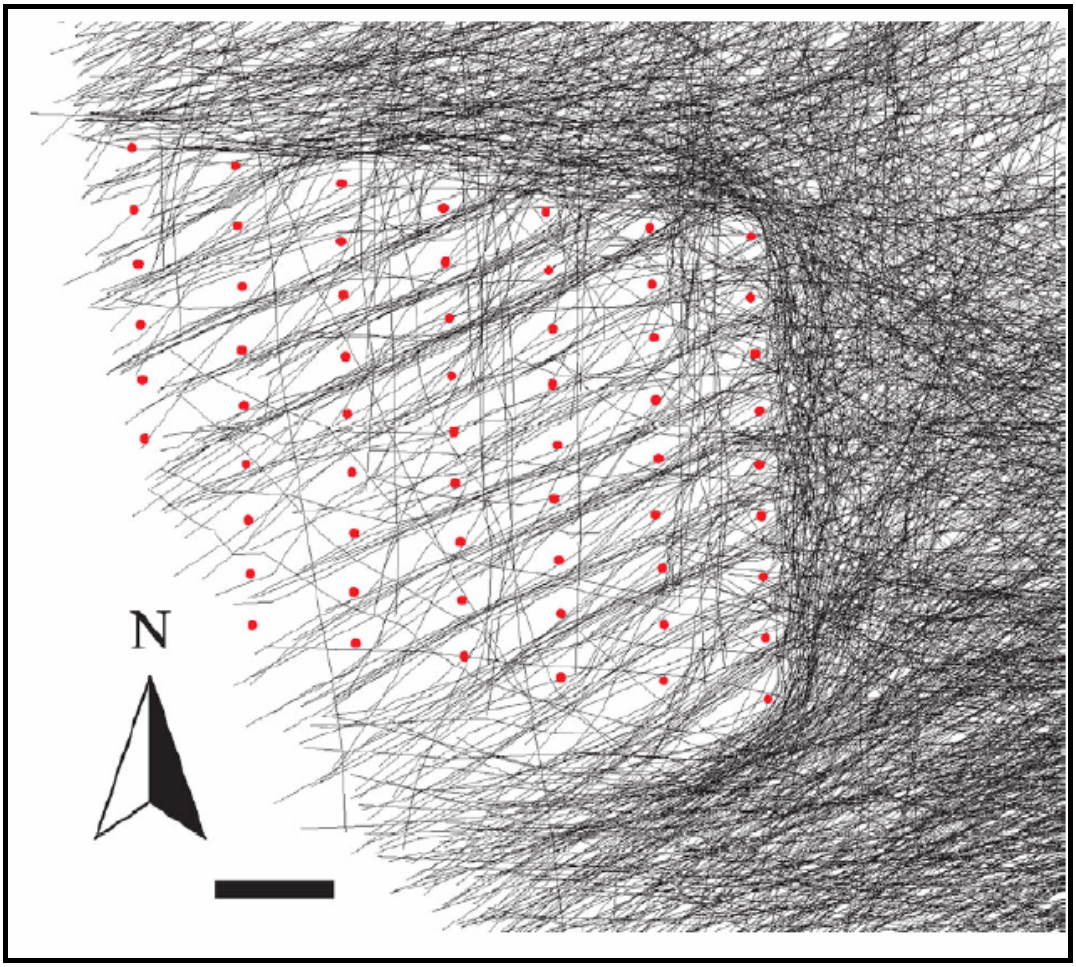
The ABP Teignmouth Quay Development estimated an approximate zone within which birds may be affected by disturbance from construction works (piling and dredging) to be typically about 200m (ABPmer, 2002). The startling effects of sudden noise were quantified, based on published research, by the Environment Agency for the Humber Estuary Tidal Defences scheme. It was concluded that a sudden noise in the region of 80dB appears to elicit a flight response in waders up to 250m from the source, with levels below this of approximately 70dB causing flight or anxiety behaviour in some species.

Drilling/piling activity during construction could disrupt seabird foraging and directly affect the senses of species diving underwater for prey. Seabirds hunt visually underwater, but evidence from on land suggests they may also have acute hearing, and thus marine noise could potentially disorientate and upset foraging rhythms, and cause permanent damage to hearing. Little is known as to the sensitivity of species to marine noise and thus it is not fully possible to assess the likelihood or magnitude of noise effects at any phase of the scheme. However, during construction and decommissioning diving species are probably at greater risk and hence provisionally considered to be of medium sensitivity compared to low sensitivity for surface-feeders.

5.2.3.3 Barrier effects

Wind turbines visible from above the surface could create a barrier effect and thus birds in flight will probably deviate their flight route to avoid the structures (Desholm and Kahlert 2005). Griffin *et al.* (2010) observed birds apparently exhibiting avoidance behaviour near operational wind farms at Robin Rigg and Barrow by increasing flight height (Appendix D).

At Nysted offshore wind farm in the western Baltic, radar studies have indicated a high degree of avoidance by Eider and other large waterbirds during migration (DECC, 2009). An output from this work is shown in Image 2 where the black lines indicate migrating waterbird flocks and the red dots indicate the wind turbines (the scale bar that is shown represents a distance of 1000m). There was a significant reduction in migration tracking densities within the wind farm area post-construction (Desholm and Kahlert, 2005). During this study avoidance response differences were also observed during daylight and at night. Nocturnally migrating waterfowl over Denmark and the Netherlands were also able to detect and avoid turbines, with avoidance distances greater during darker nights (Dirksen *et al*. 1998; 2000).



(Desholm and Kahlert, 2005)

Image 2. Westerly oriented flight trajectories during the initial operation of the wind turbines at Nysted Offshore Wind Farm

Following construction of an offshore wind farm site at Tunø Knob in the Danish Kattegat, the number of Common Scoters and Eiders decreased in the two years following construction. However Eider numbers subsequently increased, possibly due to birds habituating to the wind farm or as a result of the increased abundance of mussels (Drewitt and Langston, 2006). Later work also concluded that Eider reacted strongly to the presence of wind turbines, interpreted to be a consequence of this species' high speed and low manoeuvrability (Larsen and Guillemette, 2007).

Following construction of Horns Rev Offshore Wind Farm aerial surveys found that divers, Guillemots, Gannets, Razorbills and Common Scoters all occurred in lower numbers than expected in the wind farm area following construction. Conversely, gulls and terns showed a preference for the wind farm area following construction (Petersen *et al*., 2004). Again it is recognised that these changes may reflect habituation to wind turbine presence or may be as a result of changes in food availability rather than displacement by disturbance (Petersen *et al*., 2003).

Little is known about the sensitivity of bird species to barrier effects and their ability to alter flight heights. However, avoidance behaviour may lead to the possibility of increased energy expenditure when birds fly further or higher to avoid large turbines, and may potentially lead to the disruption of linkages between distant feeding, breeding, moulting and roosting areas which otherwise would be unaffected.

5.2.3.4 Fish aggregating device and/or artificial reef effects

The construction of wind turbines could generate localised new habitat for fish and benthic communities i.e. Fish Aggregation Devices (FADs) or artificial reefs (see Section 7.2.2), thus affecting the prey availability in the immediate vicinity of the turbines and creating new foraging opportunities for diving species, and indirectly altering the distribution of seabirds. The extent of this (positive) effect is unknown, though likely to be small for all species and the issue of new habitats and species present that attracts seabirds and increases collision risk (see Section 5.2.2) needs to be considered. In addition, additional structures may provide habitat for seabirds such as gulls and terns to perch or rest on, or even potential breeding locations themselves. Species are considered to have a low sensitivity to the creation of new habitat.

5.2.3.5 Toxic Contamination

Spillage of oils and fluids from construction vessels and machinery into the marine environment could adversely affect sediment or water quality during all phases of any scheme developed in the Draft OWE Plan options areas, for instance, through vessel collision, or improper construction or maintenance. Marine birds are particularly sensitive to contamination by oil (Votier *et al*., 2008), as the oil can cause considerable damage to waterproofing and flight (Wernham *et al*., 1997), as well as additional physiological damage of birds ingesting oil.

Seabirds are also at risk of contaminated sediments that are resuspended into the water column. The magnitude of the effect is dependent upon the level of contamination; the proximity of the Draft OWE Plan activity to designated site and species foraging areas; the type of activity occurring; the manner in which that activity is pursued (including the extent and duration); the particle size of the disturbed sediments and the hydrodynamic conditions. It has been indicated that settlement of sediment is most likely to occur within 20-200m of a cable for a wind farm (BERR, 2008) but contaminants are almost always associated with fine sediments and could travel further than this in some areas where there is a large tidal excursion and strong tidal flows.

The sensitivity of species to oil contamination is considered to be medium during construction, operation, and decommissioning, but a low risk during surveying, and is dependent on the general behaviour and distribution of species (e.g. the proportion of time spent on the sea surface relative to flying). Auks, in particular, may spend a considerable amount of time on the sea surface or foraging (Thaxter *et al*., 2010), and thus have a higher risk of being adversely affected (e.g. Votier *et al*., 2008).

Ingestion of contaminated sediments either through direct poisoning or bio-magnification of pollutants through ingestion of contaminated prey would increase the probability of mortality of all species being considered. The precise risk would depend on the use of the area by foraging seabirds. All species are sensitive to this effect, however the overall sensitivity of species is considered low during all phases of the Draft OWE Plan.

5.2.3.6 Non-toxic contamination

Activities involved during the construction and decommissioning of the wind farm devices (e.g. use of jack-up legs, piling activities and cable installation) may result in an increase in suspended sediments and turbidity, potentially leading to effects on (diving) seabird foraging success and predator-prey interactions. For Cormorant for instance, a very small increase in turbidity can negatively affect the vision of these birds (Strod *et al*., 2004).

Effects will be determined by the environment itself, i.e. by the strength of currents dispersing the sediment and background suspended sediment levels. The nature, scale and location of the structures will be the key determinants of the risk and magnitude of the effect.

In addition to changes in turbidity, there will also be a likely change in hydrodynamic regime from any wind turbine structure that may affect diving seabirds. Fish are attracted to areas of high flow gradients and fronts. Thus, a change in local turbidity and flow of currents during all phases of construction may influence the distribution of prey resources for all diving seabird species resulting in change of use of an area.

Species diving underwater are at greatest risk of having foraging activity disrupted by sediment mobilisation and suspension, and this is most likely to occur during the construction and decommissioning phases. Diving species such as Auks, Shags and Cormorants use much of the water column thus are considered to have a medium sensitivity to this effect, whereas surface-feeding seabirds are considered to have a low sensitivity. All species, however, are at risk of disruption due to likely prey avoidance of areas that have been disturbed. All species are also at medium risk from changes to prey distribution areas associated with changes in hydrodynamics. Nevertheless, given the high energy of the environment, the sensitivities of species to this effect are considered to be low.

5.2.4 Birds

Table 9 shows the sensitivities of, and the activities that might affect, qualifying bird interest features.

Table 9. Potential sensitivities of bird interest features to the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm.
PLG	Physical loss/gain of habitat	Direct loss of coastal foraging, breeding or roosting habitat as a result of the installation and removal of cables, and during operation of offshore wind farm (including associated scour and hydrodynamic changes)				
PD	Physical damage to species	Collision of migrating and foraging birds with turbine blades.				
NPD	Non-physical disturbance	Reduction in the quality of foraging habitat (and prey species availability) as a result of baseline survey work (e.g. boreholes and trawls), installation and removal of cables and turbines (e.g. through smothering and physical disturbance).				
NPD	Non-physical disturbance	Noise and visual disturbance during survey work (seismic exploration, geophysical surveys and vessel movements), construction/decommissioning (installation/removal of cables and turbines, vessel movements) and turbine operation (and maintenance vessels).				
NPD	Non-physical disturbance	Barrier effects to the movement of migrating or foraging birds as a result of the presence of turbines and arrays.				
NPD	Non-physical disturbance	Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.				
TC	Toxic contamination	Spillage of fluids, fuels and/or construction materials during survey work, installations, maintenance or removal of structures (cables and turbines).				
NTC	Non-toxic Contamination	Reduction in water quality from cable/turbine installation and decommissioning.				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 5 (including Table 10) for details about the how the risk judgements were made)

	Low Risk
	Medium Risk
	High Risk

This assessment covers all bird interest features, including surface and diving foragers etc.

5.3 Potential Effects on Designated Sites of the Draft OWE Plan

5.3.1 Introduction

On the basis of the sensitivities of the relevant qualifying interest features the following sections review the conservation objectives for these features and review the potential effects arising for each of the European/Ramsar sites.

5.3.2 Conservation Objectives

The conservation objectives for the qualifying bird interest features seek to avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site. The conservation objectives are to ensure for the qualifying habitats that the following are maintained in the long term:

- Population of the species as a viable component of the site;
- Distribution of the species within site;
- Distribution and extent of habitats supporting the species;

- Structure, function and supporting processes of habitats supporting the species; and
- No significant disturbance of the species.

5.3.3 Environmental Effects

Taking account of the conservation objectives and the Plan-level activities to which the key interest features (all bird qualifying features within the SPA/Ramsar sites) are sensitive, this section reviews the effects of the Draft OWE Plan on the integrity of the designated sites. The results are presented in Table 10.

Table 10. Assessment of the potential effects of the Draft OWE Plan on the bird features of relevant European/Ramsar sites

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 5.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Features (see Section 5.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ All seabird species	Physical loss/gain of habitat Direct loss of coastal foraging, breeding or roosting habitat as a result of the installation and removal of cables, and during operation of offshore wind farm (including associated scour and hydrodynamic changes).	Risk Level(s) The maximum level of risk for qualifying features is considered to be medium (see Table 9 for detail and colour code) Commentary/Risk Review All species are considered to be of medium sensitivity to this risk during construction, maintenance and decommissioning. However, the effect will depend on the quality and location of habitat that might be affected e.g. loss of sandy sediments found within the Draft OWE Plan option areas may have the greatest effect on seabirds due to their importance for sandeels, and loss of onshore habitat due to cable installation works could potentially affect breeding and/or wintering birds. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ All seabird species	Physical damage to species Collision of migrating and foraging birds with turbine blades.	Risk Level(s) The maximum level of risk for qualifying features is considered to be high (see Table 9 for detail and colour code) Commentary/Risk Review Seabirds that fly and forage during the night are considered to have a medium sensitivity to collision risk. Diurnally foraging species can be considered to have a low sensitivity to the risk of collision mortality. The risk may also be greater in sounds and channels where topography may prevent flying birds avoiding structures. The risk will also be related to the nature of the lighting (e.g. the colour) that is used as well because this has been shown to influence the levels of collision risk. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Population of the species as a viable component of the site; ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ All seabird species	Non-physical disturbance Reduction in the quality of foraging habitat (and prey species availability) as a result of baseline survey work (e.g. boreholes and trawls), installation and removal of cables and turbines (e.g. through smothering and physical disturbance).	Risk Level(s) The maximum level of risk for qualifying features is considered to be medium (see Table 9 for detail and colour code) Commentary/Risk Review Diving species are considered to have a medium sensitivity to this effect, and surface-feeding species have a low sensitivity. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 5.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Features (see Section 5.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ All seabird species	Non-physical disturbance Noise and visual disturbance during survey work (seismic exploration, geophysical surveys and vessel movements), construction/decommissioning (installation/removal of cables and turbines, vessel movements) and turbine operation (and maintenance vessels).	Risk Level(s) The maximum level of risk for qualifying features is considered to be medium (see Table 9 for detail and colour code) Commentary/Risk Review There are potential effects during surveying and cable and device installation, lesser effects are likely during operation and decommissioning. The sensitivity of birds to airborne noise during construction is considered to be low given their ability to habituate to continual noises (e.g. piling). The greatest disturbance is likely to be caused by human presence. The sensitivity of species to underwater marine noise is unknown, but likely to be greater for diving species and sea surface foragers. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following is considered to be most relevant: ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ All seabird species	Non-physical disturbance Barrier effects to the movement of migrating or foraging birds as a result of the presence of turbines and arrays.	Risk Level(s) The maximum level of risk for qualifying features is considered to be high (see Table 9 for detail and colour code) Commentary/Risk Review Studies have found migrating birds to generally avoid offshore wind farms by flying further or higher, with avoidance distances increasing at night. However, some species have found to be attracted to wind farm areas due to increased prey availability. Given the level of uncertainty associated with this impact pathway, the sensitivity of bird species to barrier effects is considered to be high. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Population of the species as a viable component of the site; ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ All seabird species	Non-physical disturbance Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Table 9 for detail and colour code) Commentary/Risk Review Underwater structures may provide new foraging opportunities for diving species. Construction of wind farm arrays and structures above water that have a stable platform may serve as additional resting and/or breeding habitat especially for gulls and terns. The extent of this (positive) effect is unknown, though likely to be low. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 in Appendix A and summarised in Section 5.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Features (see Section 5.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ All seabird species	Toxic contamination Spillage of fluids, fuels and/or construction materials during survey work, installations, maintenance or removal of structures (cables and turbines).	Risk Level(s) The maximum level of risk for qualifying features is considered to be medium (see Table 9 for detail and colour code) Commentary/Risk Review For all stages of the work from the construction to decommissioning and including operational/maintenance works, there is the potential for accidental discharges/spillages from machinery and vessels. All species, including seabirds and those using intertidal habitats are considered to have at worst a medium sensitivity to this issue. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Population of the species as a viable component of the site; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ All seabird species	Non-toxic contamination Reduction in water quality from cable/turbine installation and decommissioning.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Table 9 for detail and colour code) Commentary/Risk Review There is a risk to seabirds from the mobilisation of sediment and changes in turbidity during surveying, cable and device installation and decommissioning activities; in particular an increase of suspended sediment may disrupt foraging and predator-prey interactions. Changes in hydrodynamics may also affect seabirds. Given the high energy of the local environment, the sensitivities of bird species to these changes are considered to be low. Relevant Conservation Objectives (see Section 5.3.2) All of the 5 objectives, the following are considered to be most relevant: ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

6. Potential for Adverse Effects on Marine Mammal Features

6.1 European/Ramsar Sites and Features to be Considered

Following the screening and re-screening (Stages 4 to 7 of HRA), a total of 370 European/Ramsar sites were identified for which there is a LSE (or the potential for a LSE cannot be excluded). Of these sites, a number of European/Ramsar sites were identified at which it was not possible to conclude that there would be no LSE from the Draft OWE Plan for qualifying marine mammal interest features specifically. The number of sites and the relevant qualifying marine mammal features are summarised below in Section 6.1.1. In view of the large number of sites that have been 'screened in' it has been agreed (with the PSG) that it is not necessary to individually review the full list of all the screened in sites and the qualifying interest features that they support in the main text of this report. However, these sites and all these features are presented in the Screening Tables for each of the 34 short and medium term option areas (see Appendix B). The locations of the SAC sites with qualifying marine mammals features specifically are also illustrated on the figures that accompany these screening tables for the short term (see Figures ST1 to 9) and medium term (see Figures MT1 to 25). These screening maps are presented in Appendix C.

Some of these SACs also contained other interest features for which it could not be concluded that there was no LSE (e.g. subtidal sandbanks) and these are reviewed separately under the relevant section(s) of the AA that deal with these other habitat/species groups. In addition, where there are interest features at these sites which have been 'screened out' because there will be no LSE then these are also recorded as part of the screening phase which is presented in the tables in Appendix A.

6.1.1 Interest Features Summary

In summary, the screening phase concluded that there was a possibility of a LSE (or that it was not possible to conclude no LSE) for the following qualifying marine mammal interest features:

- Common seal (1365) which is a qualifying feature at 9 SACs and 1 Ramsar site;
- Grey seal (1364) which is a qualifying feature at 7 SACs; and
- Bottlenose dolphin (1349) which is a qualifying feature at 1 SAC[18].

To assess whether there is any adverse effect on the integrity of the relevant European sites, Section 6.2 reviews the sensitivities of these marine mammal features and identifies the conservation objectives for these features. Section 6.3 then identifies the conservation objectives for these features and assesses, in tabular format, the effects arising in the context of the proposed additional plan-level mitigation measures.

[18] NB. No Natura sites exist for harbour porpoises in UK waters and therefore this species has not been screened in to this HRA. This species is though referred to below (and In Appendix E) in the context of understanding cetacean sensitivities to impacts. It should also be noted that harbour porpoise is a European Protected Species (EPS) and it is an offence to deliberately capture, injure, kill or disturb of any wild animal of an EPS, under regulations 39(1)(a) and (b) in the Conservation (Natural Habitats &c.) Regulations. Such offences under Regulation 39 are not considered within the HRA process but it is noted that guidance on disturbance is being developed separately.

6.2 Sensitivities of Marine Mammal Interest Features to Draft OWE Plan Activities

This section reviews the sensitivities that are relevant for the marine mammal interest features. Initially a generic review of the sensitivities is presented under the impact pathways identified during the screening phase:

- Physical loss/gain of habitat (Section 6.2.1);
- Physical damage to habitats or species (Section 6.2.2);
- Non-physical (indirect) disturbance including noise and vibration, visual and electro-magnetic fields (EMF) (Section 6.2.3);
- Toxic contamination (Section 6.2.4); and
- Non-toxic contamination (Section 6.2.5).

Following this review, the individual characteristics and sensitivities for each of the relevant qualifying marine mammal interest features are presented and the activities that could cause an impact are identified and tabulated. These interest feature reviews are set out in the following sections:

- Pinnipeds (grey and common seals) (Section 6.2.6); and
- Cetaceans (bottlenose dolphin) (Section 6.2.7).

6.2.1 Physical Loss/Gain of Habitat

Marine mammals have extensive ranges and cover very large distances to forage in the pelagic environment. Critical (key) habitats for marine mammals are those that are essential for day-to-day well-being and survival, as well as for maintaining a healthy population growth rate. Areas that are regularly used for feeding, breeding, raising calves and socialising, as well as, sometimes, migrating, are the key components of critical habitat (WDCS, 2010). In addition to places used regularly for feeding, breeding, raising calves and socialising, locations where associated and supporting activities such as hunting, courtship, singing, calving, nursing, resting, playing and communication take place are important to consider. For a complete consideration of critical habitat, it should also extend to the critical habitat of marine mammal prey and areas where important ecosystem processes occur such as productive upwellings and fish spawning grounds. These critical habitat areas will be the most sensitive parts of a marine mammal range to any developments that cause loss (or gain) of habitat.

6.2.2 Physical Damage to Species

6.2.2.1 Collision risk

Marine mammals have quick reflexes, good sensory capabilities and fast swimming speeds (over 6m/s for harbour porpoise). These species also can be very agile (Carter, 2007; Hoelzel, 2002.). These are all attributes which increase the chance of close range evasion with an object that could cause a collision risk. It is well documented, however, that marine mammals have collided with anthropogenic structures such as fishing gear and ships (Pace *et al.,* 2006;

Zollett and Rosenberg, 2005). Reduced perception levels of a collision threat through distraction, whilst undertaking other activities such as foraging and social interactions, are possible reasons why collisions are recorded in marine mammals (Wilson *et al.,* 2007). Young grey seal pups, which are inexperienced at sea, could be particularly vulnerable to collision risk. Marine mammals can also be very curious of new foreign objects placed in their environment and so curiosity around an object could also increase the risk of collision. Marine mammals are relatively robust to potential strikes as they have a thick sub-dermal layer of blubber which would defend their vital organs from the worst of any blows (Wilson *et al.,* 2007). Nevertheless, a direct collision with a sharp object such as a moving blade still has the potential to cause injury to marine mammals. For offshore windfarm projects the underwater structures are static and will not present such collision risk during operational phases (i.e. unlike the moving blades of tidal turbines). However, there could be impacts from vessel movements during all phases of the work and in recent years particular concerns have emerged in respect of the use of ducted propellers on vessels using dynamic positioning.

6.2.2.2 Damage to seal haul-out sites

Seals use haul-outs for resting between foraging trips, giving birth (pupping) in the moulting season and also as a nursery for pups (SCOS, 2009). In the UK, grey seals typically breed on remote uninhabited islands or coasts and in small numbers in caves. Harbour seals come ashore in sheltered waters, typically on sandbanks and in estuaries, but also in rocky areas. Harbour seals haul out on land in a pattern that is often related to the tidal cycle. In general both grey and common seals are highly sensitive to disturbance by humans hence their preference often for remote breeding sites (SCOS, 2009).

Grey seals in the UK spend longer hauled out during their annual moult (between December and April) and during their breeding season (between August and December). Common seals give birth to their pups in June and July and moult in August. At these times of the year seals will be the most susceptible to human disturbance at haul out sites.

6.2.3 Non-Physical Disturbance

6.2.3.1 Reduction in foraging habitat quality

Foraging areas are a critical habitat for marine mammals. ACCOBAMS (Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area) described critical habitat as ‘a place or area regularly used by a cetacean group, population or species to perform tasks essential for survival and equilibrium maintenance’ (WDCS, 2010). Marine mammals utilise very large ranges typically to undertake foraging but can often be aggregated in ‘hotspot’ areas where key prey resources are found in high densities. For example, important foraging habitat for harbour porpoises includes areas of strong tidal currents, usually near islands or headlands, where the currents combine with the seafloor topography and seem to create conditions where a higher abundance of prey are recorded (Pierpoint, 2008; Marubini *et al.*, 2009; DECC, 2009). Spawning and nursery sites for prey species will be particularly sensitive to any environmental change.

6.2.3.2 Noise and vibration

Marine mammals (particularly cetaceans) are considered to be the most sensitive receptors in relation to acoustic disturbance in the marine environment, due to their use of echolocation and vocal communication (DECC, 2009). In comparison to fish, marine mammal species are sensitive to a very broad bandwidth of sound (being responsive at frequencies from 100 Hz to 170 kHz and possessing sensitive hearing over the frequency range from 20 kHz to 150 kHz).

The impacts of noise on marine mammals can broadly be split into lethal and physical injury, auditory injury and behavioural response. Richardson *et al*. (1995) defined four zones of noise influences, depending on the distance between source and receiver. These are as follows:

- Zone of hearing loss, discomfort or injury, the zone within which hearing or other severe damage results;
- Zone of masking, the region within which noise is strong enough to interfere with detection of other sounds, such as communication or echolocation clicks;
- Zone of responsiveness, the region in which the animal reacts; and
- Zone of audibility, the area within which the animal is able to detect the sound.

Lethality

At very high exposure levels, such as those typical close to underwater explosive operations or offshore impact piling (pile driving) operations, fatality may occur in species of marine mammal where the incident peak to peak sound level exceeds 240 dB re. 1 µPa. The likelihood of fatality increases with levels above 240 dB re. 1 µPa. As the time period of the exposure increases (represented by the impulse), there is also an increase in likelihood of fatality (Nedwell *et al.* 2007b). It is recognised though that the received levels around which lethality, physical damage and disturbance occurs are not well understood (Sarah Dolnman WDCS Pers. Comm.)

Auditory Injury

At sound levels in excess of 180 dB re. 1µPa, and particularly where there are repeated high level exposures from activities such as impact pile driving underwater sound has the potential to cause hearing impairment in marine species. This can take the form of a temporary loss in hearing sensitivity, known as a Temporary Threshold Shift (TTS), or a permanent loss of hearing sensitivity, known as a Permanent Threshold Shift (PTS) (Nedwell *et al.* 2007b).

Behavioural Response

At lower Sound Pressure Levels it has been observed that a behavioural response in marine mammals may occur. These reactions may include the animals leaving the area for a period of time or a startle reaction.

Behavioural response from underwater sound is often assessed by comparing the received sound level with the auditory threshold of marine mammals. Richardson *et al*. (1995), for example, used critical bands, normally octave or third octave band received levels of noise in comparison with the corresponding marine mammal hearing threshold in order to estimate the range of audibility and zones of influence from underwater sound sources.

This form of analysis has been taken a stage further by Nedwell *et al*. (2007a), where the underwater noise is compared with receptor hearing threshold across the entire receptor auditory bandwidth in the same manner that the dB(A) is used to assess noise source in air for human subjects. The criteria used in these studies is behavioural based, where received sound levels of 90 dB above hearing threshold are considered to cause a strong behavioural avoidance, and levels of 50 dB above hearing threshold a mild behavioural response by a minority of individuals (Table 11). It should be noted that these criteria reflect the initial response and do not reflect the complexity of behavioural, physiological and auditory impacts over the short and long-term. Furthermore, this criterion has not been validated by experimental study. The potential effects of anthropogenic underwater noise on the behaviour of marine mammals are difficult to determine as they are context dependent, and must be statistically based.

Table 11. Criteria suggested for the effects of underwater noise on marine mammals and fish

Level in dBht (Species)	Effect
Less than 0	None
0 to 50	Mild reaction by minority of individuals
50 to 90	Stronger reaction by majority of individuals but habituation at lower levels may limit effect
90 and above	Strong avoidance reaction by all individuals
Above 110	Tolerance limit of sound; unbearably loud
Above 130	Possibility of traumatic hearing damage from single event

(Source: Nedwell *et al*, 2007a)

The greatest potential impact on marine mammals from offshore wind development noise is during construction through pile driving and drill blast techniques (in order to allow removal of bedrock). A number of studies have investigated the distances at which marine mammals may be disturbed as a result of piling and blast noise associated with offshore wind farms (Table 12). Based on the findings from these studies it is apparent that, although hearing injuries from construction are only likely to occur within several hundred metres of pile driving activity, strong avoidance responses could occur several kilometres from the piling with masking of vocalization and mild behavioural changes (e.g. change in swimming direction) occurring as far away as 50km or more from a wind farm development.

Table 12. Summary of research on the spatial extent of piling noise impacts on marine mammals

Activity	Study	Background Information	Reference
Pile driving	Empirical study on underwater noise levels during pile-driving at turbines in NE Scotland and potential effects on marine mammals.	Pile-driving noise was measured at distances of 0.1 to 80km (when background noise was no longer distinguishable above ambient). The study concluded that for bottlenose dolphins auditory injury would only have occurred within 100m of the pile-driving and behavioural disturbance (defined as modifications in behaviour) could have occurred up to 50km away.	Bailey *et al*. (2010).

Activity	Study	Background Information	Reference
	Empirical studies of porpoise behaviour during construction of offshore wind farms at Horns Rev (North Sea) and Nysted (Baltic).	At the wind farms, acoustic activity of porpoises decreased shortly after each pile-driving event and returned to baseline conditions after 3-4h. This effect was not only observed in the direct vicinity of the construction site but also at monitoring stations approximately 15km away. Behavioural observations showed that during pile-driving, porpoises exhibited relatively more directional swimming patterns. This effect was found at distances of more than 11km, and possibly also up to 15km from the construction site.	Tougaard *et al*., (2003a, 2003b).
	Assessment of the likely sensitivity of bottlenose dolphins to pile-driving noise.	Research concluded that at 9kHz, masking of strong vocalisations could potentially occur within 10 to 15km. The potential masking radius was predicted to reduce with increasing frequency to 6km at 50kHz and 1.2km at 115kHz.	David (2006).
	Attenuation of modelled pile-driving noise at different distances from the source levels.	Study concluded that pile-driving noise, under realistic North Sea conditions, would be audible to harbour porpoises and seals over distances of at least 80km. Thomsen *et al*. (2006) also applied the dBht metric which indicated that mild behavioural reactions (e.g. subtle change in swimming direction) in harbour porpoises might occur between 7 and 20km distance from the pile-driving source.	Thomsen *et al*. (2006).
	A two-zone model of effect from pile-driving noise based on measurements from North Hoyle, Scroby Sands, Kentish Flats, Barrow and Burbo Bank.	A Noise Injury Zone, bounded by the 130dBht contour, defines the area in which hearing injury can occur, and, in addition, the areas in which lethal and physical injury could occur, since the ranges at which these will occur are much less than those for hearing injury. This area typically extends to a few hundred metres from pile driving. The Behavioural Effect Zone is bounded by the 90dBht level contour. Within this area, the modelling suggested that harbour porpoise show strong avoidance within ranges of a few kilometres. Milder behavioural effects could occur at ranges of the order of 10 kilometres or more. Noise from pile driving operations can remain above the background underwater noise to ranges of 25 km or more.	Nedwell *et al*., (2003); Nedwell *et al*., (2007b).

Activity	Study	Background Information	Reference
	Assessment of lethal and physical injury of marine mammals and requirements for Passive Acoustic Monitoring.	The estimated likely impact ranges from a 4.7m diameter pile (252 dB re: 1 µPa source level) were predicted to be 4m for lethal range and 81m for injury range. A 6m diameter pile (260 dB re: 1 µPa source level) had a lethal range of 65m and an injury range of 530m.	Parvin *et al*. (2007).
Blasting	Sensitivity of marine mammals to blasting.	In this study an impulse of 69 Pas is given as leading to a low incidence of trivial blast injuries with no eardrum ruptures. The report found that for a 45 kg charge the blast impulse will fall to this level at a range of about 2.2 km. In addition to these figures, dBht levels were calculated from the stand off distances measurements at 600 metres, these are given as 135 dBht (*Phocoena phocoena*) harbour seal, 152 dBht (*Phocoena vitulina*) harbour porpoise and 158 dBht (*Orcinus orca*) killer whale. The linear SPL at this range was 217 dB re 1 µPa. These figures are in excess of the 90 dBht reaction threshold.	Nedwell *et al*., (2007b).
	Assessment of lethal and physical injury of marine mammals and requirements for Passive Acoustic Monitoring.	Blast source levels were found to have lethal ranges of 6-110m and injury ranges of 48-900m.	Parvin *et al*., (2007).

6.2.3.3 Visual presence

Disturbance caused by an external visual influence can cause marine mammals to stop feeding, resting, travelling and/or socialising, with possible long term effects of repeated disturbance including loss of weight, condition and a reduction in reproductive success (ABPmer, 2009, JNCC, 2008). The group which are most at risk from visual disturbance are seals (when they are on land resting or breeding). In general, ships more than 1,500m away from grey seal haul out areas are unlikely to evoke any reactions from grey seals. Between 900m and 1,500m, grey seals could be expected to detect the presence of vessels and at closer than 900m a flight reaction could be expected (Scottish Executive, 2007).

In the UK, there are currently no good-practice guidelines for minimisation of disturbance by shipping or commercial vessels (JNCC, 2008). However, the *Scottish Marine Wildlife Watching Code* that was designed for recreational water users advises that the minimum approach distance for vessels to avoid visual and noise disturbance to dolphins and porpoises is 50m (200-400m for mothers and calves, or for animals that are clearly actively feeding or in transit).

6.2.3.4 Fish aggregating device effects

Marine mammals feed on a variety of pelagic and demersal prey. The diet of seals, bottlenose dolphin and harbour porpoise species around Scotland and the North Sea is summarised in Table 13.

Table 13. Prey species commonly consumed by the marine mammals around Scotland and the North Sea

Species	Diet
Common Seal	Sandeels with octopus, gadoids and clupeids also consumed.
Grey seal	Sandeels, gadoids (particularly cod), flatfish (particularly plaice) and sculpins.
Harbour Porpoise	Sandeels, gadoids such as whiting *(Merlangius merlangus)* and clupeids (herring and sprats).
Bottlenose dolphin	Primarily feed on gadoids such as cod, saithe and whiting as well as Atlantic salmon and cephalopods.

(Based on information from DECC (2009), Reid *et al.* (2003), Santos *et al.,* 2004, MacLeod *et al.,* 2007)

Fish are often attracted to solid man-made structures placed on the seabed and artificial reefs are often deployed to enhance fisheries (Sayer *et al*., 2005). These modify the habitat and provide food and shelter for fish and invertebrate species leading to increased fish abundance and enhancement of the local seabed habitat (Wilhelmsson *et al*., 2006). Structures can change local abiotic conditions allowing species assemblages to form that are different from natural communities present. Therefore, the potential for prey items of marine mammals to be attracted to underwater structures which could act as a Fish Aggregating Device (FAD) will largely be dependant on the habitat preference of specific species. For example, pelagic species such as salmon which undertake large migrations and seasonal movements are less likely to aggregate around structures as demersal species such as gadoids which show a greater association with the seabed.

6.2.3.5 Barrier effects

Presence of sub-surface structures may present a barrier to movement and migratory pathways depending on array design. Cetaceans are highly mobile, pelagic species which can undergo large seasonal movements and migrations (Reid *et al.,* 2003; Learmonth *et al.,* 2006). They can, therefore, be particularly vulnerable to any structures which could act as a barrier, preventing movement to these key foraging or nursery grounds.

6.2.3.6 Electro-magnetic fields

Power cables for transmitting electricity produce electric and magnetic fields as a result of the current passing along the conductor and the voltage differential between the conductor and earth ground, which is nominally at zero volts. The nature and strength of the fields produced, depends on the system voltage and the current (AC or DC) passing through. The effects on the surrounding environment depend on the cable construction, configuration and orientation in space.

In order to standardise terminology, Gill *et al.* (2005) proposed the term EMF should be used to describe the direct electromagnetic field. The two constituent fields of the EMF should be clearly defined as the E (Electric) field and the B (Magnetic Field) field, whilst the induced electric field should be labelled the iE field.

Magnetic Fields are produced from AC or DC current passing through the conductor and these emanate outwards from the cable in a circular plane, perpendicular to its longitudinal axis. The field strength produced as a result of the operation of electricity transmission (AC or DC) decreases rapidly with distance away from the source (the decay curve follows the inverse square law). The magnetic field around an AC cable is constantly changing at the same frequency as the alternating current that is producing it, which means that the modulation it produces in the Earth's field will also be constantly variable.

Marine mammals are not considered to be electrosensitive species (Gill *et al.*, 2005). For magnetosensitive species, sensitivity to the geomagnetic field is associated with a direction finding ability e.g. migration. Gill *et al.* (2005) lists cetaceans including the harbour porpoise as magnetosensitive. No evidence was found to suggest that pinnipeds (e.g. grey seals) are magnetoreceptive (Gill *et al.*, 2005). The underlying assumption that cetaceans have ferromagnetic organelles capable of determining small differences in relative magnetic field strength remains, however unproven and is based on circumstantial information. There is also no apparent evidence that existing cables have influenced migration of cetaceans. Migration of the harbour porpoise in and out of the Baltic Sea necessitates several crossings over operating subsea high voltage direct current (HVDC) cables in the Skagerrak and western Baltic Sea without any apparent effect on their migration pattern (Scottish Executive, 2007).

6.2.4 Toxic Contamination

Leaching of toxic compounds from sacrificial anodes, antifouling paints or leakage of hydraulic fluids (if present) from the device is a potential effect during offshore wind farm operation. Seals and cetaceans generally have a low sensitivity to contamination, although the sensitivity rises to medium around seal breeding sites (Scottish Executive, 2007). Contaminants associated with the release of suspended sediments during installation or removal of structures (turbine and cables) could affect foraging, social and predator/prey interactions of marine mammals, although marine mammals around the UK are regularly recorded foraging in highly turbid environments such as estuaries and tidal streams.

Marine mammals are also exposed to a variety of anthropogenic contaminants, through the consumption of prey. As top predators, they are at particular risk from contaminants which biomagnify through the food chain (i.e. are found at increasing concentrations at higher trophic levels). Most research has focused on two main groups of contaminants: the persistent organic pollutants (POPs) and the heavy metals. However, there is some information on other contaminants including polyaromatic hydrocarbons (PAHs), butyl tins and perfluorinated chemicals (DECC, 2009).

POPs accumulate in fatty tissues, are persistent and commonly resistant to metabolic degradation; they are often found in high concentrations in marine mammal blubber. They may affect the reproductive, immune and hormonal systems.

Cadmium, lead, zinc and mercury are the heavy metals of greatest importance in marine mammals. They are frequently present in the highest concentrations in the liver, kidney and bone, with levels varying considerably with the geographic location of the species. Marine mammals are able to produce certain proteins (metallothioneins) which can sequester certain

metal ions into less toxic complexes; this enables many species to cope with relatively high dietary exposures to certain metals. Whilst there are few studies that show major impacts of heavy metals, it is possible that they may have combined effects as they often co-occur with the persistent organic contaminants (DECC, 2009).

6.2.5 Non-Toxic Contamination

Increased turbidity could affect foraging, social and predator/prey interactions of marine mammals, although marine mammals around the UK are regularly recorded foraging in highly turbid environments such as estuaries and tidal streams. All UK marine mammals use vision to navigation in their environment, avoid obstacles and forage. Marine mammals can forage throughout the diurnal cycle, in very turbid waters and, therefore, are able to function as predators in very low light levels. Marine mammals are also known to have acute hearing capabilities (see Section 6.2.3). Seals just use passive listening while Odontocetes are known to use both passive and active listening when navigating and foraging (echolocation). This also helps marine mammals operate in low visibility, turbid conditions (Scottish Executive, 2007).

6.2.6 Pinnipeds

Table 14 shows the sensitivities of, and the activities that might affect, qualifying seal interest features, namely common and grey seals.

Table 14. Potential sensitivities of seal interest features from the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical loss/gain of habitat	Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.				
PD	Physical damage to species	Collision risk from vessels travelling to and from the site (including propeller collision risk).				
PD	Physical damage to habitat	Direct damage to haul-out sites during cable installation, decommissioning and operation (seals only).				
NPD	Non-physical disturbance	Reduction in the quality of foraging habitat (and prey species availability) as result of the baseline survey work (e.g. boreholes and trawls) and installation and removal of cables and turbines e.g. through smothering, and physical disturbance.				
NPD	Non-physical disturbance	Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys), construction (e.g. piling, drilling, cable laying), operation (turbine noise), maintenance or decommissioning.				
NPD	Non-physical disturbance	Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar) and construction, maintenance and decommissioning.				
NPD	Non-physical disturbance	Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.				
NPD	Non-physical disturbance	Presence of sub-surface structures may present a barrier to movement and migratory pathways depending on array design.				
TC	Toxic contamination	Spillage of fluids, fuels and/or construction materials during installation, survey/maintenance or removal of structures (devices and cables).				

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
TC	Toxic contamination	Contaminants associated with the release of suspended sediments during installation or removal of structures (devices and cables).				
NTC	Non-toxic contamination	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (devices and cables).				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 6 (including Table 16) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

6.2.7 Cetaceans

Table 15 shows the sensitivities of, and the activities that might affect, qualifying cetacean interest features, namely bottlenose dolphin.

Table 15. Potential sensitivities of cetacean features from the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical loss/gain of habitat	Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.				
PD	Physical damage to species	Collision risk from vessels travelling to and from the site (including propeller collision risk).				
NPD	Non-physical disturbance	Reduction in the quality of foraging habitat (and prey species availability) as result of the baseline survey work (e.g. boreholes and trawls) and installation and removal of cables and turbines e.g. through smothering, and physical disturbance.				
NPD	Non-physical disturbance	Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys), construction (e.g. piling, drilling, cable laying), operation (turbine noise), maintenance or decommissioning.				
NPD	Non-physical disturbance	Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar) and construction, maintenance and decommissioning.				
NPD	Non-physical disturbance	Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.				
NPD	Non-physical disturbance	Presence of sub-surface structures may present a barrier to movement and migratory pathways depending on array design.				
NPD	Non-physical disturbance	Disturbance effects from electromagnetic geomagnetic fields along cable alignments (pertinent to cetaceans but not pinnipeds).				
TC	Toxic contamination	Spillage of fluids, fuels and/or construction materials during installation, survey/maintenance or removal of structures (devices and cables).				
TC	Toxic contamination	Contaminants associated with the release of suspended sediments during installation or removal of structures (devices and cables).				
NTC	Non-toxic contamination	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (devices and cables).				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 6 (including Table 16) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

6.3 Potential Effects on Designated Sites of the Draft OWE Plan

6.3.1 Introduction

On the basis of the sensitivities of the relevant qualifying interest features the following sections provide an overview of the conservation objectives for these features and review the potential effects arising for each of the European sites.

6.3.2 Conservation Objectives

The conservation objectives for qualifying marine mammal interest features seek to avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features. The conservation objectives are to ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site;
- Distribution of the species within site;
- Distribution and extent of habitats supporting the species;
- Structure, function and supporting processes of habitats supporting the species; and
- No significant disturbance of the species.

6.3.3 Environmental Effects

Taking account of the conservation objectives and the Plan-level activities to which the key interest features are sensitive, this section reviews the effects of the Draft OWE Plan on the integrity of the designated sites. The results are presented in Table 16.

Table 16. Assessment of the potential effects of the Draft OWE Plan on the marine mammal features of relevant European sites

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 6.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 6.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Physical Loss/gain of habitat Loss of foraging habitat (or reduction in quality) as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Marine mammals are highly mobile and have large foraging ranges. Any loss of habitat because of OWE development is likely to only constitute a very small fraction of the total area used by a species for foraging. In addition Diederichs (2008) found no significant influence of wind farms on the occurrence of harbour porpoises which were found to be recorded moving through and foraging in two wind farm areas (Horns Rev-North Sea and Nysted-Baltic Sea) almost daily. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be particularly relevant to impacts from physical loss/gain of habitat during the operational phase of Draft OWE Plan: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Physical damage to species Collision risk from vessels travelling to and from the site (including propeller collision risk).	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Seals and cetaceans can potentially collide with construction vessel propellers and machinery. Juvenile grey seal pups, which are inexperienced in the water, are likely to be particularly vulnerable to collision risk. Ships travelling at 14 knots (~7 m/s) or faster are most likely to cause lethal or serious injuries if there is a collision (Scottish Executive, 2007). Vessels involved in the construction phase of OWE devices are either likely to be stationary or travelling at much slower speeds, and, therefore, risk of injury by collision would be considerably lower. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, three are considered to be particularly relevant to impacts from physical damage as a result of collision risk during all phases of the Draft OWE Plan: ▪ Population of the species as a viable component of the site; ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Common seal ▪ Grey seal	Physical damage to habitat Direct damage to haul-out sites during cable installation, decommissioning and operation (seals only).	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Seals use haul-out sites for a range of purposes including breeding, resting and moulting (SCOS, 2009). Seals generally choose remote areas to haul-out and are generally highly sensitive to damage and disturbance (particularly in the breeding season). Cable routes are most likely to come ashore where infrastructure already exists on the mainland. Most seals haul-out on uninhabited islands, offshore sandbanks and rocky areas. Therefore any damage to seal haul-outs is considered to be unlikely.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 6.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 6.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
		Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be particularly relevant to impacts from physical damage of haul-out habitat: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Non-physical disturbance Reduction in the quality of foraging habitat as result of the baseline survey work (e.g. boreholes and trawls) and installation and removal of cables and turbines e.g. through smothering, and physical disturbance.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Marine mammals are highly mobile and have large foraging ranges. The extent of habitat that might be reduced in quality is only going to constitute a very small fraction of the total area used by a species for foraging making any impact negligible. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be particularly relevant to impacts from reduction in the quality of foraging habitat: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Non-physical disturbance Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys), construction (e.g. piling, drilling, cable laying), operation (turbine noise), maintenance or decommissioning.	Risk Level(s) The maximum level of risk for qualifying features is considered to be medium (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Geophysical surveys carried out for installations of offshore wind farms largely involve side scan sonar that may cause acoustic disturbance of marine mammals. Available information on the magnitude impact from side scan sonar indicates that disturbance (for single or multiple devices) of marine mammals is low (ABPmer, 2007) in contrast to seismic surveys employed for oil and gas exploration which generate much greater source noise levels (Cummings, 2003; JNCC, 2008). The effect on marine mammals from vessel noise is not clear, with both attraction and avoidance reactions having been observed (Nedwell and Howell, 2004). Noise levels from the ship's echo-sounder or acoustic emissions from a dynamic positioning system would not be expected to cause widespread disturbance to marine mammals (Scottish Executive, 2007). For harbour porpoises the zone of audibility of shipping noise ranges from 1 - 3 km depending on the frequency of noise emitted by the ship (Thomsen *et al.,* 2006). The *Scottish Marine Wildlife Watching Code* advises that the minimum approach distance for vessels to avoid visual and noise disturbance to dolphins and porpoises is 50m (200-400m for mothers and calves, or for animals that are clearly actively feeding or in transit). The key sources of noise related to construction and device installation are: ▪ Shipping and machinery; ▪ Dredging; and ▪ Pile driving or drilling.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 6.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 6.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
		Additionally, cable burial requires the use of trenching or jetting machinery in soft sediments, rock cutting machinery in hard sea-beds, or rock or concrete mattress laying may be used to protect cables in areas where they cannot be buried. Of all of the sources of noise noted above, the noise emitted during pile driving is understood to have the greatest potential effects on marine wildlife (Thomsen *et al.,* 2006). This is due to the fact that pile driving generates very high sound pressure levels over a relatively broad frequency range (20 Hz - > 20 kHz). Development proposals for offshore wind farms in UK waters have generally considered large mono-pile designs with diameters of between 4 and 6 metres. Measurements during piling with 4.7m diameter piles fitted to an improved combined geometrical and absorption model have indicated a Source Level of 252dB re. 1µPa @ 1m. Impact piling with larger 6.0m diameter piles, may produce peak Source Levels of up to 260dB re. 1µPa @1m (Parvin *et al*., 2007). A number of studies have investigated the distances at which marine mammals may be disturbed as a result of diameter piling noise mainly associated with offshore wind farms. Based on the findings from these studies it is apparent that, although hearing injuries from construction are only likely to occur within several hundred metres of pile driving activity, stronger avoidance responses could occur several kilometres from the piling with masking of vocalization and mild behavioural changes (e.g. change in swimming direction) occurring as far away as 50km or more from a wind farm development (see Section 6.2.3). Nedwell *et al.* (2007b) investigated noise levels during the operation of the North Hoyle, Scroby Sands, Kentish Flats and Barrow offshore wind farms. In general, the level of noise created by operational wind farms was found to be very low and no evidence was found of noise levels that might have the capacity to cause marine animals to avoid the area. The environment of a wind farm was found to be on average about 2 dB noisier for fish, and no noisier for marine mammals, than the surrounding area. This is no more than variations which might be encountered by these animals during their normal course of activity. Madsen *et al.* (2006) undertook a review of wind turbine underwater noise and marine mammals. The review concluded that with respect to the known noise levels of turbines presently in operation, there seems to be little reason to believe they have a significant impact on marine mammals in general. However it was also stated that the lack of serious concerns highlighted was based on measurements from turbines present in operation at the time of the review and may not be representative of future, larger, and potentially significantly noisier turbines.		
		Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be particularly relevant to impacts from non-physical noise and vibration disturbance: ▪ Distribution of the species within the site; and ▪ No significant disturbance of the species.		

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 6.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 6.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Non-physical disturbance Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar) and construction, maintenance and decommissioning.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Visual disturbance from vessels in the different phases of development will generally only be short term. However, the level of impact will be dependant the distance vessels are away from major seal haul out sites and major foraging areas for marine mammals. No evidence of disturbance was evident during installation or a change in underlying relative grey seal abundance in the area was recorded in a shore based marine mammal survey undertaken for the SeaGen tidal energy device located in Strangford Lough (Royal Haskoning, 2009). Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be most relevant to impacts from non-physical visual disturbance ▪ Distribution of the species within the site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Non-physical disturbance Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review OWE devices use monopole based placed on the seabed, which could potentially act both as artificial reefs and as FADs for prey species of marine mammals. Wilhelmsson *et al.* (2006) investigated the potential for wind turbines to function as artificial reefs and FADs. Fish abundance was found to be greater in the vicinity of the turbines than in surrounding areas, while species richness and Shannon–Wiener diversity (H') were similar. A gill netting survey at the Svante Wind Farm, Sweden, found higher numbers of cod within two hundred metres of an operating turbine compared to the surrounding open waters, and higher still when the turbines were not operating (Westerberg, 1999). Diver held video surveys of the North Hoyle offshore wind farm piles found extremely high densities of juvenile whiting, apparently feeding on dense populations of amphipods amongst the fouling biota on the piles (Bunker, 2004). Both cod and whiting are prey items for marine mammals such as harbour porpoise and grey seal. Harbour porpoise have also been regularly recorded foraging around wind farm areas which could be because of an increase in prey species (Diederichs, 2008). However, it is generally agreed that fish aggregation probably represents a very minor effect DECC (2009). Empirical data on the relationship between marine mammals and prey that might be aggregating around OWE areas is also limited. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, three are considered to be most relevant to impacts from non-physical disturbance as a result of an increase in prey species: ▪ Distribution of the species within site; ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 6.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 6.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Non-physical disturbance Presence of sub-surface structures may present a barrier to movement and migratory pathways depending on array design.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Speculative concerns have been raised in relation to possible barrier effects of offshore developments in relation to marine mammals, however, there is a limited evidence base to assess this. Migration, as an organised seasonal behavioural pattern comparable to that of birds, is probably limited in marine mammals to movements of sperm whales and possibly baleen whales along the continental shelf margin. Offshore development could still disturb the transit to seasonally important foraging or breeding areas by creating a barrier. The potential for turbines to act as a barrier to movement will be dependant on the extent that noise and visual cues from the device(s) causes an avoidance response. It is also dependent on the ability of marine mammals to navigate around the devices and associated turbulence. The significance of any obstruction is also dependent on the spatial confines and size of the array. This is considered to be of low risk depending on the design of the array and location. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, four are considered to be most relevant to impacts from non-physical disturbance as a result of barriers to movement and migratory pathways: ▪ Distribution of the species within site; ▪ Distribution and extent of habitats supporting the species; ▪ Structure, function and supporting processes of habitats supporting the species; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Bottlenose dolphin	Non-physical disturbance Disturbance effects from electromagnetic geomagnetic fields along cable alignments.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review The generated magnetic fields that can be expected by wet renewable developments are expected to be perceived by cetaceans as a new localised addition to the heterogeneous pattern of geomagnetic anomalies already occurring naturally and anthropogenically in the sea. The expected magnetic field from e cable (up to a few micro Telsa (µT) is also very small, particularly relative to the Earth's own magnetic field (approximately 50 µT) (PMSS Ltd, 2007). Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be most relevant to impacts from non-physical EMF disturbance: ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Toxic Contamination Spillage of fluids, fuels and/or construction materials during installation,	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Offshore wind farm developments have essentially no planned discharges, although there is a potential for the incidental release of copper and carbon dust from abrasion of the slip-rings of the turbines. This is	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect,	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 6.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 6.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
	survey/maintenance or removal of structures (devices and cables).	considered to have a negligible environmental effect (DECC, 2009). Accidental leakage of fluids and fuels from vessels is possible. In the unlikely event of an incident, any contaminants entering the environment would be dispersed and degraded very quickly by the strong hydrodynamic conditions found in OWE deployment locations, ensuring the exposure to passing marine mammals is very low. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be most relevant to impacts from toxic contamination due to spillage incidents: ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Toxic Contamination Contaminants associated with the release of suspended sediments during installation or removal of structures (devices and cables).	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Sediments are likely to be low in contaminant levels within the OWE areas, given the distance away from major coastal development. The characteristically high-energy environments in which the devices will be located will assist in the dispersion of any localised contamination, thus minimising any impacts on water quality. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be most relevant to impacts from toxic contamination due to the release of suspended sediments: ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Common seal ▪ Grey seal ▪ Bottlenose dolphin	Non-toxic Contamination Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (devices and cables).	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 14 and 15 for detail and colour code) Commentary/Risk Review Local suspended sediment concentrations may increase as a result of drilling of the seabed for the installation of the pile, burial of the power export cables and disposal of drill cuttings. Increased turbidity could affect foraging, social and predator/prey interactions of marine mammals, although marine mammals around the UK are regularly recorded foraging in turbid environments such as estuaries and tidal streams. The risk of a significant impact is therefore considered to be low. Relevant Conservation Objectives (see Section 6.3.2) Of the 5 objectives, two are considered to be particularly relevant to impacts from non-toxic contamination as a result of increased turbidity: ▪ Distribution of the species within the site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

7. Potential for Adverse Effects on Anadromous Fish and Freshwater Pearl Mussel Features

7.1 European/Ramsar Sites and Features to be Considered

Following the screening and re-screening (Stages 4 to 7 of HRA), a total of 370 European/Ramsar sites were identified for which there is a LSE (or the potential for a LSE cannot be excluded). Of these sites, a number of European/Ramsar sites were identified at which it was not possible to conclude that there would be no LSE from the Draft OWE Plan for qualifying fish and freshwater pearl mussel interest features. The number of sites and the relevant qualifying interest features are summarised below in Section 7.1.1. In view of the large number of sites that have been 'screened in' it has been agreed (with the PSG) that it is not necessary to individually review the full list of all the screened in sites and the qualifying interest features that they support in the main text of this report. However, these sites and all these features are presented in the Screening Tables for each of the 34 short and medium term option areas (see Appendix B). The locations of the SAC sites with qualifying fish and freshwater pearl mussel features specifically are also illustrated on the figures that accompany these screening tables for the short term (see Figures ST1 to 9) and medium term (see Figures MT1 to 25). These screening maps are presented in Appendix B.

It is understood that European sites support additional fish species as 'typical species of habitat' features such as, sparling (the European smelt *Osmerus operlanus*). The impact pathways for these supporting features are considered to be the same as for qualifying interest fish features and have, therefore, not been considered separately and specifically as part of this assessment. It is recognised that differences in their life histories may mean they are more or less susceptible to problems than other species and this may in turn influence the levels of risk that are relevant and, at a project-level, the detailed requirements for mitigation. However, the assessment process has been undertaken and the mitigation measures selected such that they encompass all the levels of risk to relevant qualifying species.

Some of these sites also contained other interest features for which it could not be concluded that there was no LSE (e.g. subtidal sandbanks) and these are reviewed separately under the relevant section(s) of the AA that deal with these other habitat/species groups. In addition, where there are interest features at these sites which have been 'screened out' because there will be no LSE then these are also recorded as part of the screening phase which is presented in the tables in Appendix A.

7.1.1 Interest Features Summary

In summary, the screening phase concluded that there is a possibility of a LSE (or that it was not possible to conclude no LSE) for the following fish and freshwater pearl mussel features:

- Atlantic salmon *Salmo salar* (1106) which is a qualifying feature at 22 SACs and 2 Ramsar sites;
- Sea lamprey *Petromyzon marinus* (1095) which is a qualifying feature at 6 SACs and 1 Ramsar site;

- River lamprey *Lampetra fluviatilis* (1099) which is a qualifying feature at 6 SACs and 1 Ramsar site;
- Allis shad *Alosa alosa* (1102) which is a qualifying feature at 1 Ramsar site;
- Twaite shad *Alosa fallax* (1103) which is a qualifying feature at 1 Ramsar site; and
- Freshwater pearl mussel *Margaritifera margaritifera* (1029) which is a qualifying feature at 22 SACs.

To assess whether there is any adverse effect on the integrity of the relevant European sites, Section 7.2 reviews the sensitivities of these fish features. This section focuses on the fish species because any effect on freshwater pearl mussel will only arise as an indirect consequence of effects on Atlantic salmon. Section 7.3 then identifies the conservation objectives for these features and assesses, in tabular format, the effects arising in the context of the proposed additional plan-level mitigation measures.

7.2 Sensitivities of Fish Interest Features to Draft OWE Plan Activities

This section reviews the sensitivities that are relevant for the fish interest features. Initially a generic review of the sensitivities is presented under the impact pathways identified during the screening phase:

- Physical loss/gain of habitat (see Section 7.2.1);
- Non-physical disturbance including noise and EMF (see Section 7.2.2);
- Toxic Contamination (see Section 7.2.3); and
- Non-toxic Contamination (see Section 7.2.4).

Following this review, the general characteristics and sensitivities for each of the relevant interest features are presented and the activities that could cause an impact are identified and tabulated. These reviews are set out in the following sections:

- Atlantic salmon, sea lamprey and river lamprey (Section 7.2.5); and
- Allis shad and twaite shad (Section 7.2.6).

As mentioned earlier, these reviews focus on the fish species because any effect on freshwater pearl mussel will only arise as an indirect consequence of effects on Atlantic salmon.

7.2.1 Physical Loss/Gain of Habitat

7.2.1.1 Structures on the seabed acting as a fish aggregating device and/or artificial reef

Fish are often attracted to solid man-made structures placed on the seabed and artificial reefs are often deployed to enhance fisheries (Sayer *et al*., 2005). Structures constructed for other purposes such as oil platforms and breakwaters (Helvey, 2002) can also serve as new habitats for fish. Structures can change local abiotic conditions allowing species assemblages to form that are different from natural communities present. The monopiles of wind turbines, for example, become encrusted with epibiota such as mussels and barnacles (Linley *et al*., 2007). These modify the habitat and provide food and shelter for fish and invertebrate species leading

to increased fish abundance and enhancement of the local seabed habitat (Wilhelmsson *et al*., 2006).

Fish aggregations have been observed around numerous other objects, including; vessels (Røstad *et al*., 2006); structures associated with marinas and pontoons in urban areas (Clynick, 2008); net cages used for aquaculture (Oakes and Pondella, 2009); sunken vessels (Arena *et al*., 2007); and underwater depuration systems (Cattaneo-Vietti *et al*., 2003).

The literature on this subject is dominated by studies of Fish Aggregating Devices (FADs) and artificial reefs. FADs are floating or moored devices placed in the water that attract fish (Dempster and Kingsford, 2004). To determine the degree to which objects act as FADs it is useful to identify the factors that attract fish to aggregate around devices. Freon and Dagorn (2000) identified a number of hypotheses to explain the association with floating objects, these include:

- Shelter from predators;
- Concentration of food supply;
- Spatial reference in otherwise featureless environments;
- Resting;
- Indicators of other characteristics, such as productive areas; and
- Meeting points.

Whenever water flows past a structure, velocity gradients are created which form vortices. Depending on hydrodynamic conditions, fish can be attracted to or repelled by the turbulence (Liao, 2009). Extremely high levels of shear stress can damage fish (Odeh *et al*., 2002) and turbulence can increase the energy costs of swimming (Enders *et al*., 2003). Alternatively, altered flows that remain steady, or maintain an aspect of predictability, can be exploited by swimming fish to reduce locomotion cost. Fish can seek refuge from main currents by 'flow refuging' behind structures. In tidally swept locations bentho-pelagic fish such as cod, have been found to use sand ripples as flow refuges to hold station, reducing energetic costs (Gerstner, 1998).

7.2.1.2 Loss of foraging habitat

Fish occupy many trophic levels of the estuarine food chain, feeding on phytoplankton, zooplankton, algae, invertebrates or other fish. In order to forage for these food items, their feeding habits comprise grazers, plankton filter feeders (e.g. shad, smelt), suckers and parasites (e.g. sea lamprey) and predators (e.g. gobies). Many demersal fish are opportunistic predators and their prey choice reflects the species that are available in the area (Elliott *et al*., 1998).

Fish generally feed on a range of food items and, therefore, their sensitivity to the temporary change in a particular food resource is considered to be low. Furthermore, the high mobility of fish enables them to move freely to avoid areas of adverse conditions and to use other food sources.

7.2.2 Non-Physical Disturbance

7.2.2.1 Reduction in foraging habitat quality

Baseline survey work (e.g. boreholes and trawls), installation, maintenance and removal of cables and turbines could result in a reduction in foraging habitat quality and prey species availability through smothering and physical disturbance. The sensitivities of fish to this impact pathway are considered in more general terms in Section 7.2.1.2.

7.2.2.2 Noise and vibration

Fish typically respond strongly to lower frequencies as opposed to marine mammals that are sensitive to a broader bandwidth of sound (see Section 6.2.1.1). Fish that have specialist structures (e.g. Weberian ossicles, swimbladder diverticulae and gas filled bullae) that enhance hearing have been referred to as hearing "specialists", whereas fish that do not have such specialisation's are referred to as hearing "generalists".

Salmon can detect and respond to underwater noise and their audiograms have been well documented (Nedwell *et al*., 2004). Salmon are considered to be hearing generalists that are able to hear frequencies in the low to infrasound ranges at threshold levels of around 95 to 130 dB re 1µPa in the region of 10Hz to 380Hz. Small fish i.e. smolts and exceptionally small grilse are generally considered to be most vulnerable to noise impacts (Hastings and Popper, 2005).

There are no reported audiograms of lamprey. However, given that they both lack any specialist hearing structures, they are considered to be hearing generalists. There is potential however that lamprey may be able to hear infrasound. The hearing of lamprey is complicated by the fact that they do not have otolith organs and no known work has been undertaken on the response of lamprey to sound in relation to their statoliths or labyrinth organs. Work has been undertaken on cephalopods however, which also have statolith organs for the detection of linear accelerations including gravity (Packard *et al*., 1990). This investigation confirmed that cephalopods could detect the kinetic component of low frequency sounds and it is believed that the statoliths are the sensory organs involved (Packard *et al*., 1990). It was stated within this article that '*gross acceleration of the whole animal, as occurs in an under water sound field, is an ideal stimulus for the statolith organ'*. On this basis it is considered likely that lamprey will be sensitive to infrasound. Studies have however shown that sea lamprey respond to frequencies between 20 and 100 Hz (Lenhardt and Sismour, 1995).

Shad have been also been shown to be sensitive to acoustic noise. High frequency noise (70 – 300khz) can prove a complete barrier to migration, with shad adopting a flee response.

Those species at greatest risk of being affected by sound sources are likely to be hearing specialists which have a threshold over a wide spectrum of frequencies. Of the hearing specialists it will be those that have a threshold at relatively low sound levels which will be at greatest risk. It has been suggested that for a fish species with no swim bladder such as flatfish (and lamprey) tissue damage may occur at a high impulse level of 180 dB re 1 µPa.

Similar to marine mammals, the impacts of noise on fish can broadly be split into lethal and physical injury, auditory injury and behavioural response. Richardson *et al*. (1995) defined four zones of noise influences, depending on the distance between source and receiver. These are as follows:

- Zone of hearing loss, discomfort or injury, the zone within which hearing or other severe damage results;
- Zone of masking, the region within which noise is strong enough to interfere with detection of other sounds, such as communication or echolocation clicks;
- Zone of responsiveness, the region in which the animal reacts; and
- Zone of audibility, the area within which the animal is able to detect the sound.

Lethality

At very high exposure levels, such as those typical close to underwater explosive operations or offshore impact piling (pile driving) operations, fatality may occur in species of fish. The likelihood of fatality increases with levels above 240 dB re 1 µPa. As the time period of the exposure increases (represented by the impulse), there is also an increase in likelihood of fatality.

Auditory Injury

At sound levels in excess of 180 dB re 1µPa, and particularly where there are repeated high level exposures from activities such as impact pile driving underwater sound has the potential to cause hearing impairment in marine species. This can take the form of a temporary loss in hearing sensitivity, known as a Temporary Threshold Shift (TTS), or a permanent loss of hearing sensitivity, known as a Permanent Threshold Shift (PTS).

Behavioural Response

At lower sound levels it has been observed that a behavioural response in fish may occur. These reactions may include the animals leaving the area for a period of time or a startle reaction.

Nedwell *et al*., (2007a) have developed a generic dB scale, which enables better estimates of the effects of sound on marine species to be made. In their dB_{ht} (Species) scale a frequency dependent filter is used to weight the sound. The suffix 'ht' relates to the fact that the sound is weighted by the hearing threshold of the species. A set of criteria based on the use of the dB_{ht} (species) was proposed by Nedwell *et al*. (2007a) that allows the likelihood of behavioural effects and damage to hearing to be assessed for a wide range of species (Table 17). Of significance for this assessment, is the conclusion that at $90dB_{ht}$ (species) and above there will be a strong avoidance reaction by all individuals of that species, and that below 50 dB_{ht} (species) there will be a mild reaction by a minority of individuals.

It should be noted that these criteria reflect the initial response and do not reflect the complexity of behavioural, physiological and auditory impacts over the short and long-term. Furthermore, this criterion has not been validated by experimental study. The potential effects of anthropogenic underwater noise on the behaviour of fish are difficult to determine as they are context dependent, and must be statistically based.

Table 17. Criteria suggested for the effects of underwater noise on marine mammals and fish

Level in dBht (Species)	Effect
Less than 0	None
0 to 50	Mild reaction by minority of individuals
50 to 90	Stronger reaction by majority of individuals but habituation at lower levels may limit effect
90 and above	Strong avoidance reaction by all individuals
Above 110	Tolerance limit of sound; unbearably loud
Above 130	Possibility of traumatic hearing damage from single event

(Source: Nedwell *et al*, 2007a)

7.2.2.3 Blocking of migratory pathways and displacement from habitat and food source

Salmon and lamprey are highly mobile species that undergo large seasonal movements and migrations to forage and breed (DECC, 2009; Hendry and Cragg-Hine, 2003; Maitland, 2003). They can, therefore, be particularly vulnerable to any structures which could act as a barrier, preventing movement to key foraging or nursery grounds. Their sensitivity will depend on their ability to move and avoid barrier structures e.g. structures placed in a highly confined estuary will more of an issue than in the open coast.

7.2.2.4 Electromagnetic field

Power export cables generate an electromagnetic field (EMF) with two components: an electric (E) field contained within the cable by armouring and a magnetic (B) field that can be detected outside of the cable. The magnetic field also produces an induced electric field (iE) outside the cable.

Potential impacts could result from repulsion effects, leading to exclusion of animals from an area of seabed, attraction effects and disruption to migrations for magnetically sensitive species such as eels and salmonids that may use the earth's geomagnetic field for navigational cues (DECC, 2009). Although Atlantic salmon may be sensitive to the magnetic fields associated with operational cables, their navigation and migration is unlikely to be affected based on existing evidence (CMACS, 2003, Scottish Executive, 2007).

River lamprey and sea lamprey are considered to be magnetically and electrically sensitive (Gill *et al*., 2005). However, like most UK species that are EM-sensitive, knowledge of their interaction with anthropogenic EMFs is limited.

7.2.3 Toxic Contamination

Leaching of toxic compounds from sacrificial anodes, antifouling paints or leakage of hydraulic fluids (if present) from the device is a potential effect during offshore wind farm operation. Any chemical or microbiological contaminants associated with sediments being resuspended into the water column may be dispersed, redistributed and deposited elsewhere.

There is a risk that some of these contaminants may be temporarily bioaccumulated in the tissues of certain fish prey, such as polychaete worms and marine bivalves, and made available for uptake by feeding fish. The accumulation of moderate or high levels of contaminants in fish can cause or contribute to a range of lethal and sublethal effects, including genetic, reproductive and growth changes. There is less information available on the effects of low levels of contaminants. Pelagic fish, including Atlantic salmon, would experience a lower exposure to contaminated sediments than demersal fish species which remain close to the seabed and feed mainly on benthic organisms. Lampreys attach onto a variety of pelagic and demersal fish species in the marine phase of their lifecycle and so their movements and distribution are largely dictated by their host.

7.2.4 Non-Toxic Contamination

Suspended sediment levels, and resulting increased turbidity, are reported to affect salmonids, although estuarine fish generally show tolerance to variations in suspended sediment loadings and turbidity as a result of natural adaptation to living in a dynamic and environmentally variable habitat such as an estuary (ABPmer, 2005). In general, the mobile nature of fish species allows avoidance of areas of adverse conditions which will be unlikely to significantly affect a population provided such conditions are temporary. In the case of migratory fish species, however, the significance of such occurrences is potentially heightened as a result of the potential for such conditions to constitute a barrier to the movement of fish should such occur on a migration route. The occurrence of such conditions would, however, only be significant should the conditions extend across the entire width of the water body comprising the migration route at any given point, otherwise fish would be expected to be able to move around the adverse condition area, avoiding impacts, and thus not inhibiting migration up (or down) stream. Some delay in migration may result from such avoidance, and this is of note as delays have been reported as being potentially associated with reduced survival rates. It is also important to note that suspended sediment levels also affect the level of dissolved oxygen (DO), higher suspended sediment levels can lead to depleting DO concentrations.

The effects of suspended sediment levels on fish have been considered in a number of studies, including that undertaken by the European Inland Fisheries Advisory Commission (FARL, 1995). Lethal effects were seldom observed, with Pacific salmon and trout juveniles surviving for 3-4 weeks in suspended sediment concentrations of 300-750 mg/l, which were increased to 2300-6500 mg/l for short periods. Sub-lethal pathological effects included increased mucus production over the body and gills, and at very high suspended sediments, evidence of abrasion and damage to the gill filaments was noted (FARL, 1995).

There are a wide range of background suspended sediment concentrations in UK estuaries through which salmon runs occur. For example, salmon and lamprey successfully pass through estuaries with extremely high suspended sediments such as the Severn and its sub estuaries the Wye, Usk and Parrett, which naturally contain up to several thousand milligrams per litre (FARL, 1995), concentrations as high as 9,000 mg/l have been recorded in the path of runs in the Usk Estuary (Alabaster, 1993).

7.2.5 Atlantic Salmon, Sea Lamprey and River Lamprey

Table 18 shows the sensitivities of, and the activities that might affect, Atlantic salmon, river lamprey and sea lamprey.

Table 18. Potential sensitivities of Atlantic salmon and lamprey features from the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical Loss/gain of habitat	Structures on the seabed acting as a FAD and/or artificial reef.				
PLG	Physical Loss/gain of habitat	Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.				
NPD	Non-physical disturbance	Reduction in the quality of foraging habitat as result of the baseline survey work (e.g. boreholes and trawls), installation and removal of cables and turbines and maintenance e.g. through smothering, and physical disturbance.				
NPD	Non-physical disturbance	Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys), construction (e.g. piling, drilling, cable laying), operation (turbine noise), maintenance or decommissioning.				
NPD	Non-physical disturbance	Presence of sub-surface structures and noise disturbance associated with turbines may present a barrier to movement and block migratory pathways depending on array design.				
NPD	Non-physical disturbance	Impacts from EMF on electromagnetically sensitive fish interfering with prey location and mate detection in some species and creating barriers to migration.				
TC	Toxic contamination	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (devices and cables) or during survey/maintenance.				
TC	Toxic contamination	Contaminants associated with the release of suspended sediments during installation or removal of structures (devices and cables).				
NTC	Non-toxic contamination	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (devices and cables).				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 7 (including Table 20) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

7.2.6 Allis and Twaite Shad

Table 19 shows the sensitivities of, and the activities that might affect allis and twaite shad.

Table 19. Potential sensitivities of shad features from the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PLG	Physical Loss/gain of habitat	Structures on the seabed acting as a FAD (Fish Aggregating Device) and/or artificial reef.				
PLG	Physical Damage to habitat	Loss of foraging habitat as a result of the surveying (boreholes, trawls) turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.				

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
NPD	Non-physical disturbance	Reduction in the quality of foraging habitat as result of the baseline survey work (e.g. boreholes and trawls) and installation and removal of cables and turbines e.g. through smothering, and physical disturbance.				
NPD	Non-physical disturbance	Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys), construction (e.g. piling, drilling, cable laying), operation (turbine noise), maintenance or decommissioning.				
NPD	Non-physical disturbance	Presence of sub-surface structures and noise disturbance associated with turbines may present a barrier to movement and block migratory pathways depending on array design.				
NPD	Non-physical disturbance	Impacts from EMF on electromagnetically sensitive fish interfering with prey location and mate detection in some species and creating barriers to migration.				
TC	Toxic Contamination Reduction in water quality	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (devices and cables) or during survey/maintenance.				
TC	Toxic Contamination Reduction in water quality	Contaminants associated with the release of suspended sediments during installation or removal of structures (devices and cables).				
NTC	Non-Toxic Contamination Changes in turbidity	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (devices and cables).				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 7 (including Table 20) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

7.3 Potential Effects on Designated Sites of the Draft OWE Plan

7.3.1 Introduction

On the basis of the sensitivities of the relevant qualifying interest features the following sections review the conservation objectives for these features and the potential effects arising for each of the European sites.

7.3.2 Conservation Objectives

The conservation objectives for the qualifying fish interest features seek to avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features. The conservation objectives are to ensure for the qualifying species that the following are maintained in the long term:

- Population of the species, including range of genetic types for salmon, as a viable component of the site;
- Distribution of the species within site;
- Distribution and extent of habitats supporting the species;
- Structure, function and supporting processes of habitats supporting the species;

- No significant disturbance of the species;
- Distribution and viability of the species' host species (e.g. freshwater pearl mussel); and
- Structure, function and supporting processes of habitats supporting the species' host species.

7.3.3 Environmental Effects

Taking account of the conservation objectives and the Plan-level activities to which the key interest features are sensitive, this section reviews the effects of the Draft OWE Plan on the integrity of the designated sites. The results are presented in Table 20.

Table 20. Assessment of the potential effects of the Draft OWE Plan on the fish features of relevant European sites

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 7.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 7.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Physical loss/gain Structures on the seabed acting as a FAD (Fish Aggregating Device) and/or artificial reef.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Salmon and lamprey are highly mobile species undergoing large seasonal movements and are unlikely to be attracted to a wind turbine. However, it is possible that sea lamprey could be recorded around an offshore wind farm if they are attached to host species that is using the area as habitat. OWE devices could potentially act both as artificial reefs and as FADs. Wilhelmsson *et al*. (2006) investigated the potential for wind turbines to function as artificial reefs and FADs. Fish abundance was found to be greater in the vicinity of the turbines than in surrounding areas, while species richness and Shannon–Wiener diversity (*H'*) were similar. On the monopiles of the turbines, fish community structure was different, and total fish abundance was greater, while species richness and diversity (*H'*) were lower than on the surrounding seabed. Blue mussels and barnacles covered most of the submerged parts of the turbines. On the seabed, more blue mussels and a lesser cover of red algae were recorded. A gill netting survey at the Svante Wind Farm, Sweden, found higher numbers of cod within two hundred metres of an operating turbine compared to the surrounding open waters, and higher still when the turbines were not operating (Westerberg, 1999). Diver held video surveys of the North Hoyle offshore wind farm piles found extremely high densities of juvenile whiting, apparently feeding on dense populations of amphipods amongst the fouling biota on the piles (Bunker, 2004). However, it is generally agreed that fish aggregation probably represents a very minor effect. DECC (2009). Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, 6 of them are to some degree relevant to this impact pathway: ▪ Population of the species, including range of genetic types for salmon, as a viable component of the site; ▪ Distribution of the species within site; ▪ Distribution and extent of habitats supporting the species; ▪ Structure, function and supporting processes of habitats supporting the species; ▪ Distribution and viability of the species' host species (e.g. freshwater pearl mussel); and ▪ Structure, function and supporting processes of habitats supporting the species' host species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 7.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 7.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Physical loss/gain Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Atlantic salmon and shad are highly mobile, migratory species undergoing large shifts in distribution during the marine phase of their lifecycle. Atlantic salmon and shad are also pelagic in lifestyle at sea, having very little association with the seabed. Unlike certain demersal fish species which could be considered 'resident' in OWE areas, any Atlantic salmon or shad passing through the area can be considered transient. Therefore, any potential damage to the seabed in deployment locations will be of negligible impact to these fish species. Sea lamprey which attach and then feed on a variety of pelagic and demersal fish species in the marine phase of their lifecycle are unusual in that they could be considered to have similar sensitivities to their host. However, as sea lamprey are a highly mobile, migratory species which are widely distributed at sea any potential damage to the seabed in deployment locations will be of negligible impact to the sea lamprey. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, 2 of them are to some degree relevant to this impact pathway: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Non-physical disturbance Reduction in the quality of foraging habitat as result of the baseline survey work (e.g. boreholes and trawls) and installation and removal of cables and turbines e.g. through smothering, and physical disturbance.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Depending on the level of existing information available and the sensitivity of species and habitats present, pre-construction surveys might include collection of environmental baseline information. Preconstruction sampling and operational monitoring could involve beam trawls to assess fish populations. Fish surveys could also be effectively carried out using non-extractive means (e.g. diver surveys) or remote sensing (e.g. underwater video cameras). Impacts from monitoring are considered to be short term and of negligible significance for migratory fish species. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, 2 of them are to some degree relevant to this impact pathway: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 7.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 7.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Non-physical disturbance Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys), construction (e.g. piling, drilling, cable laying), operation (turbine noise), maintenance or decommissioning.	Risk Level(s) The maximum level of risk for qualifying features is considered to be medium (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Noise associated with installation activities might arise from vessel traffic, possible requirements for bed levelling, driving and drilling of piles, and installation of the power export cable (i.e. ploughing through sediment areas, rock cutting in hard sea beds, bolting to the sea bed and/or directional drilling). There is an increasing understanding of the source noise levels and frequencies associated with marine construction activities from various reports largely associated with offshore wind farms (Nedwell and Howell, 2004; Thomsen *et al*., 2006). The impacts from pile driving and the use of explosives are of most concern (e.g. IECS, 2007). Studies indicate that some exposures will result in changes or damage to sensory structures and hearing capabilities, impacts on other aspects of fish physiology and mortality (Hastings and Popper, 2005). Specifically, noise impacts from pile driving may result in permanent or temporary threshold shifts for species in close proximity to the activity. Thomsen *et al.*(2006) and Thomsen and Judd (in press) estimate that cod and herring could perceive pile-driving sounds over very large distances of at least 80 km from the source. Species with a poorer sensitivity such as salmon or flatfish might also detect pile-driving sound at considerable. These detection distances may vary substantially as a function of wind speed as well as type and number of windmills, water depth and bottom substrate. Thomsen *et al.* (2006) further suggest that behavioural responses due to pile-driving noise might happen anywhere within the zone of audibility and that the responses could potentially prevent fish from reaching breeding or spawning sites, finding food, and acoustically locating mates. Piling in Southampton Water, estimated as being approximately 194dB re 1µPa-m (Nedwell *et al*, 2003a), are marginally in excess of the 170dB re 1µPa-m threshold cited as representing a response threshold for Salmon. The noise levels generated during this work resulted from piling of approximately 1m diameter circular piles. A mild reaction would be expected by salmon within ranges of 60 to 80 metres (Nedwell *et al*, 2003b). Wahlberg and Westerberg (2005) evaluated the possible effect on fish of underwater noise from wind farms in operation. The study found that goldfish, Atlantic salmon and cod can detect offshore windmills at a maximum distance of about 0.4 to 25 km at wind speeds of 8 and 13 m/s. The research found no evidence that wind farms cause temporal or permanent hearing loss in fish even at a distance of a few metres. The windmills produce sound intensities that may cause permanent avoidance by fish within ranges of around 4 m, but only at high wind speeds (13 m/s). In addition, fish have been observed shoaling around the bases of turbines (DECC, 2009). There is little available information on noise emissions from rock or mattress placement or cable trenching in similar environments although the noise emissions for these activities are likely to be below those for pile driving (Nedwell and Howell, 2004).	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 7.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 7.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
		Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, 5 of them are to some degree relevant to this impact pathway: ▪ Population of the species as a viable component of the site, including range of genetic types for salmon; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; ▪ Distribution and viability of freshwater pearl mussel host species; and ▪ Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species.		
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Non-physical disturbance Presence of sub-surface structures and noise disturbance associated with turbines may present a barrier to movement and block migratory pathways depending on array design.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Migratory fish species could be sensitive to any objects which could block migratory routes. Knowledge of the key migration routes and geographic distribution of post-smolts of Atlantic salmon in oceanic waters is sparse. Juvenile fish from rivers along the coast of Scotland when migrating towards the north Atlantic are highly likely to pass through pass through OWE areas (Dr Iain Malcolm Marine Scotland Pers Comm.) as part of their migration route (based on distribution of salmon rivers and location of development areas). Lampreys attach and then feed on a variety of pelagic and demersal fish species in the marine phase of their lifecycle and so their movements and distribution at sea will largely be dictated by their host. Shad species are largely confined to migrating from rivers to estuaries and coastal areas (but have been occasionally recorded offshore). Therefore offshore wind farms should be sufficiently far from the coast to not disrupt shad migration. Atlantic salmon and sea lamprey hosts should be able to swim around or avoid deployment locations but this will be dependant on the extent that noise and visual cues given off the device(s) causes an avoidance response. It is also dependent on the ability of fish to navigate around the devices and associated turbulence. The significance of any obstruction is also dependent on the spatial confines and size of the devices and array and the functional use of the area by fish. This is considered to be of minor to medium significance depending on the design of the array and location. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, the following are to some degree relevant to this impact pathway: ▪ Population of the species as a viable component of the site, including range of genetic types for salmon; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; ▪ Distribution and viability of freshwater pearl mussel host species; and ▪ Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 7.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 7.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Non-physical disturbance Impacts from EMF on electromagnetically sensitive fish interfering with prey location and mate detection in some species and creating barriers to migration.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review The generated magnetic fields that can be expected by offshore wind farm developments are expected to be perceived by Atlantic salmon as a new localised addition to the heterogeneous pattern of geomagnetic anomalies already occurring naturally and anthropogenically in the sea. The expected magnetic field from a cable (up to a few micro Telsa (µT) is also very small, particularly relative to the Earth's own magnetic field (approximately 50 µT) (PMSS Ltd, 2007). The conclusion of most project-specific environmental impact assessments is that whilst there could be an interaction between these species and the sub-sea cables used the result is unlikely to be of any significance at a population level (DECC, 2009).. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, the following are to some degree relevant to this impact pathway: ▪ Population of the species as a viable component of the site, including range of genetic types for salmon; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; ▪ Distribution and viability of freshwater pearl mussel host species; and ▪ Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Toxic contamination Spillage of fluids, fuels and/or construction materials during installation or removal of structures (devices and cables) or during survey/maintenance.	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Offshore wind farm developments have essentially no planned discharges, although there is a potential incidental release of copper and carbon dust from abrasion of the slip-rings of the turbines this is considered to have negligible environmental effect (DECC, 2009). Accidental leakage of fluids and fuels from vessels is possible. In the unlikely event of an incident, any contaminants entering the environment would be dispersed and degraded very quickly by the strong hydrodynamic conditions found in OWE areas device deployment locations, ensuring the exposure to passing migratory fish is very low. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, the following are to some degree relevant to this impact pathway: ▪ Population of the species as a viable component of the site, including range of genetic types for salmon; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; ▪ Distribution and viability of freshwater pearl mussel host species; and ▪ Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 7.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying and Supporting Feature (see Section 7.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Toxic contamination Release of suspended sediments, and any associated contaminants, during installation or removal of structures (devices and cables).	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Sediments are likely to be low in contaminant levels within the OWE areas, given the distance away from major coastal development. The characteristically high-energy environments in which the devices will be located will assist in the dispersion of any localised contamination, thus minimising any impacts on water quality. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, the following are to some degree relevant to this impact pathway: ▪ Population of the species as a viable component of the site, including range of genetic types for salmon; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; ▪ Distribution and viability of freshwater pearl mussel host species; and ▪ Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
▪ Atlantic salmon ▪ Sea lamprey ▪ River lamprey ▪ Allis shad ▪ Twaite shad ▪ Freshwater pearl mussel (indirectly)	Non-toxic contamination Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (devices and cables).	Risk Level(s) The maximum level of risk for qualifying features is considered to be low (see Tables 18 and 19 for detail and colour code) Commentary/Risk Review Atlantic Salmon, lamprey and shad successfully pass through estuaries with extremely high suspended sediments and, therefore, can be considered tolerant of turbid conditions. Relevant Conservation Objectives (see Section 7.3.2) Of the 7 objectives, the following are to some degree relevant to this impact pathway: ▪ Population of the species as a viable component of the site, including range of genetic types for salmon; ▪ Distribution of the species within site; ▪ No significant disturbance of the species; ▪ Distribution and viability of freshwater pearl mussel host species; and ▪ Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

8. Potential for Adverse Effects on the Otter Feature

8.1 European/Ramsar Sites and Features to be Considered

Following the screening and re-screening (Stages 4 to 7 of HRA), a total of 370 European/Ramsar sites were identified for which there is a LSE (or the potential for a LSE cannot be excluded). Of these sites, a number of European/Ramsar sites (28 SACs and 4 Ramsar Sites) were identified at which it was not possible to conclude that there would be no LSE from the Draft OWE Plan for the qualifying otter interest feature. In view of the large number of sites that have been 'screened into' the HRA it has been agreed (with the PSG) that it is not necessary to individually review the full list of all the screened in sites. However, these sites and all these features are presented in the Screening Tables for each of the 34 short and medium term option areas (see Appendix B). The locations of the SAC and Ramsar sites with the qualifying otter interest feature specifically are also illustrated on the figures that accompany these screening tables for the short term (see Figures ST1 to 9) and medium term (see Figures MT1 to 25). These screening maps are presented in Appendix C.

Some of these sites also contained other interest features for which it could not be concluded that there was no LSE (e.g. subtidal sandbanks) and these are reviewed separately under the relevant section(s) of the AA that deal with these other habitat/species groups. In addition, where there are interest features at these sites which have been 'screened out' because there will be no LSE then these are also recorded as part of the screening phase which is presented in the tables in Appendix A.

8.1.1 Interest Features Summary

In summary, the screening phase concluded that there is a possibility of a LSE (or that it was not possible to conclude no LSE) for Otter *Lutra lutra* (1355). To assess whether there is any adverse effect on the integrity of the relevant European/Ramsar sites, Section 8.2 reviews the sensitivities of this interest feature. Section 8.3 then identifies the conservation objectives for this feature and assesses, in tabular format, the effects arising in the context of the proposed additional plan-level mitigation measures.

8.2 Sensitivities of the Otter Interest Feature to Draft OWE Plan Activities

This section reviews the sensitivities that are relevant for the otter interest feature. Initially a generic review of the sensitivities is presented under the impact pathways identified during the screening phase:

- Physical damage to habitats or species (see Section 8.2.1); and
- Non-physical disturbance (see Section 8.2.2).

Following this review, the general characteristics and sensitivities for the otter interest feature are presented and the activities that could cause an impact are identified and tabulated. This review is set out in the following section:

- Otter (Section 8.2.3) which is a qualifying feature at 28 SACs and 4 Ramsar Sites.

8.2.1 Physical Damage to Habitats or Species

8.2.1.1 Vessel risk

There is no available evidence to suggest whether otters have collided with anthropogenic structures, such as vessels. Otters are, however, highly mobile which indicates that they have an increased chance of close range evasion with an object that could cause a collision risk. The collision risk impact review on marine mammals has provided some further understanding of this impact pathway (Section 6.2.2).

8.2.1.2 Damage to habitat

Based on SNH advice about the impacts of development on otter (SNH, 2010) as well as the relevant advice documents provided by SNH under Regulation 33(2) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), it is evident that otter are vulnerable to the loss of their shelters (including those on the shoreline) and to the loss habitat which, in turn, can leave them more exposed to disturbance effects. Therefore, habitat damage and disturbance are interlinked factors.

When assessing the impacts of construction work the sensitivities of otter to habitat damage are gauged by the presence or absence of otter activity (e.g. spraints) and, in particular, by evidence of otter shelters, as it is usually these which ultimately constrain a development in terms of licensing. The scales of the developmental work allied to the level of otter activity dictate the potential risks that exist. However, even relatively small-scale developments such as bridge repairs or bank works have the potential to impact on otters while larger developments spread over extensive areas, such as wind farms pose a greater risk and require more detailed surveys and investigations into otter sensitivity.

As otters also move along established paths between open-water habitats, including freshwater sites near the coast, they are also sensitive to any proposals that cause obstruction to these traditional routes.

8.2.2 Non-Physical Disturbance

Disturbance to otter can often arise from dogs which they are intolerant of, or, where suitable cover is absent, from locations with intense human disturbance such as recreational areas (SNH, 2010). The other kinds of activity that can cause disturbance to otter populations are listed within the advice documents provided by SNH under Regulation 33(2) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and can include:

- Finfish, shellfish and other aquaculture activities (and associated human and vessel movements);
- Coastal civil engineering project where these cause a loss of shoreline holts; and
- The use of creels/pots in water shallower than 10m which have has potential to cause injury or mortality to otters.

8.2.3 Otter

Table 21 shows the sensitivities of, and the activities that might affect the otter interest feature.

Table 21. Potential sensitivities of the otter feature from the Draft OWE Plan

Sensitivity Category	Sensitivities	Relevant Draft OWE Plan Activity	Survey	Construction	Operation	Decomm
PD	Physical damage to species	Presence of vessels travelling to and from the site resulting in a collision and/or mortality of otter.				
PD	Physical damage to habitat	Direct damage to otter habitat (holts and shelters) during cable installation, operation and decommissioning.				
NPD	Non-physical disturbance	Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar), construction, maintenance and decommissioning.				

NB. The level of risk is dependent on project detail including the location or scale of the activity (see Section 2.3.4 and relevant text in this Section 8 (including Table 22) for details about the how the risk judgements were made)

Low Risk
Low or Medium Risk
Medium Risk

8.3 Potential Effects on Designated Sites of the Draft OWE Plan

8.3.1 Introduction

Following on from the review of sensitivities for the qualifying otter interest feature, the following sections review the conservation objectives for this feature and the potential effects arising for each of the European/Ramsar sites.

8.3.2 Conservation Objectives

The conservation objectives for the qualifying otter interest features seek to avoid deterioration of the habitats significant disturbance to otter, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for this qualifying feature. The conservation objectives are to ensure for the qualifying species that the following are maintained in the long term:

- Population of the species, including range of genetic types for salmon, as a viable component of the site;
- Distribution of the species within site;
- Distribution and extent of habitats supporting the species;
- Structure, function and supporting processes of habitats supporting the species;
- No significant disturbance of the species;
- Distribution and viability of the species' host species (e.g. freshwater pearl mussel); and
- Structure, function and supporting processes of habitats supporting the species' host species.

8.3.3 Environmental Effects

Taking account of the conservation objectives and the Plan-level activities to which the otter interest feature is sensitive, this section reviews the effects of the Draft OWE Plan on the integrity of the designated sites. The results are presented in Table 22.

Table 22. Assessment of the potential effects of the Draft OWE Plan on the otter interest feature

The sites at which these qualifying features are present and are considered for this Draft OWE Plan are reviewed in Table A4 of Appendix A and summarised in Section 8.1. A full list of all the sites reviewed in this HRA are presented in Table A3 in Appendix A			Is There an Adverse Effect on Integrity With Initial Mitigation Measures? (see Table A2b in Appendix A)	Is There an Adverse Effect on Integrity With Additional Mitigation Measures? (see Table A2c in Appendix A)
Qualifying Feature (see Section 8.1 and Appendix B)	Activity (see Table A2a in Appendix A)	Risk Level(s) Commentary, and relevant Conservation Objective		
• Otter	Physical Damage to species Presence of vessels travelling to and from the site resulting in a collision and/or mortality of otter.	Risk Level(s) The risks are considered to be low (see Table 21 for detail and colour code) Commentary/Risk Review The extent to which otters from designated locations will be subject to vessel collision is likely to be very low given that there are no known current vessel collision issues with existing shipping activities. Relevant Conservation Objectives (see Section 8.3.2) Of the 7 objectives, the following are relevant to this impact pathway: ▪ Population of the species as a viable component of the site; ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
• Otter	Physical damage to habitat Direct damage to otter habitat (holts and shelters) during cable installation, operation and decommissioning.	Risk Level(s) The risks are considered to be low or medium (see Table 21 for detail and colour code) Commentary/Risk Review The extent to which habitat supporting otters will be damaged as a result of cable installation activities is largely dependent on the proximity of the works to their holts and sheltering grounds. Relevant Conservation Objectives (see Section 8.3.2) Of the 7 objectives, the following are relevant to this impact pathway: ▪ Distribution and extent of habitats supporting the species; and ▪ Structure, function and supporting processes of habitats supporting the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c
• Otter	Non-physical disturbance Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar), construction, maintenance and decommissioning.	Risk Level(s) The risks are considered to be low (see Table 21 for detail and colour code) Commentary/Risk Review The degree to which otters from designated locations will be subject to visual disturbance from survey and construction activities will largely be a function of the proximity of such works to their holts and foraging grounds. For the most part the designated sites which support otter are mainly set away from the coast and, therefore, visual disturbance is considered to be low. The guidance on undertaking surveys to assess impacts upon this species suggests that distances of 200-250m are appropriate. It is noted (SNH, 2010) that for 'small' schemes such as individual bridges, pipeline crossings, local bank works and individual houses, a survey of 200-250m both upstream and downstream of the site is recommended, but with particular attention being paid to important riverine features such as in stream islands and reed beds. Beyond about 250m, disturbance from the proposed activity is unlikely to be an issue. It is expected that there are unlikely to be adverse disturbance on otter beyond these distances along the shoreline. Relevant Conservation Objectives (see Section 8.3.2) Of the 7 objectives, the following are relevant to this impact pathway: ▪ Population of the species as a viable component of the site; ▪ Distribution of the species within site; and ▪ No significant disturbance of the species.	Possibility of an adverse effect on integrity Given the level of uncertainty associated with this effect, further work would be required at project-level to ascertain LSE and need for proposed additional final plan mitigation measures. See also Tables A2a and A2b	No adverse effect on integrity See also Tables A2a and A2c

9. Conclusion

9.1 Plan Impact Evaluation and Mitigation Requirements

This AA information report has reviewed the impacts arising from the Draft OWE Plan (Sections 4 to 8). The proposed initial mitigation measures in the Draft OWE Plan have not been sufficient to ensure that there would be no LSE and no adverse effect on the integrity of European/Ramsar sites due to the level of uncertainty associated with offshore wind development (Section 3.2). To address this issue, and ensure that the Draft Plan, according to the approach detailed in Section 1.2, will have no adverse effects on integrity of European/Ramsar sites, additional mitigation measures were identified to address all the remaining risks (of an adverse effect on integrity). These additional mitigation measures are set out in Table A2c in Appendix A. These additional mitigation measures build upon the initial and generic measures which are set out in the Draft OWE Plan and the Draft Plan SEA (Marine Scotland, 2010a; b) but revise and update these measures and add extra detail and actions where required to address gaps identified during the assessment work.

The central principle of these measures is that there needs to be a clear process for the implementation of the Plan. In particular, the process needs to involve a phased and iterative approach to offshore wind farm deployment linked to ongoing monitoring with the findings feeding back into the next phases of work. Such phased approach will be adopted for the implementation of this Plan and Section 9.3 presents further details about how this will be achieved.

On this basis, it can be advised that it will be possible for the Draft Plan not to have an adverse effect on the integrity of a European/Ramsar site either alone or in-combination with other plans or projects, subject to the application of appropriate mitigation measures.

Each individual short and medium term option development will be required to undergo a project-level AA wherever the possibility of a LSE on a European/Ramsar site cannot be excluded on the basis of currently available information. This is important because the details of how the Draft Plan will be implemented (i.e. the precise location, form and design of all the projects which may be brought forward) are not known at this stage. However, this Plan-level AA information review gives direction to these future project level AAs by identifying measures that should be required at that stage to avoid an adverse effect on the integrity of European/Ramsar sites. Equally, as described above, the project-level assessments and the associated monitoring review work will be linked to (and will inform) regular reviews of the Plan as part of the 'Iterative Plan Review' (IPR) sequence that will be pursued.

Successful bidders in the Leasing Round will need to re-visit the issues identified at the Plan-level HRA and ensure that they adhere to these mitigation measures at the project-level where they are necessary to avoid an adverse effect on the integrity of a European/Ramsar site. It follows that the manner in which these measures are applied and the detail of the individual initiatives required to achieve them will be subject to the findings of the project-level HRAs. Therefore, it is recognised that not all measures have to be applied in all cases, but only where the project requires it to ensure that there is no adverse effect on the integrity of any designated European/Ramsar sites.

In the same way, developments within some of the option areas are likely to pose a greater risk of impact on designated sites and features than others and are thus likely to present more challenges and require more mitigation work (at possibly a greater cost) than other locations in order to ensure no adverse effects on integrity. For instance some of the options areas extend into the boundaries of designated sites and will therefore have a direct effect on the habitats within such sites. Other option areas that are located outside, but close to, a European/Ramsar site could have an indirect effect as is indicated by the distances of the tidal excursion boundaries (as shown on the screening maps in Appendix C). Equally, the potential exists for the cable alignments and landfall positions of almost all option areas to directly or indirectly affect designated sites (once these have been identified). There is no presumption within this HRA or under the Habitats Regulations that designated sites will not or cannot be directly or indirectly affected in this manner although clearly the risks of impact and requirements for mitigation are likely to be greater where this is the case. Therefore it is expected that developers will in the first instance seek to avoid designated sites.

The additional mitigation measures that are presented in this report have, by necessity, been phrased so that they are relatively generic in nature. This is because of the lack of detail that presently exists about the manner of project-level implementation and consequently, the scale of project-specific impacts that will arise. These unknown developmental aspects include: the possible generation capacities and turbine densities, the temporal and spatial phasing of developments across the option areas (beyond the understanding that short term options precede the medium term options) and/or details about the cable alignments and landfall locations. Also there are a number of uncertainties which relate to the sensitivities of qualifying features (e.g. the impacts of turbine arrays on migratory seabirds). Most importantly, the measures at Plan-level will need to remain flexible enough to allow project-level decisions and revisions to be made in order to be assured that individual projects do not result in an adverse effect on integrity of any European/Ramsar site. Also, it may well be that if prescriptive measures are set out now they could be a hindrance to projects in the future (at which time we may know that certain requirements are less or more relevant) as projects are implemented and new lessons are learned, which has the potential to frustrate learning opportunities and the development of new, potentially more appropriate, mitigation measures.

9.2 Cumulative and In-Combination Impacts

The Habitats Regulations require that, in determining whether a plan or project is likely to have a significant effect on a European/Ramsar site, the plan or project should be considered both alone and in-combination with other plans or projects. Thus, as part of the HRA it has been necessary to have regard to other plans and projects relevant to the consideration of effects of the Draft OWE Plan. In particular, this has been done through consultation with the key statutory authorities and by taking a comprehensive and precautionary approach to the judgments that were made about the LSE on European/Ramsar sites and to the 'screening in' of potentially sensitive sites and interest features on that basis.

However, given the uncertainties that exist about the scale and location of development and the timing of development (particularly for the medium term option areas), it must be recognised that this exercise was necessarily limited and that the assessment of in-

combination effects will need to be revisited and addressed in a more comprehensive way at the project-level. The approach adopted in previous strategic HRAs is to recognise these limitations and this approach is advocated here. These past assessments have sought to identify the potential for in-combination issues to arise from multiple developments within the plan and also to identify the range of other plans and projects that might potentially interact with the plan being assessed, with more detailed assessment being remitted to project level. Hence, on the basis that an AA will be required as a matter of law at project-level, wherever there is a LSE on a European/Ramsar site (including where those effects only arise because of the cumulative effect of that project and other plans and projects), reliance is placed on project-level HRA to assess specific in-combination effects with the benefit of defined proposals. The requirement for project-level HRA work is seen as one of the key additional mitigation measures (See Section 9.1 and Table A2c). The other key additional measure is process of plan implementation is also relevant (as described in Section 9.3). The plan will be implemented in an iterative manner with the findings from project-level HRAs and monitoring work feeding into this process on a biennial review basis to provide further assurances that cumulative and in-combination effects will not accrue at a Plan-wide level. Therefore, in view of requirements to apply these key additional plan-level mitigation measures (and all the measures listed in Table A2c) it can be concluded that the Draft OWE Plan will not give rise to adverse effects on the integrity of European/Ramsar sites in-combination with other plans and projects.

By way of guidance and direction to project-level HRAs, the potential sources of in-combination effects to the Draft OWE Plan include the following relevant projects, plans and activities:

- The N-RIP for Phase 1 and Phase 2 sites;
- Certain existing OWE developments and the R3 OWE Plan (e.g. Moray Firth, Firth of Forth);
- Demonstrator projects (e.g. Beatrice, Aberdeen);
- Waterfront regeneration projects (e.g. Edinburgh and Dundee);
- Bo'ness foreshore redevelopment;
- Dundee, Grangemouth, Rosyth and Leith Biomass projects;
- Middle Bank, Firth of Forth - licensed aggregate extraction area;
- Onshore wind farms;
- Increased vessel activity from all sources (no specific plan), including offshore development and shipping from other ports;
- ISLES project;
- The Pentland Firth Strategic Area (PFSA) plan for wave and tidal developments;
- Proposals for additional wave and tidal development lease areas (e.g. Western Isles, Shetland etc);
- Proposals for the offshore grid and other proposed cable routes;
- Container transhipment hub at Scapa Flow;
- Other proposals included within the emerging Pentland Firth Marine Spatial Plan;
- Oil and gas development activities;
- National Planning Framework for Scotland 2;
- Proposal for a new coal fired power station at Hunterston;
- Harbour, port and marina developments;
- Aquaculture developments;

- Fishing activities; and
- Military activities.

In particular, the greatest risk is likely to be for mobile interest feature species such as marine mammals, migratory fish and birds which could be affected by multiple developments or activities in different locations. For the project-level HRAs, it will be necessary to consider cumulative and in-combination effects such as these, with the plans and projects listed above, as well as other relevant plans and projects.

9.3 Iterative Plan Review and Project-level HRA Requirements

The following two sections present further details about the proposed process of Plan implementation (Section 9.3.1) and a note regarding Project-level HRA requirements. These represent the two generic additional mitigation measures that are set out in Table A2c (in Appendix A).

9.3.1 Iterative Plan Review

For the Plan, it is proposed that there will be an iterative process of implementation in which monitoring data is collected (when projects are consented) in each case to validate the conclusions that are made as part of successive project level AAs (including in-combination assessments). To ensure that the process is iterative, these project-level assessments and the associated monitoring review work will be linked to (and will inform) regular reviews of the Plan. As part of this iterative sequence, the Scottish Government has undertaken to revisit the OWE SEA and review the OWE Plan every 2 years (Marine Scotland, 2010a). This review process will involve particular consideration and review of the medium term option areas (which are currently identified as areas of search only). There is no expectation that the review process will alter commitments for the short-term option areas. Any developments within these short-term option areas will though still be subject to project-level HRA and will only go ahead if it can be shown that they have no adverse effect on the integrity of any European/Ramsar designated sites (alone or in-combination with other plans or projects).

The proposal to pursue this process of Iterative Plan Review (IPR) is an important consideration and is a critical part of the Draft OWE Plan because it ensures that the Plan is undertaken in a phased way as developments are first identified, then assessed and then implemented. It is possible at this early stage to understand how this IPR process will be applied in the first few years (up to the start of 2017) and in outline this will be as follows:

- Beginning January 2011: Completion of the AA Information report for the Draft OWE Plan.
- End of January 2011: Completion of the HRA record for the OWE Plan.
- March 2011: Completion of a OWE Plan (including additional mitigation measures identified during the HRA), this plan will operate on a 2-year rolling cycle as identified below.
- First 2-Year Plan Cycle from March 2011 to October 2012: The work undertaken in the first phase of Plan implementation will include the following elements:

- Required progression of EIAs and AAs (with associated project-level monitoring) for short-term options.
- Consideration of the outputs from EIAs and AAs for the short term options (subject to developer agreement).
- Completion and dissemination of further monitoring on other operating Offshore Wind Farms in Europe and demonstrator projects such as Beatrice. This can include monitoring undertaken on individual proposals or, as has already been observed for some short-term sites, integrated work undertaken across two or more sites through collaboration between developers.
- Review status of medium-term options.
- Review of gaps in understanding and progress made in non-project related technical review and research work to address these gaps (e.g. the results of studies into fish migration patterns or separate lesson-learning initiatives such as those pursued by the Underwater Sound Forum).
- Progression of strategic-level survey, monitoring and research (alongside project-level survey work) on aspects such as bird foraging movements and migratory pathways. This will include work being done on the R3OWF (by TCE); work being done on the PFSA wet renewable leasing round (by TCE and Marine Scotland) as well as any bespoke monitoring that may be identified and undertaken as part of the OWE plan.
- Collation of the findings from public-domain assessments and strategic monitoring work. These will be placed on the Marine Scotland website which will act as a focus for the lesson learning process. Alongside these documents will be the OWE Draft Plan HRA reports and the screening tables and maps to ensure that these can be interrogated throughout the 2-year cycle.
- Consideration of emerging marine spatial planning[19] as well as marine protected areas (MPAs)[20].

▪ November 2012 to March 2013: Review of the Plan and revisiting of the HRA findings. This will include an updated review of the status of European/Ramsar sites (including the identification of sites identified subsequent to the completion of the HRA) and, where required, Medium term option areas of search in light of available information.

▪ Second 2-Year Plan Cycle from March 2015 to October 2016: The work undertaken in the second phase of Plan implementation will be better understood towards the end of the first 2-year review but is expected to include the following elements:
  - Ongoing progression of developments (with associated project-level monitoring) for some or all short-term option areas.
  - Review status of medium-term options
  - Completion of further monitoring on other Round 1, 2 and 3 OWF sites as well as demonstration sites.
  - Ongoing review of gaps in understanding and progress made in non-project related technical review and research to address these gaps.
  - Progression of strategic-level monitoring (alongside the project-level survey work).

19 Including neighbouring states marine spatial planning
20 Including Scottish Nature Conservation MPAs, new Natura sites in the UK and MCZs/HPMCZs

- Ongoing collation of the findings from public-domain assessments and strategic monitoring work on the Marine Scotland website (alongside the updated OWE Draft Plan HRA reports and the screening tables and maps) to ensure that these can be interrogated throughout the 2-year cycle.

- November 2016 to March 2017: Review of the Plan and revisiting of the HRA (subject to timescales of the Marine Plan).

This programme of 2-year review work may be subject to amendment in light of the development within the areas and the introduction of a marine planning system in Scotland. With each iteration, understanding about the issues and risks will be progressively enhanced as research provides information about species sensitivities and the effectiveness of mitigation measures. Also the detail about how projects will be implemented (and how they will connect to the national grid) will also be better understood at each successive stage.

In addition to this temporal component, this process will inherently also require consideration of the spatial/regional context (e.g. the effects of those on the east or west coast) for project-level AAs to ensure that there are no adverse effects on the integrity of European/Ramsar sites from projects either individually or in-combination with other plans or projects. The Plan for OWE in Scotland will be an important element of the marine planning system for Scotland.

9.3.2 Project-level HRA Requirements

All future project-level HRA work will need to be completed in the context of the latest scientific knowledge and evidence base (relating to the development of the offshore wind industry) that is available at the time of the assessment. It will also need to be done to the satisfaction of the consenting body (as competent authority at the project stage), taking account of advice from statutory nature conservation agencies and consultees where appropriate. It is recognised that pursuance of project-level HRAs (with reference to latest monitoring and scientific understanding) as a legal requirement in all cases where LSEs cannot be excluded as well as the application of project-level mitigation (where these are necessary to avoid adverse effects at project level) will ensure that the Draft Plan is implemented in an iterative and adaptive manner where understanding of the risks and impacts (e.g. aspects such as the collision risk of offshore wind farms for bird qualifying interest features) will continue to improve and feed into successive project-level HRAs.

Information that will need to be supplied within the project-level HRAs includes:

- Updates on the location and status of new European/Ramsar designations;
- New information on interest feature sensitivities (in the context of the latest scientific understanding);
- Assessment of effects during survey, construction and operation phases of the project (including the in-combination effects with other extant proposals); and
- Proposed mitigation measures.

It should also be recognised that it may be necessary, as part of the project-level HRAs, to revisit the screening process that was undertaken for this Plan-level HRA and that this process may identify sites or interest features that were screened out for the purposes of this Plan-level

HRA. However, if this assumption is not followed at project-level and it is not possible to avoid a LSE at project level through such an approach, then these features may also need to be added to the scope of a project-level HRA. Depending upon the outcome of the project-level AA, there might be a need for alternative and/or additional mitigation measures to be identified to ensure that there is no adverse effect on the integrity of any European/Ramsar sites.

Overall, it should be emphasised that uncertainties associated with the sensitivities of European/Ramsar site features to individual OWE projects will be addressed through project level HRA (with the benefit of project specific information), to demonstrate no adverse effect on integrity of these features. The Habitats Regulations and the case-law that informs their implementation place great emphasis on developers demonstrating 'no adverse effect' using best available scientific knowledge and beyond reasonable scientific doubt. The process of ongoing research and feeding the results of targeted monitoring back into the assessment process will address these uncertainties, but it should be noted that there is a process to be followed (as described above) which is likely to influence the rate and scale of project-level developments.

9.4 Key Considerations

To provide a final overview of the commitments that will be required for project-level implementation in light of the findings from this assessment information document, Table A2 in Appendix A sets out the initial and additional mitigation measures that should be implemented by project developers as part of the Draft OWE Plan to ensure no adverse effect on integrity for European/Ramsar sites. This table is designed to provide an auditable list of measures that may be required and highlights that these could be quite numerous depending upon the interest feature that might be affected.

Not all these measures will be needed for every project and the number of measures required will be a function of the detailed scheme design. Inherently, it is recognised that proposed developments which lie within or close to designated sites are likely to have a greater potential to have an adverse effect on site integrity than those which are located more remotely and such projects are also likely to require more mitigation measures as well as incurring greater cost and time commitments for assessment, consenting and monitoring work. In other words developments located away from designated sites are likely to require fewer of the identified initial and additional mitigation measures. Therefore, at project level it will be valuable for developers to take an early decision on the opportunities for avoiding designated sites and reducing the potential mitigation measures and project risks.

However, it should also be understood that a number of Draft OWE Plan options have the potential to support mobile interest features (e.g. marine mammals) from nearby or remote European/Ramsar sites. Therefore, developments located away from designated sites may require fewer of the identified mitigation measures identified but there may still be a need for detailed assessment, mitigation requirements and investigations into the effectiveness of those mitigations that are employed.

The final decision on the need for, and sufficiency of, project-specific mitigation measures will be taken in the context of project-level HRA and will be a matter for the consenting body as competent authority.

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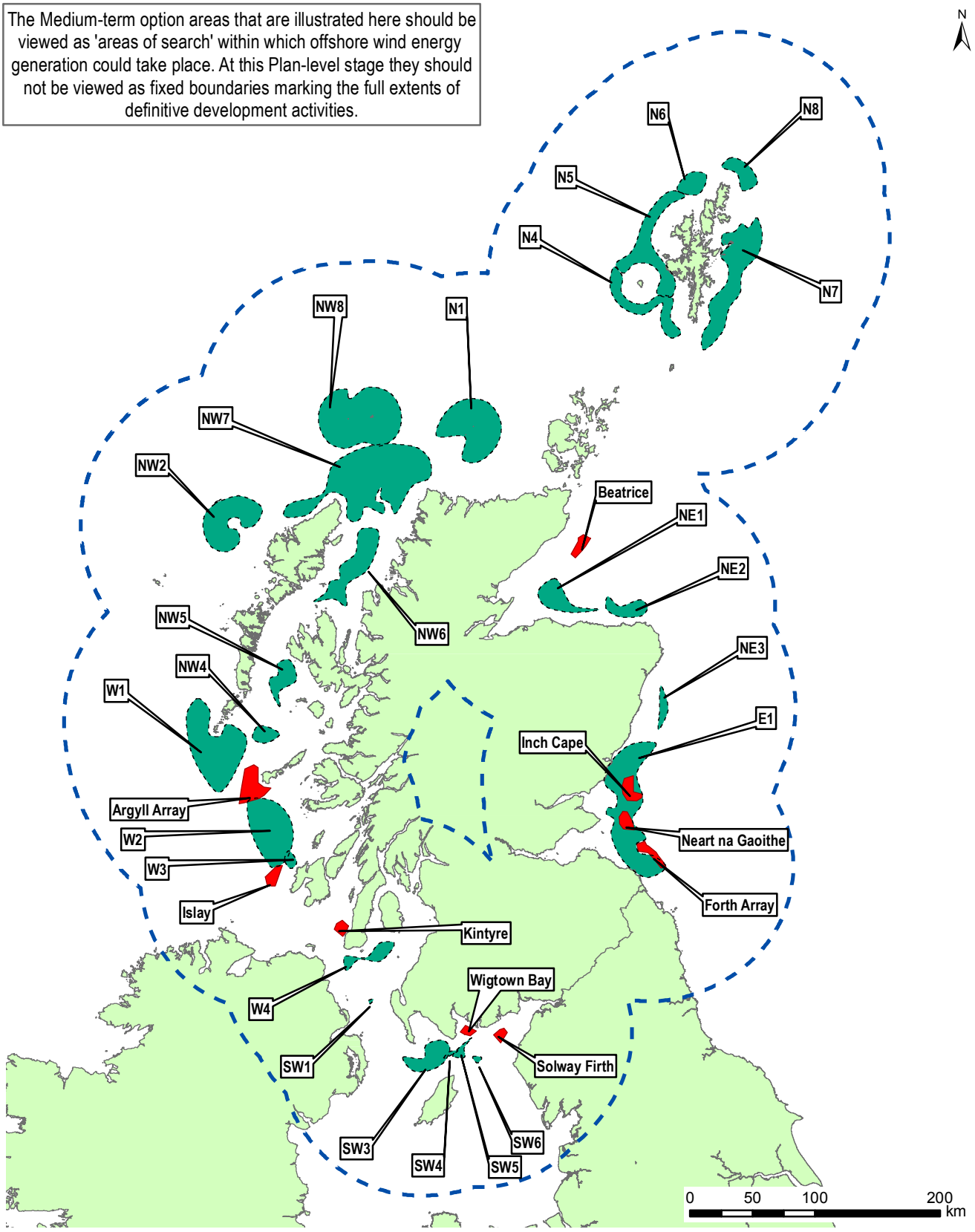
Figures

The Medium-term option areas that are illustrated here should be viewed as 'areas of search' within which offshore wind energy generation could take place. At this Plan-level stage they should not be viewed as fixed boundaries marking the full extents of definitive development activities.



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Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
100km zone around Short and Medium-term Options

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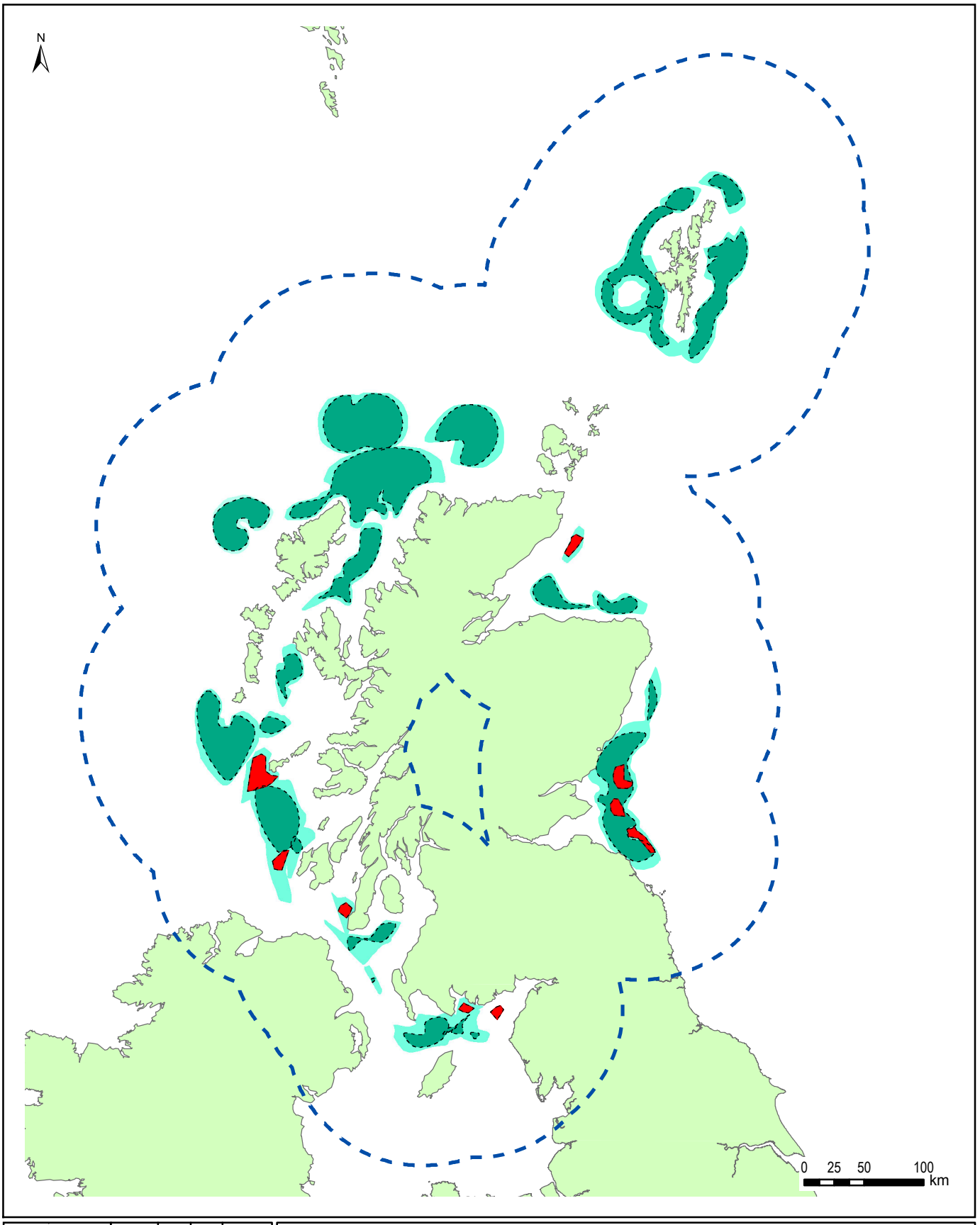
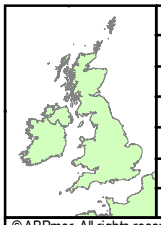
Location of the Short & Medium-term option areas for Offshore Wind Energy draft plan

Figure 1





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- Short-term options for Offshore Wind Energy
- Medium-term options for Offshore Wind Energy
- Distance of tidal ellipse zone around the Short & Medium-term Option Areas
- 100km zone around Short and Medium-term Options

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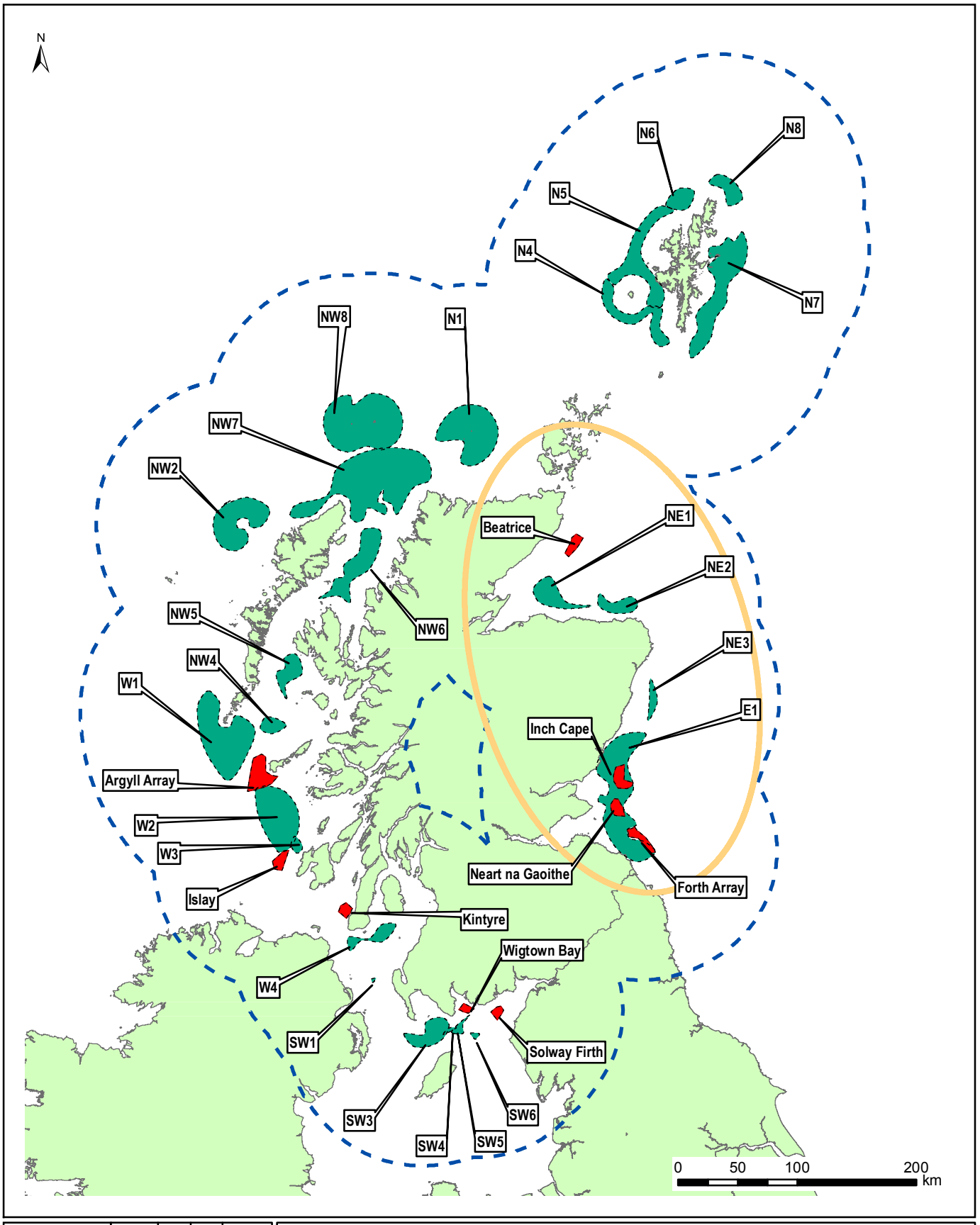
Tidal Ellipse Mapping used to Identify the Spatial Extent of Indirect Habitat & Water Quality Effects

Figure 2



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Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
100km zone around Short and Medium-term Options
Moray Firth bottlenose dolphin management unit

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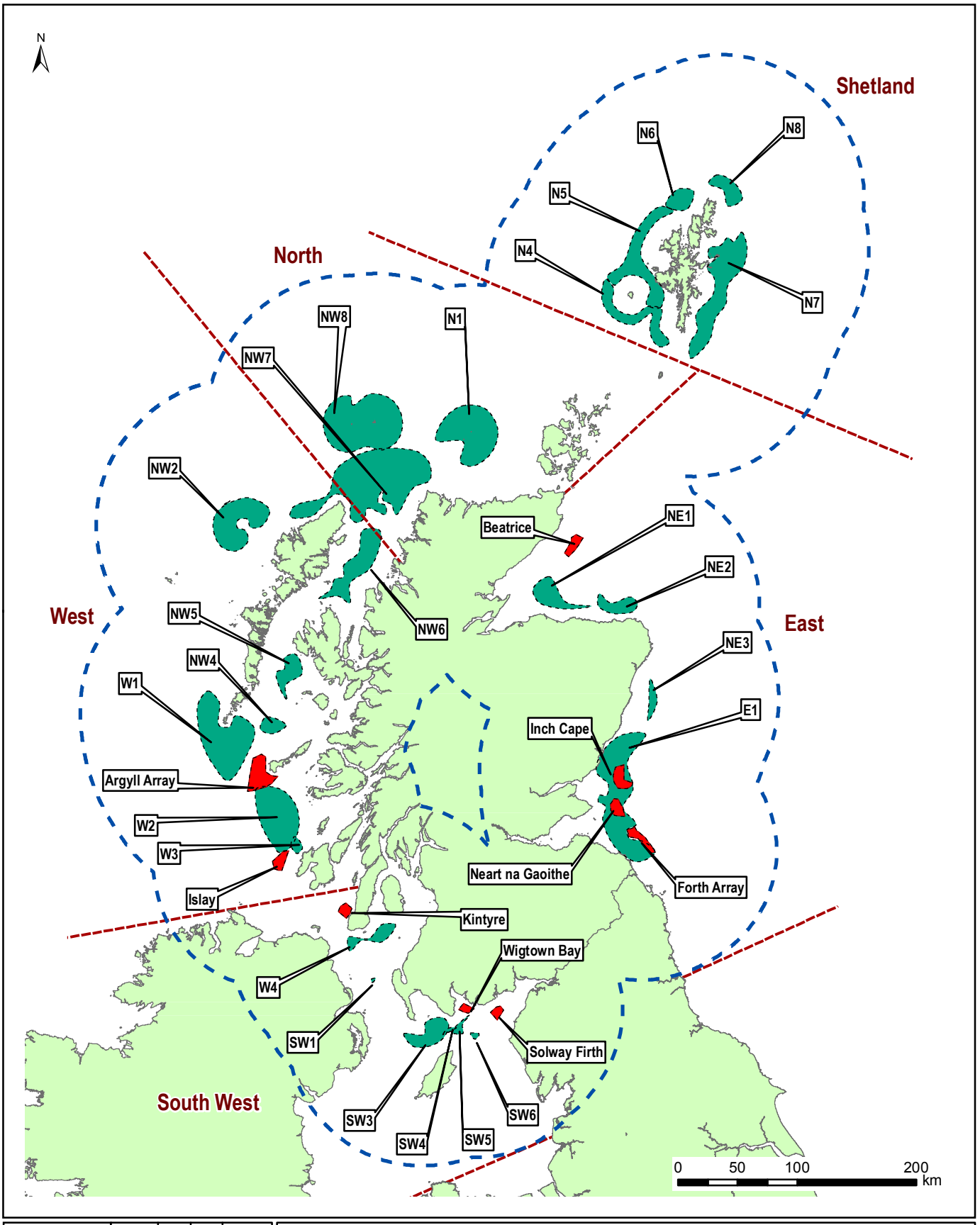
Extent of the Proposed North Sea (NS) Management Unit that was used for Screening Moray Firth Bottlenose Dolphin Qualifying Interests.

Figure 3



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Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
100km zone around short & medium term options
Anadromous fish region boundaries

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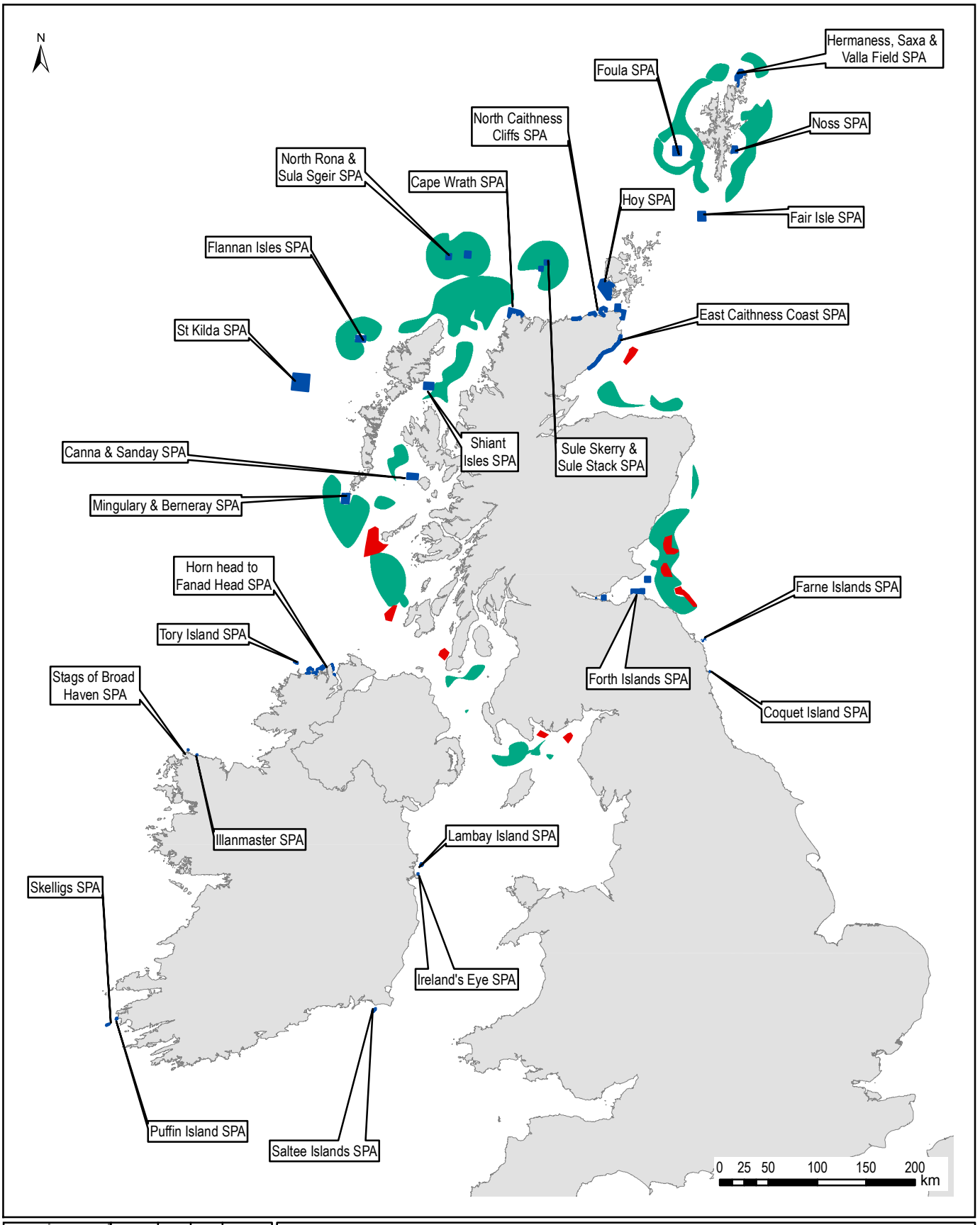
Location and Extent of Coastal Regions to be used for Screening Anadromous Fish Qualifying Interests

Figure 4



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Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
Atlantic Puffin (*Fratercula arctica*) SPAs

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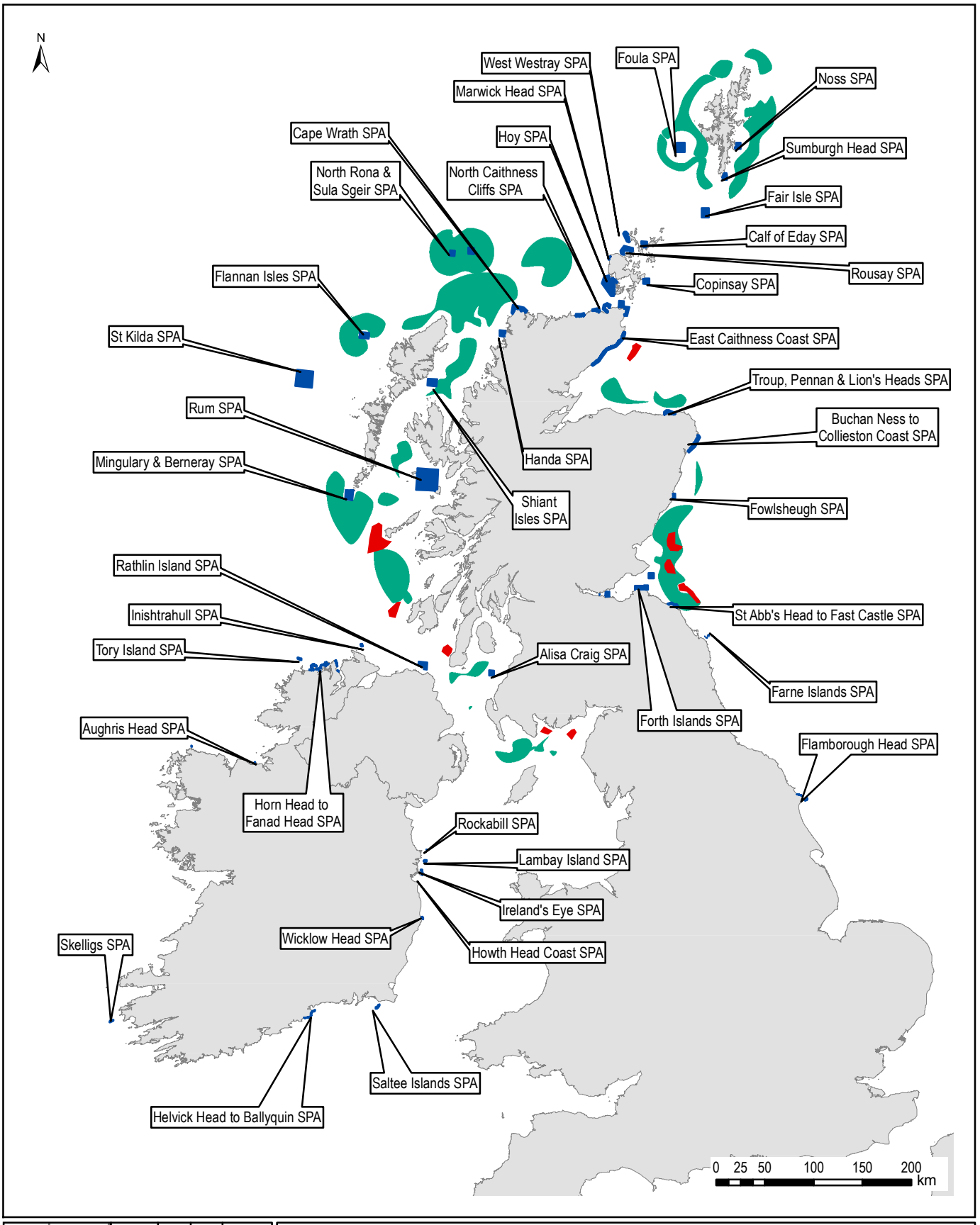
Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Atlantic Puffin (200km)**

Figure 5a



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Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
Black-legged Kittiwake (*Rissa tridactyla*) SPAs

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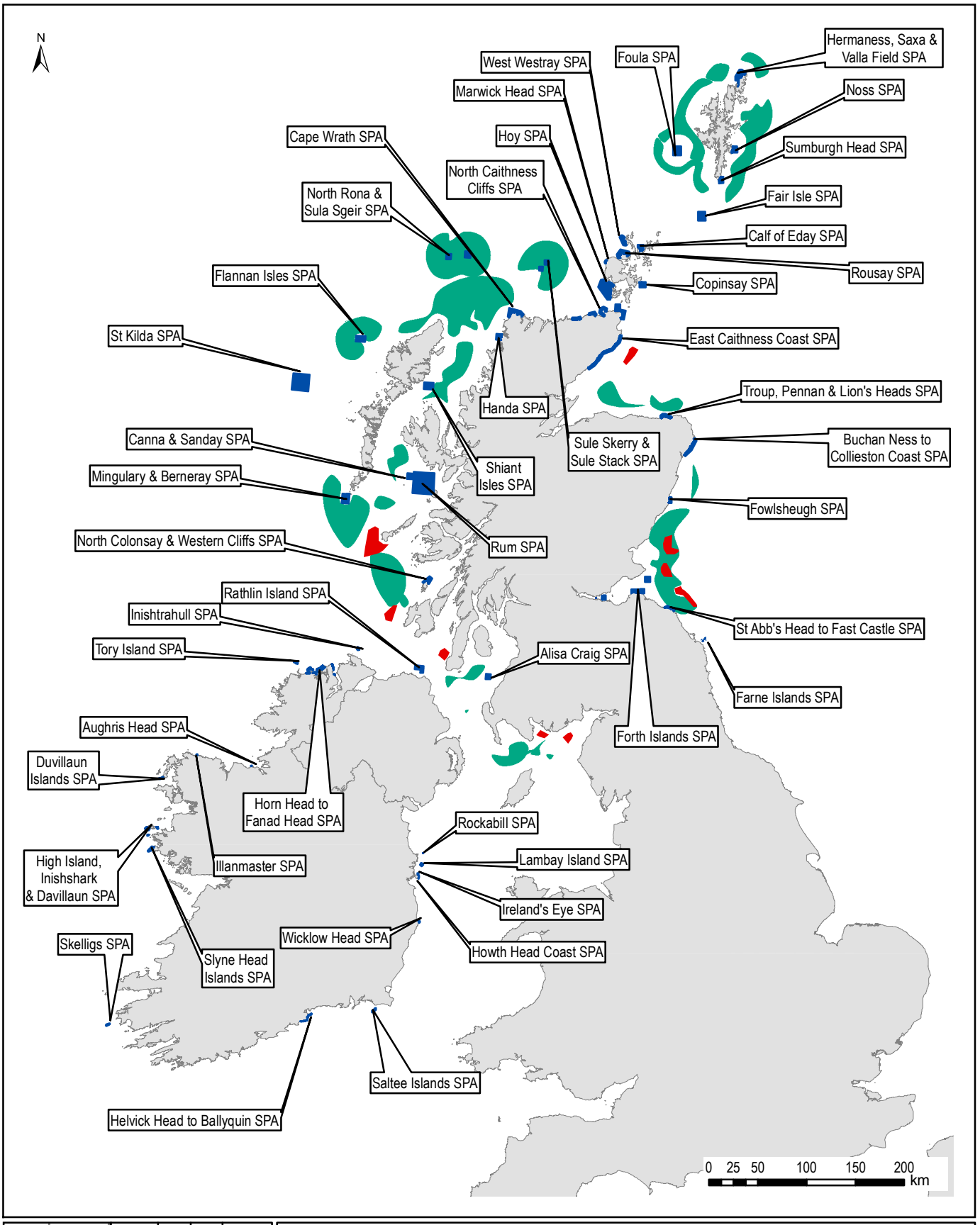
Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Black-legged Kittiwake (200km)**

Figure 5b



Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:5,500,000	
QA		NKD	
3974 - fig_Common_Guillemot.mxd			
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Data Sources: JNCC, 2010 & NPWS, 2010
NOT TO BE USED FOR NAVIGATION

Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
Common Guillemot (*Uria aalge*) SPAs

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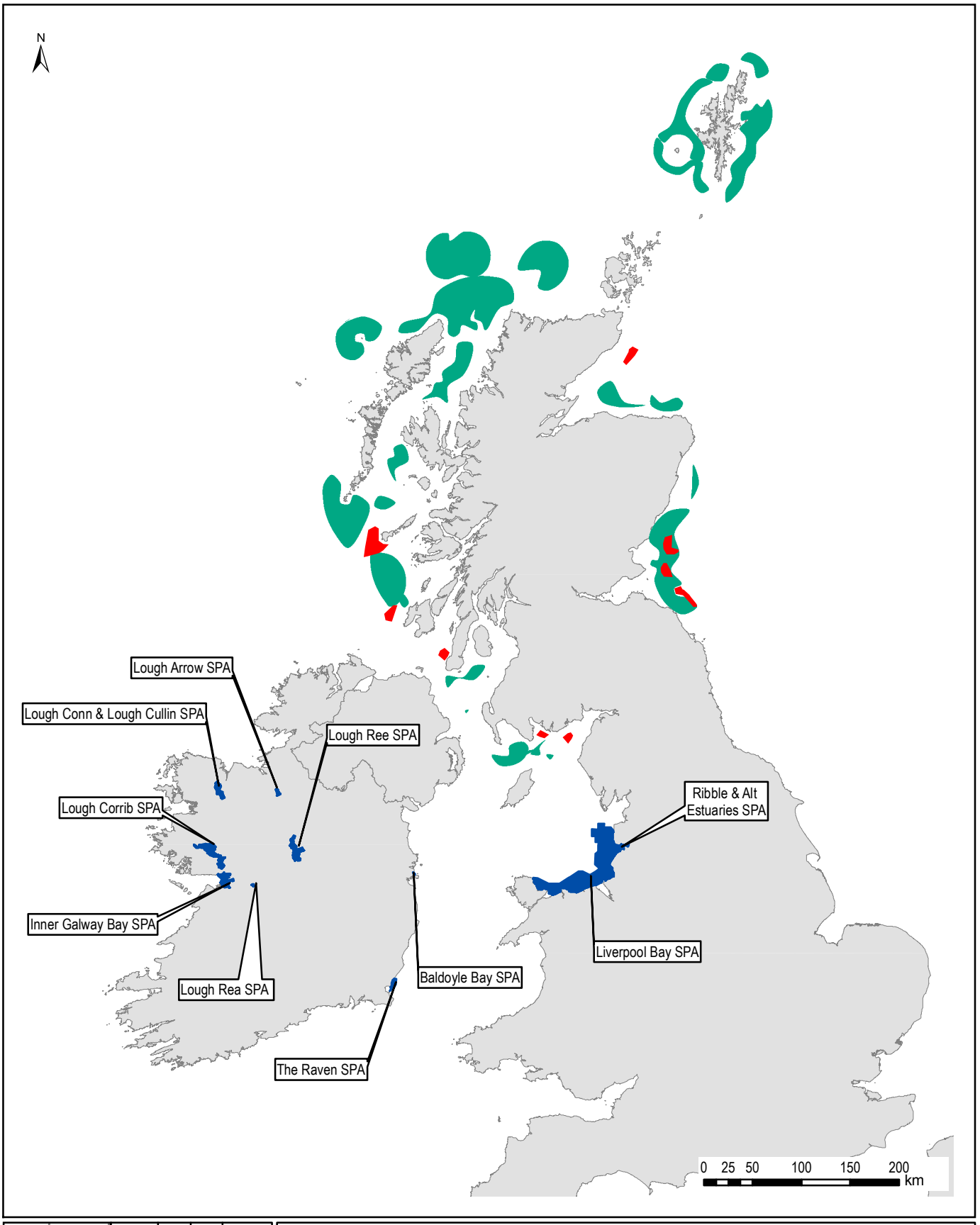
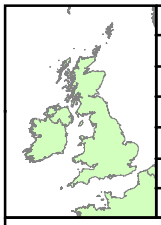
Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Common Guillemot (200km)**

Figure 5c





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QA		NKD	
3974 - fig_Common_Scoter.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
Common Scoter (*Melanitta nigra*) SPAs

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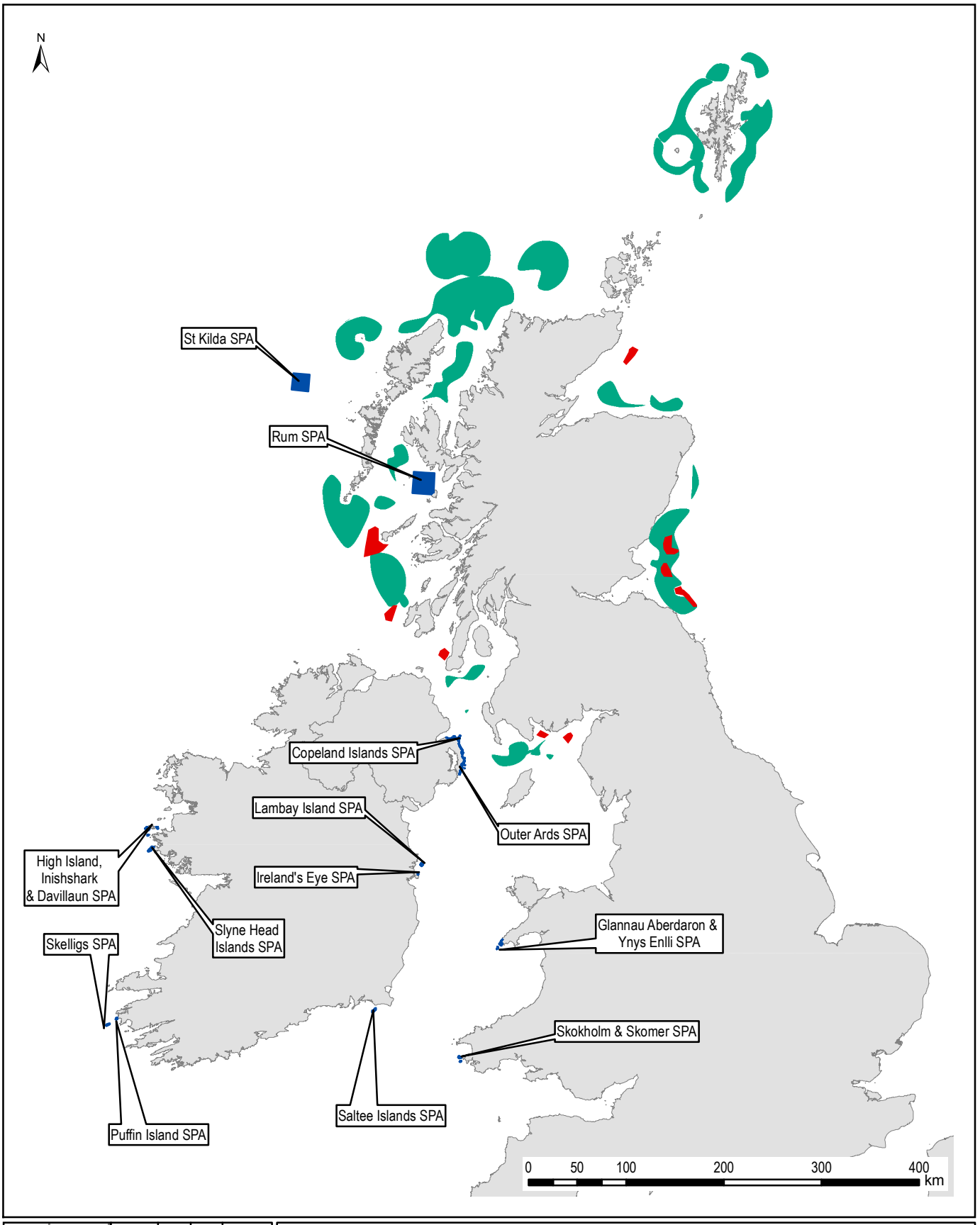
Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Common Scoter (200km)**

Figure 5d



Date	By	Size	Version
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Scale		1:5,500,000	
QA		NKD	
3974 - fig_Manx_shearwater.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & NPWS, 2010
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Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
Manx Shearwater (*Puffinus puffinus*) SPAs

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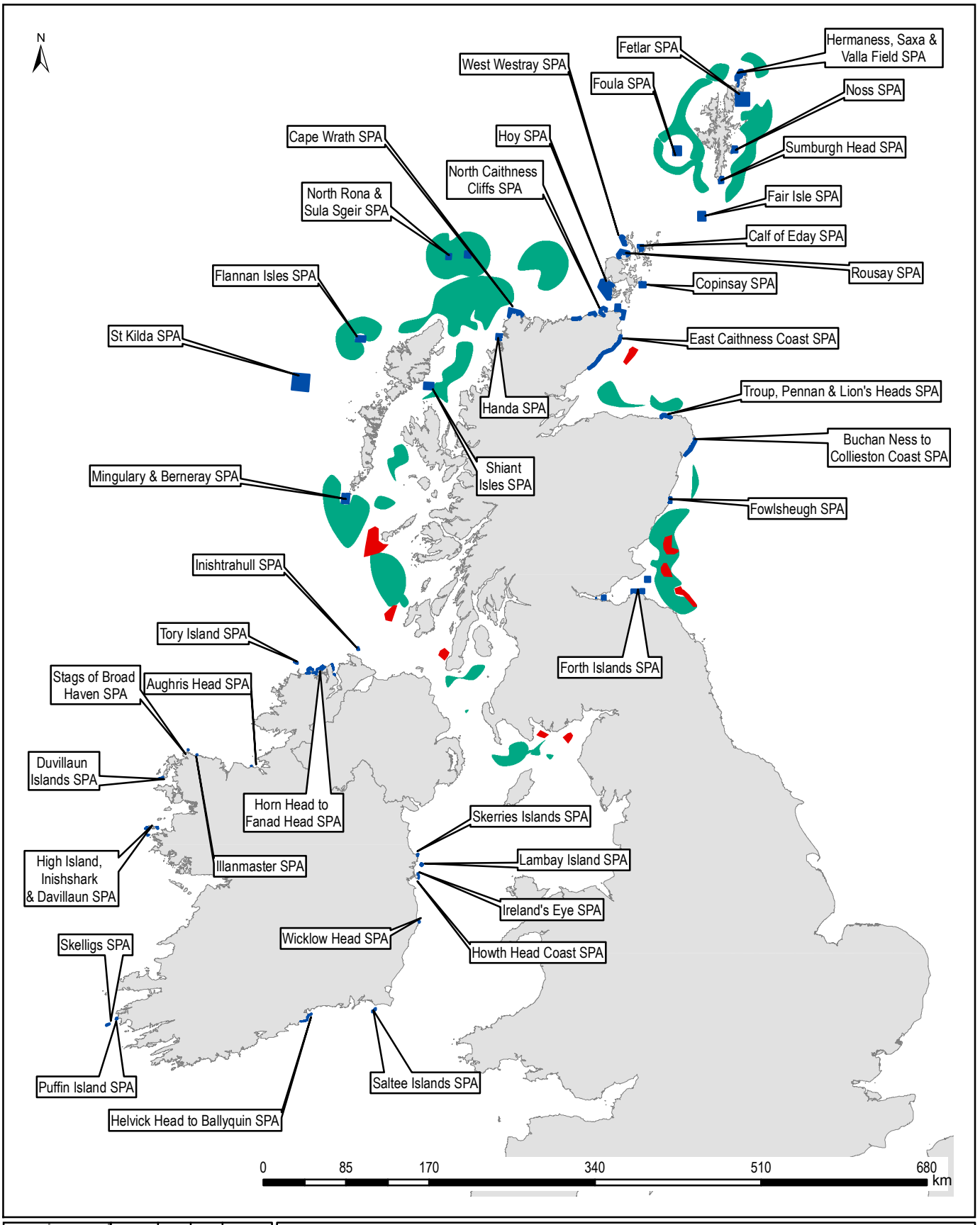
Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Manx Shearwater (400km)**

Figure 5e



Date	By	Size	Version
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Scale		1:5,500,000	
QA		NKD	
3974 - fig_Common_Fulmar.mxd			
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Short-term options for Offshore Wind Energy

Medium-term options for Offshore Wind Energy

Northern Fulmar (*Fulmarus glaciais*) SPAs

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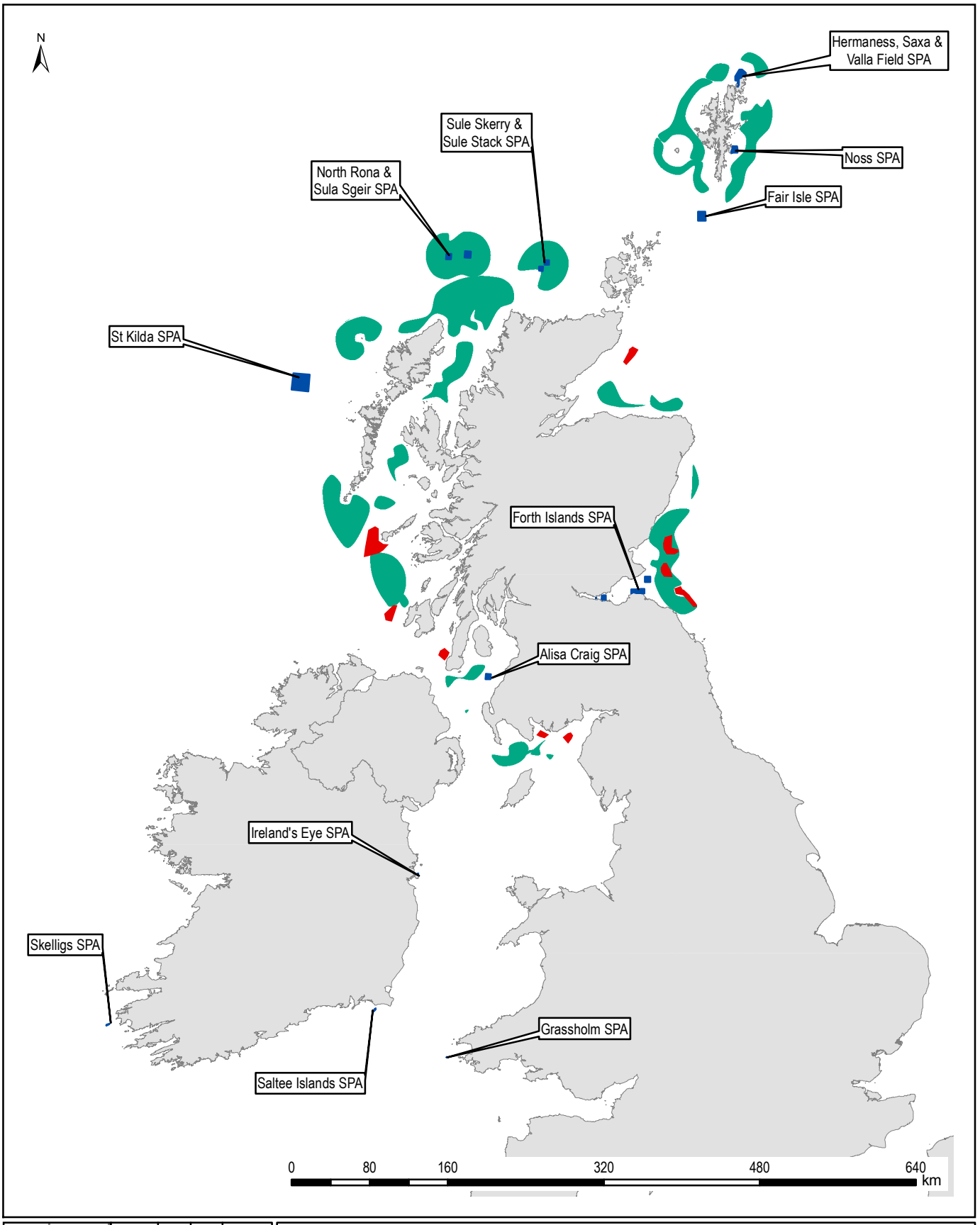
Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Northern Fulmar (664km)**

Figure 5f



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:5,500,000	
QA		NKD	
3974 - fig_Northern_Gannet.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & NPWS, 2010
NOT TO BE USED FOR NAVIGATION

Short-term options for Offshore Wind Energy
Medium-term options for Offshore Wind Energy
Northern Gannet (*Morus bassanus*) SPAs

ABP mer
marine environmental research

Location of SPA and Ramsar Sites Supporting Seabirds with Maximum Foraging Distances of >100km - **Northern Gannet (640km)**

Figure 5g

Appendix A
Pre-Screening Tables A1 to A4 Updated to Include Screening Results and Initial and Additional Mitigation Measures

Appendix A. Pre-Screening Tables A1 to A4 Updated to Include Screening Results and Initial and Additional Mitigation Measures

A1. Introduction

This appendix presents an updated version of the impact pathway and screening tables that were presented in the pre-screening report for the Draft OWE Plan Medium-term Options (ABPmer 2010). These tables summarise the findings of the pre-screening analysis (and of the subsequent screening and assessment work) by showing the following:

- The OWE Plan activities that could impact European/Ramsar sites (Table A1);
- The environmental impact pathways and management/mitigation measures that are relevant to the Draft OWE Plan (Marine Scotland 2010a) (Table A2);
- The sites that are present within the OWE areas and within 100km of these areas (Table A3);
- The sites and key interest features that have been screened in and those that have been screened out (Table A4).

These tables were updated following the screening and assessment processes of the HRA process. The screening results are captured in Tables A3 and A4 while Table A2 has been reviewed and updated to capture the findings from the assessment work. In particular, additional impact pathways have been added to Table A2 following the full HRA process and this is now called Table A2a. Alongside the impacts now listed in Table A2a the relevant initial and additional mitigation measures (as identified at Stage 7 and 9 of the HRA process) have been highlighted. The initial measures are derived from those set out in the SEA (Marine Scotland 2010b) and are set out in full in Table A2b. The additional measures that have been identified during this HRA process are set out in full in Table A2c. These additional measures build upon and update the preliminary measures to 'avoid' and 'reduce' that were identified during the initial pre-screening stages of the HRA. They also draw upon relevant precedents such as the R3OWF and PFSA HRAs (ABPmer 2010b and Entec 2009)

The full titles of these Tables A1 to A4 are as follows:

Table A1	Activities that could affect European/Ramsar site interest features (based on Entec, 2009a).
Table A2a	Impact pathways from OWE turbine and initial generic mitigation measures that may be applied to avoid or reduce such impacts (derived from Entec 2009a).
Table A2b	Initial mitigation measures identified in the SEA for the Draft OWE Plan (Marine Scotland 2010).
Table A2c	Additional mitigation measures identified during the HRA for the Draft OWE Plan.
Table A3	List of European/Ramsar sites that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA).
Table A4	List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA).

A2. References

ABPmer, 2010a. Habitats Regulations Appraisal of Draft Plan for Offshore Wind Energy in Scottish Territorial Waters: Pre-Screening Review of the Medium Term Options. ABP Marine Environmental Research Ltd, Report No. R.1722a.

ABPmer, 2010b. Report to Inform Appropriate Assessment for the Pentland Firth Strategic Area (PFSA) Leasing Round. Report for The Crown Estate February 2010; ABP Marine Environmental Research Ltd, Report No. R.1602.

Entec UK Ltd, 2009b. Habitats Regulations Assessment of the Round 3 Plan. Information to Inform an Appropriate Assessment, Report for The Crown Estate December 2009.

Marine Scotland, 2010a. Draft Plan for Offshore Wind Energy in Scottish Territorial Waters. Published by Marine Scotland, May 2010.

Marine Scotland, 2010b. Strategic Environmental Assessment (SEA) of Draft Plan for Offshore Wind Energy in Scottish Territorial Waters: Volume 1: Environmental Report. Published by Marine Scotland, May 2010.

Table A1 - Activities that could affect European/Ramsar site interest features (based on Entec, 2009a)

Activity	Potential environmental changes which may lead to effects on SAC/SPA/Ramsar habitats and species
Survey work	**Physical damage to habitats or species**
Trawling surveys	Removal of species or habitat features (e.g. biogenic reefs)
Seismic surveys	Injury to fish or marine mammals due to underwater pressure waves
Increased vessel activity (including dynamic positioning)	Collision risk to marine mammals/ otters from vessels traveling to and from the site (including propeller collision risk)
	Indirect disturbance
Seismic surveys	Noise and vibration (creating underwater pressure waves that may affect fish or marine mammals and/or airborne noise that may affect birds or bats)
Increased vessel activity	Increased noise disturbance to marine, avian and bats species and possibly shoreline mammals
	Toxic contamination
Increase in risk of spillages/releases of oil or other contaminants from increased vessel activity	Toxic effects on marine species
Mobilisation of contaminants by sediment disturbance during sampling (e.g. cores)	Toxic effects on marine species
	Biological disturbance
Increased vessel activity	Increased risk of introduction of non-native species via vessels from elsewhere
Installation (turbines, cables, ancillary structures)	**Physical loss/gain of habitat**
Turbine foundation installation (including any future 'repowering'/upgrading activities)	Seabed habitat loss at turbine locations
Turbine foundation installation (including any future 'repowering'/upgrading activities)	Temporary change in substrate (e.g. gravel for gravity bases)
Onshore development e.g. converter stations	Terrestrial habitat loss within footprint of above ground installations
	Physical damage to habitats or species
Turbine foundation installation (percussive piling)	Injury to fish or marine mammals due to underwater pressure waves
Laying cable in trench across subtidal or intertidal seabed habitat	Subtidal and intertidal area habitat disturbance (assuming cables buried) (short term habitat loss but overall damage that will recover in case of soft substrate)
Turbine foundation installation and/or laying cable in trench across subtidal or intertidal seabed habitat	Temporary smothering of habitats and species by re-deposition of mobilised sediment
Construction activities on land	Terrestrial habitat damage within construction sites for above ground installations outside footprint of permanent structures (potential for reinstatement
Increased vessel activity (including dynamic positioning)	Collision risk to marine mammals/ otters from vessels traveling to and from the site (including propeller collision risk)
	Indirect disturbance
Noise and vibration generating activities, particularly percussive piling	Noise and vibration (creating underwater pressure waves that may affect fish or marine mammals and/or airborne noise that may affect birds or bats)
Increased vessel activity	Increased noise disturbance to marine, avian and bats species and possibly shoreline mammals
	Toxic contamination
Increase in risk of spillages/releases of oil or other contaminants from increased vessel activity	Toxic effects on marine species
Mobilisation of contaminants by sediment disturbance during turbine or cable installation	Toxic effects on marine species
	Non-toxic contamination
Mobilisation of sediments during turbine or cable installation	Increases in turbidity potentially affecting marine pelagic species (fish and mammals)
	Biological disturbance
Increased vessel activity	Increased risk of introduction of non-native species via vessels from elsewhere
Operation and maintenance	**Physical loss/gain of habitat**
Presence of turbines	Permanent loss of former seabed at turbine locations
Presence of turbines	Changed habitat availability (colonisation of turbine bases) and reef/'sanctuary' effect via creation of fishing exclusion zones
Presence of onshore above-ground installations	Terrestrial land-take for above ground installations
	Physical damage to habitats or species
Presence of turbines	Changes to hydrodynamics causing seabed disturbance through local scour, more distant erosion and smothering by re-deposition of mobilised sediment
Turbine operation	Pressure changes resulting from blade movements (e.g. effects on bat internal organs)
Turbine operation	Collision with turbine blades (bats, birds)
	Indirect disturbance
Operation of turbines	Noise and vibration (underwater noise that may affect fish or marine mammals and/or airborne noise that may affect birds or bats)
Presence and operation of turbines	Other behavioural effects through physical presence./barrier effect of operating turbines (e.g. avoidance, disorientation of migrating mammals/fish/birds, displacement of birds from feeding areas)
Operation of subsea cables	Electromagnetic fields around cables potentially affecting sensitive species
Operation of subsea cables	Heat generated by cables potentially affecting seabed communities
Operation of onshore installations	Night-time lighting potentially affecting bats or birds
Increased vessel activity	Increased noise disturbance to marine, avian and bats species and possibly shoreline mammals
	Toxic contamination
Increase in risk of spillages/releases of oil or other contaminants from increased vessel activity	Toxic effects on marine species
	Biological disturbance
Presence of turbines	Introduction of non-native species (e.g. creation of hard substrate colonisation routes via turbine bases)
Decommissioning	**Physical loss/gain of habitat**
Removal of turbines and foundations	Change in seabed habitat, removal of colonised hard substrate habitat, possible restoration of former habitat
Removal of unburied cables	Removal of colonised habitat (cables)
Removal of turbines but not foundations	Permanent change to marine habitat via structures left in situ (e.g. turbine bases)
Removal of onshore above-ground installations	Change in terrestrial habitat, possible restoration of former habitat
	Physical damage to habitats or species
Removal of turbines (using percussive methods or explosives)	Injury to fish or marine mammals due to underwater pressure waves
Removal of buried cables	Subtidal and intertidal area disturbance (short term habitat loss but overall damage that will recover in case of soft substrate)
Removal of turbine foundations or buried cables	Temporary smothering of habitats and species by re-deposition of mobilised sediment
Decommissioning works on land	Terrestrial habitat damage within construction sites for above ground installations outside footprint of permanent structures (potential for reinstatement)
Increased vessel activity (including dynamic positioning)	Collision risk to marine mammals/ otters from vessels traveling to and from the site (including propeller collision risk)
	Indirect disturbance
Noise and vibration generating activities, particularly percussive demolition or use of explosives	Noise and vibration (creating underwater pressure waves that may affect fish or marine mammals and/or airborne noise that may affect birds or bats)
Increased vessel activity	Increased noise disturbance to marine, avian and bats species and possibly shoreline mammals
	Toxic contamination
Increase in risk of spillages/releases of oil or other contaminants from increased vessel activity	Toxic effects on marine species
Mobilisation of contaminants by sediment disturbance during turbine or cable removal	Toxic effects on marine species
	Non-toxic contamination
Mobilisation of sediments during turbine or cable removal	Increases in turbidity potentially affecting marine pelagic species (fish and mammals)
	Biological disturbance
Increased vessel activity	Increased risk of introduction of non-native species via vessels from elsewhere

Table A2a - Impact pathways from OWE turbine and initial generic mitigation measures that may be applied to avoid or reduce such impacts (derived from Entec 2009a)

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
			The impact pathways below are derived from those listed in Table A1 but separated by feature and project Phase. This list of pathways was developed at the very start of the HRA process (during the pre-screening work) and the mitigation measures which relate to thes pathways (as identified during the subsequent phases of the HRA) are referred to in the other columns to the right and in Tables A2b and A2c.	The text below highlights the extent to which the initial mitigation measures (as set out in the SEA Environemtal Report) address the relevant impact pathway. In each case the text indicates where gaps are identified that need to be addressed with additional measures. See the link below for the full text of the initial mitigation measures	The text below highlights the additional mitigation measures that are required to be assured that the OWE Draft Plan will not have an adverse effect on the integrity of European/Ramsar sites
				See Table A2b for full list of Initial Mitigation Measures	See Table A2c for full list of Additional Mitigation Measures
Habitats and Species (coastal, intertidal and marine)	**Pre-construction survey**	Physical Damage	Direct effects from sampling work (boreholes, trawls) during environmental baseline surveys	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Toxic Contamination	Spillage of fluids and/or fuels during survey work.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
		Biological disturbance	Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned and the issue of biofouling and invasive species are not directly addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 7**
	Construction and decommissioning	Physical Damage	Direct (physical) damage by excavation/piling activities associated with the construction and decommissioning of structures (cables and turbines) including the use of jack-up legs and mooring.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Physical Damage	Re-deposition of sediments mobilised during cable/turbine installation or decommissioning causing an increase in suspended sediment concentrations and smothering.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7 and Biodiversity Measure 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 8 to 12**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
		Toxic Contamination	Contaminants associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
		Non-Toxic Contamination	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6, 9, 11 and 12**
		Biological disturbance	Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of biofouling and invasive species are not directly addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 7**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
	Operation	Loss/Gain of Habitat	Direct loss of habitat and species under the footprint of the turbine and cable armouring from the installation of these new structures.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 10**
		Physical Damage	Direct (physical) damage by excavation/piling activities associated with the maintenance of structures (cables and turbines) including the use of jack-up legs and mooring.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 10**
		Physical Damage	Indirect changes to the habitat surrounding the turbine and cable armouring structures due to hydrodynamic and physical changes (including sediment scour).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Geology and Coastal Processes Measures 8 and 9 and Biodiversity Measure 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 10**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7 and Biodiversity Measure 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
		Biological disturbance	Introduction of new structures providing new substratum that facilitates the colonisation and ingress of invasive non-native species.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of invasive species is not directly addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 7**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Biological disturbance	Introduction and ingress of invasive non-native species as biofouling species on the surfaces of vessels or construction plant.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of biofouling is not directly addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 7**
Birds	**Pre-construction survey**	Non-Physical Disturbance	Reduction in foraging habitat quality (and prey species availability) as a result of baseline survey work (e.g. boreholes and trawls).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Non-Physical Disturbance	Seismic exploration and other baseline geophysical surveys causing noise injury and disturbance (including from vessel movements)	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during survey work.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
	Construction and decommissioning	Loss/Gain of Habitat	Direct loss of coastal foraging, breeding or roosting habitat (or reduction in quality) as result of the installation and removal of cables	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8, 9 and 12**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Non-Physical Disturbance	Reduction in the quality of foraging habitat as result of the installation and removal of cables and turbines (e.g. through smothering and physical disturbance)	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 10**
		Non-Physical Disturbance	Noise and visual disturbance from vessels travelling to and from the site.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 4 and 13**
		Non-Physical Disturbance	Noise and visual disturbance from the installation and removal of cables and turbines such as drilling, piling and the use of explosives for demolition.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 4 and 13**
		Non-Physical Disturbance	Indirect impacts on food resources where significant loss of habitat and species occurs in intertidal benthic communities (through cable laying work).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during installations or removal of structures (cables and turbines).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 12**
		Non-Toxic Contamination	Reduction in water quality from cable/turbine installation and decommissioning	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 12**
	Operation	Loss/Gain of Habitat	Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Geology and Coastal Processes Measures 8 and 9 and Biodiversity Measure 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 8 to 12**
		Physical damage	Collision of migrating and foraging birds with turbine blades.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of cumulative effects warrants particular additional attention in this context. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**
		Non-Physical Disturbance	Indirect impacts on food resources where significant changes occur in intertidal benthic communities and subtidal fish communities.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 8 to 12**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Non-Physical Disturbance	Barrier effects to the movement of migrating or foraging birds as a result of the presence of turbines and arrays.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b).. It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of cumulative effects warrants particular additional attention in this context. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Non-Physical Disturbance	Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of FAD has not been specifically mentioned/addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2**
		Non-Physical Disturbance	Turbine operation causing noise and visual disturbance including the potential displacement from or disturbance near offshore foraging areas.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
Marine Mammals (cetaceans and seals)	**Pre-construction survey**	Physical Damage	Collision risk from vessels travelling to and from the site (including propeller collision risk).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Non-Physical Disturbance	Reduction in foraging habitat quality (and prey species availability) as a result of baseline survey work (e.g. boreholes and trawls).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Non-Physical Disturbance	Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Non-Physical Disturbance	Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Toxic Contamination	Spillage of fluids and fuels during survey work.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
	Construction and decommissioning	Physical Damage	Collision risk from vessels travelling to and from the site (including propeller collision risk).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Physical Damage	Direct damage to haul-out sites during cable installation and decommissioning (seals only).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**
		Non-Physical Disturbance	Reduction in the quality of foraging habitat as result of the installation and removal of cables and turbines (e.g. through smothering and physical disturbance)	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 12**
		Non-Physical Disturbance	Noise/vibration disturbance from vessels and other activities during construction and decommissioning (e.g. piling, drilling, cable laying).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Non-Physical Disturbance	Visual disturbance from vessels and other activities during construction and decommissioning.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 12**
		Toxic Contamination	Contaminants associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 12**
		Non-Toxic Contamination	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6 and 12**
	Operation	Loss/Gain of Habitat	Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**
		Physical Damage	Direct damage to haul-out sites during operation (seals only).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8, 9 and 12**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Physical Damage	Collision risk from vessels travelling to and from the site (including propeller collision risk).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**
		Non-Physical Disturbance	Noise/vibration disturbance from vessels and other activities during operation (turbine noise) and maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Non-Physical Disturbance	Visual disturbance from vessels and other activities during maintenance	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Non-Physical Disturbance	Establishment of fishery exclusion zones around wind farms and potential Fish Aggregating Device (FAD) characteristics of sub-surface structures may lead to an increase in prey species but noise from turbines may decrease prey supply.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of FAD has not been specifically mentioned/addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2**
		Non-Physical Disturbance	Presence of sub-surface structures may present a barrier to movement and migratory pathways depending on array design.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**
		Non-Physical Disturbance	Disturbance effects from electromagnetic geomagnetic fields along cable alignments (pertinent to bottlenose dolphin but not seal).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Toxic Contamination	Spillage of fluids and fuels during maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
Migratory Fish and Freshwater Pearl Mussel	**Pre-construction survey**	Non-Physical Disturbance	Reduction in foraging habitat quality (and prey species availability) as a result of baseline survey work (e.g. boreholes and trawls).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Non-Physical Disturbance	Noise/vibration disturbance from vessels and other activities during survey work (e.g. seismic exploration and geophysical surveys).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Toxic Contamination	Spillage of fluids and fuels during survey work.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
	Construction and decommissioning	Non-Physical Disturbance	Reduction in the quality of foraging habitat as result of the installation and removal of cables and turbines (e.g. through smothering and physical disturbance)	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7 and Biodiversity Measure 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**
		Non-Physical Disturbance	Noise/vibration disturbance from vessels and other activities during construction and decommissioning (e.g. piling, drilling, cable laying).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Toxic Contamination	Spillage of fluids, fuels and/or construction materials during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
		Toxic Contamination	Contaminants associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
		Non-Toxic Contamination	Increase in turbidity associated with the release of suspended sediments during installation or removal of structures (turbine and cables).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
	Operation	Loss/gain of habitat	Structures on the seabed acting as a FAD (Fish Aggregating Device) and/or artificial reef.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the issue of FAD has not been specifically mentioned/addressed. In view of this, and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2**
		Loss/gain of habitat	Loss of foraging habitat as a result of the turbines and cable armouring both directly through the development footprint and associated scour and indirectly through changes to hydrodynamics.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Geology and Coastal Processes Measures 8 and 9 and Biodiversity Measure 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**
		Non-Physical Disturbance	Reduction in the quality of foraging habitat as result of maintenance work.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8 to 12**
		Non-Physical Disturbance	Noise/vibration disturbance from vessels and other activities during operation (turbine noise) and maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**
		Non-Physical Disturbance	Presence of sub-surface structures and noise disturbance associated with turbines may present a barrier to movement and block migratory pathways depending on array design.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 13 and 14**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Non-Physical Disturbance	Impacts from EMF on electromagnetically sensitive fish interfering with prey location and mate detection in some species and creating barriers to migration.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8, 13 and 14**
		Toxic Contamination	Spillage of fluids and fuels during maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Water Quality Measures 6 and 7. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 6**
Otters	**Pre-construction survey**	Physical Damage	Presence of vessels travelling to and from the site resulting in a collision and/or mortality of otter.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
		Non-Physical Disturbance	Visual disturbance from vessels and other activities during survey work (e.g. side-scan sonar).	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the survey phase of work is not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 3, 4 and 5**
	Construction and decommissioning	Physical Damage	Presence of vessels travelling to and from the site resulting in a collision and/or mortality of otter.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**

Impact Pathways Identified during the Pre-screening and Screening Stages of the HRA Process - **Stages 1 to 5**				Initial Mitigation Measures applied at **Stage 6** of the HRA Process	Additional Mitigation Measures idenified at **Stages 7 to 9** of the HRA Process
Feature	**Phase**	**Sensitivity Category**	**Activity / Change (Impact Pathway)**	**Initial Mitigation Measures**	**Additional Mitigation Measures**
		Physical Damage	Direct damage to otter habitat (holts and shelters) during cable installation, and decommissioning.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8. 9 and 1`2**
		Non-Physical Disturbance	Visual disturbance from vessels and other activities during construction and decommissioning.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, the biodiversity effects of the decommissioning phase of work are not specifically mentioned/addressed. In view of this and the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**
	Operation	Physical Damage	Direct damage to otter habitat (holts and shelters) during operation.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 8, 9 and 12**
		Physical Damage	Presence of vessels travelling to and from the site resulting in a collision and/or mortality of otter.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**
		Non-Physical Disturbance	Visual disturbance from vessels and other activities during maintenance.	As with all impact pathways, this impact will be addressed within the broad-scale strategic measures identified in the SEA (i.e Measures 1 and 5 in Table A2b). It will also need to be addressed as part of the implementation of the generic project-level mitigation especially Biodiversity Measures 10 and 11. However, in view of the inherently generic nature of these measures, there remains a need to be assured that this potential impact pathway does not result in an adverse effect on integrity. Therefore, additional measures have been identified.	**Apply generic measures 1 and 2 as well as 14**
Bats	**Operation**	Not Relevant for OWE Draft Plan	Direct collision with turbine blades or pressure changes near turbine blades.	**None Required.** No qualifying features will be affected by the OWE draft plan. These species were removed at the screening stage.	**None Required**

Notes on Impact Pathways not included: -
The following are not considered to be impact pathways and have not been included
1) Predation by rat/mink from then positioning of devices close to breeding bird colonies.
2) Potential positive impact of turbines creating roosting habitat for seabird species
These have been excluded because there is not expected to be any suitable static structures on the turbines which could provide a roosting or resting habitat (these pathways are applicable to wave and possible tidal energy devices and are noted here for reasons of completeness).

Table A2b - Initial mitigation measures identified in the SEA for the Draft OWE Plan (Marine Scotland 2010)

These **initial mitigation** measures were set out in the SEA Environmental Report and are divided into two categories 'strategic level' and 'project level'. In both cases they are inherently genric in nature. The distinction is that strategic level measures apply across all impact pathways while the 'project level' measures are those identified in the SEA Environmental Report that pertain to relevant impacts that could occur to 'water'; 'geology sediments and coastal processes' and 'biodiversity, flora and fauna'. The SEA Environmental Report also identifies other 'project level' measures but they relate to impacts which are not pertinent to this HRA (e.g. Landscape or Cultural Heritage).

	Initial Mitigation measures that are 'strategic' and pertain to all impact pathways	Abbreviation
1	There may be a requirement to remove further options from the Plan on the basis of the findings of a strategic level HRA. This would assess the likely significant effects of the draft Plan on internationally protected sites (SPAs, SACs and Ramsar Sites). It may be necessary to change the draft Plan where adverse effects on European nature conservation sites are identified in this process, and other forms of mitigation are considered insufficient to avoid such effects arising;	Remove Option Areas and/or change Draft OWE Plan
2	Continue communications (consultation and participation) with the SEA consultation authorities (SEPA, SNH and Historic Scotland), regulators, key organisations (e.g. Scottish Fishermen's Federation), developers (including those that have been awarded exclusivity leases for areas inside STW), Offshore Wind Industry Group and the public to seek appropriate site-specific mitigation. Developers must be engaged in the process as early as possible together with the shipping and commercial fishing industries to develop appropriate mitigation;	Continue consulting with stakeholders
3	Consider the potential requirement to identify and provide habitat to help offset non-designated/nationally designated habitat losses resulting from offshore wind farm development;	Consider the potential requirements to offset habitat losses
4	Consider the implementation and scheduling of components of offshore wind projects within STW (in combination with other planned offshore developments) to minimise strategic adverse impacts on species (e.g. migratory fish, marine mammals etc, habitats and landscape), including consideration of the cumulative and in-combination effects with other identified schemes, projects or activities; and	Consider the implementation and scheduling of project components
5	Undertake the further work recommended at the strategic level.	Undertake further work
	Initial Mitigation measures that are related to particular impact pathways (See Table A2a)	**Abbreviation**
6	**Water:** Further assessment work is required for all options to reduce uncertainty regarding potential impacts on water quality (including Shellfish Waters). This includes a recommendation for hydrodynamic and water quality modelling at project level.	Further water quality assessment is required
7	**Water:** Specific impacts during construction, operation and decommissioning should be reduced through the selection and use of appropriate methods to reduce pollution risks, e.g. through the use of best practice marine construction procedures for prevention and control of spillages and discharges of harmful substances (such as antifouling agents, sacrificial anodes, biocides, grouts etc) to the marine environment; for sediment mobilisation and associated turbidity and secondary impacts to avoid unacceptable impacts on marine and benthic fauna.	Undertake a water quality assessment at a project level and apply methods to avoid unacceptable water quality impacts an
8	**Geology Sediments and Coastal Processes:** Further assessment work is required for all options to reduce uncertainty regarding potential impacts on coastal processes. This includes a recommendation for sediment dynamic modelling at project level	Further water quality assessment is required
9	**Geology Sediments and Coastal Processes:** Optimise the location and arrangement of structures and their arrangement during the design process to mitigate any issues of erosion or deposition and resulting impacts on sensitive receptors.	Optimise project design to mitigate erosion and deposition effects
10	**Biodiversity, Flora and Fauna**: Key areas for species and habitats of nature conservation (e.g. legally designated sites, Important Bird Areas, flight corridors and migratory routes) and fisheries value (e.g. spawning grounds) should be avoided, where known, through the positioning and subsequent design of the development.	Avoid key areas for habitats and species
11	**Biodiversity, Flora and Fauna**: Specific impacts on species and habitats (including fisheries) should be reduced through appropriate design (e.g. minimising footprint of the development to minimise loss or damage to seabed habitat), and selection and use of appropriate construction (e.g. timing to avoid key seasons; selection of low noise and minimal vibration installation technologies; utilisation of 'soft start' practices for plant and vessels to minimise disturbance and allow mobile species to move away from areas of disturbance) and operation methods (e.g. use of noise attenuation technologies);	Design project and use appropriate methods and scheduling to minimise disturbance
12	**Biodiversity, Flora and Fauna:** Further work is required at a strategic and project level to determine impacts on international nature conservation sites – to be assessed through the HRA process.	Undertake further work and HRA to determine impacts to European/Ramsar sites

These initial measures may allow certain impact pathways to be removed but it is recognised that this may not result in any of the identified interest features or designated sites being excluded

Table A2c - Additional mitigation measures identified during the HRA for the Draft OWE Plan

These **additional measures** are be undertaken where, without them, it cannot be concluded with certainty that there would not be an adverse effect on the integrity of a European/Ramsar site. As with initial mitigation measures these are generic in nature (because they are at a Plan-level) and they are also divided into two categories: measures that apply across all impacts and measures that relate to particular impact types. One central principle of the measures that apply across all impacts is that there needs to be a clear process for Plan implementation. In particular, the process needs to involve a phased and iterative approach to windfarm deployment linked to ongoing monitoring with the findings feeding back into the next phases of work (i.e. what is termed the Iterative Plan Review (IPR) process - see Section 9.3 of the AA information report). As part of this iterative sequence of work the Scottish Government has undertaken to revisit the OWE SEA and review the OWE Plan every 2 years. The other key consideration is that, as a matter of law, a project will be required to undergo project-level AA (including an in-combination assessment) wherever the possibility of LSE on a European/Ramsar site cannot be excluded.

Additional Mitigation Measures that are applicable across all impact pathways (See Table A2a)	
1	**Undertake phased/iterative approach to plan implementation:** Apply a temporally-phased deploy and monitor approach to project implementation linked to the 2-yearly cycle of OWE Plan review which will inherently also require consideration of the spatial/regional context (e.g. the effects of those on the east or west coast) for project-level AAs to ensure that there are no adverse effects on the integrity of European/Ramsar sites from projects either individually or in-combination with other plans or projects.
2	**Undertake HRAs at project level:** Apply, as a matter of law, a project-level AA wherever the possibility of LSE on a European/Ramsar site cannot be excluded. The scope of any HRA will need to be agreed with Regulator and the Statutory Nature Conservation Agency (SNCA). It is expected to encompass all phases of the proposals from construction (see note re survey work below) to operation and decommissioning it could also included repowering if it were possible to anticipate these requirements in the original proposal. If, as expected, repowering cannot be anticipated for the original proposals then such work will need to be accompanied by a separate project-level HRA.
Additional Mitigation Measures that are related to particular Impact Pathways (See Table A2a)	
3	**Damage to habitat during surveys**: Design an appropriate survey methodology (in consultation with Regulator and SNCA) to provide required data whilst avoiding impacts to designated habitat/species (e.g. disturbance from geophysical surveys, borehole work, trawling).
4	**Disturbance to species from noise during surveys:** Use methods and/or timings to reduce noise (e.g. from geophysical surveys, borehole work, seismic surveys side-scan sonar) and use of standard measures to mitigate and/or avoid effects on designated habitat/species. It is recognised that baseline survey work does not require a separate HRA (through all other vessel activities for construction and maintenance will be included in the project-level HRA, however, Marine Scotland's Licensing Operations Team (MS-LOT), SNCAs and industry are working towards a solution for this in relation to the effects on European Protected Species (EPS) (Erica Knott SNH Pers. Comm.).
5	**Disturbance/damage to species from visual disturbance or collision impacts during surveys**: Schedule or design the work (e.g. by selecting vessel routes and considering issues such as dynamic position effects) to mitigate/avoid visual disturbance and/or collision risk from vessel or shoreline activity
6	**Reductions in water quality during all phase of work**: Use Best Practicable Environmental Option (BPEO) for vessel anchoring/positioning methodology and the implementation of an appropriate Pollution Event Contingency Plan and/or schedule work (relative to tide, season or species life cycle) to avoid adverse effects from the release of suspended sediments especially in areas of known contamination where sediment re-mobilisation could result in toxic effects. Also, identify most appropriate mechanism for disposal of excavated sediment to avoid adverse impacts on designated intertidal/coastal habitat features from smothering. Such measures can include undertaking intertidal cabling works (where cable trenching in the intertidal is unavoidable) at low water to reduce the level of resuspension and transport of sediments.
7	**Biological disturbance during all phase of work:** Ensure that vessels and equipment used during the lifetime of the project are subject to an appropriate inspection regime to address the risk of introducing invasive non-native species through biofouling and also identify an inspection regime to examine colonisation of exposed, un-buried, structural surfaces on the introduced devices (e.g. cable armouring) and agree remediation requirements to address invasive non-native species.
8	**Cable route and design planning to avoid sensitive habitats**. Select cable alignment and landfall locations to avoid effects on designated coastal/intertidal/subtidal habitats and areas of importance for bird interest features. Careful planning of terrestrial site access to avoid effects on designated habitats on or above the upper shore (e.g. vegetated shingle), and employment of appropriate mitigation measures to reduce impacts on these habitats. If such areas cannot be avoided and then alternatives (including non-invasive measures such Horizontal Directional Drilling HDD) will need to be considered to avoid an adverse effect on site integrity. Cable route design should also seek (notwithstanding obligations to address other measures) to minimise cable length and thereby reduce the area disturbed (this approach would normally be taken to reduce costs of materials and construction. Also cable protection methods should be selected for the intertidal/subtidal areas to reduce scour (e.g. burial, scour protection, pinning over bedrock). Burial at selected depth to avoid impacts from EMF may also be required.
9	**Cable installation methods to minimise effects**. Use appropriate (BPEO) installation techniques/standards as well as vessel anchoring/positioning methods to avoid adverse impacts on designated intertidal/coastal habitat features. Such methods can included allowing cables to self-bury in subtidal soft sediments rather than physically trench them in to reduce disturbance and lessen the period of construction or, where cable trenching in the intertidal is unavoidable, backfilling of trenches to reduce the potential for sediment remobilisation and facilitate recovery of benthic communities.
10	**Turbine location, design planning to avoid sensitive habitats.** Select turbine locations and designs to avoid effects (direct and indirect) on designated site habitats. This includes careful consideration of device spacing and configuration within an array. It also includes micro-siting of piles, mooring blocks and gravity-based turbine to avoid vulnerable benthic habitats and/or the use of scour protection to reduce impacts.
11	**Turbine installation methods to minimise effects**. Use appropriate (BPEO) installation techniques/standards as well as vessel anchoring/positioning methods to avoid adverse impacts on designated intertidal/coastal habitat features. They could also involve the use of platforms with dynamic positioning (DP) rather than physical anchoring or jack-up feet. However, this should only be used where there is a clear and significant reduction in risk.
12	**Cable and turbine decommissioning methods to minimise effects.** Use appropriate (and BPEO) decommissioning techniques/standards as well as vessel anchoring/positioning methods to avoid impacts to designated intertidal/coastal/subtidal habitat features (e.g. leaving safely buried de-energised cable in situ or having. turbine bases cut off below seabed, gravity bases left in situ, re-use of structures where possible, removal of debris from the sea bed)
13	**Disturbance from noise during construction, operation and decommissioning**: Use methods and/or timings to reduce noise (e.g. from excavation, drilling, seabed levelling, vessel movements) and use of standard measures to mitigate and/or avoid effects on designated habitat/species.
14	**Disturbance/damage from visual/collision/avoidance impacts during construction, operation and decommissioning**: Schedule or design the work to mitigate and/or avoid effects on designated habitat/species as a result of visual disturbance and/or collision risk from vessel activity, construction work, windfarm operations (including lighting) and shoreline activity.

Table A3 – List of European/Ramsar sites that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

This preliminary LSE screening process was undertaken on the basis that no impact pathway exists between the proposed plan and non-coastal terrestrial habitat and specie interest features. Thus, for example, features that were excluded at this first stage included woodland, peatlands, heaths and bogs, as well as species associated with such terrestrial habitats (e.g. snail species). Freshwater habitats and species which have no connectivity with the Draft Plan were also screened out at this stage. Birds that are entirely resident within inland terrestrial habitats, do not forage at sea and do not migrate internationally were also excluded, as were a number of bird species that are qualifying interests of SPAs as breeding populations only. For further details see Section 5.5 of the pre-screening report.

Red Text = European/ Ramsar sites **inside** medium term option areas

Total: 11 sites (5 SPA and 6 SAC)

SPA
Flannan Isles
North Rona & Sula Sgeir
St Abb's Head to Fast Castle
Sule Skerry and Sule Stack
The Shiant Isles
5 SPA sites with LSE

SAC
North Rona
Luce Bay and Sands
Berwickshire and North Northumberland Coast
Moray Firth
St Abb's Head to Fast Castle
East Mingulay pSAC
6 SAC sites with LSE

Sites highlighted in bold below were screened out after the pre-screening for reasons presented in Table A4

Key: Normal text	**Key: bold text**
LSE identified at pre-screening	**LSE identified at screening**
no LSE identified at pre-screening	**no LSE identified at screening**
no information at pre-screening	**no information at screening**

European/ Ramsar sites inside medium term option areas and within 100km buffer zone	**Total: 567 sites** (356 sites with LSE at Pre-screeening **and 371 after screeening)**
SPA	
Abernethy Forest SPA	Loch Ashie SPA
Achanalt Marshes SPA	Loch Eye SPA
Ailsa Craig SPA	Loch Flemington SPA
Aird & Borve, Benbecula SPA	Loch Ken and River Dee Marshes SPA
Anagach Woods SPA	Loch Knockie and Nearby Lochs SPA
Antrim Hills SPA	Loch Leven SPA
Arran Moors SPA	Loch Lomond SPA
Assynt Lochs SPA	Loch Maree SPA
Auskerry SPA	Loch of Inch and Torrs Warren SPA
Ballochbuie SPA	Loch of Kinnordy SPA
Beinn Dearg SPA	Loch of Lintrathen SPA
Belfast Lough Open Water SPA	Loch of Skene SPA
Belfast Lough SPA	Loch of Strathbeg SPA
Ben Wyvis SPA	Loch Ruthven SPA
Black Cart SPA	Loch Shiel SPA
Bowland Fells*	Loch Spynie SPA
Bridgend Flats, Islay SPA	Loch Vaa SPA
Buchan Ness to Collieston Coast SPA	Lochnagar SPA
Caenlochan SPA	Lochs of Spiggie & Brow SPA
Cairngorms SPA	Lough Foyle SPA
Caithness and Sutherland Peatlands SPA	Lough Neagh and Lough Beg SPA
Caithness Lochs SPA	Lough Swilly SPA
Calf of Eday SPA,	Marwick Head SPA
Cameron Reservoir SPA	Mingulay and Berneray SPA
Canna and Sanday SPA	Mointeach Scadabaigh SPA
Cape Wrath SPA	Monach Isles SPA
Carlingford Lough SPA	Montrose Basin SPA
Castle Loch, Lochmaben SPA	Morangie Forest SPA
Cnuic agus Cladach Mhuile SPA	Moray and Nairn Coast SPA
Coll SPA	Morecambe Bay SPA
Coll (corncrake) SPA	Mousa SPA
Copeland Islands SPA	Muir of Dinnet SPA
Copinsay SPA	Muirkirk and North Lowther Uplands SPA
Coquet Island SPA	Ness and Barvas, Lewis SPA
Craigmore Wood SPA	North Caithness Cliffs SPA
Cromarty Firth SPA	North Colonsay and Western Cliffs SPA
Cuillins SPA	North Harris Mountains SPA
Damsay and Lethen Forest SPA	North Inverness Lochs SPA
Din Moss – Hoselaw Loch SPA	North Pennine Moors SPA
Dornoch Firth and Loch Fleet SPA	North Rona & Sula Sgeir SPA
Duddon Estuary SPA	North Sutherland Coastal Islands SPA
Dundalk Bay SPA	North Uist Machair SPA
East Caithness Cliffs SPA	Northumbria Coast SPA
East Sanday Coast SPA	Noss SPA
Eilean na Muice Duibhe (Duich Moss), Islay SPA	Nowt SPA
Eoligarry, Barra SPA	Orkney Mainland Moors SPA
Fair Isle SPA	Oronsay and South Colonsay SPA
Fala Flow SPA	Otterswick and Graveland SPA
Farne Islands SPA	Outer Ards SPA
Fetlar SPA	Papa Stour SPA
Firth of Forth SPA	Papa Westray SPA
Firth of Tay & Eden Estuary SPA	Pentland Firth Islands SPA
Flannan Isles SPA	Priest Island SPA
Forest of Clunie SPA	Ramna Stacks and Gruney
Forth Islands SPA	Rathlin Island SPA
Foula SPA	Renfrewshire Heights SPA
Fowlsheugh SPA	Rinns of Islay SPA
Gladhouse Reservoir SPA	River Spey - Insh Marshes SPA
Glas Eileanan SPA	Ronas Hill – North Roe and Tingon SPA
Glen App and Galloway Moors SPA	Rousay SPA
Glen Tanar SPA	Rum SPA
Greenlaw Moor SPA	Sheep Island SPA
Greers Isle SPA	Slamannan Plateau SPA
Gruinart Flats, Islay SPA	Sleibhtean agus Cladach Thiriodh (Tiree wetland and coast) SPA
Handa Island SPA	South Tayside Goose Roosts SPA
Hermaness, Saxa Vord and Valla Field SPA	South Uist Machair and lochs SPA
Holburn Lake and Moss SPA	St Abb's Head to Fast Castle SPA
Horn Head to Fanad Head SPA	St Kilda SPA
Hoy SPA	Strangford Lough SPA
Imperial Dock Lock, Leith SPA	Strath Carnaig and Strath Fleet Moors SPA
Inishtrahull SPA	Sule Skerry and Sule Stack SPA
Inner Clyde Estuary SPA	Sumburgh Head SPA
Inner Moray Firth SPA	Swittha SPA
Inverpolly, Loch Urigill and Nearby Lochs SPA	The Ca SPA
Jura, Scarba and the Garvellachs SPA	The Shiant Isles SPA
Killough Bay SPA	Tips of Corsemaul and Tom Mor SPA
Kilpheder to Smerclate, South Uist SPA	Tiree (Corncrake) SPA
Kintyre Goose Roosts SPA	Trawbreaga Bay SPA
Kinveachy Forest SPA	Treshnish Isles SPA
Knapdale Lochs SPA	Troup, Pennan and Lion's Heads SPA
Laggan, Islay SPA	Upper Solway Flats and Marshes SPA
Lairg and Strathbrora Lochs SPA	West Inverness-shire Lochs SPA
Langholm – Newcastleton Hills SPA	West Westray SPA
Larne Lough SPA	Wester Ross Lochs SPA
Leighton Moss SPA	Westwater SPA
Lewis Peatlands SPA	Ythan Estuary, Sands of Forvie and Meikle Loch SPA
Lindisfarne SPA	174 SPAs* of which 149 have LSE at pre-screening
Liverpool Bay / Bae Lerpwl SPA	**None removed at screening 149 remain with LSE**

* Blue text = One site added at screening following extension to 100km plan-wide boundary that occurred when short-term options were included.

Bold text sites removed following screening

Red Text = European/ Ramsar sites **inside** medium term option areas

SAC			
Abhainn Clais An Eas and Allt a Mhuilinn SAC	Fannich Hills SAC	Moniack Gorge SAC	South Uist Machair SAC
Achnahaird SAC	Faray and Holm of Faray SAC	Montlaghs Moss SAC	South-East Islay Skerries SAC
Airds Moss SAC	Feur Lochain SAC	Moor House – Upper Teesdale SAC	St Abb's Head to Fast Castle SAC
Altnaharra SAC	Firth of Lorn SAC	Moorfoot Hills SAC	St Kilda SAC
Amat Woods SAC	Firth of Tay & Eden Estuary SAC	Moray Firth SAC	Strangford Lough SAC
Ardgour Pinewoods SAC	Flow of Dergoals SAC	Morecambe Bay Pavements SAC	Strath SAC
Ardmeanach SAC	Foinaven SAC	Morecambe Bay SAC	**Strathglass Complex SAC**
Ardnamurchan Burns SAC	Ford Moss SAC	Morrone Birkwood SAC	Strathy Point SAC
Ardvar and Loch a'Mhuilinn Woodlands SAC	Galloway Oakwoods SAC	Mortlach Moss SAC	Stromness Heaths and Coast SAC
Asby Complex SAC	Garron Plateau SAC	Morven and Mullachdubh SAC	Subberthwaite, Blawith and Torver Low Commons SAC
Ascrib, Isay and Dunvegan SAC	Garron Point SAC	**Morvern Woods SAC**	Sullom Voe SAC
Aughnadarragh Lough SAC	Garry Bog SAC	Mound Alderwoods SAC	Sunart SAC
Ballochbuie SAC	Glac na Criche SAC	Mousa SAC	Tarbert Woods SAC
Ballyhoorisky Point To Fanad Head SAC	Glen Beasdale SAC	**Muir of Dinnet SAC**	Tarn Moss SAC
Ballykilbeg SAC	**Glen Creran Woods SAC**	**Mull Oakwoods SAC**	**Taynish and Knapdale Woods SAC**
Ballynahone Bog SAC	Glen Shiira SAC	Mull of Galloway SAC	**Tayvallich Juniper and Coast SAC**
Banagher Glen SAC	**Glen Tanar SAC**	Mulroy Bay SAC	Teal Lough SAC
Bankhead Moss, Beith SAC	Glenartney Juniper Wood SAC	Murlough SAC	The Maim SAC
Bann Estuary SAC	Green Hill of Strathdon SAC	Naddle Forest SAC	The Vadills SAC
Barry Links SAC	Harbottle Moors SAC	**Ness Woods SAC**	Threepwood Moss SAC
Beinn a'Ghlo SAC	Hascosay SAC	Newham Fen SAC	Tingon SAC
Beinn Bhan SAC	Hill of Towanreef SAC	North Antrim Coast SAC	Tiree Machair SAC
Beinn Dearg SAC	Hollymount SAC	North Fetlar SAC	Traigh na Berie SAC
Beinn Iadain and Beinn na h'Uamha SAC	Hoy SAC	North Harris SAC	Tranarossan And Meelmore Lough SAC
Ben Wyvis SAC	Inchnadamph SAC	North Inishowen Coast SAC	Treshnish Isles SAC
Benn Lawers SAC	Ingleborough Complex SAC*	North Northumberland Dunes SAC	Trotternish Ridge SAC
Berriedale and Langwell Waters SAC	Inishtrahull SAC	North Pennine Dales Meadows SAC	Tulach Hill and Glen Fender Meadows SAC
Berwickshire and North Northumberland Coast SAC	**Insh Marshes SAC**	North Pennine Moors SAC	Turclossie Moss SAC
Binevenagh SAC	Inversadale Peatlands SAC	North Rona SAC	Turflundie Wood SAC
Black Bog SAC	Invernaver SAC	North Shotts Moss SAC	Turmennan SAC
Black Loch Moss SAC	Inverpolly SAC	North Uist Machair and islands SAC	Tweed Estuary SAC
Blawhorn Moss SAC	Isle of May SAC	Obain Loch Euphoirt SAC	Tyne and Allen River Gravels SAC
Border Mires, Kielder – Butterburn SAC	Keen of Hamar SAC	Oldshoremore and Sandwood SAC	Tynron Juniper Wood SAC
Borders Woods	Keltneyburn SAC	Oniich to North Ballachulish Woods SAC	Ullswater Oakwoods SAC
Borrowdale Woodland Complex SAC	Kilhern Moss SAC	Oronsay SAC	Upper Ballinderry River SAC
Braehead Moss SAC	Kindrum Lough SAC	Owenkillew River SAC	Upper Nithsdale Woods SAC
Breen Wood SAC	**Kinloch and Kyleakin Hills SAC**	Papa Stour SAC	Upper Stratheam Oakwoods SAC
Broubster Leans SAC	Kinveachy Forest SAC	Peatlands Park SAC	Urquhart Bay Wood SAC
Buchan Ness to Collieston SAC	Kippenrait Glen SAC	Peeswit Moss SAC	Walton Moss SAC
Burrow Head SAC	Kirkcowan Flow SAC	Pitkeathly Mires SAC	Wast Water SAC
Caenlochan SAC	Ladder Hills SAC	Pitmaduthy Moss SAC	Waukenwae Moss SAC
Cairngorms SAC	Lake District High Fells SAC	Raeburn Flow SAC	West Fannyside Moss SAC
Caithness and Sutherland Peatlands SAC	Langavat SAC	Rassal SAC	Whitlaw and Branxholme SAC
Cape Wrath SAC	Lecale Fens SAC	Rathlin Island SAC	Witherslack Mosses SAC
Carlingford Mountain SAC	Ledmore Wood SAC	Rea's Wood and Farr's Bay SAC	Wolf Island Bog SAC
Carlingford Shore SAC	Lendalfoot Hills Complex SAC	Red Moss of Netherley SAC	Yell Sound Coast SAC
Carn – Glenshane Pass SAC	**Lewis Peatlands SAC**	Red Moss SAC	Yewbarrow Woods SAC
Carn nan Tri-Tighearnan SAC	Lismore Lochs SAC	Reidside Moss SAC	308 SACs of which 135 have LSE at pre-screening
Carsegowan Moss SAC	Little Gruinard River SAC	Rhidorroch Woods SAC	**23 removed at screening 112 remain with LSE**
Cawdor Wood SAC	Loch a Phuill SAC	Rigg – Bile SAC	
Claish Moss and Kentra Moss SAC	Loch Achnacloich SAC	Rinns of Islay SAC	
Clints Quarry SAC	Loch Creran SAC	River Bladnoch SAC	
Clyde Valley Woods SAC	**Loch Eye Woods SAC**	River Borgie SAC	
Coalburn Moss SAC	**Loch Fada SAC**	River Dee SAC	
Cockinhead Moss SAC	Loch Laxford SAC	River Derwent and Bassenthwaite Lake SAC	
Coille Mhór SAC	**Loch Lomond Woods SAC**	River Eden SAC	
Coladoir Bog SAC	**Loch Maree Complex SAC**	River Ehen SAC	
Coll Machair SAC	Loch Moidart and Loch Shiel Woods SAC	River Evelix SAC	
Conon Islands SAC	Loch nam Madadh SAC	River Kent SAC	
Coyles of Muick SAC	**Loch of Inbister SAC**	River Kerry SAC	
Craigengar SAC	Loch of Stenness SAC	River Moidart SAC	
Craighall Gorge SAC	Loch of Wester SAC	River Moriston SAC	
Cranley Moss SAC	Loch Roag Lagoons SAC	River Naver SAC	
Creag nan Gamhainn SAC	**Loch Ruthven SAC**	River Oykel SAC	
Culbin Bar SAC	Loch Ussie SAC	River South Esk SAC	
Cumbrian Marsh Fritillary Site SAC	Loch Watten SAC	River Spey SAC	
Curran Bog SAC	Lochs Duich, Long and Alsh Reefs SAC	River Tay SAC	
Dam Wood SAC	Lough Nagreany Dunes SAC	River Teith SAC	
Dead Island Bog SAC	Lough Swilly SAC	River Thurso SAC	
Derryleckagh SAC	Lower Findhorn Woods SAC	River Tweed SAC	
Dinnet Oakwood SAC	Lower River Spey – Spey Bay SAC	Roman Wall Loughs SAC	
Dogden Moss SAC	Luce Bay and Sands SAC	Ronas Hill – North Roe SAC	
Domoch Firth and Morrich More SAC	Magheradrumman Bog SAC	Rostrevor Wood SAC	
Drigg Coast SAC	Magilligan SAC	Roudsea Wood and Mosses SAC	
Duddon Mosses SAC	Main Valley Bogs SAC	Rum SAC	
Dun Moss and Forest of Alyth Mires SAC	**Merrick Kells SAC**	Sanday SAC	
Dundalk Bay SAC	Methven Moss SAC	Sands of Forvie SAC	
Dunkeld–Blairgowrie Lochs SAC	Mingarry Burn SAC	Sheephaven SAC	
Durness SAC	Mochrum Lochs SAC	Shelforkie Moss SAC	
Dykeneuk Moss SAC	Moffat Hills SAC	Shingle Islands SAC	
East Caithness Cliffs SAC	Moidach More SAC	Simonside Hills SAC	
East Mires and Lumbister SAC	Moine Mhór SAC	Sligachan Peatlands SAC	
Eastern Mournes SAC	Mointeach nan Lochain Dubha SAC	Slochd SAC	
Eilean na Muice Duibhe SAC	Mointeach Scadabhaigh SAC	Solway Firth SAC	
Eileanan agus Sgeiran Lios mór SAC	Monach Islands SAC	Solway Mosses North SAC	
Endrick Water SAC	Moradh Mor SAC	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh) SAC	
Fair Isle SAC	Monadhliath SAC	South Solway Mosses SAC	

*Blue text = Site added at screening following extension to 100km plan-wide boundary that occurred when short-term options were included.

Bold text sites removed following screening

Red Text = European/ Ramsar sites **inside** medium term option areas

Ramsar
Ballaugh Curragh
Ballynahone Bog Ramsar
Belfast Lough Ramsar
Black Bog Ramsar
Bridgend Flats, Islay Ramsar
Cairngorm Lochs Ramsar
Caithness and Sutherland Peatlands Ramsar
Caithness Lochs Ramsar
Cameron Reservoir Ramsar
Carlingford Lough Ramsar
Castle Loch, Lochmaben Ramsar
Claish Moss
Coll Ramsar
Cromarty Firth Ramsar
Din Moss – Hoselaw Loch Ramsar
Dornoch Firth and Loch Fleet Ramsar
Duddon Estuary Ramsar
East Sanday Coast Ramsar
Eilean na Muice Duibhe Ramsar
Esthwaite Water Ramsar
Fala Flow Ramsar
Firth of Forth Ramsar
Firth of Tay & Eden Estuary Ramsar
Garron Plateau Ramsar
Garry Bog Ramsar
Gladhouse Reservoir Ramsar
Greenlaw Moor Ramsar
Gruinart Flats, Islay Ramsar
Holburn Lake and Moss Ramsar
Inner Clyde Estuary Ramsar
Inner Moray Firth Ramsar
Irthinghead Mires
Killough Bay Ramsar
Kintyre Goose Roosts Ramsar
Larne Lough Ramsar
Leighton Moss Ramsar
Lewis Peatlands Ramsar
Lindisfarne Ramsar
Loch an Duin
Loch Eye Ramsar
Loch Ken and River Dee Marshes Ramsar
Loch Leven Ramsar
Loch Lomond Ramsar
Loch Maree Ramsar
Loch of Inch and Torrs Warren Ramsar
Loch of Kinnordy Ramsar
Loch of Lintrathen Ramsar
Loch of Ruthven Ramsar
Loch of Skene Ramsar
Loch of Strathbeg Ramsar
Loch Spynie Ramsar
Lough Foyle Ramsar
Lough Neagh and Lough Beg Ramsar
Montrose Basin Ramsar
Moray and Nairn Coast Ramsar
Morecambe Bay Ramsar
Muir of Dinnet Ramsar
North Uist Machair and Islands Ramsar
Northumbria Coast Ramsar
Outer Ards Ramsar
Rinns of Islay Ramsar
River Spay - Insh Marshes Ramsar
Ronas Hill - North Roe and Tingon Ramsar
Silver Flowe
Sleibhtean agus Cladach Thiriodh (Tiree wetland and coast) Ramsar
South Tayside Goose Roosts Ramsar
South Uist Machair and Lochs Ramsar
Strangford Lough Ramsar
Trawbreaga Bay
Turmennan Lough Ramsar
Upper Solway Flats and Marshes Ramsar
Westwater Ramsar
Ythan Estuary, Sands of Forvie and Meikle Loch Ramsar
73 Ramsar sites of which 62 have LSE at pre-screening
None removed at screening 62 remain with LSE

SCI
Darwin Mounds SCI
River Roe and Tributaries SCI
Stanton Banks SCI
3 SCIs all with LSE at pre-screening
1 removed at screening
2 remain with LSE

cSAC
Bolton Fell Moss cSAC
Red Bay cSAC
River Faughan and Tributaries cSAC
Shell Flat cSAC
Wyville Thomson Ridge Candidate cSAC
5 cSACs sites 4 with LSE at pre-screening
1 removed at screening
3 remain with LSE

pSAC
East Mingulay pSAC
Sound of Barra pSAC
Lune Deep pSAC
3 pSACs with LSE at pre-screening
None removed at screening

pSPA
Ladder Hills pSPA
No pSPAs with LSE at pre-screening

SACs Removed at Screening (Stage 5)
Darwin Mounds SCI
Wyville Thomson Ridge Candidate cSAC
Caithness and Sutherland Peatlands SAC
Glen Creran Woods SAC
Kinloch and Kyelakin Hills SAC
Lewis Peatlands SAC
Loch Etive Woods SAC
Loch Ruthven SAC
Loch Fada SAC
Loch Maree Complex SAC
Loch of Ibister SAC
Morvern Woods SAC
Mull Oakwoods SAC
Taynish and Knapdale Woods SAC
Tayvallich Juniper and Coast SAC
Strathglass Complex SAC
Glen Tanar SAC
Ness Woods SAC
Insh Marshes SAC
Loch Lomond Woods SAC
Cairngorms SAC
Muir of Dinnet SAC
Ballochbuie SAC
Merrick Kells SAC
Dunkeld-Blairgowrie Lochs SAC
25 sites removed at screening
1 SCI, 1 SAC & 23 SACs

Table A4 – List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

Key: Normal text	
LSE identified at pre-screening and no change made at screening	**Key: bold text**
no LSE identified at pre-screening	**no LSE identified following screening**
no information at pre-screening	**no information at screening**

Designation	Site Name	Country	Interest features for which there is a likely significantly effect (LSE)	Interest features for which there is no likely significantly effect (LSE)
Special Protection Areas				
SPA	Abernethy Forest SPA	Scotland		Breedin populations of Osprey, Western Capercaillie and Scottish crossbill residents of the area.
SPA	Achanalt Marshes SPA	Scotland	Wood sandpiper during the breeding season	
SPA	Ailsa Craig SPA	Scotland	65, 000 seabirds including Northern gannet, Lesser black-backed gull, Herring gull, Black-legged kittiwake and Common guillemot during the breeding season	
SPA	Aird & Borve, Benbecula SPA	Scotland	Corncrake during the breeding season	
SPA	Anagach Woods SPA	Scotland		Area regularly supports Western Capercaillie during the year
SPA	Antrim Hills SPA	Northern Ireland		Breeding populations of Hen harrier and Merlin
SPA	Arran Moors SPA	Scotland		Breeding populations of Hen harrier
SPA	Assynt Lochs SPA	Scotland	Breeding populations of Black-throated diver	
SPA	Auskerry SPA	Scotland	Arctic Tern and European Storm Petrel during breeding season	
SPA	Ballochbuie SPA	Scotland		Area regularly supports Western Capercaillie during the year and breeding populations of Scottish crossbill
SPA	Beinn Dearg SPA	Scotland		Breeding population of Eurasian Dotterel
SPA	Belfast Lough Open Water SPA	Northern Ireland	Overwintering Great crested grebe	
SPA	Belfast Lough SPA	Northern Ireland	Overwintering populations of Common redshank	
SPA	Ben Wyvis SPA	Scotland		Breeding population of Eurasian Dotterel
SPA	Black Cart SPA	Scotland	Overwintering populations of Whooper swan	
SPA	Bowland Fells SPA	England	Breeding Lesser Black-backed Gull	Breeding Hen harrier and Merlin
SPA	Bridgend Flats, Islay SPA	Scotland	Overwintering Barnacle goose	
SPA	Buchan Ness to Collieston Coast SPA	Scotland	95, 000 seabirds including Northern fulmar, European shag, Herring gull, Black-legged kittiwake and Common guillemot during the breeding season	
SPA	Caenlochan SPA	Scotland		Breeding population of Golden eagle (non-coastal) and Eurasian dotterel
SPA	Cairngorms SPA	Scotland		Resident population of Dotterel, Capercaillie and breeding populations of Golden eagle (non-coastal), Scottish Crossbill, Osprey, Peregrine Falcon and Merlin.
SPA	Caithness and Sutherland Peatlands SPA	Scotland	Breeding populations of Black-throated Diver, Red-throated Diver, European Golden Plover, Wood Sandpiper, Dunlin and Golden eagle (coastal)	Breeding population of hen harrier, Short-eared Owl and merlin.
SPA	Caithness Lochs SPA	Scotland	Overwintering populations of Greenland White-fronted Goose, Whooper Swan & Greylag Goose	
SPA	Calf of Eday SPA,	Scotland	30,000 seabirds including Common Guillemot, Black-legged Kittiwake, Great Black-backed Gull, Great Cormorant & Northern Fulmar during breeding season	
SPA	Cameron Reservoir SPA	Scotland	Overwintering pink-footed goose	
SPA	Canna and Sanday SPA	Scotland	21,000 seabirds including European shag, Herring gull, Guillemot and Atlantic puffin during the breeding season	
SPA	Cape Wrath SPA	Scotland	50,000 seabirds including Atlantic Puffin, Razorbill, Guillemot, Kittiwake & Fulmar during breeding season	
SPA	Carlingford Lough SPA	Northern Ireland/Ireland	Breeding populations of Common tern and Sandwich tern	
SPA	Castle Loch, Lochmaben SPA	Scotland	Overwintering pink-footed goose	
SPA	Cnuic agus Cladach Mhuile SPA	Scotland	Resident population of Golden eagle (coastal)	
SPA	Coll SPA	Scotland	Overwintering populations of barnacle goose and Greenland white-fronted goose	
SPA	Coll (corncrake) SPA	Scotland	A breeding population (24 individuals) of Corncrake	
SPA	Copeland Islands SPA	Northern Ireland	Breeding population of Manx shearwater and Arctic tern	
SPA	Copinsay SPA	Scotland	70,000 seabirds including Guillemot, Kittiwake, Great Black-backed Gull & Fulmar during breeding season	
SPA	Coquet Island SPA	England	Breeding population of Arctic tern, Common tern, Sandwich tern and Roseate tern	
SPA	Craigmore Wood SPA	Scotland		Resident population of Western Capercaillie
SPA	Cromarty Firth SPA	Scotland	Breeding population of Common tern and overwintering Whooper swan, Greylag goose, Bar-tailed godwit and 30,200 Waterfowl.	Breeding populations of Osprey.
SPA	Cuillins SPA	Scotland	Resident population of Golden eagle (coastal)	
SPA	Darnaway and Lethen Forest SPA	Scotland		Resident population of Western Capercaillie
SPA	Din Moss – Hoselaw Loch SPA	Scotland	Overwintering population of Greylag goose and pink-footed goose	
SPA	Dornoch Firth and Loch Fleet SPA	Scotland	Overwintering Bar-tailed Godwit, Greylag Goose, Wigeon & 35202 waterfowl species	Breeding populations of Osprey.
SPA	Duddon Estuary SPA	England	Breeding populations of Sandwich tern and overwintering Northern pintail, Red knot, Redshank and 31,505 waterfowl species.	
SPA	Dundalk Bay SPA	Ireland	The site supports a population of 40,781 wintering waterfowl including internationally important populations of Brent Goose, Black-tailed Godwit and Bar-tailed Godwit. There is also a range of other species which occur in numbers of national importance – these are Great Crested Grebe, Greylag Goose, Shelduck, Mallard, Pintail, Red-breasted Merganser , Oystercatcher , Ringed Plover, Golden Plover , Great Northern Diver, Grey Heron, Little Stint, Curlew sandpiper Grey Plover, Lapwing, Knot, Dunlin, Curlew and Redshank.	
SPA	East Caithness Cliffs SPA	Scotland	Internationally important breeding populations of Razorbill, Herring gull, Shag, Kittiwake, Guilliemot and an assemblage of 300,000 seabirds including Puffin, Great Black-backed Gull, Cormorant and Fulmar.	Nationally important breeding population of Peregrine Falcon
SPA	East Sanday Coast SPA	Scotland	Overwintering Purple Sandpiper & Turnstone	
SPA	Eilean na Muice Duibhe (Duich Moss), Islay SPA	Scotland	Overwintering Greenland white-fronted goose	
SPA	Eoligarry, Barra SPA	Scotland	Breeding population of Corncrake	
SPA	Fair Isle SPA	Scotland	Nationally important breeding population of Artic Tern and internationally important breeding population of Guilliemot and an assemblage of 180,000 seabirds including Puffin, Razorbill, Kittiwake, Arctic Skua, Shag, Gannet and Fulmar.	
SPA	Fala Flow SPA	Scotland	Overwintering pink-footed goose	
SPA	Farne Islands SPA	England	Breeding population of Sandwich tern, Arctic tern and Common tern	
SPA	Fetlar SPA	Scotland	Breeding populations of Arctic tern, Red-necked Phalarope, Dunlin, Great Skua, Whimbrel and an assembalge of 22,000 seabirds including Arctic Skua and Fulmar during breeding season	
SPA	Firth of Forth SPA	Scotland	Overwintering Red-throated diver, Oystercatcher, Bar-tailed godwit, Golden Plover, Slavonian grebe, Sandwich tern, Pink-footed goose, Ruddy turnstone, Red knot, Shelduck, Redshank, and an assemblage of 95,000 waterfowl species including Great crested grebe, Great cormorant, Eurasian Wigeon, Mallard, Greater scaup, Common eider, Long-tailed duck, Black scoter, Velvet scoter, Common golden eye, Red-breasted merganser, Ringed plover, Grey Plover, Northern lapwing, Dunlin, and Eurasian curlew.	
SPA	Firth of Tay & Eden Estuary SPA	Scotland	Breeding population of Little tern and overwintering populations of Bar-tailed godwit, Greylag goose, Pink-footed goose, Redshank and an assemblage of 48,000 waterfowl species including Great cormorant, Common shelduck, Common eider, Long-tailed duck, Black scoter, Velvet scoter, Common goldeneye, Oystercatcher, Grey plover, Sanderling, Dunlin and Black-tailed godwit.	Breeding population of Marsh harrier
SPA	Flannan Isles SPA	Scotland	Breeding population of Leach's storm petrel and an assemblage of 50,000 seabirds including Atlantic puffin, Razorbill, Guillemot, Kittiwake and Fulmar during breeding season.	
SPA	Forest of Clunie SPA	Scotland		Breeding population of Hen harrier, Osprey, Short-eared owl and merlin.
SPA	Forth Islands SPA	Scotland	Breeding populations of Roseate tern, Common tern, Arctic tern, Sandwich tern, Atlantic Puffin, Lesser Black-backed Gull, Gannet, Shag and an assemblage of 90,000 seabirds including Fulmar, Cormorant, Herring Gull, Kittiwake, Guillemot, Razorbill and during the breeding season.	
SPA	Foula SPA	Scotland	250,000 seabirds including Red-throated Diver, Fulmar, Leach's Storm-petrel, Shag, Arctic Skua, Great Skua, Razorbill, Kittiwake, Puffin, Guillemot, & Arctic Tern during breeding season	
SPA	Fowlsheugh SPA	Scotland	145,000 seabirds including Fulmar, Herring gull, Kittiwake, Guillemot and Razorbill during the breeding season	

Table A4 – List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

Key: Normal text	
LSE identified at pre-screening and no change made at screening	**Key: bold text**
no LSE identified at pre-screening	**no LSE identified following screening**
no information at pre-screening	**no information at screening**

SPA	Gladhouse Reservoir SPA	Scotland	Overwintering pink-footed goose and 3124 waterfowl species	
SPA	Glas Eileanan SPA	Scotland	Breeding population of common tern	
SPA	Glen App and Galloway Moors SPA	Scotland		Breeding population of Hen harrier
SPA	Glen Tanar SPA	Scotland		Scottish crossbill and resident population of Western Capercaillie. Breeding population of Hen harrier and Osprey.
SPA	Greenlaw Moor SPA	Scotland	Overwintering Pink-footed goose	
SPA	Greers Isle SPA	Ireland	Nationally important populations of Sandwich Tern, the Common Gull and Black-headed Gull.	
SPA	Gruinart Flats, Islay SPA	Scotland	Overwintering population of Barnacle goose, Light-bellied brent goose, Greenland White-fronted goose.	Red-billed chough
SPA	Handa Island SPA	Scotland	200,000 seabirds including Kittiwake, Fulmar, Razorbill & Guillemot during breeding season.	
SPA	Hermaness, Saxa Vord and Valla Field SPA	Scotland	157,500 seabirds including Red-throated Diver, Gannet, Fulmar, Guillemot, Great Skua & Puffin during breeding season	
SPA	Holburn Lake and Moss SPA	England	Overwintering Greylag goose	
SPA	Horn Head to Fanad Head SPA	Ireland	The site supports an internationally important assemblage of seabirds which include nationally important populations of Fulmar, Cormorant, Shag, Kittiwake, Guillemot, Razorbill and Black Guillemot. The Greenland white-fronted goose and Barnacle goose are also of national importance.	Chough feed along the vegetated sea cliffs
SPA	Hoy SPA	Scotland	120,000 seabirds including Red-throated Diver, Puffin, Guillemot, Kittiwake, Great Black-backed Gull, Arctic Skua, Fulmar & Great Skua during breeding season.	Breeding populations of Peregrine Falcon.
SPA	Imperial Dock Lock, Leith SPA	Scotland	Breeding population of common tern	
SPA	Inishtrahull SPA	Ireland	Nationally important populations of Shag, Common gull and Great black-backed gull.	
SPA	Inner Clyde Estuary SPA	Scotland	Overwintering Redshank	
SPA	Inner Moray Firth SPA	Scotland	Breeding population of Common tern and overwintering Greylag goose, Bar-tailed godwit, Redshank and Red-breasted merganser.	Breeding population of Osprey.
SPA	Inverpolly, Loch Urigill and Nearby Lochs SPA	Scotland	Breeding populations of Black-throated diver	
SPA	Jura, Scarba and the Garvellachs SPA	Scotland	Regulary supports Golden eagle (coastal).	
SPA	Killough Bay SPA	Northern Ireland	Overwintering light-bellied brent goose	
SPA	Kilpheder to Smerclate, South Uist SPA	Scotland	Breeding population of Corncrake	
SPA	Kintyre Goose Roosts SPA	Scotland	Overwintering Greenland white-fronted goose	
SPA	Kinveachy Forest SPA	Scotland		Breeding population of Scottish crossbill and resident population of Western Capercaillie
SPA	Knapdale Lochs SPA	Scotland	Breeding population of black-throated diver	
SPA	Laggan, Islay SPA	Scotland	Overwintering Barnacle Goose and Greenland white-fronted goose	
SPA	Lairg and Strathbrora Lochs SPA	Scotland	Breeding population of Black-throated Diver	
SPA	Langholm – Newcastleton Hills SPA	Scotland		Breeding population of hen harrier
SPA	Larne Lough SPA	Northern Ireland	Breeding population of common tern and roseate tern and overwintering light-bellied brent goose	
SPA	Leighton Moss SPA	England		Breeding populations of Great bittern and Eurasian marsh harrier
SPA	Lewis Peatlands SPA	Scotland	Breeding population of red-throated diver, black-throated diver, golden plover, greenshank, dunlin and Golden eagle (coastal).	Breeding populations of merlin
SPA	Lindisfarne SPA	England	Breeding population of roseate tern and little tern and overwintering populations of whooper swan, Bar-tailed godwit, Golden plover, Wigeon, Greylag goose, Light-bellied brent goose, Sanderling, Dunlin, Ringed plover, Long-tailed duck, Red-breasted merganser, Shelduck, Eider and Grey plover.	
SPA	Liverpool Bay / Bae Lerpwl SPA	England/Wales	Overwintering Red-throated diver, Common scoter and 55,597 waterfowl.	
SPA	Loch Ashie SPA	Scotland	Breeding population of Slavonian grebe	
SPA	Loch Eye SPA	Scotland	Overwintering populations of Whooper Swan & Greylag Goose	
SPA	Loch Flemington SPA	Scotland	Breeding population of Slavonian grebe	
SPA	Loch Ken and River Dee Marshes SPA	Scotland	Overwintering Greylag goose and Greenland white-fronted goose	
SPA	Loch Knockie and Nearby Lochs SPA	Scotland	Breeding population of Slavonian grebe	
SPA	Loch Leven SPA	Scotland	Overwintering Whooper swan, Pink-footed goose and Northern shoveler, and 34,280 waterfowl.	
SPA	Loch Lomond SPA	Scotland	Overwintering Greenland white-fronted goose.	Resident population of Western Capercaillie
SPA	Loch Maree SPA	Scotland	Breeding population of black-throated diver	
SPA	Loch of Inch and Torrs Warren SPA	Scotland	Overwintering Greenland white-fronted goose and Hen harrier	
SPA	Loch of Kinnordy SPA	Scotland	Overwintering greylag goose and pink-footed goose	
SPA	Loch of Lintrathen SPA	Scotland	Overwintering Greylag goose	
SPA	Loch of Skene SPA	Scotland	Overwintering Greylag goose, Goosander, Common Goldeneye	
SPA	Loch of Strathbeg SPA	Scotland	Breeding population of Sandwich tern and overwintering Whooper swan, Pink-footed goose, Greylag goose, Eurasian teal, Common goldeneye, and 49,456 waterfowl.	
SPA	Loch Ruthven SPA	Scotland	Breeding population of Slavonian grebe	
SPA	Loch Shiel SPA	Scotland	Breeding population of black-throated diver	
SPA	Loch Spynie SPA	Scotland	Overwintering Greylag goose	
SPA	Loch Vaa SPA	Scotland	Breeding population of Slavonian grebe and Common goldeneye	
SPA	Lochnagar SPA	Scotland		Breeding population of Dotterel
SPA	Lochs of Spiggie & Brow SPA	Scotland	Overwintering populations of Whooper Swan	
SPA	Lough Foyle SPA	Northern Ireland/Ireland	Overwintering Whooper swan, Light-bellied brent goose, Bar-tailed godwit and 36,599 waterfowl	
SPA	Lough Neagh and Lough Beg SPA	Northern Ireland	Breeding population of common tern and overwintering Tundra swan, Whooper swan, Common pochard, Tufted duck, Common goldeneye and 99,262 waterfowl.	
SPA	Lough Swilly SPA	Ireland	Internationally important populations of overwintering Greenland White-fronted Geese, Whooper Swans and Greylag Geese.	Habitats include, lakes, river and streams, lowland wet, dry grasslands, arable land, drainage ditches, reedbeds and scrub.
SPA	Marwick Head SPA	Scotland	Breeding populations of Guillemot as well as 75,000 seabirds including Guillemot & Kittiwake during breeding season	
SPA	Mingulay and Berneray SPA	Scotland	105,000 seabirds including Fulmar, Shag, Kittiwake, Guillemot, Razorbill, and Puffin during the breeding season	
SPA	Mointeach Scadahaigh SPA	Scotland	Breeding populations of Red-throated diver and Black throated diver.	
SPA	Monach Isles SPA	Scotland	Breeding population of Common tern, Little tern and Black Guillemot and overwintering population of barnacle goose	
SPA	Montrose Basin SPA	Scotland	Overwintering pink-footed goose, Greylag goose, Oystercatcher, Red knot, Redshank and 54930 waterfowl	
SPA	Morangie Forest SPA	Scotland		During the year the area regularly supports populations of Capercaillie
SPA	Moray and Nairn Coast SPA	Scotland	Overwintering populations of pink-footed goose, Greylag goose, Common redshank and 17473 waterfowl	Breeding pairs of Osprey.
SPA	Morecambe Bay SPA	England	Overwintering populations of Pink-footed goose, Common shelduck, Northern pintail, Eurasian oystercatcher, Grey plover, Red knot, Dunlin, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone and 210668 Waterfowl. Breeding populations of Sandwich tern and 61858 individuals of breeding Seabirds.	
SPA	Mousa SPA	Scotland	Arctic Tern & Storm Petrel during breeding season	
SPA	Muir of Dinnet SPA	Scotland	Wintering population of Greylag goose	
SPA	Muirkirk and North Lowther Uplands SPA	Scotland	Breeding populations of European golden plover	Breeding populations of Hen Harrier, Peregrine falcon, Short- eared owl and Merlin.
SPA	Ness and Barvas, Lewis SPA	Scotland	Breeding population of Corncrake	
SPA	North Caithness Cliffs SPA	Scotland	Breeding assemblage of 110,000 individuals which include: Northen fulmer (14,700 pairs), Black-legged kittiwake (13,100 pairs), Common guillemot (38,300 individuals), Razorbill (4,000 individuals), Atlantic puffin (1,750 pairs).	Breeding population of peregrine falcon (6 pairs).
SPA	North Colonsay and Western Cliffs SPA	Scotland	30,000 individuals of breeding seabirds: Black-legged kittiwake, Common guillemot.	Population of Red-billed chough
SPA	North Harris Mountains SPA	Scotland	Breeding pairs of Golden eagle (coastal)	
SPA	North Inverness Lochs SPA	Scotland	Breeding pairs of Slavonian grebe	
SPA	North Pennine Moors SPA	England	Breeding populations of European golden plover.	Breeding populations of Hen harrier, Peregrine falcon and merlin.
SPA	North Rona & Sula Sgeir SPA	Scotland	Breeding populations of 130,000 Seabirds including Fulmar, Storm Petrel, Leach's Storm-petrel, Gannet, Great Black-backed Gull, Kittiwake, Guillemot, Razorbill and Puffin.	
SPA	North Sutherland Coastal Islands SPA	Scotland	Overwintering Barnacle Goose	
SPA	North Uist Machair SPA	Scotland	Breeding populations of Corncrake, Ringed plover, and Dunlin. Wintering populations of Barnacle goose, Ringed plover and Ruddy turnstone.	
SPA	Northumbria Coast SPA	England	Overwintering populations of Purple sandpiper and Ruddy turnstone. Breeding population of Little tern.	
SPA	Noss SPA	Scotland	Breeding populations of Gannet, Great Skua & Guillemot as well as 35,000 seabirds including Puffin, Kittiwake, Fulmar, Guillemot, Great Skua & Gannet during breeding season.	
SPA	Novar SPA	Scotland		Resident populations of Western Capercaillie

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SPA	Orkney Mainland Moors SPA	Scotland	Breeding populations of Red-throated Diver.	Winter breeding populations of Hen harrier.Breeding populations of Short-eared owl.
SPA	Oronsay and South Colonsay SPA	Scotland	Breeding populations of Corncrake.	A winter breeding population of Red-billed chough.
SPA	Otterswick and Graveland SPA	Scotland	Breeding population of Red-throated diver.	
SPA	Outer Ards SPA	Northern Ireland	Breeding population of Arctic Tern. Wintering populations Light-bellied brent goose, Ringed plover, European golden plover and Ruddy turnstone.	
SPA	Papa Stour SPA	Scotland	Breeding populations of Arctic tern	
SPA	Papa Westray SPA	Scotland	Breeding populations of Arctic Tern	
SPA	Pentland Firth Islands SPA	Scotland	Breeding populations of Artic Tern	
SPA	Priest Island SPA	Scotland	Breeding populations of Storm Petrel	
SPA	Ramna Stacks and Gruney	Scotland	Breeding population of Leach's storm -petrel	
SPA	Rathlin Island SPA	Northern Ireland	Breeding populations of Black-legged Kittiwake, Common guillemot and Razorbill.	Breeding populations of Peregrine Falcon.
SPA	Renfrewshire Heights SPA	Scotland		Breeding population of Hen Harrier
SPA	Rinns of Islay SPA	Scotland	Breeding population of Common scoter and Corncrake. Wintering population of Greenland white-fronted goose, and often supporting passing Whooper swan.	Breeding population of Hen harrier and Red-billed chough.
SPA	River Spey - Insh Marshes SPA	Scotland	Breeding populations of Wood sandpiper. Wintering population of Whooper swan.	Winter breeding populations of Hen harrier. Breeding populations of Spotted crake and Osprey.
SPA	Ronas Hill – North Roe and Tingon SPA	Scotland	Breeding population of Red-throated diver and Great Skua	
SPA	Rousay SPA	Scotland	Breeding populations of 30,000 seabirds including Guillemot, Kittiwake, Arctic Skua, Fulmar & Artic Tern during breeding season	
SPA	Rum SPA	Scotland	Breeding populations 130,000 seabirds including Red-throated Diver, Kittiwake, Guillemot, Manx Shearwater and Golden eagle (coastal)	
SPA	Sheep Island SPA	Northern Ireland	Breeding population of Great cormorant	
SPA	Slamannan Plateau SPA	Scotland	Area support a wintering population of Taiga bean goose	
SPA	Sleibhtean agus Cladach Thiriodh (Tiree wetland and coast) SPA	Scotland	The area supports populations of wintering Barnacle goose, Ringed plover, Ruddy turnstone and Greenland white-fronted goose. There are also breeding populations of Dunlin, Eurasian oystercatcher, Ringed plover and Common redshank.	
SPA	South Tayside Goose Roosts SPA	Scotland	Wintering Waterfowl population of Pink-footed goose and Greylag goose and a breeding population of Eurasian Wigeon	
SPA	South Uist Machair and lochs SPA	Scotland	Supports breeding bird population of Greylag goose, Corncrake, Little tern, Ringed plover, Dunlin, Common snipe, Eurasian oystercatcher, Northern lapwing and Common Redshank. There is also a wintering population of Ringed plover and Sanderling.	
SPA	St Abb`s Head to Fast Castle SPA	Scotland	Seabird breeding assemblage of European shag, Herring Gull, Black-legged kittiwake, Guillemot and Razorbill.	
SPA	St Kilda SPA	Scotland	Breeding populations of Leach's Storm-petrel, Storm Petrel, Gannet, Atlantic Puffin & Great Skua as well as 600,000 seabirds including Razorbill, Guillemot, Kittiwake, Manx Shearwater, & Fulmar during breeding season	
SPA	Strangford Lough SPA	Northern Ireland	Wintering Waterfowl population of 70,200 including Light-bellied brent goose, Red knot and Common redshank. A breeding population of Sandwich tern, Common tern and Arctic tern are also in the area	
SPA	Strath Carnaig and Strath Fleet Moors SPA	Scotland		Breeding populations of Hen Harrier
SPA	Sule Skerry and Sule Stack SPA	Scotland	Breeding populations of Leach's Storm-petrel, Storm Petrel, Gannet & Puffin as well as 100,000 seabirds including Guillemot and Shag during breeding season.	
SPA	Sumburgh Head SPA	Scotland	Breeding populations of Arctic Tern as well as 35,000 seabirds including Guillemot, Kittiwake, Fulmar during breeding season	
SPA	Switha SPA	Scotland	Overwintering Barnacle Goose	
SPA	The Oa SPA	Scotland		Red-billed chough during the breeding season
SPA	The Shiant Isles SPA	Scotland	200,000 breeding seabirds of Northern Fulmer, European shag, Black-legged Kittiwake, Common guillemot, Razorbill and Atlantic puffin.	
SPA	Tips of Corsemaul and Tom Mor SPA	Scotland		Breeding population of Mew Gull
SPA	Tiree (Corncrake) SPA	Scotland	Breeding population of Corncrake	
SPA	Trawbreaga Bay SPA	Ireland	Internationally important populations of overwintering Barnacle goose and light-bellied brent goose.	
SPA	Treshnish Isles SPA	Scotland	Wintering population of Barnacle goose. During the breeding season a population of European storm-petrel is also supported.	
SPA	Troup, Pennan and Lion's Heads SPA	Scotland	The site supports breeding populations of 150,000 breeding seabirds that include Northern fulmer, Herring gull, Black-legged kittiwake, Common guillemot and Razorbill.	
SPA	Upper Solway Flats and Marshes SPA	England & Scotland	Wintering waterfowl assemblage of 133,440 individuals that include Whooper swan, Pink-footed goose, Barnacle goose, Common shelduck, Eurasian teal, Northern pintail, Northern shoveler, Greater scaup, Common goldeneye, Eurasian oystercatcher, European golden plover, Grey plover, Red knot, Sanderling, Dunlin, Bar-tailed godwit, Eurasian curlew, Common redshank and Ruddy turnstone.	
SPA	West Inverness-shire Lochs SPA	Scotland	Breeding populations of Black-throated diver and Common scoter	
SPA	West Westray SPA	Scotland	Breeding populations of 113,000 seabirds including Razorbill, Kittiwake, Arctic Skua, Fulmar, Guillemot & Arctic Tern during breeding season	
SPA	Wester Ross Lochs SPA	Scotland	Breeding population of black-throated diver	
SPA	Westwater SPA	Scotland	Wintering population of 31,465 Waterfowl that includes Pink-footed goose.	
SPA	Ythan Estuary, Sands of Forvie and Meikle Loch SPA	Scotland	Wintering waterfowl assemblage of 22,817 individuals including Pink-footed goose. The area also supports a breeding population of Sandwich tern, Common tern and Little tern.	
Special Areas of Conservation				
SAC	Abhainn Clais An Eas and Allt a`Mhuilinn SAC	Scotland	High quality populations of functional freshwater pearl mussel.	
SAC	Achnahaird SAC	Scotland		This site hosts the largest population of Petalwort in Britain.
SAC	Airds Moss SAC	Scotland		Relatively low altitude areas of blanket bog
SAC	Altnaharra SAC	Scotland		Northern Atlantic wet heaths with Erica tetralix and Transition mires and quaking bogs
SAC	Amat Woods SAC	Scotland		The complex includes two Caledonian forest areas
SAC	Ardgour Pinewoods SAC	Scotland		Range of habitats including Caledonian forest and Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Ardmeanach SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts.	Range of habitats including species-rich Nardus grassland, on siliceous substrates in mountain areas, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.
SAC	Ardnamurchan Burns SAC	Scotland	Freshwater pearl mussel	
SAC	Ardvar and Loch a`Mhuilinn Woodlands SAC	Scotland	Populations of freshwater pearl mussel and otter.	Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Asby Complex SAC	England		Range of habitats including Calcareous fens with Cladium mariscus and species of the Caricion davallianae, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Drepanocladus (Hamatocaulis) vernicosus, Petrifying springs with tufa formation, Alkaline fens, European dry heaths, Molinia meadows on calcareous, peaty or clayey-silt-laden soils, Limestone pavements. Geyer`s whorl snail
SAC	Ascrib, Isay and Dunvegan SAC	Scotland	Area consistently supports a breeding colony of the common seal	
SAC	Aughnadarragh Lough SAC	Northern Ireland		Marsh fritillary butterfly
SAC	**Ballochbuie SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Range of habitats including Caledonian forest, European dry heaths, Blanket bog, Calcareous rocky slopes with chasmophytic vegetation, Siliceous rocky slopes with chasmophytic vegetation, Bog woodland, Northern Atlantic wet heaths with Erica tetralix. Otter
SAC	Ballyhoorisky Point To Fanad Head SAC	Ireland	Vegetated sea-cliffs,Otter	Machair grassland found within the site is characterised by its sandy substrate and gently undulating topography. Lakes are also well represented and include some of the best examples of base-rich, nutrient-poor lakes in the county. These contain a range of rare or scarce plant species, including Slender Naiad (Najas flexilis),
SAC	Ballykilbeg SAC	Northern Ireland		Marsh fritillary butterfly
SAC	Ballynahone Bog SAC	Northern Ireland		Active raised bogs
SAC	Banagher Glen SAC	Northern Ireland		Tilio-Acerion forests of slopes, screes and ravines, Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Bankhead Moss, Beith SAC	Scotland		Active raised bogs

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SAC	Bann Estuary SAC	Northern Ireland	Atlantic salt meadows, fixed dunes with herbaceous vegetation ("grey dunes"), Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Embryonic shifting dunes	
SAC	Barry Links SAC	Scotland	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Embryonic shifting dunes, Atlantic decalcified fixed dunes, Humid dune slacks, Fixed dunes with herbaceous vegetation ("grey dunes")	
SAC	Beinn a`Ghlo SAC	Scotland		Alpine and Boreal heaths, Siliceous rocky slopes with chasmophytic vegetation, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Alkaline fens, Petrifying springs with tufa formation, Blanket bog, Siliceous alpine and boreal grasslands, European dry heaths, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Calcareous rocky slopes with chasmophytic vegetation. Populations of round-mouthed whorl snail and Geyer`s whorl snail.
SAC	Beinn Bhan SAC	Scotland		Range of habitats including Siliceous alpine and boreal grasslands, Alpine and Boreal heaths, Northern Atlantic wet heaths with Erica tetralix, Siliceous scree of the montane to snow levels, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, European dry heaths, Siliceous rocky slopes with chasmophytic vegetation.
SAC	Beinn Dearg SAC	Scotland		Range of terrestrial habitats: Calcareous rocky slopes with chasmophytic vegetation, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Siliceous rocky slopes with chasmophytic vegetation, Alpine and subalpine calcareous grasslands, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Siliceous scree of the montane to snow levels, Blanket bog, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Sub-Arctic Salix spp. scrub, Alpine and Boreal heaths, European dry heaths, Siliceous alpine and boreal grasslands, Northern Atlantic wet heaths with Erica tetralix, Caledonian forest.
SAC	Beinn Iadain and Beinn na h`Uamha SAC	Scotland		Range of habitats including Calcareous and calcshist screes of the montane to alpine levels, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Calcareous rocky slopes with chasmophytic vegetation
SAC	Ben Wyvis SAC	Scotland		Range of terrestrial habitats: Siliceous rocky slopes with chasmophytic vegetation, Siliceous scree of the montane to snow levels, Siliceous alpine and boreal grasslands, Alpine and Boreal heaths, Blanket bogs, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, European dry heaths.
SAC	Benn Lawers SAC	Scotland		Range of habitats including European dry heaths, Calcareous rocky slopes with chasmophytic vegetation, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Sub-Arctic Salix spp. scrub, Alkaline fens, Alpine and subalpine calcareous grasslands, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Blanket bogs, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Siliceous alpine and boreal grasslands, Alpine and Boreal heaths, Siliceous rocky slopes with chasmophytic vegetation.
SAC	Berriedale and Langwell Waters SAC	Scotland	Atlantic Salmon	
SAC	Berwickshire and North Northumberland Coast SAC	England/Scotland	Mudflats and sandflats not covered by seawater at low tide, Reefs, Submerged or partially submerged sea caves and Large shallow inlets and bays. Populations of Grey seal.	
SAC	Binevenagh SAC	Northern Ireland		Species-rich Nardus grassland, on siliceous substrates in mountain areas, Calcareous and calcshist screes of the montane to alpine levels, Calcareous rocky slopes with chasmophytic vegetation
SAC	Black Bog SAC	Northern Ireland		Active raised bogs
SAC	Black Loch Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Blawhorn Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Border Mires, Kielder – Butterburn SAC	England		European dry heaths, Petrifying springs with tufa formation (Cratoneurion), Transition mires and quaking bogs, Northern Atlantic wet heaths with Erica tetralix, Blanket bogs.
SAC	Borders Woods	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Borrowdale Woodland Complex SAC	England		Siliceous rocky slopes with chasmophytic vegetation, Old sessile oak woods with Ilex and Blechnum in the British Isles, Bog woodland.
SAC	Braehead Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Breen Wood SAC	Northern Ireland		Old sessile oak woods with Ilex and Blechnum in the British Isles and bog woodland
SAC	Broubster Leans SAC	Scotland		Transition mires and quaking bogs
SAC	Buchan Ness to Collieston SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	Burrow Head SAC	Scotland		Great crested newt
SAC	Caenlochan SAC	Scotland		Sub-Arctic Salix spp. scrub, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, European dry heaths, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Blanket bogs, Alkaline fens, Siliceous scree of the montane to snow levels, Siliceous rocky slopes with chasmophytic vegetation, Alpine and Boreal heaths, Calcareous and calcshist screes of the montane to alpine levels, Calcareous rocky slopes with chasmophytic vegetation, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Calaminarian grasslands of the Violetalia calaminariae, Siliceous alpine and boreal grasslands.
SAC	**Cairngorms SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Northern Atlantic wet heaths with Erica tetralix, European dry heaths, Alpine and Boreal heaths, Juniperus communis formations on heaths or calcareous grasslands, Siliceous alpine and boreal grasslands, Petrifying springs with tufa formation, Siliceous scree of the montane to snow levels, Siliceous rocky slopes with chasmophytic vegetation, green sheild-moss, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Blanket bogs, Calcareous rocky slopes with chasmophytic vegetation, Natural dystrophic lakes and ponds, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Sub-Arctic Salix spp. scrub, Transition mires and quaking bogs, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Caledonian forest, Bog woodland, Species-rich Nardus grassland, on siliceous substrates in mountain areas. Otter
SAC	**Caithness and Sutherland Peatlands SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Range of terrestrial habitats: Depressions on peat substrates of the Rhynchosporion, Transition mires and quaking bogs, Northern Atlantic wet heaths with Erica tetralix, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Natural dystrophic lakes and ponds, Blanket bogs Marsh saxifrage
SAC	Cape Wrath SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	Carlingford Mountain SAC	Ireland		Alpine/subalpine heath.
SAC	Carlingford Shore SAC	Ireland	Perennial vegetation of stony banks and vegetated drift lines. Grey Seals	
SAC	Carn – Glenshane Pass SAC	Northern Ireland		Blanket bogs
SAC	Carn nan Tri-Tighearnan SAC	Scotland		Blanket bogs
SAC	Carsegowan Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs

Table A4 – List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

Key: Normal text	
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SAC	Cawdor Wood SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Claish Moss and Kentra Moss SAC	Scotland		Blanket bogs, Depressions on peat substrates of the Rhynchosporion
SAC	Clints Quarry SAC	England		Great crested newt
SAC	Clyde Valley Woods SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Coalburn Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Cockinhead Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Coille Mhór SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Coladoir Bog SAC	Scotland		Depressions on peat substrates of the Rhynchosporion and Blanket bogs
SAC	Coll Machair SAC	Scotland	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Fixed dunes with herbaceous vegetation ("grey dunes"), Machairs, Humid dune slacks,	Slender naiad,Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea
SAC	Conon Islands SAC	Scotland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Coyles of Muick SAC	Scotland		Calaminarian grasslands of the Violetalia calaminariae
SAC	Craigengar SAC	Scotland		European dry heaths, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Marsh saxifrage
SAC	Craighall Gorge SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Cranley Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Creag nan Gamhainn SAC	Scotland		Petrifying springs with tufa formation (Cratoneurion)
SAC	Culbin Bar SAC	Scotland	Atlantic salt meadows, Perennial vegetation of stony banks, Embryonic shifting dunes	
SAC	Cumbrian Marsh Fritillary Site SAC	England		Marsh fritillary butterfly
SAC	Curran Bog SAC	Northern Ireland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Dam Wood SAC	Scotland		Juniperus communis formations on heaths or calcareous grasslands and alkaline fens
SAC	Dead Island Bog SAC	Northern Ireland		Active raised bogs
SAC	Derryleckagh SAC	Northern Ireland		Transition mires and quaking bogs and Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Dinnet Oakwood SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Dogden Moss SAC	Scotland		Active raised bogs
SAC	Dornoch Firth and Morrich More SAC	Scotland	Populations of common seal and otter. A range of habitats including reefs, Mudflats and sandflats not covered by seawater at low tide, Sandbanks which are slightly covered by sea water all the time, estuaries, Atlantic salt meadows, Salicornia and other annuals colonising mud and sand, Fixed dunes with herbaceous vegetation ("grey dunes"), Embryonic shifting dunes, Decalcified fixed dunes with Empetrum nigrum, Coastal dunes with Juniperus spp., Atlantic decalcified fixed dunes (Calluno-Ulicetea), Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Humid dune slacks.	
SAC	Drigg Coast SAC	England	Salicornia and other annuals colonising mud and sand, Mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows, Estuaries, Humid dune slacks, Dunes with Salix repens ssp. argentea (Salicion arenariae), Fixed dunes with herbaceous vegetation ("grey dunes"), Atlantic decalcified fixed dunes (Calluno-Ulicetea), Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Embryonic shifting dunes.	
SAC	Duddon Mosses SAC	England		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Dun Moss and Forest of Alyth Mires SAC	Scotland		Active raised bogs
SAC	Dundalk Bay SAC	Ireland	Perennial vegetation of stony banks, tidal mudflats, salt marshes, Salicornia mudflats and estuaries.	
SAC	**Dunkeld–Blairgowrie Lochs SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Slender naiad, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Transition mires and quaking bogs. Otter
SAC	Durness SAC	Scotland	Otter, Fixed dunes with herbaceous vegetation ("grey dunes"), Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Humid dune slacks.	Range of terrestrial habitats: Alpine and subalpine calcareous grasslands, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Alkaline fens, European dry heaths, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Limestone pavements, Northern Atlantic wet heaths with Erica tetralix
SAC	Dykeneuk Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	East Caithness Cliffs SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	East Mires and Lumbister SAC	Scotland		Blanket bogs
SAC	Eastern Mournes SAC	Northern Ireland		Siliceous alpine and boreal grasslands, Blanket bogs, European dry heaths, Northern Atlantic wet heaths with Erica tetralix, Alpine and Boreal heaths, Siliceous scree of the montane to snow levels, and Siliceous rocky slopes with chasmophytic vegetation
SAC	Eilean na Muice Duibhe SAC	Scotland		Blanket bogs and Depressions on peat substrates of the Rhynchosporion
SAC	Eileanan agus Sgeiran Lios mór SAC	Scotland	Common seal	
SAC	Endrick Water SAC	Scotland	River lamprey, Atlantic salmon	Brook lamprey
SAC	Fair Isle SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	European dry heaths
SAC	Fannich Hills SAC	Scotland		Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Siliceous scree of the montane to snow levels, Blanket bogs, European dry heaths, Alpine and Boreal heaths, Northern Atlantic wet heaths with Erica tetralix, Siliceous rocky slopes with chasmophytic vegetation, Siliceous alpine and boreal grasslands
SAC	Faray and Holm of Faray SAC	Scotland	Breeding colony of grey seal	
SAC	Feur Lochain SAC	Scotland		Blanket bogs, Natural dystrophic lakes and ponds, Depressions on peat substrates of the Rhynchosporion
SAC	Firth of Lorn SAC	Scotland	Reefs	
SAC	Firth of Tay & Eden Estuary SAC	Scotland	Common seal, estuaries, intertidal mudflats and sandflats, subtidal sandbanks	
SAC	Flow of Dergoals SAC	Scotland		Blanket bogs and Depressions on peat substrates of the Rhynchosporion
SAC	Foinaven SAC	Scotland	Freshwater pearl mussel, Otter	Range of terrestrial habitats: European dry heaths, Calcareous rocky slopes with chasmophytic vegetation, Northern Atlantic wet heaths with Erica tetralix, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Natural dystrophic lakes and ponds, Blanket bogs, Alpine and Boreal heaths, Siliceous rocky slopes with chasmophytic vegetation, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Siliceous scree of the montane to snow levels, Depressions on peat substrates of the Rhynchosporion, Siliceous alpine and boreal grasslands, Species-rich Nardus grassland, on siliceous substrates in mountain areas,
SAC	Ford Moss SAC	England		Active raised bogs
SAC	Galloway Oakwoods SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Garron Plateau SAC	Northern Ireland		Natural dystrophic lakes and ponds, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Marsh saxifrage, Northern Atlantic wet heaths with Erica tetralix, Blanket bogs, Transition mires and quaking bogs, Alkaline fens
SAC	Garron Point SAC	Scotland		Narrow-mouthed whorl snail
SAC	Garry Bog SAC	Northern Ireland		Active raised bogs
SAC	Glac na Criche SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	European dry heaths, Blanket bogs, Marsh fritillary butterfly
SAC	Glen Beasdale SAC	Scotland	Freshwater pearl mussel, Otter	Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	**Glen Creran Woods SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Tilio-Acerion forests of slopes, screes and ravines and Old sessile oak woods with Ilex and Blechnum in the British Isles and Otter
SAC	Glen Shira SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles

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SAC	**Glen Tanar SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Blanket bogs, Northern Atlantic wet heaths with Erica tetralix, Caledonian forest, European dry heaths. Otter
SAC	Glenartney Juniper Wood SAC	Scotland		Juniperus communis formations on heaths or calcareous grasslands
SAC	Green Hill of Strathdon SAC	Scotland		Juniperus communis formations on heaths or calcareous grasslands, Calaminarian grasslands of the Violetalia calaminariae, European dry heaths
SAC	Harbottle Moors SAC	England		European dry heaths
SAC	Hascosay SAC	Scotland	Otter	Blanket bogs
SAC	Hill of Towanreef SAC	Scotland		Blanket bogs, Marsh saxifrage, Calaminarian grasslands of the Violetalia calaminariae, Juniperus communis formations on heaths or calcareous grasslands, European dry heaths, Alpine and Boreal heaths
SAC	Hollymount SAC	Northern Ireland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior and Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Hoy SAC	Scotland	Vegetated sea cliffs	Range of habitats that are primary reason for site selection or qualifying features: Natural dystrophic lakes and ponds, Northern Atlantic wet heaths, Alpine and Boreal heaths & blanket bogs, European dry heaths, Petrifying springs, Alkaline fens and Calcareous rocky slopes. Blanket bogs, Marsh fritillary butterfly.
SAC	Inchnadamph SAC	Scotland		Range of terrestrial habitats: Alpine and subalpine calcareous grasslands, Petrifying springs with tufa formation, Calcareous and calcshist screes of the montane to alpine levels, Calcareous rocky slopes with chasmophytic vegetation, Sub-Arctic Salix spp. scrub, Alkaline fens, Limestone pavements, European dry heaths
SAC	Ingleborough Complex SAC*	England		Juniperus communis formations on heaths or calcareous grasslands, Alkaline fens, Calcareous rocky slopes with chasmophytic vegetation and Limestone pavements Priority feature
SAC	Inishtrahull SAC	Ireland	Vegetated sea cliffs. Seals	
SAC	**Insh Marshes SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Transition mires and quaking bogs, Alluvial forests with Alnus glutinosa and Fraxinus excelsior, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea. Otter
SAC	Inverasdale Peatlands SAC	Scotland		Blanket bogs
SAC	Invernaver SAC	Scotland	Coastal dunes with Juniperus spp., Dunes with Salix repens ssp. argentea, Atlantic decalcified fixed dunes, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Fixed dunes with herbaceous vegetation ("grey dunes")	Alpine and subalpine calcareous grasslands, Alkaline fens, Alpine and Boreal heaths
SAC	Inverpolly SAC	Scotland	Freshwater pearl mussel, Otter	Range of terrestrial habitats: Natural dystrophic lakes and ponds, Siliceous rocky slopes with chasmophytic vegetation, Northern Atlantic wet heaths with Erica tetralix, European dry heaths, Alpine and Boreal heaths, Siliceous alpine and boreal grasslands, Blanket bogs, Transition mires and quaking bogs, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Depressions on peat substrates of the Rhynchosporion, Old sessile oak woods with Ilex and Blechnum in the British Isles, Siliceous scree of the montane to snow levels
SAC	Isle of May SAC	Scotland	Reefs, grey seal	
SAC	Keen of Hamar SAC	Scotland		Calcareous and calcshist screes of the montane to alpine levels, Calaminarian grasslands of the Violetalia calaminariae, European dry heaths
SAC	Keltneyburn SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Kilhern Moss SAC	Scotland		Blanket bogs and Depressions on peat substrates of the Rhynchosporion
SAC	Kindrum Lough SAC	Ireland		Lowland oligotrophic lake
SAC	**Kinloch and Kyleakin Hills SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Northern Atlantic wet heaths with Erica tetralix, Tilio-Acerion forests of slopes, screes and ravines, Blanket bogs, Alpine and Boreal heaths, Old sessile oak woods with Ilex and Blechnum in the British Isles, European dry heaths
SAC	Kinveachy Forest SAC	Scotland		Bog woodland, Caledonian forest
SAC	Kippenrait Glen SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Kirkcowan Flow SAC	Scotland		Blanket bogs and Depressions on peat substrates of the Rhynchosporion
SAC	Ladder Hills SAC	Scotland		European dry heaths, Blanket bogs, Alpine and boreal heaths
SAC	Lake District High Fells SAC	England		Alkaline fens, Calcareous rocky slopes with chasmophytic vegetation, Old sessile oak woods with Ilex and Blechnum in the British Isles, Juniperus communis formations on heaths or calcareous grasslands, Slender green feather-moss, Blanket bogs, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Siliceous scree of the montane to snow levels, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Siliceous alpine and boreal grasslands, Siliceous rocky slopes with chasmophytic vegetation, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Northern Atlantic wet heaths with Erica tetralix, European dry heaths, Alpine and Boreal heaths
SAC	Langavat SAC	Scotland	Atlantic salmon	
SAC	Lecale Fens SAC	Northern Ireland		Alkaline fens
SAC	Ledmore Wood SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Lendalfoot Hills Complex SAC	Scotland		Species-rich Nardus grassland, on siliceous substrates in mountain areas, Northern Atlantic wet heaths with Erica tetralix, Calaminarian grasslands of the Violetalia calaminariae, Transition mires and quaking bogs, Alkaline fens, European dry heaths
SAC	**Lewis Peatlands SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Depressions on peat substrates of the Rhynchosporion, Blanket bogs, Northern Atlantic wet heaths with Erica tetralix, Natural dystrophic lakes and ponds, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea and Otter
SAC	Lismore Lochs SAC	Scotland		Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.
SAC	Little Gruinard River SAC	Scotland	Atlantic salmon	
SAC	Loch a`Phuill SAC	Scotland		Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
SAC	Loch Achnacloich SAC	Scotland		Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
SAC	Loch Creran SAC	Scotland	Reefs	
SAC	**Loch Etive Woods SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Tilio-Acerion forests of slopes, screes and ravines, Alluvial forests with Alnus glutinosa and Fraxinus excelsior, Old sessile oak woods with Ilex and Blechnum in the British Isles and Otter
SAC	**Loch Fada SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Slender naiad, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea and Otter
SAC	Loch Laxford SAC	Scotland	Reefs, large shallow inlets and bays	
SAC	**Loch Lomond Woods SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Old sessile oak woods with Ilex and Blechnum in the British Isles. Otter

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SAC	**Loch Maree Complex SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Calcareous rocky slopes with chasmophytic vegetation, Depressions on peat substrates of the Rhynchosporion, Old sessile oak woods with Ilex and Blechnum in the British Isles, Siliceous rocky slopes with chasmophytic vegetation, European dry heaths, Blanket bogs, Caledonian forest, Bog woodland, Alluvial forests with Alnus glutinosa and Fraxinus excelsior, Siliceous scree of the montane to snow levels, Siliceous alpine and boreal grasslands, Alpine and Boreal heaths, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Northern Atlantic wet heaths with Erica tetralix and Otter
SAC	Loch Moidart and Loch Shiel Woods SAC	Scotland	Mudflats and sandflats not covered by seawater at low tide, Otter	Tilio-Acerion forests of slopes, screes and ravines, Old sessile oak woods with Ilex and Blechnum in the British Isles, Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Loch nam Madadh SAC	Scotland	Mudflats and sandflats not covered by seawater at low tide, sandbanks which are slightly covered by seawater all the time, coastal lagoons, large shallow inlets and bays, reefs. Populations of Otter	
SAC	**Loch of Isbister SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation and Transition mires and quaking bogs and Otter
SAC	Loch of Stenness SAC	Scotland	Coastal lagoons	
SAC	Loch of Wester SAC	Scotland		Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
SAC	Loch Roag Lagoons SAC	Scotland	Coastal lagoons	
SAC	**Loch Ruthven SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea. Otter
SAC	Loch Ussie SAC	Scotland		Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea
SAC	Loch Watten SAC	Scotland		Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
SAC	Lochs Duich, Long and Alsh Reefs SAC	Scotland	Reefs	
SAC	Lough Nagreany Dunes SAC	Ireland	Embryonic shifting dunes, Fixed coastal dunes with herbaceous vegetation (grey dunes), Decalcified fixed dunes with Empetrum nigrum, Atlantic decalcified fixed dunes (Calluno-Ulicetea), Dunes with Salix repens ssp.argentea (Salix arenariae)	
SAC	Lough Swilly SAC	Ireland	Estuaries, Shallow Lagoons, Atlantic salt meadows.Otter.	Good example of old oak woods
SAC	Lower Findhorn Woods SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Lower River Spey – Spey Bay SAC	Scotland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior and Perennial vegetation of stony banks
SAC	Luce Bay and Sands SAC	Scotland	Mudflats and sandflats not covered by seawater at low tide, sandbanks which are slightly covered by seawater all the time, large shallow inlets and bays, reefs, Embryonic shifting dunes, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Atlantic decalcified fixed dunes, Fixed dunes with herbaceous vegetation ("grey dunes").	Great crested newt
SAC	Magheradrumman Bog SAC	Ireland		Highland blanket bog, wet heath
SAC	Magilligan SAC	Northern Ireland	Humid dune slacks, Dunes with Salix repens ssp. argentea, Embryonic shifting dunes, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Petalwort, Fixed dunes with herbaceous vegetation ("grey dunes").	Marsh fritillary butterfly.
SAC	Main Valley Bogs SAC	Northern Ireland		Active raised bogs
SAC	**Merrick Kells SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Northern Atlantic wet heaths with Erica tetralix, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Blanket bogs, Natural dystrophic lakes and ponds, European dry heaths, Siliceous scree of the montane to snow levels, Siliceous rocky slopes with chasmophytic vegetation, Depressions on peat substrates of the Rhynchosporion, Siliceous alpine and boreal grasslands. Otter
SAC	Methven Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Mingarry Burn SAC	Scotland	Freshwater pearl mussel	
SAC	Mochrum Lochs SAC	Scotland		Blanket bogs and Depressions on peat substrates of the Rhynchosporion
SAC	Moffat Hills SAC	Scotland		Siliceous rocky slopes with chasmophytic vegetation, European dry heaths, Alpine and Boreal heaths, Siliceous alpine and boreal grasslands, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Blanket bogs, Siliceous scree of the montane to snow levels, Calcareous rocky slopes with chasmophytic vegetation
SAC	Moidach More SAC	Scotland		Blanket bogs
SAC	Mòine Mhór SAC	Scotland	Otter, Atlantic salt meadows, Mudflats and sandflats not covered by seawater at low tide	Active raised bogs, Degraded raised bogs still capable of natural regeneration, Old sessile oak woods with Ilex and Blechnum in the British Isles, Marsh fritillary butterfly
SAC	Mointeach nan Lochain Dubha SAC	Scotland		Natural dystrophic lakes and ponds, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Blanket bogs, Depressions on peat substrates of the Rhynchosporion, Transition mires and quaking bogs
SAC	Mointeach Scadabhaigh SAC	Scotland		Blanket bogs, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Natural dystrophic lakes and ponds, Depressions on peat substrates of the Rhynchosporion
SAC	Monach Islands SAC	Scotland	Grey seal, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Fixed dunes with herbaceous vegetation ("grey dunes"), Machairs	
SAC	Monadh Mor SAC	Scotland		Transition mires and quaking bogs, Bog woodland
SAC	Monadhliath SAC	Scotland		Banket bogs
SAC	Moniack Gorge SAC	Scotland		Green shield-moss
SAC	Montiaghs Moss SAC	Northern Ireland		Marsh fritillary butterfly
SAC	Moor House – Upper Teesdale SAC	England		Calcareous and calcshist screes of the montane to alpine levels, Marsh saxifrage, Blanket bogs, Siliceous scree of the montane to snow levels, Molinia meadows on calcareous, peaty or clayey-silt-laden soils, Siliceous alpine and boreal grasslands, Alpine and Boreal heaths, Calcareous rocky slopes with chasmophytic vegetation, Alkaline fens, Petrifying springs with tufa formation, Mountain hay meadows, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Juniperus communis formations on heaths or calcareous grasslands, Limestone pavements, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., European dry heaths, Calaminarian grasslands of the Violetalia calaminariae, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Siliceous rocky slopes with chasmophytic vegetation, Round-mouthed whorl snail.
SAC	Moorfoot Hills SAC	Scotland		European dry heath, Blanket bogs
SAC	Moray Firth SAC	Scotland	Bottlenose dolphin, Sandbanks which are slightly covered by seawater all the time	
SAC	Morecambe Bay Pavements SAC	England		Narrow-mouthed whorl snail, Old sessile oak woods with Ilex and Blechnum in the British Isles, European dry heaths, Taxus baccata woods of the British Isles, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Juniperus communis formations on heaths or calcareous grasslands, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Tilio-Acerion forests of slopes, screes and ravines, Limestone pavements, Calcareous fens with Cladium mariscus and species of the Caricion davallianae

Table A4 – List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

Key: Normal text	
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SAC	Morecambe Bay SAC	England	Reefs, Mudflats and sandflats not covered by seawater at low tide, Sandbanks which are slightly covered by seawater all the time, Estuaries, Coastal lagoons, Atlantic salt meadows, Salicornia and other annuals colonising mud and sand, Large shallow inlets and bays, Fixed dunes with herbaceous vegetation ("grey dunes"), Embryonic shifting dunes, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Atlantic decalcified fixed dunes, Dunes with Salix repens ssp. argentea, Perennial vegetation of stony banks, Humid dune slacks.	Great crested newt found in the ponds along the estuary shore
SAC	Morrone Birkwood SAC	Scotland		Geyer`s whorl snail, Alkaline fens, Petrifying springs with tufa formation, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Juniperus communis formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Alpine and Boreal heaths.
SAC	Mortlach Moss SAC	Scotland		Alkaline fens
SAC	Morven and Mullachdubh SAC	Scotland		Juniperus communis formations on heaths or calcareous grasslands
SAC	Morvern Woods SAC	Scotland	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Tilio-Acerion forests of slopes, screes and ravines, Old sessile oak woods with Ilex and Blechnum in the British Isles and Otter
SAC	Mound Alderwoods SAC	Scotland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Mousa SAC	Scotland	Reefs, Submerged or partially submerged sea caves, Common seal	
SAC	**Muir of Dinnet SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Transition mires and quaking bogs, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, European dry heaths, Degraded raised bogs still capable of natural regeneration. Otter
SAC	**Mull Oakwoods SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Old sessile oak woods with Ilex and Blechnum in the British Isles and Otter
SAC	Mull of Galloway SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	Mulroy Bay SAC	Ireland	Reefs, Large shallow inlets and bays, Otter	.
SAC	Murlough SAC	Northern Ireland	Common seal, Sandbanks which are slightly covered by seawater at all times, mudflats and sandflats not covered by sea water at low tide, Atlantic salt meadows, Dunes with Salix repens ssp. argentea, Shifting dunes along the shoreline with Ammophila arenaria, Fixed dunes with herbaceous vegetation ("grey dunes"), Atlantic decalcified fixed dunes, Embryonic shifting dunes,	Marsh fritillary butterfly.
SAC	Naddle Forest SAC	England		Northern Atlantic wet heaths with Erica tetralix, European dry heaths, Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	**Ness Woods SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Tilio-Acerion forests of slopes, screes and ravines, Old sessile oak woods with Ilex and Blechnum in the British Isles. Otter
SAC	Newham Fen SAC	England		Alkaline fens
SAC	North Antrim Coast SAC	Northern Ireland	Annual vegetation of drift lines, Atlantic salt meadows, Narrow-mouthed whorl snail, Fixed dunes with herbaceous vegetation ("grey dunes"), Vegetated sea cliffs of the Atlantic and Baltic coasts, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"),	Species-rich Nardus grassland, on siliceous substrates in mountain areas
SAC	North Fetlar SAC	Scotland		European dry heaths, Alkaline fens
SAC	North Harris SAC	Scotland	Otter, Freshwater pearl mussel, Atlantic salmon	European dry heaths, Northern Atlantic wet heaths with Erica tetralix, Siliceous scree of the montane to snow levels, Depressions on peat substrates of the Rhynchosporion, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Blanket bogs, Siliceous alpine and boreal grasslands, Siliceous rocky slopes with chasmophytic vegetation, Natural dystrophic lakes and ponds, Alpine and Boreal heaths
SAC	North Inishowen Coast SAC	Ireland	Otter, Fixed dunes, Machair. Sea cliffs,Vegetated shingle banks,Dry heath and Intertidal sand and mud flats.	
SAC	North Northumberland Dunes SAC	England	Petalwort, Dunes with Salix repens ssp. argentea, Shifting dunes along the shoreline with Ammophila arenaria, Humid dune slacks, Fixed dunes with herbaceous vegetation ("grey dunes"), Embryonic shifting dunes	
SAC	North Pennine Dales Meadows SAC	England		Mountain hay meadows, Molinia meadows on calcareous, peaty or clayey-silt-laden soils
SAC	North Pennine Moors SAC	England		European dry heaths, Marsh saxifrage, Blanket bogs, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Semi-natural dry grasslands and scrubland facies: on calcareous substrates, Siliceous alpine and boreal grasslands, Calaminarian grasslands of the Violetalia calaminariae, Juniperus communis formations on heaths or calcareous grasslands, Siliceous scree of the montane to snow levels, Alkaline fens, Petrifying springs with tufa formation, Old sessile oak woods with Ilex and Blechnum in the British Isles, Northern Atlantic wet heaths with Erica tetralix, Siliceous rocky slopes with chasmophytic vegetation, Calcareous rocky slopes with chasmophytic vegetation
SAC	North Rona SAC	Scotland	Grey seal, Reefs, Submerged or partially submerged sea caves, Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	North Shotts Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	North Uist Machair and islands SAC	Scotland	Atlantic salt meadows, Annual vegetation of drift lines, Machairs, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Fixed dunes with herbaceous vegetation ("grey dunes"), Embryonic shifting dunes, Humid dune slacks,	Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation, Slender naiad.
SAC	Obain Loch Euphoirt SAC	Scotland	Coastal lagoons	
SAC	Oldshoremore and Sandwood SAC	Scotland	Machairs, Fixed dunes with herbaceous vegetation ("grey dunes"), Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	
SAC	Onich to North Ballachulish Woods SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines, Old sessile oak woods with Ilex and Blechnum in the British Isles, Alkaline fens
SAC	Oronsay SAC	Scotland	Machairs	
SAC	Owenkillew River SAC	Northern Ireland	Atlantic salmon, Freshwater pearl mussel, Otter	Bog woodland, Old sessile oak woods with Ilex and Blechnum in the British Isles, Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
SAC	Papa Stour SAC	Scotland	Submerged or partially submerged sea caves, Reefs	
SAC	Peatlands Park SAC	Northern Ireland		Bog woodland, Active raised bogs, Degraded raised bogs still capable of natural regeneration, Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Peeswit Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Pitkeathly Mires SAC	Scotland		Slender green feather-moss, Transition mires and quaking bogs
SAC	Pitmaduthy Moss SAC	Scotland		Bog woodland
SAC	Raeburn Flow SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Rassal SAC	Scotland		Calcareous rocky slopes with chasmophytic vegetation, Limestone pavements, Tilio-Acerion forests of slopes, screes and ravines, Alpine and subalpine calcareous grasslands, Sub-Arctic Salix spp. scrub, Alkaline fens, Petrifying springs with tufa formation
SAC	Rathlin Island SAC	Northern Ireland	Submerged or partially submerged sea caves, Annual vegetation of drift lines, Sandbanks which are slightly covered by sea water all the time, Reefs and vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	Rea`s Wood and Farr`s Bay SAC	Northern Ireland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Red Moss of Netherley SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Red Moss SAC	Scotland		Active raised bogs
SAC	Reidside Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Rhidorroch Woods SAC	Scotland		Caledonian forest, Northern Atlantic wet heaths with Erica tetralix
SAC	Rigg – Bile SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts.	Tilio-Acerion forests of slopes, screes and ravines
SAC	Rinns of Islay SAC	Scotland		Marsh fritillary butterfly
SAC	River Bladnoch SAC	Scotland	Atlantic salmon	
SAC	River Borgie SAC	Scotland	Freshwater pearl mussel, Atlantic salmon, Otter	
SAC	River Dee SAC	Scotland	Otter, Atlantic salmon, Freshwater pearl mussel	

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SAC	River Derwent and Bassenthwaite Lake SAC	England	River lamprey, Atlantic salmon, Sea lamprey, Otter	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation, Floating water-plantain, Marsh fritillary butterfly. Brook lamprey
SAC	River Eden SAC	England	Atlantic salmon, Sea lamprey, River lamprey, Otter	White-clawed (or Atlantic stream) crayfish, Bullhead, Brook lamprey. Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	River Ehen SAC	England	Freshwater pearl mussel, Atlantic salmon	
SAC	River Evelix SAC	Scotland	Freshwater pearl mussel	
SAC	River Kent SAC	England	Freshwater pearl mussel	White-clawed (or Atlantic stream) crayfish, Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation, Bullhead
SAC	River Kerry SAC	Scotland	Freshwater pearl mussel	
SAC	River Moidart SAC	Scotland	Freshwater pearl mussel	
SAC	River Moriston SAC	Scotland	Freshwater pearl mussel, Atlantic salmon	
SAC	River Naver SAC	Scotland	Freshwater pearl mussel, Atlantic salmon	
SAC	River Oykel SAC	Scotland	Freshwater pearl mussel, Atlantic salmon	
SAC	River South Esk SAC	Scotland	Freshwater pearl mussel, Atlantic salmon	
SAC	River Spey SAC	Scotland	Freshwater pearl mussel, Atlantic salmon, Sea lamprey, Otter	
SAC	River Tay SAC	Scotland	Atlantic salmon, Sea lamprey, River lamprey, Otter	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea. Brook lamprey
SAC	River Teith SAC	Scotland	Sea lamprey, River lamprey, Atlantic salmon	Brook lamprey
SAC	River Thurso SAC	Scotland	Atlantic salmon	
SAC	River Tweed SAC	England/Scotland	Atlantic salmon, Sea lamprey, River lamprey, Otter	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. Brook lamprey
SAC	Roman Wall Loughs SAC	England		Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
SAC	Ronas Hill – North Roe SAC	Scotland		Alpine and Boreal heaths, Blanket bogs, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Northern Atlantic wet heaths with Erica tetralix, European dry heaths, Siliceous scree of the montane to snow levels, Natural dystrophic lakes and ponds
SAC	Rostrevor Wood SAC	Northern Ireland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Roudsea Wood and Mosses SAC	England		Tilio-Acerion forests of slopes, screes and ravines, Taxus baccata woods of the British Isles, Active raised bogs, Degraded raised bogs still capable of natural regeneration
SAC	Rum SAC	Scotland	Otter, Vegetated sea cliffs of the Atlantic and Baltic coasts.	Species-rich Nardus grassland, on siliceous substrates in mountain areas, Northern Atlantic wet heaths with Erica tetralix, Calcareous and calcshist screes of the montane to alpine levels, European dry heaths, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Natural dystrophic lakes and ponds, Alpine and Boreal heaths, Calaminarian grasslands of the Violetalia calaminariae, Blanket bogs, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Depressions on peat substrates of the Rhynchosporion, Alkaline fens, Siliceous scree of the montane to snow levels, Calcareous rocky slopes with chasmophytic vegetation, Siliceous rocky slopes with chasmophytic vegetation,
SAC	Sanday SAC	Scotland	Common seal, Sandbanks which are slightly covered by seawater at all times, Reefs, Mudflats and sandflats not covered by sea water at low tide	
SAC	Sands of Forvie SAC	Scotland	Decalcified fixed dunes with Empetrum nigrum, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Embryonic shifting dunes, Humid dune slacks.	
SAC	Sheephaven SAC	Ireland	Areas of intertidal sands and mudflats. Extensive area of saltmarsh. Dunes	
SAC	Shelforkie Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Shingle Islands SAC	Scotland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Simonside Hills SAC	England		European dry heaths, Blanket bogs
SAC	Sligachan Peatlands SAC	Scotland		Blanket bogs, Northern Atlantic wet heaths with Erica tetralix, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea, Natural dystrophic lakes and ponds, Transition mires and quaking bogs, Depressions on peat substrates of the Rhynchosporion
SAC	Slochd SAC	Scotland		European dry heaths
SAC	Solway Firth SAC	England/Scotland	Sandbanks which are slightly covered by sea water all the time, Estuaries, Atlantic salt meadows, Salicornia and other annuals colonising mud and sand, Mudflats and sandflats not covered by seawater at low tide, Reefs, Sea lamprey, River lamprey, Perennial vegetation of stony banks, Fixed dunes with herbaceous vegetation ("grey dunes").	
SAC	Solway Mosses North SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh) SAC	Scotland	Sandbanks which are slightly covered by sea water all the time	
SAC	South Solway Mosses SAC	England		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	South Uist Machair SAC	Scotland	Coastal lagoons, Otter, Annual vegetation of drift lines, Humid dune slacks, Fixed dunes with herbaceous vegetation ("grey dunes"), Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Machairs	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Oligotrophic waters containing very few minerals of sandy plains, Slender naiad, Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation,Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea
SAC	South-East Islay Skerries SAC	Scotland	Common seal	
SAC	St Abb`s Head to Fast Castle SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	St Kilda SAC	Scotland	Reefs, Submerged or partially submerged sea Caves, Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	Strangford Lough SAC	Northern Ireland	Large shallow inlets and bays, Atlantic salt meadows, Salicornia and other annuals colonising mud and sand, Annual vegetation of drift lines, Reefs, Coastal lagoons, Mudflats and sandflats not covered by seawater at low tide, Perennial vegetation of stony banks. Common seal	
SAC	Strath SAC	Scotland		Calcareous rocky slopes with chasmophytic vegetation, Limestone pavements, Petrifying springs with tufa formation, Alpine and subalpine calcareous grasslands, Alkaline fens, Tilio-Acerion forests of slopes, screes and ravines, Northern Atlantic wet heaths with Erica tetralix, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.
SAC	**Strathglass Complex SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Alpine and Boreal heaths, Caledonian forest, Siliceous alpine and boreal grasslands, Sub-Arctic Salix spp. scrub, European dry heaths, Northern Atlantic wet heaths with Erica tetralix, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Blanket bogs, Siliceous rocky slopes with chasmophytic vegetation, Bog woodland, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea. Otter
SAC	Strathy Point SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts	
SAC	Stromness Heaths and Coast SAC	Scotland	Vegetated sea cliffs of the Atlantic and Baltic coasts.	European dry heaths, Alkaline fens
SAC	Subberthwaite, Blawith and Torver Low Commons SAC	England		Depressions on peat substrates of the Rhynchosporion, Transition mires and quaking bogs
SAC	Sullom Voe SAC	Scotland	Reefs, large shallow inlets and bays, Coastal lagoons	
SAC	Sunart SAC	Scotland	Otter, Reefs	Northern Atlantic wet heaths with Erica tetralix, Tilio-Acerion forests of slopes, screes and ravines, Old sessile oak woods with Ilex and Blechnum in the British Isles, European dry heaths
SAC	Tarbert Woods SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Tarn Moss SAC	England		Transition mires and quaking bogs

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SAC	**Taynish and Knapdale Woods SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Marsh fritillary butterfly, Old sessile oak woods with Ilex and Blechnum in the British Isles, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea and Otter
SAC	**Tayvallich Juniper and Coast SAC**	**Scotland**	**Site supporting otter population that was included at pre-screening but screened out later in Stage 5 following advice from SNH (because they are inland sites which are not expected to be affected by the OWE Plan – albeit that final confirmation of this will be needed at a project level once the cable alignment and landfall locations are known)**	Marsh fritillary butterfly, Juniperus communis formations on heaths or calcareous grasslands and Otter
SAC	Teal Lough SAC	Northern Ireland		Blanket bogs
SAC	The Maim SAC	Scotland		European dry heaths
SAC	The Vadills SAC	Scotland	Coastal lagoons	
SAC	Threepwood Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Tingon SAC	Scotland		Blanket bogs, Natural dystrophic lakes and ponds
SAC	Tiree Machair SAC	Scotland	Machairs, Embryonic shifting dunes, Humid dune slacks, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Fixed dunes with herbaceous vegetation ("grey dunes")	Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
SAC	Tràigh na Berie SAC	Scotland	Machairs	
SAC	Tranarossan And Melmore Lough SAC	Ireland	Intertidal sand flats, Machair, sand dunes.	Areas of heathland and wetland areas
SAC	Treshnish Isles SAC	Scotland	Grey seal, Reefs	
SAC	Trotternish Ridge SAC	Scotland		Calcareous and calcshist screes of the montane to alpine levels, Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Calcareous rocky slopes with chasmophytic vegetation, Species-rich Nardus grassland, on siliceous substrates in mountain areas, Alpine pioneer formations of the Caricion bicoloris-atrofuscae, Alpine and subalpine calcareous grasslands, Siliceous alpine and boreal grasslands, European dry heaths
SAC	Tulach Hill and Glen Fender Meadows SAC	Scotland		Alkaline fens, European dry heaths, Limestone pavements, Semi-natural dry grasslands and scrubland facies: on calcareous substrates Geyer`s whorl snail, Round-mouthed whorl snail
SAC	Turclossie Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Turflundie Wood SAC	Scotland		Great crested newt
SAC	Turmennan SAC	Northern Ireland		Transition mires and quaking bogs
SAC	Tweed Estuary SAC	England	Mudflats and sandflats not covered by seawater at low tide, Estuaries, Sea lamprey, River lamprey	
SAC	Tyne and Allen River Gravels SAC	England		Calaminarian grasslands of the Violetalia calaminariae
SAC	Tynron Juniper Wood SAC	Scotland		Juniperus communis formations on heaths or calcareous grasslands
SAC	Ullswater Oakwoods SAC	England		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Upper Ballinderry River SAC	Northern Ireland	Otter, Freshwater pearl mussel	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
SAC	Upper Nithsdale Woods SAC	Scotland		Tilio-Acerion forests of slopes, screes and ravines
SAC	Upper Strathearn Oakwoods SAC	Scotland		Old sessile oak woods with Ilex and Blechnum in the British Isles
SAC	Urquhart Bay Wood SAC	Scotland		Alluvial forests with Alnus glutinosa and Fraxinus excelsior
SAC	Walton Moss SAC	England		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Wast Water SAC	England		Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea
SAC	Waukenwae Moss SAC	Scotland		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	West Fannyside Moss SAC	Scotland		Blanket bogs
SAC	Whitlaw and Branxholme SAC	Scotland		Transition mires and quaking bogs, Alkaline fens, Slender green feather-moss
SAC	Witherslack Mosses SAC	England		Degraded raised bogs still capable of natural regeneration and active raised bogs
SAC	Wolf Island Bog SAC	Northern Ireland		Active raised bogs
SAC	Yell Sound Coast SAC	Scotland	Common seal, Otter	
SAC	Yewbarrow Woods SAC	England		Taxus baccata woods of the British Isles, Old sessile oak woods with Ilex and Blechnum in the British Isles, Juniperus communis formations on heaths or calcareous grasslands
Ramsar Sites				
Ramsar	Ballaugh Curragh	Isle of Man	Corncrake	Peatland habitat mosaic, willow scrub habitat, 'curragh'. Other habitats include wet birch woodland, wet grassland, purple moor-grass-dominated fen pasture with good populations of marsh orchids, floating mats of bog vegetation and well-established man-made ditch systems with good collections of aquatic and emergent species. Asilid fly and Hen Harrier.
Ramsar	Ballynahone Bog Ramsar	Northern Ireland		Ramsar criterion 1 - the site is a large and relatively intact example of a lowland raised bog
Ramsar	Belfast Lough Ramsar	Northern Ireland	Ramsar criterion 6 - During spring and autumn the Common redshank and Black-tailed godwit populates the area	
Ramsar	Black Bog Ramsar	Northern Ireland		Ramsar criterion 1 - the site is a large and relatively intact example of a lowland raised bog
Ramsar	Bridgend Flats, Islay Ramsar	Scotland	Ramsar criterion 6 - Overwintering populations of barnacle goose	
Ramsar	Cairngorm Lochs Ramsar	Scotland		Ramsar criterion 1 - exceptional example of high altitude oligotrophic lochs. Criterion 3 - the lochs are of considerable limnological value supporting specialised populations of zooplankton and phytoplankton.
Ramsar	Caithness and Sutherland Peatlands Ramsar	Scotland	Ramsar criterion 2 - The site supports nationally important breeding populations of ten waterfowl species. Ramsar criterion 6 - Breeding populations of Dunlin. The site supports Otters.	Ramsar criterion 1 - one of the largest and most intact areas of blanket bog in the world Criterion 2 - the site supports a range of rare wetland plants and animals.
Ramsar	Caithness Lochs Ramsar	Scotland	Ramsar criterion 6 - Overwintering populations of Greylag Goose, Greenland White-fronted Goose & Whooper Swan	
Ramsar	Cameron Reservoir Ramsar	Scotland	Ramsar criterion 6 - Overwintering population of Pink-footed goose	
Ramsar	Carlingford Lough Ramsar	Northern Ireland	Ramsar criterion 2 - Site supports breeding pairs of the Common tern, Arctic tern and Roseate tern. Ramsar criterion 6, during the breeding season the site also supports the Sandwich tern. During the winter the Light-bellied brent goose is in the area.	
Ramsar	Castle Loch, Lochmaben Ramsar	Scotland	Ramsar Criterion 6, Overwintering populations of Pink-footed goose	
Ramsar	Claish Moss	Scotland		Ramsar criterion 1, An area of active blanket bog and is one of only three known examples of 'eccentric' mire in Britain. Ramsar criterion 3, Area supports 14 peat moss species, 9 Dragonfly species and two scarce wetlands plants, brown beak-sedge and bog orchid.
Ramsar	Coll Ramsar	Scotland	Ramsar Criterion 6, Area supports wintering populations of Greenland white-fronted goose and Barnacle goose.	Ramsar criterion 3, site supports a diverse community of wetland plants some of which are nationally rare and scarce higher plant species.
Ramsar	Cromarty Firth Ramsar	Scotland	Ramsar criterion 1 - Site contain extensive, undisturbed intertidal flats with eelgrass beds. Ramsar criterion 5 - 30,200 wintering waterfowl. Ramsar criterion 6 - Wintering species of Greylag goose and Bar-tailed godwit.	
Ramsar	Din Moss – Hoselaw Loch Ramsar	Scotland	Ramsar criterion 6 - Wintering populations of Pink-footed goose and Greylag goose	
Ramsar	Dornoch Firth and Loch Fleet Ramsar	Scotland	Ramsar criterion 1 - Range of wetland habitats and coastal dune sites. Ramsar criterion 2 - Site supports nationally scarce plants and invertebrates. Ramsar Criterion 5 - A population of 28,692 waterfowl during the winter. Ramsar 6 - During spring and autumn population of Eurasian Wigeon and winter populations of Greylag goose and Bar-tailed godwit. Wintering populations of Redshank and Whooper swan.	Breeding population of Osprey.
Ramsar	Duddon Estuary Ramsar	England	Ramsar criterion 4 - Waterfowl during the spring and autumn passage. Ramsar criterion 5 - During the winter site supports 26,326 waterfowl. Ramsar criterion 6 - Winter populations of Pintail, Red knot and Common redshank.	Ramsar criterion 2 - Supports nationally important numbers of the rare natterjack toad, wetland plants and invertebrates.
Ramsar	East Sanday Coast Ramsar	Scotland	Overwintering Purple Sandpiper & Ruddy turnstone that are Criterion 6 qualifying species	
Ramsar	Eilean na Muice Duibhe Ramsar	Scotland	Ramsar Criterion 6 - Wintering population of Greenland white-fronted goose	

Table A4 – List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

Key: Normal text	
LSE identified at pre-screening and no change made at screening	**Key: bold text**
no LSE identified at pre-screening	**no LSE identified following screening**
no information at pre-screening	**no information at screening**

Ramsar	Esthwaite Water Ramsar	England		Ramsar criterion 1 - Mestrophic lake with a well developed hydrosere at northern end. Ramsar criterion 2 - lake supports a rich assemblage of invertebrates and pondweed species and is the only known location in Egland and Wales of the slender naiad.
Ramsar	Fala Flow Ramsar	Scotland	Ramsar criterion 6 - Wintering population of the Pink-footed goose.	
Ramsar	Firth of Forth Ramsar	Scotland	Ramsar criterion 5 - 72,281 waterfowl during the winter. Ramsar criterion 6 - Passage during spring and autumn of Pink-footed goose, Common shelduck, redshank and the Ruddy turnstone. Wintering populations of Slavonian grebe, Common goldeneye, Red knot and Bar-tailed godwit. The site also supports during the breeding season the Common tern and Goosander	
Ramsar	Firth of Tay & Eden Estuary Ramsar	Scotland	Ramsar criterion 5 - 27,028 of wintering waterfowl. Ramsar criterion 6 - passage during spring and autumn of the Common Redshank and goosander. Overwintering populations of Pink-footed goose, Greylag goose and Bar-tailed godwit.	
Ramsar	Garron Plateau Ramsar	Northern Ireland		Ramsar criterion 1 - Site is a blanket bog which contains nationally important examples of transitional and alkaline fen and oligotrophic/mesotrophic lakes. Ramsar criterion 2- the area also supports Vascular Plants and birds which are included in the Irish Red Data Book.
Ramsar	Garry Bog Ramsar	Northern Ireland		Ramsar criterion 1 - Large and intact example of lowland raised bog.
Ramsar	Gladhouse Reservoir Ramsar	Scotland	Ramsar criterion 6 - Winter populations of the Pink-footed goose	
Ramsar	Greenlaw Moor Ramsar	Scotland	Ramsar Criterion 6 - Passage during the spring and autumn of the Pink-footed goose.	
Ramsar	Gruinart Flats, Islay Ramsar	Scotland	Ramsar criterion 6 - passage during the spring and autumn populations of light-bellied brent goose and wintering populations of Greenland white-fronted goose and Barnacle goose	
Ramsar	Holburn Lake and Moss Ramsar	England	Ramsar criterion 3 & 6 Winter population of Greylag goose, of which the entire Icelandic race is found in the site during the winter. Ramsar criterion 4 - supports passing populations of Mallard, Wigeon and Teal. Shelduck, Shoveler and Tufted duck breed in the area.	Ramsar criterion 1 - Rare example of lowland raised mire.
Ramsar	Inner Clyde Estuary Ramsar	Scotland	Ramsar Criterion 6 - Winter populations of the Common redshank. - Great cormorant, Common eider, Slavonian grebe, Common goldeneye, Eurasian oystercatcher, Common greenshank.	
Ramsar	Inner Moray Firth Ramsar	Scotland	Ramsar Criterion 1 - Site supports intertidal flats with eelgrass beds and salt marshes. Ramsar criterion 5 - Winter population of 25,740 waterfowl Ramsar criterion 6 - overwintering Greylag goose, Red-breasted merganser, Bar-tailed godwit and Common redshank.	
Ramsar	Irthinghead Mires	England		Ramsar criterion 1 - Site is an area of undamaged blanket bog with good representation of different topographic mire type and surface patterning. Ramsar criterion 2 - A variety of Sphagnum mosses Ramsar criterion 3 - plants and a rare spider has been reported in the area.
Ramsar	Killough Bay Ramsar	Northern Ireland	Ramsar criterion 6 - Winter populations of Light-bellied brent goose.	
Ramsar	Kintyre Goose Roosts Ramsar	Scotland	Ramsar Criterion 6 - Winter populations of Greenland white-fronted goose.	
Ramsar	Larne Lough Ramsar	Northern Ireland	Ramsar criterion 2 - Supports breeding populations of Roseate tern and the Common tern. Ramsar criterion 6 - Supports winter populations of the light-bellied brent goose.: Black-headed gull , Sandwich tern, Common tern , Great crested grebe , Common eider , Red-breasted merganser , Great cormorant , Common shelduck , Common goldeneye , Common redshank , Common greenshank , Mew gull	
Ramsar	Leighton Moss Ramsar	England	Ramsar Criterion 1& 3 - Large reedbed habitat and support breeding populations of the Great bittern. Ramsar Criterion 3 - site supports the Northern Shoveler outside of the breeding season.	Ramsar Criterion 1 - Site supports a breeding population of Bearded tit and marsh harrier Ramsar Criterion 3 - Water rail populations present outside of the breeding season.
Ramsar	Lewis Peatlands Ramsar	Scotland	Ramsar Criterion 2 - Breeding waterfowl including populations of the Red-throated diver, Black-throated diver, Golden plover and Greenshank. Ramsar criterion 6 - Site also supports breeding populations of internationally important Dunlin.	Ramsar Criterion 1 - One of the largest and intake known areas of blanket bog in the world. The area includes extensive areas of ombrotrophic or rain fed bog together with smaller area of peatland which is subject to water flow.
Ramsar	Lindisfarne Ramsar	England	Ramsar Criterion 1 - Area contains extensive intertidal flats, Saltmarsh and major sand dune system. Ramsar Criterion 5 - International importance of 44,970 wintering waterfowl. Ramsar Criterion 6 - Spring and autumn passage of Light-bellied brent goose, Eurasian Wigeon, Ringed plover, and Common redshank. Winter populations of Greylag goose and Bar-tailed godwit.	
Ramsar	Loch an Duin	Scotland		Ramsar criterion 1 - The largest fjardic loch system on Britain.
Ramsar	Loch Eye Ramsar	Scotland	Ramsar criterion 6 - Spring and autumn populations of Whooper Swan & Overwintering populations of Greylag Goose	
Ramsar	Loch Ken and River Dee Marshes Ramsar	Scotland	Ramsar Criteria 6 - overwintering Greenland white fronted goose, Greylag goose and Whooper Swan..	Ramsar Criterion 2 - Four nationally scarce species of aquatic plants and three British Red Data Book aquatic invertebrates.
Ramsar	Loch Leven Ramsar	Scotland	Ramsar 5 - During the winter supports 18,463 waterfowl. Ramsar Criterion 6 - Passage of Great crested grebe and Northern shoveler during spring/autumn.	Ramsar Criterion1 - Eutrophic loch, large and shallow with only rare stratification. Support flora and fauna.
Ramsar	Loch Lomond Ramsar	Scotland	Ramsar Criterion 6 - Wintering populations of Greenland white fronted goose	Ramsar Criterion 3 - Site supports several scarce, and one British Red Book, wetland plants and invertebrates
Ramsar	Loch Maree Ramsar	Scotland	Ramsar criterion 2 - Site supports the single most important breeding population of Black-throated diver in Britain.	Ramsar Criterion 1 - Example of a large oligotrophic freshwater loch. Ramsar Criterion 2 - Supports assemblages of wetland plants, including scarce aquatic plants and a nationally rare Dragonfly.
Ramsar	Loch of Inch and Torrs Warren Ramsar	Scotland	Ramsar criterion 1 - Outstanding examples of sand dune and dune slack habitats in the dune system at Torrs Warren.Noteworthy sites are Embryonic shifting dunes, Shifting dunes along the shoreline with Ammophila arenaria ("white dunes"), Fixed dunes with herbaceous vegetation ("grey dunes"), Atlantic decalcified fixed dunes (Calluno-Ulicetea). Ramsar Criterion 6 - Wintering populations of Greenland white-fronted goose.	Winter breeding populations of Hen harrier. Great crested newt
Ramsar	Loch of Kinnordy Ramsar	Scotland	Ramsar criterion 6 - Passing Pink footed goose during spring and autumn & wintering populations of Greylag goose.	Ramsar Criterion 1 - The site supports good examples of rich swap. Fen, grassland and carr communties, which are becoming increasingly rare. Ramsar criterion 2 - Supports a number of rare wetland plants and rare breeding migratory waterfowl.Water rails are resident in the area.
Ramsar	Loch of Lintrathen Ramsar	Scotland	Ramsar Criterion 6 - Overwintering population of Greylag goose.	
Ramsar	Loch of Ruthven Ramsar	Scotland	Ramsar Criterion 3 - Site is a core area of the breeding population of the Slavonian grebe.	Ramsar Criterion 3 - Two scarce species of orchid growing on the boggy areas.
Ramsar	Loch of Skene Ramsar	Scotland	Ramsar Criterion 6 - Wintering populations of Greylag goose.	
Ramsar	Loch of Strathbeg Ramsar	Scotland	Ramsar Criterion 5 - 47,841 wintering waterfowl. Ramsar Criterion 6 - Passing populations of Pink-footed goose during the spring and autumn. Wintering populations of Whooper swan and Greylag goose.	
Ramsar	Loch Spynie Ramsar	Scotland	Ramsar Criterion 6 - Wintering populations of Greylag goose.	Ramsar criterion 1- Large eutrophic waterbody in Northern Scotland. Has extensive atras of water-fringing vegetation, with all stages of succession. Ramsar criterion 2 - The Loch supports three nationally scarce wetland plants.
Ramsar	Lough Foyle Ramsar	Northern Ireland	Ramsar Criterion 1 - Area has extensive intertidal sand and mudflats with seagrass beds, saltmarshes and estuaries. Ramsar Criterion 2 - Supports rare and endangered species including Sea lamprey, Allis shad, Twaite shad and spawning Atlantic salmon. Ramsar Criterion 3 - Wintering waterfowl including Whooper swan, Light-bellied brent goose, Bar-tailed godwit, Red-throated diver, Great crested Grebe, Bewick's Swan, Greylag goose, Shelduck, Teal, Mallard, Wigeon, Eider, Red-breasted Merganser, Oystercatcher, Golden plover, Grey plover, Lapwing, Knot, Dunlin, Curlew, Redshank and Greenshank. Ramsar Criterion 6 - Passing populations of Whooper swan and Light-bellied brent goose during spring and autumn. During the winter populations of Bar-tailed godwit come to the site.	Ramsar Criterion 2 - Site supports populations of Smelt which is found in the Red Data Book.
Ramsar	Lough Neagh and Lough Beg Ramsar	Northern Ireland	Ramsar Criterion 4 - Site supports an assemblage of internationally important breeding populations of Great Crested grebe, Gadwall, Pochard, Tufted Duck, Snipe and Redshank. There are also breeding populations of Shelduck, Teal, Shoveler, Lapwing and Curlew at the site. Ramsar Criterion 5 - Site supports 86,639 waterfowl of international importance. Ramsar Criterion 6 - Passing populations of Whooper swan, Common pochard, Tufted duck and Common goldeneye.	Ramsar Criterion 1 - Largest freshwater lake in the UK. Ramsar Criterion 2 - Supports an appreciable assemblage of rare and/or vulnerable flora and fauna. Ramsar Criterion 3 - A large number of plants and animals species are confined or almost confined to this area within Northen Ireland. Ramsar Criterion 7 - Site supports a population of pollan, which is one of the most important species in terms of faunal biodiversity in Ireland as it is found nowhere else in Europe. Ramsar Criterion 6 - Passing population in spring and autumn of Tundra swan with future considerations given to the Great cormorant and Mute swan. Winter populations of the Greater scaup.

Table A4 – List of European/Ramsar sites and their interest features that were identified following the pre-screening and screening reviews (green shaded sites are screened into the AA)

Key: Normal text	
LSE identified at pre-screening and no change made at screening	**Key: bold text**
no LSE identified at pre-screening	**no LSE identified following screening**
no information at pre-screening	**no information at screening**

Ramsar	Montrose Basin Ramsar	Scotland	Ramsar Criterion 1 - Example of an estuary that has been unaffected by land-claim, industrial development or pollution. High species diversity in the intertidal zone in comparison to other sites due to the mudflats remaining wet during low tide. High water quality due to a complete exchange of water with each tide. Ramsar criterion 5 - 29,116 wintering waterfowl, Ramsar 6, including the Pink-footed goose and Greylag goose. There is also a population of passing Common redshank during the spring/autumn. Noteworthy features are: Spring and autumn population Ruff and Common greenshank. Winter populations of Common shelduck , Eurasian wigeon , Common eider and Red knot.	
Ramsar	Moray and Nairn Coast Ramsar	Scotland	Ramsar 1 - Site supports important features including intertidal flats and saltmarsh, Embryonic shifting dunes and Perennial vegetaion of stony banks. Ramsar criterion 5 - 22,609 wintering waterfowl. Ramsar criterion 6 - Wintering populations of Pink-footed goose, Greylag goose and Common redshank.	Ramsar Criterion 1- Site has good examples of floodplain alder woodland. Ramsar criteriion 2 - Six nationally scarce aquatic and coastal plants at site, Sea centaury, Baltic rush, oysterplant and Eelgrass. There are also two British Red Data Book invertebrates, a water beetle and a snail killing fly.
Ramsar	Morecambe Bay Ramsar	England	Ramsar Criterion 4 - Staging area for migratory waterfowl including internationally important numbers of passage ringed plover. Ramsar 5 - 223,709 Wintering waterfowl. Ramsar 6 - During the breeding season Lesser black-backed gull, Herring gull and Sandwich tern are supported by the site. Spring and autumn the site hosts populations of Great Cormorant, Common shelduck, Northern pintail, Common eider, Eurasian oystercatcher, Ringed plover, Grey plover, Sanderling, Eurasian curlew, Common redshank, Ruddy turnstone and Lesser black-back gull. During the winter season the site supports populations of Great crested Grebe, Pink-footed goose, Eurasian Wigeon, Common goldeneye, Red-breasted merganser, European golden plover, Northern lapwing, red knot, Dunlin and Bar-tailed godwit. N	
Ramsar	Muir of Dinnet Ramsar	Scotland	Ramsar criterion 5 - Wintering population of 30,000 waterfowl at the site. Ramsar criterion 6 - Wintering population of Greylag goose.	
Ramsar	North Uist Machair and Islands Ramsar	Scotland	Ramsar criterion 6 - During the breeding season the site supports Ringed plover and Dunlin. Overwintering populations of Barnacle goose, ringed plover and Ruddy turnstone.	Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
Ramsar	Northumbria Coast Ramsar	England	Ramsar criterion 6 - Site supports during the breeding season population of Little tern and overwintering populations of Purple sandpiper and Ruddy turnstone. Noteworthy features: Breeding populations - Great cormorant , Black-legged kittiwake , Arctic tern. Spring/autmn populations European golden plover. Wintering populations of Common eider and Sanderling.	
Ramsar	Outer Ards Ramsar	Northern Ireland	Ramsar criterion 6 - Site supports wintering populations of Light-bellied brent goose, Ringed plover, European golden plover and Ruddy turnstone.	
Ramsar	Rinns of Islay Ramsar	Scotland	Ramsar criterion 6 - passage of Whooper swan in spring/autumn. There are also wintering populations of Greenland white-fronted goose and Barnacle goose.	Ramsar criteron 1 - Site contains peatlands and wetlands of interest, including blanket mires of extreme oceanic character. Ramsar criterion 3 - Site supports a peatland flora of exceptional interest which includes some scarce wetland species and the site supports a diverse assemblage of breeding waders on the wet grasslands and peatland. Breeding population of Hen Harrier
Ramsar	River Spay - Insh Marshes Ramsar	Scotland	Ramsar Criterion 2 - Site is one of the best freshwater sites in Britain for the Otter. Ramsar criterion 6 - Overwintering population of Whooper swan.	Ramsar criterion 1 - Outstanding examples of high altitude slow flowing river, a mesotrophic loch, floodplain mire and gravel fan. Ramsar criterion 3 - Site supports nationally rare and scarce aquatic plants and invertebrates. Ramsar criterion 3 - Supports an assemblage of breeding birds. Wintering population of - Hen harrier.
Ramsar	Ronas Hill - North Roe and Tingon Ramsar	Scotland	Ramsar criterion 2 - Site supports the Common seal and Otter.	Ramsar criterion 1 - Outstanding examples of blanket bog with extensive pool systems. Lower ground at North Roe and most of Tingon is covered by deep peat and well preserved active blanket bogs. Site contains many oligotrophic lochs. Ramsar criterion 2 - Supports rare species of animal and plant including the Artic water flea which is found at only one other site in Britain.
Ramsar	Silver Flowe	Scotland		Ramsar criterion 1 - Site contains one of the most outstanding examples of patterned mire and blanket bog in Great Britain.
Ramsar	Sleibhtean agus Cladach Thiriodh (Tiree wetland and coast) Ramsar	Scotland	Ramsar criterion 6 - Site supports Dunlin during the breeding season and overwintering populations of Greenland white-fronted goose, Barnacle goose, Ringed plover and Ruddy turnstone. Ramsar criterion 1 - Machair.	Ramsar Criterion 1 - Area of substaintial freshwater marsh and maritine grassland, all of which are in near-natural condition. One of the loch is of international importance as an example of a eutrophic machair loch. Some of the other lochs are important for their rich aquatic plant communities.
Ramsar	South Tayside Goose Roosts Ramsar	Scotland	Ramsar criterion 6 - Passage population of Pink-footed goose in spring and autumn. Overwintering population of Greylag goose.	
Ramsar	South Uist Machair and Lochs Ramsar	Scotland	Ramsar criterion 2 - Site contains fauna including the Otter and Atlantic salmon. Ramsar criterion 6 - Species supported during the breeding season are Ringed plover and Dunlin and there is an overwintering population of Ringed plover.	Ramsar criterion 1 - site contains some of the finest examples of a continual gradiant from marine to freshwater habiatats. Ramsar criterion 2 - Variety of species supported by the enviroment, including, rare vascular plants, slender naiad, cowbane, slender-leaved pondweed and Baltic rush.
Ramsar	Strangford Lough Ramsar	Northern Ireland	Ramsar criterion 1 - Area supports one of the most extensive saltmarsh areas in Northern Ireland. Ramsar criterion 2 - The mudflats also support beds of Eelgrass. Ramsar criterion 5 - Winter populations of 74,876 waterfowl. Ramsar criterion 6 - Breeding population of Sandwich tern and Common tern. Passage populations of Light-bellied brent goose and Common redshank during spring and autumn and a winter population of the Red Knot	
Ramsar	Trawbreaga Bay	Ireland	Sandbanks which are slightly covered by water all the time. Bird populations of Barnacle geese,, Brent geese, and Ringed plover.	
Ramsar	Turmennan Lough Ramsar	Northern Ireland		Ramsar criterion 1 - Area is a lowland valley mire with a range of edaphic conditions.
Ramsar	Upper Solway Flats and Marshes Ramsar	England & Scotland	Ramsar criterion 5 - Overwintering population of 135,720 waterfowl. Ramsar criterion 6 - Passage population of Eurasian oystercatcher in spring/autumn. Overwintering populations of Whooper swan, Pink-footed goose, Northern pintail, Greater scaup, Red knot, Bar tailed godwit, Eurasian curlew and Common redshank	Ramsar criterion 2 - Area supports 10% of the British population of natterjack toad.
Ramsar	Westwater Ramsar	Scotland	Ramsar Criterion 5 - Overwintering population of 18,759 waterfowl. Ramsar criterion 6 - Passing population of Pink-footed goose during spring and autumn.	
Ramsar	Ythan Estuary, Sands of Forvie and Meikle Loch Ramsar	Scotland	Ramsar criterion 5 - winter population of 9,271 waterfowl. Ramsar criterion 6 - The site supports Sandwich tern during the breeding season and the passage population of the Pink-footed goose during the spring and autumn.	
Sites of Community Importance and Proposed/Candidate Special Areas of Conservation				
SCI	**Darwin Mounds SCI**	**UK Offshore waters**	**Site included at pre-screening but removed at screening because it is remotely positioned to seaward of any option areas and there is no likelihood that a cable will be aligned through to relevant designated site**	Reefs
SCI	River Roe and Tributaries SCI	Northern Ireland	Atlantic salmon, Otter	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation, Old sessile oak woods with Ilex and Blechnum in the British Isles
SCI	Stanton Banks SCI	UK Offshore waters	Reefs	
cSAC	Bolton Fell Moss cSAC	Scotland		Degraded raised bogs still capable of natural regeneration
cSAC	Red Bay cSAC	Northern Ireland	Sandbanks which are slightly covered by sea water all the time	
cSAC	River Faughan and Tributaries cSAC	Northern Ireland	Atlantic salmon, Otter	Old sessile oak woods with Ilex and Blechnum in the British Isles
cSAC	Shell Flat cSAC****	England	Sandbanks which are slightly covered by sea water all the time	
cSAC	**Wyville Thomson Ridge Candidate cSAC**	**UK Offshore waters**	**Site included at pre-screening but removed at screening because it is remotely positioned to seaward of any option areas and there is no likelihood that a cable will be aligned through to relevant designated site**	Reefs
pSAC	East Mingulay pSAC	Scotland	Reefs	
pSAC	Sound of Barra pSAC	Scotland	Reef, Sandbanks which are slightly covered by sea water all the time and harbour seals	
pSPA	Ladder Hills pSPA	Scotland		Important site for breeding Hen Harriers

* Two sites added at screening (one of which was then scoped out) following extension to 100km plan-wide boundary that occurred when short-term options were included.

****NB Shell Flat cSAC this has been separated into Lune Deep pSAC and Shell flats cSAC and this need to be reflected here and in subsequent tables (esp for Solway and SW6 schedules)

Appendix B
Screening Schedule Tables for Each of the 34 Short-term and Medium-term Option Areas

Appendix B. Screening Schedule Tables for Each of the 34 Short-term and Medium-term Option Areas

B1. Introduction

This appendix is also provided in excel spreadsheet format on the enclosed CD. It presents the individual screening schedules (tables) for each of the short and medium term option areas. For each option, the tables identify sites that were screened in (and out) during Stage 5 of the Plan-level HRA process. These tables are also accompanied by maps which are shown in Appendix C. As detailed within the report text, designated sites outside the areas shown on these figures will/may also be relevant especially where they support (as qualifying interest features) birds that forage over long distances and/or migrate internationally. Therefore, these maps should not form the sole focus of future project-level HRAs. With respect to birds that forage over large distances, Table B1 has been prepared which is relevant to all the short-term and medium-term option areas. The tables enclosed in the appendix are as follows:

Screening Schedule Table for Long-distance Foraging Sea Birds:

Table B1. European/Ramsar sites which are screened in because they support sea birds which forage over large distances and could feed within the relevant option areas;

Table B2. Anadromous fish and freshwater pearl mussel qualifying species (and associated European/Ramsar sites) which have been screened in for each of the short and medium term option areas.

Screening Schedule Tables for the Short Term Options Areas (Based on 100km Zone):

Table ST1. Screening schedule for the Solway Firth Short-term Option Area;
Table ST2. Screening schedule for the Wigtown Bay Short-term Option Area;
Table ST3. Screening schedule for the Kintyre Short-term Option Area;
Table ST4. Screening schedule for the Islay Short-term Option Area;
Table ST5. Screening schedule for the Argyll Array Short-term Option Area;
Table ST6. Screening schedule for the Beatrice Short-term Option Area;
Table ST7. Screening schedule for the Inch Cape Short-term Option Area;
Table ST8. Screening schedule for the Neart na Gaoithe Short-term Option Area;
Table ST9. Screening schedule for the Forth Array Short-term Option Area.

Site Screening Maps for the Medium Term Options Areas (Based on 100km Zone):

Table MT1. Screening schedule for the E1 Medium-term Option Area;
Table MT2. Screening schedule for the N1 Medium-term Option Area;
Table MT3. Screening schedule for the N4 Medium-term Option Area;
Table MT4. Screening schedule for the N5 Medium-term Option Area;
Table MT5. Screening schedule for the N6 Medium-term Option Area;
Table MT6. Screening schedule for the N7 Medium-term Option Area;
Table MT7. Screening schedule for the N8 Medium-term Option Area;
Table MT8. Screening schedule for the NE1 Medium-term Option Area;
Table MT9. Screening schedule for the NE2 Medium-term Option Area;
Table MT10. Screening schedule for the NE3 Medium-term Option Area;

Table MT11. Screening schedule for the NW2 Medium-term Option Area;
Table MT12. Screening schedule for the NW4 Medium-term Option Area;
Table MT13. Screening schedule for the NW5 Medium-term Option Area;
Table MT14. Screening schedule for the NW6 Medium-term Option Area;
Table MT15. Screening schedule for the NW7 Medium-term Option Area;
Table MT16. Screening schedule for the NW8 Medium-term Option Area;
Table MT17. Screening schedule for the SW1 Medium-term Option Area;
Table MT18. Screening schedule for the SW3 Medium-term Option Area;
Table MT19. Screening schedule for the SW4 Medium-term Option Area;
Table MT20. Screening schedule for the SW5 Medium-term Option Area;
Table MT21. Screening schedule for the SW6 Medium-term Option Area;
Table MT22. Screening schedule for the W1 Medium-term Option Area;
Table MT23. Screening schedule for the W2 Medium-term Option Area;
Table MT24. Screening schedule for the W3 Medium-term Option Area;
Table MT25. Screening schedule for the W4 Medium-term Option Area.

It is important to note that these tables and maps describe the outcomes of the screening process that has taken place at a Plan-level as part of the HRA for the Draft OWE Plan. This process has required consideration of the full 'envelope' of potential change that is possible in advance of further details about project-level activities. It is envisaged therefore that these tables and maps will be revisited and updated as part of project-level HRA work when more project details are available (e.g. cable alignments). They can also be updated over time (and as part of the IPR process – see Section 9.3) as new research and monitoring information becomes available to help understand species' sensitivities and the likelihood of significant effects across the identified impact pathways. Over time, technological advances will take place that may influence these sensitivities and pathways and this can also be captured by updating these tables.

	Introductory Screening Notes
Species Review	European/Ramsar site with foraging birds outwith 100km boundary
Schedules	European/Ramsar sites supporting anadromous fish and fresh water pearl mussel
Short Term	Solway Firth
Option Area	Wigtown Bay
Schedules	Kintyre
	Islay
	Argyll Array
	Beatrice
	Inch Cape
	Neart Na Gaoithe
	Forth Array
Medium Term	E1
Option Area	N1
Schedules	N4
	N5
	N6
	N7
	N8
	NE1
	NE2
	NE3
	NW2
	NW4
	NW5
	NW6
	NW7
	NW8
	SW1
	SW3
	SW4
	SW5
	SW6
	W1
	W2
	W3
	W4

Notes to accompany the Appendix B option area screening tables (and Appendix C option area screening maps)

It is important to note that these tables and maps describe the outcomes of the screening process that has taken place at Plan-level as part of the HRA for the Draft OWE Plan. This process has required consideration of the full 'envelope' of potential change that is possible in advance of further details about project-level activities. It is envisaged therefore that these tables and maps will be revisited and updated as part of project-level HRA work when more project details are available (e.g. cable alignments). They can also be updated over time (as part of the IPR process – see Section 9.3) as new research and monitoring information becomes available to help understand species' sensitivities and the likelihood of significant effects across the identified impact pathways. Over time, technological advances will take place that may influence these sensitivities and pathways and this can also be captured by updating these tables.

Finally, these maps and tables (and those in screening and pre-screening tables in Appendix A) can also be used to revisit and review the status and location of designated sites which are subject to regular updates. For instance we note that new sites have been added to the online SNH database during the production of this HRA (e.g. including the Foinaven pSPA and Moidart and Ardgour pSPA which have Golden Eagle as a qualifying interest feature). Such sites (and other new ones) will clearly require consideration at the project-level HRA stages.

1	**Interpretation of the Screening Maps** The tables presented in this file for each of the short and medium term option areas are accompanied by screening maps. These maps focus on the 100km zone surrounding each of the options which was used the basis for an objective and auditable screening process. As detailed within the report text, designated sites outside the areas shown on these figures will/may also be relevant especially where they support (as qualifying interest features) birds that forage over long distances and/or migrate internationally. Therefore, these maps should not form the sole focus of future project-level HRAs.
2	**Policy Regarding Status of Ramsar Sites in Scotland** In Scotland it is a matter of policy (SG 2010) that international Ramsar sites are 'also Natura sites and/or Sites of Special Scientific Interest and are protected under the relevant statutory regimes'. Therefore, in Scotland, Ramsar sites are included as European sites and do not need to be referred to separately. In the rest of the UK it is also as a matter of policy that Ramsar sites should receive the same protection as designated SPAs and SACs although they are not expressly included within the list of Natura 2000 sites. In recognition of this, and of the potential for the plan to have effects of designated sites in Scotland, England, Wales and Northern Ireland the sites protected under the Habitats Regulations are referred to throughout the HRA as European/Ramsar sites and Ramsar site designations are highlighted separately in these screening tables for each short term and long term area.
3	**Colour coding** Throughout these data sheets colour codes are used to reflect designated sites and features that have been screened in to the assessment **(Green);** sites features that have been screened out of the assessment **(Orange)** and 'screened in' sites where the option area and its surrounding tidal excursion zone extend into a European/Ramsar site **(Pink)**
4	**Data used and interpretations made** The information contained in each of the tables has been downloaded from the JNCC database and is regarded as the latest available information. It is possible that some rare discrepancies may exist with citations. For instance it has been noted that Manx Shearwater (*Puffinus puffinus*) is given here as an example of a species which is listed in the JNCC database as a breeding species within the Outer Ards SPA however it is not listed in the JNCC citation (downloaded from the JNCC website) as a qualifying species for Outer Ards. It is recognised that in the HRA at a project level all data will need to be reviewed and updated.
5	**Updated site list following pre-screening to ensure HRA covers both short and medium term sites** To confirm that the AA screening process encompasses both short and medium term option areas, the 100km plan-wide buffer that was used at pre-screening was extended to cover short term options as well as medium term areas. This extended area brought in additional designated sites at **Ingleborough Complex SAC and the Bowland Fell SPA**. The former has terrestrial habitats only and has been screened out using the principle, adopted at pre-screening. The latter has breeding Hen harrier and Merlin (species which would have been removed at pre-screening but it also has migratory Lesser Back Back Gull in the breeding season and therefore this site will need to be brought into the scope of the assessment and schedule tables for some sites.
6	**Screening for Forgaing Seabird Qualifying Interest Feature** All designated sites within the 100km buffer zone which support offshore foraging seabirds as a qualifying feature were screened in automatically at pre-screening and were retained at screening. Following the methods set out in the working paper, the approach taken for then screening was to add sites outside the 100km buffer area where they support birds that forage over distances >100km (see Table B1). These species and their maximum foraging distances were identified from the Birdlife international database. Focusing on this data source provides clarity and audibility for the assessment. However, other reviews (e.g the Intereg FAME project) identify different, and in some cases larger, distances for some species and a summary of these is presented in Appendix D. At project level these reviews and any other new data will need to be re-considered to ensure that proposed developments do not have an adverse effect. This project-level work will include consideration of the extent to which birds from these sites actually forage within the areas of proposed development to assess the effects in the context of the relevant conservation objectives.
7	**Screening for Otter Qualifying Interest Feature** All designated sites within the 100km buffer zone which support otter as a qualifying feature were screened in automatically at pre-screening. The approach taken for then screening these sites was set out in the working paper with a 10km buffer area around the relevant designated site being defined as an area within which activities could have a LSE. However, at this stage the 10km buffer is of limited relevance because the alignment of cables and the position of their landfalls are not known and yet it is these aspects of Plan activities that pose the greatest risk. Therefore, all the relevant **coastal** European/Ramsar Sites were screened into the assessment. At a Plan-wide level, sites were screened out where they are **inland** populations based on advice was provided by SNH. For each of the option area schedules (see Appendix B) sites were screened out where there is a landmass in the way (which would mean that there is no likelihood that a cable will be aligned through to the relevant designated site). For instance otter populations in the Tweed SAC are not included in the screening schedules for the west coast option areas for this reason.
8	**Screening for Anadromous Fish** The approach taken for screening sites that have anadromous fish as a qualifying interest feature was set out in the working paper with a set of coastal zones having been identified based on Atlantic salmon migratory pathways. On this basis for instance sites such as **R Naver and R,. Thurso SACs** were screened out of the assessment work for the Beatrice and NE1 option areas.
9	**Screening for Coastal and Offshore Habitats** The approach taken for screening sites that have marine habitats as a qualifying interest feature was set out in the working paper and is based on the extent to which the activities have a direct and indirect effect as described by the option areas extents (nb these are 'areas of search') and the extent of the surrounding tidal excursion distance. However, as with otter (above) these zones are of limited value in screening out sites because the alignment of cables and the position of their landfalls are not known at this stage for most of the options (the only exception being the Forth Array and Neart na Gaoithe). Therefore with the exception of the two sites mentioned, almost all European/Ramsar Sites supporting habitat qualifying features could be affected which lie within (and possibly beyond) 100km of the proposed option area depending upon where the cabling route is aligned. Sites have however been screened out where they are seaward of any option areas and in which case such sites there is no likelihood that a cable will be aligned through to the relevant designated site. This applies for instance to the **Wyville Thompson Ridge and Darwin Mounds SACs.**
10	**Screening for Coastal Dry Heath** During the pre-screening review work, coastal sites with heath interest features were removed based on Plan-level screening criteria. In their advice SNH has recommended that such sites with dry heath near the coast should be reconsidered and could be treated in a similar manner to other supralittoral coast habitats such as dune interests. This rechecking phase has not been undertaken as part of this HRA but it will need to be done, alongside broader reviews of the potential effects on coastal habitats, at a project level once further information is available about potential cable alignments and landfall locations

Table B1 – European/Ramsar sites which are screened in because they support sea birds which forage over large distances and could feed within the relevant option areas

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Puffin	Forth Islands (UK9004171)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Canna & Sanday (UK9001431)
	Farne Islands (UK9006021)	Cape Wrath (UK9001231)	Mingulay & Berneray (UK9001121)	Forth Islands (UK9004171)	Lambay Island (004069)	Lambay Island (004069)	Flannan Isles (UK9001021)
	Coquet Island (UK9006031)	East Caithness Cliffs (UK9001182)	Tory Island (004073)	Mingulay & Berneray (UK9001121)	Ireland's Eye (004117)		Mingulay & Berneray (UK9001121)
		Fair Isle (UK9002091)	Horn Head to Fanad Head (004194)	Tory Island (004073)			Shiant Isles (UK9001041)
		Flannan Isles (UK9001021)		Horn Head to Fanad Head (004194)			St Kilda (UK9001031)
		Forth Islands (UK9004171)					Tory Island (004073)
		Hoy (UK9002141)					Horn Head to Fanad Head (004194)
		Mingulay & Berneray (UK9001121)					
		North Caithness Cliffs (UK9001181)					
		North Rona & Sula Sgeir (UK9001011)					
		Shiant Isles (UK9001041)					
		St Kilda (UK9001031)					
		Sule Skerry & Sule Stack (UK9002182)					
		Farne Islands (UK9006021)					
		Coquet Island (UK9006031)					

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Kittiwake	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Mingulay & Berneray (UK9001121)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Flannan Isles (UK9001021)
	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)	Rum (UK9001341)	Mingulay & Berneray (UK9001121)	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)	Mingulay & Berneray (UK9001121)
	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Tory Island (004073)	Rum (UK9001341)	Rockabill (004014)	Rockabill (004014)	Rum (UK9001341)
	Farne Islands (UK9006021)	Farne Islands (UK9006021)	Inishtrahull (004100)	Rockabill (004014)	Lambay Island (004069)	Lambay Island (004069)	Shiant Isles (UK9001041)
			Horn Head to Fanad Head (004194)	Tory Island (004073)	Howth Head Coast (004113)	Farne Islands (UK9006021)	St Kilda (UK9001031)
				Inishtrahull (004100)	Ireland's Eye (004117)		Tory Island (004073)
				Horn Head to Fanad Head (004194)	Farne Islands (UK9006021)		Inishtrahull (004100)
							Horn Head to Fanad Head (004194)

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Guillemot	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Canna & Sanday (UK9001431)
	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)	Mingulay & Berneray (UK9001121)	Forth Islands (UK9004171)	North Colonsay & Western Cliffs (UK9003171)	St Abb's Head to Fast Castle (UK9004271)	Flannan Isles (UK9001021)
	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	North Colonsay & Western Cliffs (UK9003171)	Mingulay & Berneray (UK9001121)	St Abb's Head to Fast Castle (UK9004271)	Rockabill (004014)	Mingulay & Berneray (UK9001121)
	Farne Islands (UK9006021)	Farne Islands (UK9006021)	Rum (UK9001341)	North Colonsay & Western Cliffs (UK9003171)	Rockabill (004014)	Lambay Island (004069)	North Colonsay & Western Cliffs (UK9003171)
			Tory Island (004073)	Rum (UK9001341)	Lambay Island (004069)	Farne Islands (UK9006021)	Rum (UK9001341)
			Inishtrahull (004100)	Rockabill (004014)	Howth Head Coast (004113)		Shiant Isles (UK9001041)
			Horn Head to Fanad Head (004194)	Tory Island (004073)	Ireland's Eye (004117)		St Kilda (UK9001031)
				Inishtrahull (004100)	Farne Islands (UK9006021)		Tory Island (004073)
				Horn Head to Fanad Head (004194)			Inishtrahull (004100)
							Horn Head to Fanad Head (004194)

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Common Scoter					Liverpool Bay (UK9020294)	Liverpool Bay (UK9020294)	
					Baldoyle Bay (004016)	Ribble & Alt Estuaries (UK9005103)	
					Ribble & Alt Estuaries (UK9005103)		

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Manx Shearwater	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)
	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)
	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)	St Kilda (UK9001031)	St Kilda (UK9001031)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)	St Kilda (UK9001031)
	Lambay Island (004069)	Lambay Island (004069)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)	Saltee Islands (004002)	Saltee Islands (004002)	Copeland Islands (UK9020291)
	Ireland's Eye (004117)	Ireland's Eye (004117)	Saltee Islands (004002)	Saltee Islands (004002)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
	Glannau Aberdaron & Ynys Enlli (UK9013121)		Lambay Island (004069)	Lambay Island (004069)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)
			Ireland's Eye (004117)	Ireland's Eye (004117)	High Island, Inishshark & Davillaun (004144)	Skokholm & Skomer (UK9014051	Slyne Head Islands (004123)
			Slyne Head Islands (004123)	Slyne Head Islands (004123)	Skokholm & Skomer (UK9014051	Glannau Aberdaron & Ynys Enlli (UK9013121)	High Island, Inishshark & Davillaun (004144)
			High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	Glannau Aberdaron & Ynys Enlli (UK9013121)		
			Glannau Aberdaron & Ynys Enlli (UK9013121)	Glannau Aberdaron & Ynys Enlli (UK9013121)			

Table B1 – European/Ramsar sites which are screened in because they support sea birds which forage over large distances and could feed within the relevant option areas

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Northern Fulmar	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)
	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231
	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)
	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Fetlar (UK9002031)
	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Flannan Isles (UK9001021)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Foula (UK9002061)	Foula (UK9002061)	Forth Islands (UK9004171)
	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Foula (UK9002061)
	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Handa (UK9001241)	Handa (UK9001241)	Fowlsheugh (UK9002271)
	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Hoy (UK9002141)	Hoy (UK9002141)	Handa (UK9001241)
	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Hermaness, Saxa Vord & Valla Field (UK9002011)
	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	Hoy (UK9002141)
	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Mingulay & Berneray (UK9001121)
	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	Noss (UK9002081)	Noss (UK9002081)	North Caithness Cliffs (UK9001181)
	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Rousay (UK9002371)	Rousay (UK9002371)	North Rona & Sula Sgeir (UK9001011)
	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Noss (UK9002081)
	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	St Kilda (UK9001031)	St Kilda (UK9001031)	Rousay (UK9002371)
	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Shiant Isles (UK9001041)
	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	St Kilda (UK9001031)
	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	West Westray (UK9002101)	West Westray (UK9002101)	Sumburgh Head (UK9002511)
	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Saltee Islands (004002)	Saltee Islands (004002)	Troup, Pennan & Lion's Head (UK9002471)
	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	Puffin Island (004003)	Puffin Island (004003)	West Westray (UK9002101)
	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)	Skelligs (004007)	Skelligs (004007)	Saltee Islands (004002)
	Lambay Island (004069)	Lambay Island (004069)	Puffin Island (004003)	Puffin Island (004003)	Lambay Island (004069)	Lambay Island (004069)	Puffin Island (004003)
	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Skelligs (004007)	Skelligs (004007)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Skelligs (004007)
	Tory Island (004073)	Tory Island (004073)	Lambay Island (004069)	Lambay Island (004069)	Tory Island (004073)	Tory Island (004073)	Lambay Island (004069)
	Illanmaster (004100)	Illanmaster (004100)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Illanmaster (004100)	Illanmaster (004100)	Stags of Broadhaven (004072)
	Duvillaun Islands (004111)	Inishtrahull (004100)	Tory Island (004073)	Tory Island (004073)	Inishtrahull (004100)	Inishtrahull (004100)	Tory Island (004073)
	Howth Head Coast (004113)	Duvillaun Islands (004111)	Illanmaster (004100)	Illanmaster (004100)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Illanmaster (004100)
	Ireland's Eye (004117)	Howth Head Coast (004113)	Inishtrahull (004100)	Inishtrahull (004100)	Howth Head Coast (004113)	Howth Head Coast (004113)	Inishtrahull (004100)
	Skerries Islands (004122)	Ireland's Eye (004117)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Ireland's Eye (004117)	Ireland's Eye (004117)	Duvillaun Islands (004111)
	Wicklow Head (004127)	Skerries Islands (004122)	Howth Head Coast (004113)	Howth Head Coast (004113)	Skerries Islands (004122)	Skerries Islands (004122)	Howth Head Coast (004113)
	Aughris Head (004133)	Wicklow Head (004127)	Ireland's Eye (004117)	Ireland's Eye (004117)	Wicklow Head (004127)	Wicklow Head (004127)	Ireland's Eye (004117)
	High Island, Inishshark & Davillaun (004144)	Aughris Head (004133)	Skerries Islands (004122)	Skerries Islands (004122)	Aughris Head (004133)	Aughris Head (004133)	Skerries Islands (004122)
	Helvick Head to Ballyquin (004192)	High Island, Inishshark & Davillaun (004144)	Wicklow Head (004127)	Wicklow Head (004127)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	Wicklow Head (004127)
	Horn Head to Fanad Head (004194)	Helvick Head to Ballyquin (004192)	Aughris Head (004133)	Aughris Head (004133)	Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)	Aughris Head (004133)
		Horn Head to Fanad Head (004194)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	High Island, Inishshark & Davillaun (004144)
			Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)			Helvick Head to Ballyquin (004192)
			Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)			Horn Head to Fanad Head (004194)

	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array
Northern Gannet	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)
	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Noss (UK9002081)	Noss (UK9002081)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	St Kilda (UK9001031)	St Kilda (UK9001031)	Noss (UK9002081)	Noss (UK9002081)
	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	St Kilda (UK9001031)	St Kilda (UK9001031)
	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Saltee Islands (004002)	Saltee Islands (004002)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)
	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)	Skelligs (004007)	Skelligs (004007)	Saltee Islands (004002)	Saltee Islands (004002)
	Ireland's Eye (004117)	Ireland's Eye (004117)	Skelligs (004007)	Ireland's Eye (004117)	Ireland's Eye (004117)	Skelligs (004007)	Skelligs (004007)
	Grassholm (UK9014041)	Grassholm (UK9014041)	Ireland's Eye (004117)	Grassholm (UK9014041)	Grassholm (UK9014041)	Ireland's Eye (004117)	Ireland's Eye (004117)
			Grassholm (UK9014041)			Grassholm (UK9014041)	Grassholm (UK9014041)

Puffin

Inch Cape	Beatrice	E1	N1	N4	N5	N6
East Caithness Cliffs (UK9001182)	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Fair Isle (UK9002091)
Forth Islands (UK9004171)	East Caithness Cliffs (UK9001182)	Forth Islands (UK9004171)	East Caithness Cliffs (UK9001182)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Foula (UK9002061)
Farne Islands (UK9006021)	Fair Isle (UK9002091)	Farne Islands (UK9006021)	Fair Isle (UK9002091)	Foula (UK9002061)	Foula (UK9002061)	Hermaness, Saxa Vord & Valla Field (UK9002011)
Coquet Island (UK9006031)	Hoy (UK9002141)	Coquet Island (UK9006031)	Flannan Isles (UK9001021)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Noss (UK9002081)
	North Caithness Cliffs (UK9001181)		Foula (UK9002061)	Hoy (UK9002141)	Hoy (UK9002141)	
	North Rona & Sula Sgeir (UK9001011)		Hoy (UK9002141)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	
	Shiant Isles (UK9001041)		North Caithness Cliffs (UK9001181)	Noss (UK9002081)	Noss (UK9002081)	
	Sule Skerry & Sule Stack (UK9002182)		North Rona & Sula Sgeir (UK9001011)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	
			Noss (UK9002081)			
			Shiant Isles (UK9001041)			
			Sule Skerry & Sule Stack (UK9002182)			

Kittiwake

Inch Cape	Beatrice	E1	N1	N4	N5	N6
Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Ailsa Craig (UK9003091)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
East Caithness Cliffs (UK9001182)	Calf of Eday (UK9002431)	Buchan Ness to Collieston Coast (UK9002491)	Cape Wrath (UK9001231	Copinsay (UK9002151)	Copinsay (UK9002151)	Fair Isle (UK9002091)
Forth Islands (UK9004171)	Copinsay (UK9002151)	East Caithness Cliffs (UK9001182)	Copinsay (UK9002151)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Foula (UK9002061)
Fowlsheugh (UK9002271)	East Caithness Cliffs (UK9001182)	Forth Islands (UK9004171)	East Caithness Cliffs (UK9001182)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Noss (UK9002081)
St Abb's Head to Fast Castle (UK9004271)	Fair Isle (UK9002091)	Fowlsheugh (UK9002271)	Fair Isle (UK9002091)	Foula (UK9002061)	Foula (UK9002061)	Rousay (UK9002371)
Troup, Pennan & Lion's Head (UK9002471)	Fowlsheugh (UK9002271)	St Abb's Head to Fast Castle (UK9004271)	Flannan Isles (UK9001021)	Hoy (UK9002141)	Hoy (UK9002141)	Sumburgh Head (UK9002511)
Farne Islands (UK9006021)	Handa (UK9001241)	Troup, Pennan & Lion's Head (UK9002471)	Foula (UK9002061)	Marwick Head (UK9002121)	Marwick Head (UK9002121)	West Westray (UK9002101)
	Hoy (UK9002141)	Farne Islands (UK9006021)	Handa (UK9001241)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	
	Marwick Head (UK9002121)		Hoy (UK9002141)	Noss (UK9002081)	Noss (UK9002081)	
	North Caithness Cliffs (UK9001181)		Marwick Head (UK9002121)	Rousay (UK9002371)	Rousay (UK9002371)	
	North Rona & Sula Sgeir (UK9001011)		North Caithness Cliffs (UK9001181)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	
	Rousay (UK9002371)		North Rona & Sula Sgeir (UK9001011)	West Westray (UK9002101)	West Westray (UK9002101)	
	Shiant Isles (UK9001041)		Noss (UK9002081)			
	Sumburgh Head (UK9002511)		Rousay (UK9002371)			
	Troup, Pennan & Lion's Head (UK9002471)		Shiant Isles (UK9001041)			
	West Westray (UK9002101)		Sumburgh Head (UK9002511)			
			Troup, Pennan & Lion's Head (UK9002471)			
			West Westray (UK9002101)			

Guillemot

Inch Cape	Beatrice	E1	N1	N4	N5	N6
Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Ailsa Craig (UK9003091)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
East Caithness Cliffs (UK9001182)	Calf of Eday (UK9002431)	Buchan Ness to Collieston Coast (UK9002491)	Cape Wrath (UK9001231	Copinsay (UK9002151)	Copinsay (UK9002151)	Fair Isle (UK9002091)
Forth Islands (UK9004171)	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	Copinsay (UK9002151)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Foula (UK9002061)
Fowlsheugh (UK9002271)	Copinsay (UK9002151)	Forth Islands (UK9004171)	East Caithness Cliffs (UK9001182)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Hermaness, Saxa Vord & Valla Field (UK9002011)
St Abb's Head to Fast Castle (UK9004271)	East Caithness Cliffs (UK9001182)	Fowlsheugh (UK9002271)	Fair Isle (UK9002091)	Foula (UK9002061)	Foula (UK9002061)	Noss (UK9002081)
Troup, Pennan & Lion's Head (UK9002471)	Fair Isle (UK9002091)	St Abb's Head to Fast Castle (UK9004271)	Flannan Isles (UK9001021)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Rousay (UK9002371)
Farne Islands (UK9006021)	Fowlsheugh (UK9002271)	Troup, Pennan & Lion's Head (UK9002471)	Foula (UK9002061)	Hoy (UK9002141)	Hoy (UK9002141)	Sumburgh Head (UK9002511)
	Handa (UK9001241)	Farne Islands (UK9006021)	Handa (UK9001241)	Marwick Head (UK9002121)	Marwick Head (UK9002121)	West Westray (UK9002101)
	Hoy (UK9002141)		Hoy (UK9002141)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	
	Marwick Head (UK9002121)		Marwick Head (UK9002121)	Noss (UK9002081)	Noss (UK9002081)	
	North Caithness Cliffs (UK9001181)		North Caithness Cliffs (UK9001181)	Rousay (UK9002371)	Rousay (UK9002371)	
	North Rona & Sula Sgeir (UK9001011)		North Rona & Sula Sgeir (UK9001011)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	
	Rousay (UK9002371)		Noss (UK9002081)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	
	Shiant Isles (UK9001041)		Rousay (UK9002371)	West Westray (UK9002101)	West Westray (UK9002101)	
	Sule Skerry & Sule Stack (UK9002182)		Shiant Isles (UK9001041)			
	Sumburgh Head (UK9002511)		Sule Skerry & Sule Stack (UK9002182)			
	Troup, Pennan & Lion's Head (UK9002471)		Sumburgh Head (UK9002511)			
	West Westray (UK9002101)		Troup, Pennan & Lion's Head (UK9002471)			
			West Westray (UK9002101)			

Common Scoter

Inch Cape	Beatrice	E1	N1	N4	N5	N6

Manx Shearwater

Inch Cape	Beatrice	E1	N1	N4	N5	N6
Outer Ards (UK9020271)	Rum (UK9001341)	Outer Ards (UK9020271)	Rum (UK9001341)	Rum (UK9001341)		
Rum (UK9001341)	St Kilda (UK9001031)	Rum (UK9001341)	St Kilda (UK9001031)			
St Kilda (UK9001031)		St Kilda (UK9001031)				
		Copeland Islands (UK9020291)				
		Lambay Island (004069)				
		Ireland's Eye (004117)				
		Glannau Aberdaron & Ynys Enlli (UK9013121)				

	Inch Cape	Beatrice	E1	N1	N4	N5	N6
Northern Fulmar	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)
	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231
	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)
	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)
	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)
	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)
	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)
	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)
	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)
	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)
	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)
	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)
	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)
	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)
	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)
	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)
	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)
	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)
	Saltee Islands (004002)	Lambay Island (004069)	Saltee Islands (004002)	Lambay Island (004069)	Tory Island (004073)	Tory Island (004073)	
	Lambay Island (004069)	Stags of Broadhaven (004072)	Lambay Island (004069)	Stags of Broadhaven (004072)	Illanmaster (004100)	Illanmaster (004100)	
	Stags of Broadhaven (004072)	Tory Island (004073)	Stags of Broadhaven (004072)	Tory Island (004073)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	
	Tory Island (004073)	Illanmaster (004100)	Tory Island (004073)	Illanmaster (004100)			
	Illanmaster (004100)	Inishtrahull (004100)	Illanmaster (004100)	Inishtrahull (004100)			
	Inishtrahull (004100)	Duvillaun Islands (004111)	Inishtrahull (004100)	Duvillaun Islands (004111)			
	Duvillaun Islands (004111)	Howth Head Coast (004113)	Duvillaun Islands (004111)	Howth Head Coast (004113)			
	Howth Head Coast (004113)	Ireland's Eye (004117)	Howth Head Coast (004113)	Ireland's Eye (004117)			
	Ireland's Eye (004117)	Skerries Islands (004122)	Ireland's Eye (004117)	Skerries Islands (004122)			
	Skerries Islands (004122)	Wicklow Head (004127)	Skerries Islands (004122)	Wicklow Head (004127)			
	Wicklow Head (004127)	Aughris Head (004133)	Wicklow Head (004127)	Aughris Head (004133)			
	Aughris Head (004133)	Horn Head to Fanad Head (004194)	Aughris Head (004133)	Horn Head to Fanad Head (004194)			
	High Island, Inishshark & Davillaun (004144)		High Island, Inishshark & Davillaun (004144)				
	Helvick Head to Ballyquin (004192)		Helvick Head to Ballyquin (004192)				
	Horn Head to Fanad Head (004194)		Horn Head to Fanad Head (004194)				

	Inch Cape	Beatrice	E1	N1	N4	N5	N6
Northern Gannet	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Fair Isle (UK9002091)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Forth Islands (UK9004171)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Hermaness, Saxa Vord & Valla Field (UK9002011)
	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	North Rona & Sula Sgeir (UK9001011)
	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Noss (UK9002081)
	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	St Kilda (UK9001031)
	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)
	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	
	Saltee Islands (004002)	Ireland's Eye (004117)	Saltee Islands (004002)	Ireland's Eye (004117)			
	Ireland's Eye (004117)		Ireland's Eye (004117)				
	Grassholm (UK9014041)		Grassholm (UK9014041)				

Puffin

N7	N8	NE1	NE2	NE3	NW2	NW4
East Caithness Cliffs (UK9001182)	Fair Isle (UK9002091)	Cape Wrath (UK9001231	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)
Fair Isle (UK9002091)	Foula (UK9002061)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Forth Islands (UK9004171)	Cape Wrath (UK9001231	Flannan Isles (UK9001021)
Foula (UK9002061)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Hoy (UK9002141)	Flannan Isles (UK9001021)	Mingulay & Berneray (UK9001121)
Hermaness, Saxa Vord & Valla Field (UK9002011)	Noss (UK9002081)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	North Caithness Cliffs (UK9001181)	Mingulay & Berneray (UK9001121)	Shiant Isles (UK9001041)
Hoy (UK9002141)		Hoy (UK9002141)	Hoy (UK9002141)	**Farne Islands (UK9006021)**	North Caithness Cliffs (UK9001181)	St Kilda (UK9001031)
North Caithness Cliffs (UK9001181)		North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	**Coquet Island (UK9006031)**	North Rona & Sula Sgeir (UK9001011)	Tory Island (004073)
Noss (UK9002081)		North Rona & Sula Sgeir (UK9001011)	Sule Skerry & Sule Stack (UK9002182)		Shiant Isles (UK9001041)	Horn Head to Fanad Head (004194)
Sule Skerry & Sule Stack (UK9002182)		Shiant Isles (UK9001041)			St Kilda (UK9001031)	
		Sule Skerry & Sule Stack (UK9002182)			Sule Skerry & Sule Stack (UK9002182)	

Kittiwake

N7	N8	NE1	NE2	NE3	NW2	NW4
Calf of Eday (UK9002431)	Fair Isle (UK9002091)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Cape Wrath (UK9001231	Rathlin Island (UK9020011)
Copinsay (UK9002151)	Foula (UK9002061)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Copinsay (UK9002151)	Flannan Isles (UK9001021)	Ailsa Craig (UK9003091)
East Caithness Cliffs (UK9001182)	Noss (UK9002081)	Cape Wrath (UK9001231	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	Handa (UK9001241)	Flannan Isles (UK9001021)
Fair Isle (UK9002091)	Sumburgh Head (UK9002511)	Copinsay (UK9002151)	Copinsay (UK9002151)	Forth Islands (UK9004171)	Mingulay & Berneray (UK9001121)	Handa (UK9001241)
Foula (UK9002061)		East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Fowlsheugh (UK9002271)	North Caithness Cliffs (UK9001181)	Mingulay & Berneray (UK9001121)
Hoy (UK9002141)		Fair Isle (UK9002091)	Fair Isle (UK9002091)	Hoy (UK9002141)	North Rona & Sula Sgeir (UK9001011)	Rum (UK9001341)
Marwick Head (UK9002121)		Forth Islands (UK9004171)	Forth Islands (UK9004171)	North Caithness Cliffs (UK9001181)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)
North Caithness Cliffs (UK9001181)		Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	St Abb's Head to Fast Castle (UK9004271)	St Kilda (UK9001031)	St Kilda (UK9001031)
Noss (UK9002081)		Handa (UK9001241)	Handa (UK9001241)	Troup, Pennan & Lion's Head (UK9002471)	Rum (UK9001341)	Tory Island (004073)
Rousay (UK9002371)		Hoy (UK9002141)	Hoy (UK9002141)	**Farne Islands (UK9006021)**		Horn Head to Fanad Head (004194)
Sumburgh Head (UK9002511)		Marwick Head (UK9002121)	Marwick Head (UK9002121)			Inishtrahull (004100)
West Westray (UK9002101)		North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)			
		North Rona & Sula Sgeir (UK9001011)	Rousay (UK9002371)			
		Rousay (UK9002371)	St Abb's Head to Fast Castle (UK9004271)			
		Shiant Isles (UK9001041)	Troup, Pennan & Lion's Head (UK9002471)			
		Troup, Pennan & Lion's Head (UK9002471)	West Westray (UK9002101)			
		West Westray (UK9002101)				

Guillemot

N7	N8	NE1	NE2	NE3	NW2	NW4
Calf of Eday (UK9002431)	Fair Isle (UK9002091)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Canna & Sanday (UK9001431)	Rathlin Island (UK9020011)
Copinsay (UK9002151)	Foula (UK9002061)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Copinsay (UK9002151)	Cape Wrath (UK9001231	Ailsa Craig (UK9003091)
East Caithness Cliffs (UK9001182)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Cape Wrath (UK9001231	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	Flannan Isles (UK9001021)	Canna & Sanday (UK9001431)
Fair Isle (UK9002091)	Noss (UK9002081)	Copinsay (UK9002151)	Copinsay (UK9002151)	Forth Islands (UK9004171)	Mingulay & Berneray (UK9001121)	Flannan Isles (UK9001021)
Foula (UK9002061)	Sumburgh Head (UK9002511)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Fowlsheugh (UK9002271)	North Caithness Cliffs (UK9001181)	Handa (UK9001241)
Hermaness, Saxa Vord & Valla Field (UK9002011)		Fair Isle (UK9002091)	Fair Isle (UK9002091)	Hoy (UK9002141)	North Rona & Sula Sgeir (UK9001011)	Mingulay & Berneray (UK9001121)
Hoy (UK9002141)		Forth Islands (UK9004171)	Forth Islands (UK9004171)	North Caithness Cliffs (UK9001181)	Rum (UK9001341)	North Colonsay & Western Cliffs (UK9003171)
Marwick Head (UK9002121)		Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	St Abb's Head to Fast Castle (UK9004271)	Shiant Isles (UK9001041)	Rum (UK9001341)
North Caithness Cliffs (UK9001181)		Handa (UK9001241)	Handa (UK9001241)	Troup, Pennan & Lion's Head (UK9002471)	St Kilda (UK9001031)	Shiant Isles (UK9001041)
Noss (UK9002081)		Hoy (UK9002141)	Hoy (UK9002141)	**Farne Islands (UK9006021)**	Sule Skerry & Sule Stack (UK9002182)	St Kilda (UK9001031)
Rousay (UK9002371)		Marwick Head (UK9002121)	Marwick Head (UK9002121)			Tory Island (004073)
Sule Skerry & Sule Stack (UK9002182)		North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)			Horn Head to Fanad Head (004194)
Sumburgh Head (UK9002511)		North Rona & Sula Sgeir (UK9001011)	Rousay (UK9002371)			Inishtrahull (004100)
West Westray (UK9002101)		Rousay (UK9002371)	St Abb's Head to Fast Castle (UK9004271)			
		Rum (UK9001341)	Sule Skerry & Sule Stack (UK9002182)			
		Shiant Isles (UK9001041)	Troup, Pennan & Lion's Head (UK9002471)			
		Sule Skerry & Sule Stack (UK9002182)	West Westray (UK9002101)			
		Troup, Pennan & Lion's Head (UK9002471)				
		West Westray (UK9002101)				

Common Scoter

N7	N8	NE1	NE2	NE3	NW2	NW4

Manx Shearwater

N7	N8	NE1	NE2	NE3	NW2	NW4
		Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)
		Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)
		St Kilda (UK9001031)	St Kilda (UK9001031)	Copeland Islands (UK9020291)	St Kilda (UK9001031)	St Kilda (UK9001031)
		Copeland Islands (UK9020291)	Copeland Islands (UK9020291)		Copeland Islands (UK9020291)	Copeland Islands (UK9020291)
						Lambay Island (004069)
						Ireland's Eye (004117)
						High Island, Inishshark & Davillaun (004144)

Northern Fulmar

N7	N8	NE1	NE2	NE3	NW2	NW4
Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)
Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231
Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)
East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)
Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)
Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)
Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)
Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)
Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)
Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)
Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)
Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)
North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)
North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)
Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)
Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)
St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)
Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)
Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)
West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)
Tory Island (004073)		Saltee Islands (004002)	Lambay Island (004069)	Saltee Islands (004002)	Lambay Island (004069)	Saltee Islands (004002)
Illanmaster (004100)		Lambay Island (004069)	Stags of Broadhaven (004072)	Lambay Island (004069)	Stags of Broadhaven (004072)	Puffin Island (004003)
Horn Head to Fanad Head (004194)		Stags of Broadhaven (004072)	Tory Island (004073)	Stags of Broadhaven (004072)	Tory Island (004073)	Skelligs (004007)
		Tory Island (004073)	Illanmaster (004100)	Tory Island (004073)	Illanmaster (004100)	Lambay Island (004069)
		Illanmaster (004100)	Inishtrahull (004100)	Illanmaster (004100)	Inishtrahull (004100)	Stags of Broadhaven (004072)
		Inishtrahull (004100)	Duvillaun Islands (004111)	Inishtrahull (004100)	Duvillaun Islands (004111)	Tory Island (004073)
		Duvillaun Islands (004111)	Howth Head Coast (004113)	Duvillaun Islands (004111)	Howth Head Coast (004113)	Illanmaster (004100)
		Howth Head Coast (004113)	Ireland's Eye (004117)	Howth Head Coast (004113)	Ireland's Eye (004117)	Inishtrahull (004100)
		Ireland's Eye (004117)	Skerries Islands (004122)	Ireland's Eye (004117)	Skerries Islands (004122)	Duvillaun Islands (004111)
		Skerries Islands (004122)	Wicklow Head (004127)	Skerries Islands (004122)	Wicklow Head (004127)	Howth Head Coast (004113)
		Wicklow Head (004127)	Aughris Head (004133)	Wicklow Head (004127)	Aughris Head (004133)	Ireland's Eye (004117)
		Aughris Head (004133)	Horn Head to Fanad Head (004194)	Aughris Head (004133)	High Island, Inishshark & Davillaun (004144)	Skerries Islands (004122)
		High Island, Inishshark & Davillaun (004144)		High Island, Inishshark & Davillaun (004144)	Horn Head to Fanad Head (004194)	Wicklow Head (004127)
		Horn Head to Fanad Head (004194)		Helvick Head to Ballyquin (004192)		Aughris Head (004133)
				Horn Head to Fanad Head (004194)		High Island, Inishshark & Davillaun (004144)
						Helvick Head to Ballyquin (004192)
						Horn Head to Fanad Head (004194)

Northern Gannet

N7	N8	NE1	NE2	NE3	NW2	NW4
Ailsa Craig (UK9003091)	Fair Isle (UK9002091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
Fair Isle (UK9002091)	Forth Islands (UK9004171)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
Forth Islands (UK9004171)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Hermaness, Saxa Vord & Valla Field (UK9002011)	North Rona & Sula Sgeir (UK9001011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)
North Rona & Sula Sgeir (UK9001011)	Noss (UK9002081)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
Noss (UK9002081)	St Kilda (UK9001031)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)
St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)
Sule Skerry & Sule Stack (UK9002182)		Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)
		Ireland's Eye (004117)	Ireland's Eye (004117)	Saltee Islands (004002)	Ireland's Eye (004117)	Saltee Islands (004002)
				Ireland's Eye (004117)		Skelligs (004007)
				Grassholm (UK9014041)		Ireland's Eye (004117)
						Grassholm (UK9014041)

Puffin

NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Cape Wrath (UK9001231	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	East Caithness Cliffs (UK9001182)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
Flannan Isles (UK9001021)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Flannan Isles (UK9001021)	Tory Island (004073)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)
Mingulay & Berneray (UK9001121)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Hoy (UK9002141)	Ireland's Eye (004117)	Horn Head to Fanad Head (004194)		
North Rona & Sula Sgeir (UK9001011)	Hoy (UK9002141)	Hoy (UK9002141)	North Caithness Cliffs (UK9001181)	Horn Head to Fanad Head (004194)			
Shiant Isles (UK9001041)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	North Rona & Sula Sgeir (UK9001011)				
St Kilda (UK9001031)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	Shiant Isles (UK9001041)				
Horn Head to Fanad Head (004194)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	St Kilda (UK9001031)				
	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Sule Skerry & Sule Stack (UK9002182)				
	St Kilda (UK9001031)	St Kilda (UK9001031)					
	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)					

Kittiwake

NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
Rathlin Island (UK9020011)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)
Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
Flannan Isles (UK9001021)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Handa (UK9001241)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Rockabill (004014)	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)
Mingulay & Berneray (UK9001121)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Lambay Island (004069)	Rockabill (004014)	Rockabill (004014)	Rockabill (004014)
North Rona & Sula Sgeir (UK9001011)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Tory Island (004073)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
Rum (UK9001341)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Inishtrahull (004100)	Inishtrahull (004100)	Howth Head Coast (004113)	Howth Head Coast (004113)
Shiant Isles (UK9001041)	Marwick Head (UK9002121)	Marwick Head (UK9002121)	Marwick Head (UK9002121)	Howth Head Coast (004113)	Howth Head Coast (004113)	Ireland's Eye (004117)	Ireland's Eye (004117)
St Kilda (UK9001031)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	North Caithness Cliffs (UK9001181)	Ireland's Eye (004117)	Ireland's Eye (004117)	Farne Islands (UK9006021)	Farne Islands (UK9006021)
Horn Head to Fanad Head (004194)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Rona & Sula Sgeir (UK9001011)	Horn Head to Fanad Head (004194)	Wicklow Head (004127)		
Inishtrahull (004100)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Rousay (UK9002371)		Horn Head to Fanad Head (004194)		
	Rousay (UK9002371)	Rousay (UK9002371)	Rum (UK9001341)		Farne Islands (UK9006021)		
	Shiant Isles (UK9001041)	Rum (UK9001341)	Shiant Isles (UK9001041)				
	St Kilda (UK9001031)	Shiant Isles (UK9001041)	St Kilda (UK9001031)				
	Rum (UK9001341)	St Kilda (UK9001031)	West Westray (UK9002101)				
	West Westray (UK9002101)	Troup, Pennan & Lion's Head (UK9002471)					
		West Westray (UK9002101)					

Guillemot

NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
Rathlin Island (UK9020011)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)
Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Cape Wrath (UK9001231	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Copinsay (UK9002151)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Flannan Isles (UK9001021)	Copinsay (UK9002151)	Copinsay (UK9002151)	East Caithness Cliffs (UK9001182)	North Colonsay & Western Cliffs (UK9003171)	North Colonsay & Western Cliffs (UK9003171)	North Colonsay & Western Cliffs (UK9003171)	North Colonsay & Western Cliffs (UK9003171)
Handa (UK9001241)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	Flannan Isles (UK9001021)	Rockabill (004014)	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)	St Abb's Head to Fast Castle (UK9004271)
Mingulay & Berneray (UK9001121)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Handa (UK9001241)	Lambay Island (004069)	Rockabill (004014)	Rockabill (004014)	Rockabill (004014)
North Colonsay & Western Cliffs (UK9003171)	Handa (UK9001241)	Handa (UK9001241)	Hoy (UK9002141)	Tory Island (004073)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
North Rona & Sula Sgeir (UK9001011)	Hoy (UK9002141)	Hoy (UK9002141)	Marwick Head (UK9002121)	Inishtrahull (004100)	Inishtrahull (004100)	Howth Head Coast (004113)	Howth Head Coast (004113)
Rum (UK9001341)	Marwick Head (UK9002121)	Marwick Head (UK9002121)	North Caithness Cliffs (UK9001181)	Howth Head Coast (004113)	Howth Head Coast (004113)	Ireland's Eye (004117)	Ireland's Eye (004117)
Shiant Isles (UK9001041)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	North Rona & Sula Sgeir (UK9001011)	Ireland's Eye (004117)	Ireland's Eye (004117)	Farne Islands (UK9006021)	Farne Islands (UK9006021)
St Kilda (UK9001031)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	Rousay (UK9002371)	Horn Head to Fanad Head (004194)	Wicklow Head (004127)		
Horn Head to Fanad Head (004194)	North Colonsay & Western Cliffs (UK9003171)	North Rona & Sula Sgeir (UK9001011)	Rum (UK9001341)		Horn Head to Fanad Head (004194)		
Inishtrahull (004100)	North Rona & Sula Sgeir (UK9001011)	Rousay (UK9002371)	Shiant Isles (UK9001041)		Farne Islands (UK9006021)		
	Rousay (UK9002371)	Rum (UK9001341)	St Kilda (UK9001031)				
	Rum (UK9001341)	Shiant Isles (UK9001041)	Sule Skerry & Sule Stack (UK9002182)				
	Shiant Isles (UK9001041)	St Kilda (UK9001031)	West Westray (UK9002101)				
	St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)					
	Sule Skerry & Sule Stack (UK9002182)	Troup, Pennan & Lion's Head (UK9002471)					
	West Westray (UK9002101)	West Westray (UK9002101)					

Common Scoter

NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
				Liverpool Bay (UK9020294)	Liverpool Bay (UK9020294)	Liverpool Bay (UK9020294)	Liverpool Bay (UK9020294)
				Baldoyle Bay (004016)	Baldoyle Bay (004016)	Baldoyle Bay (004016)	Baldoyle Bay (004016)
					Ribble & Alt Estuaries (UK9005103)	Ribble & Alt Estuaries (UK9005103)	Ribble & Alt Estuaries (UK9005103)

Manx Shearwater

NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
Outer Ards (UK9020271)	Outer Ards (UK9020271)	Rum (UK9001341)	Rum (UK9001341)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)
Rum (UK9001341)	Rum (UK9001341)	St Kilda (UK9001031)	St Kilda (UK9001031)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)
St Kilda (UK9001031)	St Kilda (UK9001031)			St Kilda (UK9001031)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)
Copeland Islands (UK9020291)	Copeland Islands (UK9020291)			Copeland Islands (UK9020291)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)
Lambay Island (004069)				Saltee Islands (004002)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
				Lambay Island (004069)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)
				Ireland's Eye (004117)	Slyne Head Islands (004123)	Slyne Head Islands (004123)	Slyne Head Islands (004123)
				Slyne Head Islands (004123)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)
				High Island, Inishshark & Davillaun (004144)	Skokholm & Skomer (UK9014051	Skokholm & Skomer (UK9014051	Skokholm & Skomer (UK9014051
				Skokholm & Skomer (UK9014051	Glannau Aberdaron & Ynys Enlli (UK9013121)	Glannau Aberdaron & Ynys Enlli (UK9013121)	Glannau Aberdaron & Ynys Enlli (UK9013121)
				Glannau Aberdaron & Ynys Enlli (UK9013121)			

	NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
Northern Fulmar	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)
	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231
	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)
	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)
	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)
	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)
	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)
	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)
	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)
	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)
	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)
	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)
	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)
	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)
	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)
	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)
	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)
	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)
	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	Puffin Island (004003)	Puffin Island (004003)	Puffin Island (004003)	Puffin Island (004003)
	Saltee Islands (004002)	Saltee Islands (004002)	Lambay Island (004069)	Lambay Island (004069)	Skelligs (004007)	Skelligs (004007)	Skelligs (004007)	Skelligs (004007)
	Puffin Island (004003)	Lambay Island (004069)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
	Skelligs (004007)	Stags of Broadhaven (004072)	Tory Island (004073)	Tory Island (004073)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)
	Lambay Island (004069)	Tory Island (004073)	Illanmaster (004100)	Illanmaster (004100)	Tory Island (004073)	Tory Island (004073)	Tory Island (004073)	Tory Island (004073)
	Stags of Broadhaven (004072)	Illanmaster (004100)	Inishtrahull (004100)	Inishtrahull (004100)	Illanmaster (004100)	Illanmaster (004100)	Illanmaster (004100)	Illanmaster (004100)
	Tory Island (004073)	Inishtrahull (004100)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Inishtrahull (004100)	Inishtrahull (004100)	Inishtrahull (004100)	Inishtrahull (004100)
	Illanmaster (004100)	Duvillaun Islands (004111)	Howth Head Coast (004113)	Howth Head Coast (004113)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Duvillaun Islands (004111)
	Inishtrahull (004100)	Howth Head Coast (004113)	Ireland's Eye (004117)	Ireland's Eye (004117)	Howth Head Coast (004113)	Howth Head Coast (004113)	Howth Head Coast (004113)	Howth Head Coast (004113)
	Duvillaun Islands (004111)	Ireland's Eye (004117)	Skerries Islands (004122)	Skerries Islands (004122)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)
	Howth Head Coast (004113)	Skerries Islands (004122)	Wicklow Head (004127)	Wicklow Head (004127)	Skerries Islands (004122)	Skerries Islands (004122)	Skerries Islands (004122)	Skerries Islands (004122)
	Ireland's Eye (004117)	Wicklow Head (004127)	Aughris Head (004133)	Aughris Head (004133)	Wicklow Head (004127)	Wicklow Head (004127)	Wicklow Head (004127)	Wicklow Head (004127)
	Skerries Islands (004122)	Aughris Head (004133)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	Aughris Head (004133)	Aughris Head (004133)	Aughris Head (004133)	Aughris Head (004133)
	Wicklow Head (004127)	High Island, Inishshark & Davillaun (004144)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)
	Aughris Head (004133)	Helvick Head to Ballyquin (004192)			Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)
	High Island, Inishshark & Davillaun (004144)	Horn Head to Fanad Head (004194)			Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)
	Helvick Head to Ballyquin (004192)							
	Horn Head to Fanad Head (004194)							

	NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5
Northern Gannet	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Noss (UK9002081)	St Kilda (UK9001031)	St Kilda (UK9001031)	Noss (UK9002081)
	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	St Kilda (UK9001031)
	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)	Saltee Islands (004002)	Saltee Islands (004002)	Sule Skerry & Sule Stack (UK9002182)
	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Saltee Islands (004002)	Skelligs (004007)	Skelligs (004007)	Saltee Islands (004002)
	Saltee Islands (004002)	Saltee Islands (004002)	Ireland's Eye (004117)	Ireland's Eye (004117)	Skelligs (004007)	Ireland's Eye (004117)	Ireland's Eye (004117)	Skelligs (004007)
	Skelligs (004007)	Ireland's Eye (004117)			Ireland's Eye (004117)	Grassholm (UK9014041)	Grassholm (UK9014041)	Ireland's Eye (004117)
	Ireland's Eye (004117)				Grassholm (UK9014041)			Grassholm (UK9014041)
	Grassholm (UK9014041)							

Puffin

SW6	W1	W2	W3	W4
Forth Islands (UK9004171)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)
Lambay Island (004069)	Flannan Isles (UK9001021)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Ireland's Eye (004117)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Lambay Island (004069)
	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Tory Island (004073)	Ireland's Eye (004117)
	St Kilda (UK9001031)	St Kilda (UK9001031)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)
	Tory Island (004073)	Tory Island (004073)		Tory Island (004073)
	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)		

Kittiwake

SW6	W1	W2	W3	W4
Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)
Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
Forth Islands (UK9004171)	Flannan Isles (UK9001021)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
St Abb's Head to Fast Castle (UK9004271)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Rum (UK9001341)
Rockabill (004014)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	St Abb's Head to Fast Castle (UK9004271)
Lambay Island (004069)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Tory Island (004073)	Rockabill (004014)
Howth Head Coast (004113)	St Kilda (UK9001031)	St Kilda (UK9001031)	Inishtrahull (004100)	Lambay Island (004069)
Ireland's Eye (004117)	Tory Island (004073)	Tory Island (004073)	Horn Head to Fanad Head (004194)	Tory Island (004073)
Farne Islands (UK9006021)	Inishtrahull (004100)	Inishtrahull (004100)		Inishtrahull (004100)
	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)		Howth Head Coast (004113)
				Ireland's Eye (004117)
				Horn Head to Fanad Head (004194)

Guillemot

SW6	W1	W2	W3	W4
Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)	Rathlin Island (UK9020011)
Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
Forth Islands (UK9004171)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)	Canna & Sanday (UK9001431)
St Abb's Head to Fast Castle (UK9004271)	Flannan Isles (UK9001021)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
Rockabill (004014)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	North Colonsay & Western Cliffs (UK9003171)
Lambay Island (004069)	North Colonsay & Western Cliffs (UK9003171)	North Colonsay & Western Cliffs (UK9003171)	North Colonsay & Western Cliffs (UK9003171)	Rum (UK9001341)
Howth Head Coast (004113)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	St Abb's Head to Fast Castle (UK9004271)
Ireland's Eye (004117)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Tory Island (004073)	Rockabill (004014)
Farne Islands (UK9006021)	St Kilda (UK9001031)	St Kilda (UK9001031)	Inishtrahull (004100)	Lambay Island (004069)
	Tory Island (004073)	Tory Island (004073)	Horn Head to Fanad Head (004194)	Tory Island (004073)
	Inishtrahull (004100)	Inishtrahull (004100)		Inishtrahull (004100)
	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)		Howth Head Coast (004113)
				Ireland's Eye (004117)
				Horn Head to Fanad Head (004194)

Common Scoter

SW6	W1	W2	W3	W4
Liverpool Bay (UK9020294)				Liverpool Bay (UK9020294)
Baldoyle Bay (004016)				Baldoyle Bay (004016)
Ribble & Alt Estuaries (UK9005103)				

Manx Shearwater

SW6	W1	W2	W3	W4
Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)	Outer Ards (UK9020271)
Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)	Rum (UK9001341)
Copeland Islands (UK9020291)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)
Saltee Islands (004002)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)	Copeland Islands (UK9020291)
Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)	Saltee Islands (004002)
Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)	Lambay Island (004069)
Skokholm & Skomer (UK9014051	Slyne Head Islands (004123)	Slyne Head Islands (004123)	Slyne Head Islands (004123)	Ireland's Eye (004117)
Glannau Aberdaron & Ynys Enlli (UK9013121)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	Slyne Head Islands (004123)
		Glannau Aberdaron & Ynys Enlli (UK9013121)	Glannau Aberdaron & Ynys Enlli (UK9013121)	High Island, Inishshark & Davillaun (004144)
				Skokholm & Skomer (UK9014051
				Glannau Aberdaron & Ynys Enlli (UK9013121)

	SW6	W1	W2	W3	W4
Northern Fulmar	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)	Buchan Ness to Collieston Coast (UK9002491)
	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)	Calf of Eday (UK9002431)
	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231	Cape Wrath (UK9001231
	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)	Copinsay (UK9002151)
	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)	East Caithness Cliffs (UK9001182)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Flannan Isles (UK9001021)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)	Fetlar (UK9002031)
	Forth Islands (UK9004171)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)	Flannan Isles (UK9001021)
	Foula (UK9002061)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
	Fowlsheugh (UK9002271)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)	Foula (UK9002061)
	Handa (UK9001241)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)	Fowlsheugh (UK9002271)
	Hoy (UK9002141)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)	Handa (UK9001241)
	Mingulay & Berneray (UK9001121)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)
	North Caithness Cliffs (UK9001181)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)	Hoy (UK9002141)
	North Rona & Sula Sgeir (UK9001011)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)	Mingulay & Berneray (UK9001121)
	Noss (UK9002081)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)	North Caithness Cliffs (UK9001181)
	Rousay (UK9002371)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)
	Shiant Isles (UK9001041)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)
	St Kilda (UK9001031)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)	Rousay (UK9002371)
	Sumburgh Head (UK9002511)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)	Shiant Isles (UK9001041)
	Troup, Pennan & Lion's Head (UK9002471)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)
	West Westray (UK9002101)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)	Sumburgh Head (UK9002511)
	Saltee Islands (004002)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)	Troup, Pennan & Lion's Head (UK9002471)
	Puffin Island (004003)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)	West Westray (UK9002101)
	Skelligs (004007)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)
	Lambay Island (004069)	Puffin Island (004003)	Puffin Island (004003)	Puffin Island (004003)	Puffin Island (004003)
	Stags of Broadhaven (004072)	Skelligs (004007)	Skelligs (004007)	Skelligs (004007)	Skelligs (004007)
	Tory Island (004073)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)	Lambay Island (004069)
	Illanmaster (004100)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)	Stags of Broadhaven (004072)
	Inishtrahull (004100)	Tory Island (004073)	Tory Island (004073)	Tory Island (004073)	Tory Island (004073)
	Duvillaun Islands (004111)	Illanmaster (004100)	Illanmaster (004100)	Illanmaster (004100)	Illanmaster (004100)
	Howth Head Coast (004113)	Inishtrahull (004100)	Inishtrahull (004100)	Inishtrahull (004100)	Inishtrahull (004100)
	Ireland's Eye (004117)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Duvillaun Islands (004111)	Duvillaun Islands (004111)
	Skerries Islands (004122)	Howth Head Coast (004113)	Howth Head Coast (004113)	Howth Head Coast (004113)	Howth Head Coast (004113)
	Wicklow Head (004127)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)
	Aughris Head (004133)	Skerries Islands (004122)	Skerries Islands (004122)	Skerries Islands (004122)	Skerries Islands (004122)
	High Island, Inishshark & Davillaun (004144)	Wicklow Head (004127)	Wicklow Head (004127)	Wicklow Head (004127)	Wicklow Head (004127)
	Helvick Head to Ballyquin (004192)	Aughris Head (004133)	Aughris Head (004133)	Aughris Head (004133)	Aughris Head (004133)
	Horn Head to Fanad Head (004194)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)	High Island, Inishshark & Davillaun (004144)
		Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)	Helvick Head to Ballyquin (004192)
		Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)	Horn Head to Fanad Head (004194)

	SW6	W1	W2	W3	W4
Northern Gannet	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)	Ailsa Craig (UK9003091)
	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)	Fair Isle (UK9002091)
	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)	Forth Islands (UK9004171)
	North Rona & Sula Sgeir (UK9001011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	Hermaness, Saxa Vord & Valla Field (UK9002011)	North Rona & Sula Sgeir (UK9001011)
	St Kilda (UK9001031)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	North Rona & Sula Sgeir (UK9001011)	Noss (UK9002081)
	Sule Skerry & Sule Stack (UK9002182)	Noss (UK9002081)	Noss (UK9002081)	Noss (UK9002081)	St Kilda (UK9001031)
	Saltee Islands (004002)	St Kilda (UK9001031)	St Kilda (UK9001031)	St Kilda (UK9001031)	Sule Skerry & Sule Stack (UK9002182)
	Skelligs (004007)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Sule Skerry & Sule Stack (UK9002182)	Saltee Islands (004002)
	Ireland's Eye (004117)	Saltee Islands (004002)	Saltee Islands (004002)	Saltee Islands (004002)	Skelligs (004007)
	Grassholm (UK9014041)	Skelligs (004007)	Skelligs (004007)	Skelligs (004007)	Ireland's Eye (004117)
		Ireland's Eye (004117)	Ireland's Eye (004117)	Ireland's Eye (004117)	Grassholm (UK9014041)
		Grassholm (UK9014041)	Grassholm (UK9014041)	Grassholm (UK9014041)	

Table B2 - Anadromous fish and freshwater pearl mussel qualifying species (and associated European/Ramsar sites) which have been screened in for each of the short and medium term option areas.

Anadromous Fish

Site Code	Site	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array	Inch Cape	Beatrice	E1	N1	N4	N5	N6	N7	N8	NE1	NE2
UK0012643	River Eden			■	■	■	■	■											
UK0012691	River Tweed	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
UK0012935	North Harris			■				■											
UK0012995	River Borgie			■				■				■	■	■	■	■	■		
UK0019811	River Spey	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030032	River Derwent and Bassenthwaite Lake			■	■	■	■	■											
UK0030057	River Ehen			■	■	■	■	■											
UK0030088	Berriedale and Langwell Waters	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030183	Little Gruinard River			■				■											
UK0030249	River Bladnoch			■	■	■	■	■											
UK0030233	Owenkillew River			■	■	■	■	■											
UK0030251	River Dee	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030255	Langavat			■				■											
UK0030259	River Moriston	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030260	River Naver			■				■				■	■	■	■	■	■		
UK0030261	River Oykel	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030262	River South Esk	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030263	River Teith	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030264	River Thurso			■				■				■	■	■	■	■	■		
UK0030312	River Tay	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030360	River Roe and Tributaries			■	■	■	■	■											
UK0030361	Faughan River and Tributaries SAC			■	■	■	■	■											
UK0013025	Solway Firth			■	■	■	■	■											
UK0030182	Eileanan agus Sgeiran Lios mór			■				■											
UK0030292	Tweed Estuary	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK12014	Lough Foyle Ramsar			■	■	■	■	■											
UK13058	South Uist Machair and Lochs Ramsar			■				■											

Freshwater Pearl Mussel

Site Code	Site	Forth Array	Neart na Gaoithe	Islay	Kintyre	Wigtown Bay	Solway Firth	Argyll Array	Inch Cape	Beatrice	E1	N1	N4	N5	N6	N7	N8	NE1	NE2
UK0012935	North Harris			■				■											
UK0012995	River Borgie			■				■				■	■	■	■	■	■		
UK0019811	River Spey	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030057	River Ehen			■	■	■	■	■											
UK0030182	Eileanan agus Sgeiran Lios mór			■				■											
UK0030233	Owenkillew River			■	■	■	■	■											
UK0030251	River Dee	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030259	River Moriston			■				■											
UK0030260	River Naver			■				■				■	■	■	■	■	■		
UK0030261	River Oykel	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030262	River South Esk	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030296	Upper Ballinderry River			■				■											
UK0030256	River Kent			■	■	■	■	■											
UK0030254	River Evelix	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■
UK0030231	Ardvar and Loch a`Mhuilinn Woodlands			■				■				■	■	■	■	■	■		
UK0030206	Mingarry Burn			■				■											
UK0030171	Inverpolly			■				■				■	■	■	■	■	■		
UK0030081	Abhainn Clais An Eas and Allt a`Mhuilinn			■				■				■	■	■	■	■	■		
UK0030079	Ardnamurchan Burns			■				■											
UK0013141	Foinaven			■				■				■	■	■	■	■	■		
UK0012994	River Moidart			■				■											
UK0012996	River Kerry			■				■											

Table B2 - Anadromous fish anTable B2 - Anadromous fish and freshwater pearl mussel qualifying species (and associated European/Ramsar sites) which have been screene sites) which have been screened in for each of the short and medium term option areas.

Anadromous Fish

Site Code	Site	NE3	NW2	NW4	NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5	SW6	W1	W2	W3	W4
UK0012643	River Eden		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0012691	River Tweed	■	■	■	■	■	■	■						■	■	■	
UK0012935	North Harris		■	■	■	■	■							■	■	■	
UK0012995	River Borgie		■	■	■	■	■	■						■	■	■	
UK0019811	River Spey	■	■	■	■	■	■	■						■	■	■	
UK0030032	River Derwent and Bassenthwaite Lake		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030057	River Ehen		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030088	Berriedale and Langwell Waters	■	■	■	■	■	■	■						■	■	■	
UK0030183	Little Gruinard River		■	■	■	■	■							■	■	■	
UK0030249	River Bladnoch		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030233	Owenkillew River		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030251	River Dee	■	■	■	■	■	■	■						■	■	■	
UK0030255	Langavat		■	■	■	■	■							■	■	■	
UK0030259	River Moriston	■	■	■	■	■	■	■						■	■	■	
UK0030260	River Naver		■	■	■	■	■	■						■	■	■	
UK0030261	River Oykel	■	■	■	■	■	■	■						■	■	■	
UK0030262	River South Esk	■	■	■	■	■	■	■						■	■	■	
UK0030263	River Teith	■	■	■	■	■	■	■						■	■	■	
UK0030264	River Thurso		■	■	■	■	■	■						■	■	■	
UK0030312	River Tay	■	■	■	■	■	■	■						■	■	■	
UK0030360	River Roe and Tributaries		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030361	Faughan River and Tributaries SAC		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0013025	Solway Firth		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030182	Eileanan agus Sgeiran Lios mór		■	■	■	■	■							■	■	■	
UK0030292	Tweed Estuary	■	■	■	■	■	■	■						■	■	■	
UK12014	Lough Foyle Ramsar		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK13058	South Uist Machair and Lochs Ramsar		■	■	■	■	■							■	■	■	

Freshwater Pearl Mussel

Site Code	Site	NE3	NW2	NW4	NW5	NW6	NW7	NW8	SW1	SW3	SW4	SW5	SW6	W1	W2	W3	W4
UK0012935	North Harris		■	■	■	■	■							■	■	■	
UK0012995	River Borgie		■	■	■	■	■	■						■	■	■	
UK0019811	River Spey	■	■	■	■	■	■	■						■	■	■	
UK0030057	River Ehen		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030182	Eileanan agus Sgeiran Lios mór		■	■	■	■	■							■	■	■	
UK0030233	Owenkillew River		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030251	River Dee	■	■	■	■	■	■	■						■	■	■	
UK0030259	River Moriston		■	■	■	■	■							■	■	■	
UK0030260	River Naver		■	■	■	■	■	■						■	■	■	
UK0030261	River Oykel	■	■	■	■	■	■	■						■	■	■	
UK0030262	River South Esk	■	■	■	■	■	■	■						■	■	■	
UK0030296	Upper Ballinderry River		■	■	■	■	■							■	■	■	
UK0030256	River Kent		■	■	■	■	■		■	■	■	■	■	■	■	■	■
UK0030254	River Evelix	■	■	■	■	■	■	■						■	■	■	
UK0030231	Ardvar and Loch a`Mhuilinn Woodlands		■	■	■	■	■	■						■	■	■	
UK0030206	Mingarry Burn		■	■	■	■	■							■	■	■	
UK0030171	Inverpolly		■	■	■	■	■	■						■	■	■	
UK0030081	Abhainn Clais An Eas and Allt a`Mhuilinn		■	■	■	■	■	■						■	■	■	
UK0030079	Ardnamurchan Burns		■	■	■	■	■							■	■	■	
UK0013141	Foinaven		■	■	■	■	■	■						■	■	■	
UK0012994	River Moidart		■	■	■	■	■							■	■	■	
UK0012996	River Kerry		■	■	■	■	■							■	■	■	

Table ST1 – Screening schedule for the Solway Firth Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

(back to contents page)

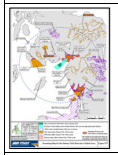
Designation	Special Protection Area											Special Area of Conservation		
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC
 European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Ailsa Craig	Liverpool Bay	Bowland Fells SPA	River Eden	River Tweed	Solway Firth
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9003091	UK9020294	UK9005151	UK0012643	UK0012691	UK0013025
Mammals														
Grey Seal														
Common Seal														
Bottlenose dolphin														
Otter												A2 (P)	A2 (P)	
Fish and other species														
Salmon												A2 (P)	A2 (P)	
Allis shad														
Twaite shad														
Sea Lamprey												A2 (P)	A2 (Q)	A2 (Q)
River Lamprey												A2 (P)	A2 (Q)	A2 (Q)
Freshwater Pearl Mussel														
Coastal Habitats														
Sandbanks which are slightly covered by seawater all the time														A1 (P)
Estuaries														A1 (P)
Mudflats and sandflats not covered by seawater at low tide														A1 (P)
Coastal lagoons														
Large shallow inlets and bays														
Reefs														A1 (Q)
Submarine structures made by leaking gases														
Submerged or partially submerged sea caves														
Annual vegetation of drift lines														
Salicornia and other annuals colonising mud and sand														A1 (P)
Spartina swards														
Atlantic salt meadows														A1 (P)
Mediterranean and thermo-Atlantic halophilous scrubs														
Saltmarsh (type not specified)														
Perennial vegetation of stony banks														A1 (Q)
Vegetated sea cliffs														
Sand dunes														A1 (Q)
Birds-Breeding Season														
Breeding Seabird Assemblage							61858		65000					
Golden Eagle														
Osprey														
Wood Sandpiper														
Northern Gannet									Art 4.2					
Lesser Black-backed Gull									Art 4.2		Art 4.1			
Herring Gull									Art 4.2 sp					
Black-legged Kittiwake									Art 4.2 sp					
Common Guillemot									Art 4.2 sp					
Corn Crake														
Merlin				Art 4.1				Art 4.1			Art 4.1			
Black-throated Diver														
European Storm Petrel														
Arctic Tern														
Eurasian Dotterel														
Northern Fulmar														
European Shag									d					
Red-throated Diver														
European Golden Plover				Art 4.1				Art 4.1						
Short-Eared owl				Art 4.1										
Dunlin														
Great Cormorant														
Great Black-backed Gull														

Table ST1 – Screening schedule for the Solway Firth Short-term Option Area (showing European/Ramsar sites within 100km)

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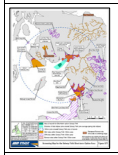
	Special Protection Area											Special Area of Conservation		
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC
 **European/Ramsar Site**	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Ailsa Craig	Liverpool Bay	Bowland Fells SPA	River Eden	River Tweed	Solway Firth
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9003091	UK9020294	UK9005151	UK0012643	UK0012691	UK0013025
Atlantic Puffin														
Razorbill														
Sandwich Tern						Art 4.1	Art 4.1							
Common Tern														
Little Tern														
Manx Shearwater														
Roseate Tern														
Peregrine Falcon				Art 4.1				Art 4.1						
Arctic Skua														
Whimbrel														
Red-necked phalarope														
Great Skua														
Great Crested Grebe														
Leach's Storm Petrel														
Great Bittern														
Common Redshank														
Common Snipe														
Pochard														
Gadwall														
Slavonian Grebe														
Tufted Duck														
Shoveler														
Shelduck														
Ringed Plover														
Goosander														
Greenshank														
Eurasian Curlew														
Common Scoter														
Northern Lapwing														

Table ST1 – Screening schedule for the Solway Firth Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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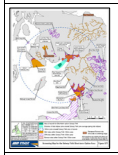
Designation	Special Protection Area											Special Area of Conservation		
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC
 European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Ailsa Craig	Liverpool Bay	Bowland Fells SPA	River Eden	River Tweed	Solway Firth
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9003091	UK9020294	UK9005151	UK0012643	UK0012691	UK0013025
Eurasian Teal														
Eurasian Wigeon														
Common Goldeneye														
Black Guillemot														
Eurasian Oystercatcher														
Common (Mew) Gull														
Black-headed Gull														
Spotted Crake														
Greylag Goose														
Birds Overwintering/Passage														
Wintering Waterfowl Assemblage					133,440	31,505	210,668			55,597				
Common Redshank					Art 4.2	Art 4.2	Art 4.2							
Great Crested Grebe														
Whooper Swan					Art 4.1									
Barnacle Goose					Art 4.1									
Greylag Goose	Art 4.2													
Greenland White-fronted Goose	Art 4.1	Art 4.1												
Pink-footed Goose			Art 4.2		Art 4.2		Art 4.2							
Light-bellied Brent Goose														
Bar-tailed Godwit					Art 4.1		Art 4.2							
Eurasian Wigeon														
Northen Pintail					Art 4.2	Art 4.2	Art 4.2							
Red Knot					Art 4.2	Art 4.2	Art 4.2							
Purple Sandpiper														
Ruddy Turnstone					Art 4.2		Art 4.2							
Slavonian Grebe														
Red-throated Diver										Art 4.1				
Common Eider														
Common Shelduck					Art 4.2		Art 4.2							
Great Cormorant														
Mallard														
Greater Scaup					Art 4.2									
Long-tailed Duck														
Black (Common) Scoter										Art 4.2				
Velet Scoter														
Common Goldeneye					Art 4.2									
Red-breasted Merganser														
Eurasian Curlew					Art 4.2		Art 4.2							
Eurasian Oystercatcher					Art 4.2		Art 4.2							
Ringed Plover														
European Golden Plover					Art 4.1									
Grey Plover					Art 4.2		Art 4.2							
Northern Lapwing														
Dunlin					Art 4.2		Art 4.2							
Sandwich Tern														
Sanderling					Art 4.2									
Black-tailed Godwit														
Goosander														
Eurasian Teal					Art 4.2									
Gadwall														
Common Greenshank														
Black-headed Gull														
Common Tern														

Table ST1 – Screening schedule for the Solway Firth Short-term Option Area (showing European/Ramsar sites within 100km)

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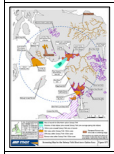
	Special Protection Area											Special Area of Conservation		
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC
 **European/Ramsar Site**	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Ailsa Craig	Liverpool Bay	Bowland Fells SPA	River Eden	River Tweed	Solway Firth
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9003091	UK9020294	UK9005151	UK0012643	UK0012691	UK0013025
Common Gull (Mew)														
Northern Shoveler					Art 4.2									
Bewick Swan														
Common Pochard														
Tufted Duck														
Lesser Black-back Gull														
Tundra Swan														
Taiga Bean Goose														

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterio
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

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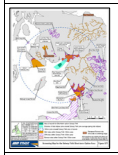
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Merrick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0013027	UK0013031	UK0013039	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256
Mammals									
Grey Seal									
Common Seal									
Bottlenose dolphin									
Otter				A2 (Q)	A2 (P)				
Fish and other species									
Salmon					A2 (P)	A2 (Q)		A2 (P)	
Allis shad									
Twaite shad									
Sea Lamprey					A2 (P)				
River Lamprey					A2 (P)				
Freshwater Pearl Mussel						A2 (P)			A2 (Q)
Coastal Habitats									
Sandbanks which are slightly covered by seawater all the time	A1 (Q)		A1 (Q)						
Estuaries	A1 (P)	A1 (P)							
Mudflats and sandflats not covered by seawater at low tide	A1 (P)		A1 (Q)						
Coastal lagoons	A1 (Q)								
Large shallow inlets and bays	A1 (P)		A1 (P)						
Reefs	A1 (Q)		A1 (Q)						
Submarine structures made by leaking gases									
Submerged or partially submerged sea caves									
Annual vegetation of drift lines									
Salicornia and other annuals colonising mud and sand	A1 (P)								
Spartina swards									
Atlantic salt meadows	A1 (P)								
Mediterranean and thermo-Atlantic halophilous scrubs									
Saltmarsh (type not specified)									
Perennial vegetation of stony banks	A1 (P)								
Vegetated sea cliffs							A1 (P)		
Sand dunes	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)						
Birds-Breeding Season									
Breeding Seabird Assemblage									
Golden Eagle									
Osprey									
Wood Sandpiper									
Northern Gannet									
Lesser Black-backed Gull									
Herring Gull									
Black-legged Kittiwake									
Common Guillemot									
Corn Crake									
Merlin									
Black-throated Diver									
European Storm Petrel									
Arctic Tern									
Eurasian Dotterel									
Northern Fulmar									
European Shag									
Red-throated Diver									
European Golden Plover									
Short-Eared owl									
Dunlin									
Great Cormorant									
Great Black-backed Gull									

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

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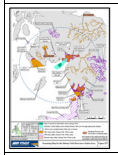
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Merrick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0013027	UK0013031	UK0013039	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256
Atlantic Puffin									
Razorbill									
Sandwich Tern									
Common Tern									
Little Tern									
Manx Shearwater									
Roseate Tern									
Peregrine Falcon									
Arctic Skua									
Whimbrel									
Red-necked phalarope									
Great Skua									
Great Crested Grebe									
Leach's Storm Petrel									
Great Bittern									
Common Redshank									
Common Snipe									
Pochard									
Gadwall									
Slavonian Grebe									
Tufted Duck									
Shoveler									
Shelduck									
Ringed Plover									
Goosander									
Greenshank									
Eurasian Curlew									
Common Scoter									
Northern Lapwing									

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

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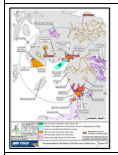
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Merrick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0013027	UK0013031	UK0013039	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256
Eurasian Teal									
Eurasian Wigeon									
Common Goldeneye									
Black Guillemot									
Eurasian Oystercatcher									
Common (Mew) Gull									
Black-headed Gull									
Spotted Crake									
Greylag Goose									
Birds Overwintering/Passage									
Wintering Waterfowl Assemblage									
Common Redshank									
Great Crested Grebe									
Whooper Swan									
Barnacle Goose									
Greylag Goose									
Greenland White-fronted Goose									
Pink-footed Goose									
Light-bellied Brent Goose									
Bar-tailed Godwit									
Eurasian Wigeon									
Northen Pintail									
Red Knot									
Purple Sandpiper									
Ruddy Turnstone									
Slavonian Grebe									
Red-throated Diver									
Common Eider									
Common Shelduck									
Great Cormorant									
Mallard									
Greater Scaup									
Long-tailed Duck									
Black (Common) Scoter									
Velet Scoter									
Common Goldeneye									
Red-breasted Merganser									
Eurasian Curlew									
Eurasian Oystercatcher									
Ringed Plover									
European Golden Plover									
Grey Plover									
Northern Lapwing									
Dunlin									
Sandwich Tern									
Sanderling									
Black-tailed Godwit									
Goosander									
Eurasian Teal									
Gadwall									
Common Greenshank									
Black-headed Gull									
Common Tern									

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

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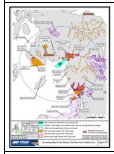
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Merrick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0013027	UK0013031	UK0013039	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256
Common Gull (Mew)									
Northern Shoveler									
Bewick Swan									
Common Pochard									
Tufted Duck									
Lesser Black-back Gull									
Tundra Swan									
Taiga Bean Goose									

	Art 4.2 sp	Species listed among those regularly occurring
n No.		Annex/Criterion unknown (Irish sites)
(qualifying)	A2 (Q)	Annex II Species (qualifying)

and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

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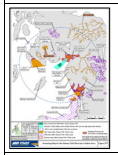
		Ramsar							
Designation	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030376	UK11022	UK11035	UK11045	UK11079	UK13006	UK13032	UK13037	UK210001
Mammals									
Grey Seal									
Common Seal									
Bottlenose dolphin									
Otter									
Fish and other species									
Salmon									
Allis shad									
Twaite shad									
Sea Lamprey									
River Lamprey									
Freshwater Pearl Mussel									
Coastal Habitats									
Sandbanks which are slightly covered by seawater all the time	A1 (P)								
Estuaries									
Mudflats and sandflats not covered by seawater at low tide									
Coastal lagoons									
Large shallow inlets and bays									
Reefs									
Submarine structures made by leaking gases									
Submerged or partially submerged sea caves									
Annual vegetation of drift lines									
Salicornia and other annuals colonising mud and sand									
Spartina swards									
Atlantic salt meadows									
Mediterranean and thermo-Atlantic halophilous scrubs									
Saltmarsh (type not specified)									
Perennial vegetation of stony banks									
Vegetated sea cliffs									
Sand dunes								Cri 1	
Birds-Breeding Season									
Breeding Seabird Assemblage									
Golden Eagle									
Osprey									
Wood Sandpiper									
Northern Gannet									
Lesser Black-backed Gull				Cri 6					
Herring Gull				Cri 6					
Black-legged Kittiwake									
Common Guillemot									
Corn Crake									Cri 2
Merlin									
Black-throated Diver									
European Storm Petrel									
Arctic Tern									
Eurasian Dotterel									
Northern Fulmar									
European Shag									
Red-throated Diver									
European Golden Plover									
Short-Eared owl									
Dunlin									
Great Cormorant									
Great Black-backed Gull									

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

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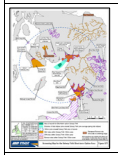
		Ramsar							
Designation	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030376	UK11022	UK11035	UK11045	UK11079	UK13006	UK13032	UK13037	UK210001
Atlantic Puffin									
Razorbill									
Sandwich Tern				Cri 6					
Common Tern									
Little Tern									
Manx Shearwater									
Roseate Tern									
Peregrine Falcon									
Arctic Skua									
Whimbrel									
Red-necked phalarope									
Great Skua									
Great Crested Grebe									
Leach's Storm Petrel									
Great Bittern			Cri 3						
Common Redshank									
Common Snipe									
Pochard									
Gadwall									
Slavonian Grebe									
Tufted Duck									
Shoveler									
Shelduck									
Ringed Plover									
Goosander									
Greenshank									
Eurasian Curlew									
Common Scoter									
Northern Lapwing									

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

(back to contents page)

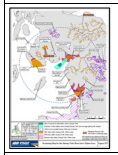
		Ramsar							
Designation	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030376	UK11022	UK11035	UK11045	UK11079	UK13006	UK13032	UK13037	UK210001
Eurasian Teal									
Eurasian Wigeon									
Common Goldeneye									
Black Guillemot									
Eurasian Oystercatcher									
Common (Mew) Gull									
Black-headed Gull									
Spotted Crake									
Greylag Goose									
Birds Overwintering/Passage									
Wintering Waterfowl Assemblage		Cri 5 (26,326)		Cri 5 (223,709)	Cri 5 (135,720)				
Common Redshank		Cri6		Cri6	Cri6				
Great Crested Grebe				Cri 6					
Whooper Swan					Cri 6		Cri 6		
Barnacle Goose						Cri 6			
Greylag Goose							Cri 6		
Greenland White-fronted Goose						Cri 6	Cri 6	Cri 6	
Pink-footed Goose				Cri 6	Cri 6	Cri 6			
Light-bellied Brent Goose									
Bar-tailed Godwit				Cri 6	Cri 6				
Eurasian Wigeon				Cri 6					
Northen Pintail		Cri 6		Cri 6	Cri 6				
Red Knot		Cri 6		Cri 6	Cri 6				
Purple Sandpiper									
Ruddy Turnstone				Cri 6					
Slavonian Grebe									
Red-throated Diver									
Common Eider				Cri 6					
Common Shelduck				Cri 6					
Great Cormorant				Cri 6					
Mallard									
Greater Scaup					Cri 6				
Long-tailed Duck									
Black (Common) Scoter									
Velet Scoter									
Common Goldeneye				Cri 6					
Red-breasted Merganser				Cri 6					
Eurasian Curlew				Cri 6	Cri 6				
Eurasian Oystercatcher				Cri 6	Cri 6				
Ringed Plover				Cri 4					
European Golden Plover				Cri 6					
Grey Plover				Cri 6					
Northern Lapwing				Cri 6					
Dunlin				Cri 6					
Sandwich Tern									
Sanderling				Cri 6					
Black-tailed Godwit									
Goosander									
Eurasian Teal									
Gadwall									
Common Greenshank									
Black-headed Gull									
Common Tern									

Table ST1 – Screening schedule for the Solway Firth Short-term

NB This screening schedule table and map show sites within 100k

(back to contents page)

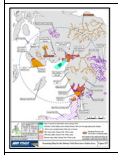
		Ramsar							
Designation	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030376	UK11022	UK11035	UK11045	UK11079	UK13006	UK13032	UK13037	UK210001
Common Gull (Mew)									
Northern Shoveler			Cri 6						
Bewick Swan									
Common Pochard									
Tufted Duck									
Lesser Black-back Gull				Cri 6					
Tundra Swan									
Taiga Bean Goose									

Table ST2 – Screening schedule for the Wigtown Bay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area															Special Area of Conservation								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Larne Lough	Belfast Lough	Strangford Lough	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9020042	UK9020101	UK9020111	UK9020271	UK9003091	UK9020290	UK9020291	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032
Mammals																								
Grey Seal																								
Common Seal																								
Bottlenose dolphin																								
Otter																A2 (P)	A2 (P)						A2 (Q)	A2 (P)
Fish and other species																								
Salmon																A2 (P)	A2 (P)							A2 (P)
Allis shad																								
Twaite shad																								
Sea Lamprey																A2 (P)	A2 (Q)	A2 (Q)						A2 (P)
River Lamprey																A2 (P)	A2 (Q)	A2 (Q)						A2 (P)
Freshwater Pearl Mussel																								
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																		A1 (P)	A1 (Q)		A1 (Q)			
Estuaries																		A1 (P)	A1 (P)	A1 (P)				
Mudflats and sandflats not covered by seawater at low tide																		A1 (P)	A1 (P)		A1 (Q)	A1 (P)		
Coastal lagoons																			A1 (Q)			A1 (P)		
Large shallow inlets and bays																			A1 (P)		A1 (P)	A1 (P)		
Reefs																		A1 (Q)	A1 (Q)		A1 (Q)	A1 (P)		
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																						A1 (Q)		
Salicornia and other annuals colonising mud and sand																		A1 (P)	A1 (P)			A1 (Q)		
Spartina swards																								
Atlantic salt meadows																		A1 (P)	A1 (P)			A1 (Q)		
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																		A1 (Q)	A1 (P)			A1 (Q)		
Vegetated sea cliffs																								
Sand dunes																		A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)			
Birds-Breeding Season																								
Breeding Seabird Assemblage							61858						65000											
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet													Art 4.2											
Lesser Black-backed Gull													Art 4.2											
Herring Gull													Art 4.2 sp											
Black-legged Kittiwake													Art 4.2 sp											
Common Guillemot													Art 4.2 sp											
Corn Crake																								
Merlin				Art 4.1				Art 4.1																
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern											Art 4.1	Art 4.1			Art 4.1									
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover				Art 4.1				Art 4.1																
Short-Eared owl				Art 4.1																				
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern						Art 4.1	Art 4.1				Art 4.1													
Common Tern									Art 4.1		Art 4.1													
Little Tern																								
Manx Shearwater															Art 4.2									
Roseate Tern									Art 4.1															
Peregrine Falcon				Art 4.1				Art 4.1																
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								

Table ST2 – Screening schedule for the Wigtown Bay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area															**Special Area of Conservation**								
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Larne Lough	Belfast Lough	Strangford Lough	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9020042	UK9020101	UK9020111	UK9020271	UK9003091	UK9020290	UK9020291	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032
Shelduck																								
Ringed Plover																								

Table ST2 – Screening schedule for the Wigtown Bay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area															Special Area of Conservation								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Larne Lough	Belfast Lough	Strangford Lough	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9020042	UK9020101	UK9020111	UK9020271	UK9003091	UK9020290	UK9020291	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage					133,440	31,505	210,668				70,200													
Common Redshank					Art 4.2	Art 4.2	Art 4.2			Art 4.2	Art 4.2													
Great Crested Grebe														Art 4.2										
Whooper Swan					Art 4.1																			
Barnacle Goose					Art 4.1																			
Greylag Goose	Art 4.2																							
Greenland White-fronted Goose	Art 4.1	Art 4.1																						
Pink-footed Goose			Art 4.2		Art 4.2		Art 4.2																	
Light-bellied Brent Goose									Art 4.2		Art 4.2	Art 4.2												
Bar-tailed Godwit					Art 4.1		Art 4.2																	
Eurasian Wigeon																								
Northen Pintail					Art 4.2	Art 4.2	Art 4.2																	
Red Knot					Art 4.2	Art 4.2	Art 4.2				Art 4.2													
Purple Sandpiper																								
Ruddy Turnstone					Art 4.2		Art 4.2					Art 4.2												
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck					Art 4.2		Art 4.2																	
Great Cormorant																								
Mallard																								
Greater Scaup					Art 4.2																			
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye					Art 4.2																			
Red-breasted Merganser																								
Eurasian Curlew					Art 4.2		Art 4.2																	
Eurasian Oystercatcher					Art 4.2		Art 4.2																	
Ringed Plover												Art 4.2												
European Golden Plover					Art 4.1							Art 4.1												
Grey Plover					Art 4.2		Art 4.2																	
Northern Lapwing																								
Dunlin					Art 4.2		Art 4.2																	
Sandwich Tern																								
Sanderling					Art 4.2																			
Black-tailed Godwit																								
Goosander																								
Eurasian Teal					Art 4.2																			
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler					Art 4.2																			
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table ST2 – Screening schedule for the Wigtown Bay Short

NB This screening schedule table and map show sites within

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					Ramsar										
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	River Ehen	Mull of Galloway	River Bladnoch	River Kent	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030057	UK0030220	UK0030249	UK0030256	UK11022	UK11045	UK11079	UK12002	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Mammals															
Grey Seal															
Common Seal															
Bottlenose dolphin															
Otter															
Fish and other species															
Salmon	A2 (Q)		A2 (P)												
Allis shad															
Twaite shad															
Sea Lamprey															
River Lamprey															
Freshwater Pearl Mussel	A2 (P)			A2 (Q)											
Coastal Habitats															
Sandbanks which are slightly covered by seawater all the time															
Estuaries															
Mudflats and sandflats not covered by seawater at low tide											Cri 2				
Coastal lagoons															
Large shallow inlets and bays															
Reefs															
Submarine structures made by leaking gases															
Submerged or partially submerged sea caves															
Annual vegetation of drift lines															
Salicornia and other annuals colonising mud and sand															
Spartina swards															
Atlantic salt meadows															
Mediterranean and thermo-Atlantic halophilous scrubs															
Saltmarsh (type not specified)											Cri 1				
Perennial vegetation of stony banks															
Vegetated sea cliffs		A1 (P)													
Sand dunes														Cri 1	
Birds-Breeding Season															
Breeding Seabird Assemblage															
Golden Eagle															
Osprey															
Wood Sandpiper															
Northern Gannet															
Lesser Black-backed Gull						Cri 6									
Herring Gull						Cri 6									
Black-legged Kittiwake															
Common Guillemot															
Corn Crake															Cri 2
Merlin															
Black-throated Diver															
European Storm Petrel															
Arctic Tern															
Eurasian Dotterel															
Northern Fulmar															
European Shag															
Red-throated Diver															
European Golden Plover															
Short-Eared owl															
Dunlin															
Great Cormorant															
Great Black-backed Gull															
Atlantic Puffin															
Razorbill															
Sandwich Tern						Cri 6					Cri 6				
Common Tern									Cri 2		Cri 6				
Little Tern															
Manx Shearwater															
Roseate Tern									Cri 2						
Peregrine Falcon															
Arctic Skua															
Whimbrel															
Red-necked phalarope															
Great Skua															
Great Crested Grebe															
Leach's Storm Petrel															
Great Bittern															
Common Redshank															
Common Snipe															
Pochard															
Gadwall															
Slavonian Grebe															
Tufted Duck															
Shoveler															

Table ST2 – Screening schedule for the Wigtown Bay Short

NB This screening schedule table and map show sites within

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					Ramsar										
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	River Ehen	Mull of Galloway	River Bladnoch	River Kent	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030057	UK0030220	UK0030249	UK0030256	UK11022	UK11045	UK11079	UK12002	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Shelduck															
Ringed Plover															

Table ST2 – Screening schedule for the Wigtown Bay Short

NB This screening schedule table and map show sites within

(back to contents page)

					Ramsar										
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	River Ehen	Mull of Galloway	River Bladnoch	River Kent	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030057	UK0030220	UK0030249	UK0030256	UK11022	UK11045	UK11079	UK12002	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Goosander															
Greenshank															
Eurasian Curlew															
Common Scoter															
Northern Lapwing															
Eurasian Teal															
Eurasian Wigeon															
Common Goldeneye															
Black Guillemot															
Eurasian Oystercatcher															
Common (Mew) Gull															
Black-headed Gull															
Spotted Crake															
Greylag Goose															
Birds Overwintering/Passage															
Wintering Waterfowl Assemblage					Cri 5 (26,326)	Cri 5 (223,709)	Cri 5 (135,720)								
Common Redshank					Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		Cri 6				
Great Crested Grebe						Cri 6			Cri 6						
Whooper Swan							Cri 6						Cri 6		
Barnacle Goose												Cri 6			
Greylag Goose													Cri 6		
Greenland White-fronted Goose												Cri 6	Cri 6	Cri 6	
Pink-footed Goose						Cri 6	Cri 6					Cri 6			
Light-bellied Brent Goose									Cri 6	Cri 6	Cri 6				
Bar-tailed Godwit						Cri 6	Cri 6								
Eurasian Wigeon						Cri 6									
Northen Pintail					Cri 6	Cri 6	Cri 6								
Red Knot					Cri 6	Cri 6	Cri 6				Cri 6				
Purple Sandpiper										Cri 6					
Ruddy Turnstone						Cri 6				Cri 6					
Slavonian Grebe															
Red-throated Diver															
Common Eider						Cri 6			Cri 6						
Common Shelduck						Cri 6			Cri 6						
Great Cormorant						Cri 6			Cri 6						
Mallard															
Greater Scaup							Cri 6								
Long-tailed Duck															
Black (Common) Scoter															
Velet Scoter															
Common Goldeneye						Cri 6			Cri 6						
Red-breasted Merganser						Cri 6			Cri 6						
Eurasian Curlew						Cri 6	Cri 6								
Eurasian Oystercatcher						Cri 6	Cri 6								
Ringed Plover						Cri 4				Cri 6					
European Golden Plover						Cri 6				Cri 6					
Grey Plover						Cri 6									
Northern Lapwing						Cri 6									
Dunlin						Cri 6									
Sandwich Tern									Cri 6						
Sanderling						Cri 6									
Black-tailed Godwit								Cri 6							
Goosander															
Eurasian Teal															
Gadwall															
Common Greenshank									Cri 6						
Black-headed Gull									Cri 6						
Common Tern									Cri 6						
Common Gull (Mew)									Cri 6						
Northern Shoveler															
Bewick Swan															
Common Pochard															
Tufted Duck															
Lesser Black-back Gull						Cri 6									
Tundra Swan															
Taiga Bean Goose															

Table ST3 – Screening schedule for the Kintyre Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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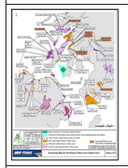
	Special Protection Area																	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
 **European/Ramsar Site**	Loch Lomond	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Black Cart	Muirkirk and North Lowther	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003021	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003061	UK9003071	UK9003121	UK9003221	UK9003261	UK9003301	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101
Mammals																		
Grey Seal																		
Common Seal																		
Bottlenose dolphin																		
Otter																		
Fish and other species																		
Salmon																		
Allis shad																		
Twaite shad																		
Sea Lamprey																		
River Lamprey																		
Freshwater Pearl Mussel																		
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time																		
Estuaries																		
Mudflats and sandflats not covered by seawater at low tide																		
Coastal lagoons																		
Large shallow inlets and bays																		
Reefs																		
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves																		
Annual vegetation of drift lines																		
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows																		
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)																		
Perennial vegetation of stony banks																		
Vegetated sea cliffs																		
Sand dunes																		
Birds-Breeding Season																		
Breeding Seabird Assemblage																		
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet																		
Lesser Black-backed Gull																		
Herring Gull																		
Black-legged Kittiwake													Art 4.2					
Common Guillemot													Art 4.2					
Corn Crake						Art 4.1												
Merlin											Art 4.1							
Black-throated Diver												Art 4.1						
European Storm Petrel																		
Arctic Tern																		
Eurasian Dotterel																		
Northern Fulmar																		
European Shag																		
Red-throated Diver																		
European Golden Plover											Art 4.1							
Short-Eared owl											Art 4.1							
Dunlin																		
Great Cormorant														Art 4.2				
Great Black-backed Gull																		
Atlantic Puffin																		
Razorbill													Art 4.2					
Sandwich Tern																		
Common Tern																Art 4.1	Art 4.1	
Little Tern																		
Manx Shearwater																		
Roseate Tern																Art 4.1		
Peregrine Falcon											Art 4.1		Art 4.1					
Arctic Skua																		

Table ST3 – Screening schedule for the Kintyre Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**
European/Ramsar Site	Loch Lomond	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Black Cart	Muirkirk and North Lowther	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003021	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003061	UK9003071	UK9003121	UK9003221	UK9003261	UK9003301	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101
Whimbrel																		
Red-necked phalarope																		
Great Skua																		
Great Crested Grebe																		
Leach's Storm Petrel																		
Great Bittern																		
Common Redshank																		
Common Snipe																		

Table ST3 – Screening schedule for the Kintyre Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

(back to contents page)

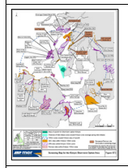
	Special Protection Area																	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
 **European/Ramsar Site**	Loch Lomond	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Black Cart	Muirkirk and North Lowther	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003021	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003061	UK9003071	UK9003121	UK9003221	UK9003261	UK9003301	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101
Pochard																		
Gadwall																		
Slavonian Grebe																		
Tufted Duck																		
Shoveler																		
Shelduck																		
Ringed Plover																		
Goosander																		
Greenshank																		
Eurasian Curlew																		
Common Scoter						Art 4.2												
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
Common Goldeneye																		
Black Guillemot																		
Eurasian Oystercatcher																		
Common (Mew) Gull																		
Black-headed Gull																		
Spotted Crake																		
Greylag Goose																		
Birds Overwintering/Passage																		
Wintering Waterfowl Assemblage															36,599		99,262	
Common Redshank							Art 4.2											Art 4.2
Great Crested Grebe																		
Whooper Swan										Art 4.1					Art 4.1		Art 4.1	
Barnacle Goose		Art 4.1	Art 4.1	Art 4.1														
Greylag Goose																		
Greenland White-fronted Goose	Art 4.1	Art 4.1		Art 4.1	Art 4.1	Art 4.1		Art 4.1	Art 4.1									
Pink-footed Goose																		
Light-bellied Brent Goose		Art 4.2													Art 4.2	Art 4.2		
Bar-tailed Godwit															Art 4.1			
Eurasian Wigeon																		
Northen Pintail																		
Red Knot																		
Purple Sandpiper																		
Ruddy Turnstone																		
Slavonian Grebe																		
Red-throated Diver																		
Common Eider																		
Common Shelduck																		
Great Cormorant																		
Mallard																		
Greater Scaup																		
Long-tailed Duck																		
Black (Common) Scoter																		
Velet Scoter																		
Common Goldeneye																	Art 4.2	
Red-breasted Merganser																		
Eurasian Curlew																		
Eurasian Oystercatcher																		
Ringed Plover																		
European Golden Plover																		
Grey Plover																		
Northern Lapwing																		
Dunlin																		
Sandwich Tern																		
Sanderling																		
Black-tailed Godwit																		
Goosander																		
Eurasian Teal																		
Gadwall																		

Table ST3 – Screening schedule for the Kintyre Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Loch Lomond	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Black Cart	Muirkirk and North Lowther	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003021	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003061	UK9003071	UK9003121	UK9003221	UK9003261	UK9003301	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101
Common Greenshank																		
Black-headed Gull																		
Common Tern																		
Common Gull (Mew)																		
Northern Shoveler																		
Bewick Swan																		
Common Pochard																	Art 4.2	
Tufted Duck																	Art 4.2	
Lesser Black-back Gull																		
Tundra Swan																	Art 4.1	
Taiga Bean Goose																		

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring		Art 4.2 sp
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive			Cri 6	Ramsar Criterion No.
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)			A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened ou

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

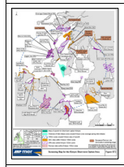
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation							
 **European/Ramsar Site**	Strangford Lough	Outer Ards	Oronsay and South Colonsay	Ailsa Craig	North Colonsay and Western Cliffs	Belfast Lough Open Water	Copeland Islands	Trawbreaga Bay SPA	Inishtrahull SPA	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Inishtrahull	North Inishowen Coast	Taynish and Knapdale Woods	Ardmeanach	Luce Bay and Sands	Loch Lomond Woods	Magilligan	Strangford Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020111	UK9020271	UK9020299	UK9003091	UK9003171	UK9020290	UK9020291	004034	004100	10114	UK9003311	154	002012	UK0012682	UK0012958	UK0013039	UK0013573	UK0016613	UK0016618
Mammals																			
Grey Seal																			
Common Seal																			
Bottlenose dolphin																			
Otter														A2 (Q)			A2 (Q)		
Fish and other species																			
Salmon																			
Allis shad																			
Twaite shad																			
Sea Lamprey																			
River Lamprey																			
Freshwater Pearl Mussel																			
Coastal Habitats																			
Sandbanks which are slightly covered by seawater all the time																A1 (Q)			
Estuaries																			
Mudflats and sandflats not covered by seawater at low tide																A1 (Q)			A1 (P)
Coastal lagoons																			A1 (P)
Large shallow inlets and bays																A1 (P)			A1 (P)
Reefs																A1 (Q)			A1 (P)
Submarine structures made by leaking gases																			
Submerged or partially submerged sea caves																			
Annual vegetation of drift lines																			A1 (Q)
Salicornia and other annuals colonising mud and sand																			A1 (Q)
Spartina swards																			
Atlantic salt meadows																			A1 (Q)
Mediterranean and thermo-Atlantic halophilous scrubs															A1 (Q)				
Saltmarsh (type not specified)																			
Perennial vegetation of stony banks																			A1 (Q)
Vegetated sea cliffs																			
Sand dunes																A1 (P)		A1 (P)/A1 (Q)	
Birds-Breeding Season																			
Breeding Seabird Assemblage				65000	30000														
Golden Eagle										Art 4.1	Art 4.1								
Osprey																			
Wood Sandpiper																			
Northern Gannet				Art 4.2															
Lesser Black-backed Gull				Art 4.2															
Herring Gull				Art 4.2 sp															
Black-legged Kittiwake				Art 4.2 sp	Art 4.2 sp														
Common Guillemot				Art 4.2 sp	Art 4.2 sp														
Corn Crake			Art 4.1																
Merlin																			
Black-throated Diver																			
European Storm Petrel																			
Arctic Tern	Art 4.1	Art 4.1					Art 4.1												
Eurasian Dotterel																			
Northern Fulmar																			
European Shag									Art 4.1										
Red-throated Diver																			
European Golden Plover																			
Short-Eared owl																			
Dunlin																			
Great Cormorant																			
Great Black-backed Gull									Art 4.1										
Atlantic Puffin																			
Razorbill																			
Sandwich Tern	Art 4.1																		
Common Tern	Art 4.1																		
Little Tern																			
Manx Shearwater							Art 4.2												
Roseate Tern																			
Peregrine Falcon																			
Arctic Skua																			

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Strangford Lough	Outer Ards	Oronsay and South Colonsay	Ailsa Craig	North Colonsay and Western Cliffs	Belfast Lough Open Water	Copeland Islands	Trawbreaga Bay SPA	Inishtrahull SPA	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Inishtrahull	North Inishowen Coast	Taynish and Knapdale Woods	Ardmeanach	Luce Bay and Sands	Loch Lomond Woods	Magilligan	Strangford Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020111	UK9020271	UK9020299	UK9003091	UK9003171	UK9020290	UK9020291	004034	004100	10114	UK9003311	154	002012	UK0012682	UK0012958	UK0013039	UK0013573	UK0016613	UK0016618
Whimbrel																			
Red-necked phalarope																			
Great Skua																			
Great Crested Grebe																			
Leach's Storm Petrel																			
Great Bittern																			
Common Redshank																			
Common Snipe																			

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

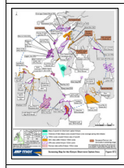
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation							
 **European/Ramsar Site**	Strangford Lough	Outer Ards	Oronsay and South Colonsay	Ailsa Craig	North Colonsay and Western Cliffs	Belfast Lough Open Water	Copeland Islands	Trawbreaga Bay SPA	Inishtrahull SPA	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Inishtrahull	North Inishowen Coast	Taynish and Knapdale Woods	Ardmeanach	Luce Bay and Sands	Loch Lomond Woods	Magilligan	Strangford Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020111	UK9020271	UK9020299	UK9003091	UK9003171	UK9020290	UK9020291	004034	004100	10114	UK9003311	154	002012	UK0012682	UK0012958	UK0013039	UK0013573	UK0016613	UK0016618
Pochard																			
Gadwall																			
Slavonian Grebe																			
Tufted Duck																			
Shoveler																			
Shelduck																			
Ringed Plover																			
Goosander																			
Greenshank																			
Eurasian Curlew																			
Common Scoter																			
Northern Lapwing																			
Eurasian Teal																			
Eurasian Wigeon																			
Common Goldeneye																			
Black Guillemot																			
Eurasian Oystercatcher																			
Common (Mew) Gull									Art 4.1										
Black-headed Gull																			
Spotted Crake																			
Greylag Goose																			
Birds Overwintering/Passage																			
Wintering Waterfowl Assemblage	70,200																		
Common Redshank	Art 4.2																		
Great Crested Grebe						Art 4.2													
Whooper Swan																			
Barnacle Goose								Art 4.2											
Greylag Goose																			
Greenland White-fronted Goose																			
Pink-footed Goose																			
Light-bellied Brent Goose	Art 4.2	Art 4.2						Art 4.2											
Bar-tailed Godwit																			
Eurasian Wigeon																			
Northen Pintail																			
Red Knot	Art 4.2																		
Purple Sandpiper																			
Ruddy Turnstone		Art 4.2																	
Slavonian Grebe																			
Red-throated Diver																			
Common Eider																			
Common Shelduck																			
Great Cormorant																			
Mallard																			
Greater Scaup																			
Long-tailed Duck																			
Black (Common) Scoter																			
Velet Scoter																			
Common Goldeneye																			
Red-breasted Merganser																			
Eurasian Curlew																			
Eurasian Oystercatcher																			
Ringed Plover		Art 4.2																	
European Golden Plover		Art 4.1																	
Grey Plover																			
Northern Lapwing																			
Dunlin																			
Sandwich Tern																			
Sanderling																			
Black-tailed Godwit																			
Goosander																			
Eurasian Teal																			
Gadwall																			

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation							
European/Ramsar Site	Strangford Lough	Outer Ards	Oronsay and South Colonsay	Ailsa Craig	North Colonsay and Western Cliffs	Belfast Lough Open Water	Copeland Islands	Trawbreaga Bay SPA	Inishtrahull SPA	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Inishtrahull	North Inishowen Coast	Taynish and Knapdale Woods	Ardmeanach	Luce Bay and Sands	Loch Lomond Woods	Magilligan	Strangford Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020111	UK9020271	UK9020299	UK9003091	UK9003171	UK9020290	UK9020291	004034	004100	10114	UK9003311	154	002012	UK0012682	UK0012958	UK0013039	UK0013573	UK0016613	UK0016618
Common Greenshank																			
Black-headed Gull																			
Common Tern																			
Common Gull (Mew)																			
Northern Shoveler																			
Bewick Swan																			
Common Pochard																			
Tufted Duck																			
Lesser Black-back Gull																			
Tundra Swan																			
Taiga Bean Goose																			

Species listed among those regularly occurring

Annex/Criterion unknown (Irish sites)

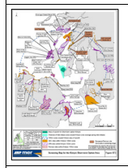
Annex II Species (qualifying)

ıt of the Appropriate Assessment

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar
 **European/Ramsar Site**	Glac na Criche	Môine Mhór	Merrick Kells	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Bann Estuary	Loch Fada	Mull Oakwoods	Mull of Galloway	North Antrim Coast	River Bladnoch	Tayvallich Juniper and Coast	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019775	UK0019839	UK0019841	UK0030041	UK0030055	UK0030067	UK0030084	UK0030191	UK0030219	UK0030220	UK0030224	UK0030249	UK0030287	UK0030341	UK0030360	UK0030361	UK0030365	UK12002
Mammals																		
Grey Seal																		
Common Seal						A2 (P)												
Bottlenose dolphin																		
Otter		A2 (Q)	A2 (Q)					A2 (Q)	A2 (Q)				A2 (Q)		A2 (Q)	A2 (Q)		
Fish and other species																		
Salmon												A2 (P)			A2 (P)	A2 (P)		
Allis shad																		
Twaite shad																		
Sea Lamprey																		
River Lamprey																		
Freshwater Pearl Mussel																		
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time					A1 (P)												A1 (P)	
Estuaries																		
Mudflats and sandflats not covered by seawater at low tide		A1 (Q)																
Coastal lagoons																		
Large shallow inlets and bays																		
Reefs				A1 (P)	A1 (P)													
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves					A1 (P)													
Annual vegetation of drift lines					A1 (P)						A1 (Q)							
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows		A1 (Q)					A1 (Q)				A1 (Q)							
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)																		
Perennial vegetation of stony banks																		
Vegetated sea cliffs	A1 (Q)				A1 (P)					A1 (P)	A1 (P)							
Sand dunes							A1 (P)/A1 (Q)				A1 (Q)			A1 (P)				
Birds-Breeding Season																		
Breeding Seabird Assemblage																		
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet																		
Lesser Black-backed Gull																		
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Black-legged Kittiwake																		
Common Guillemot																		
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European Shag																		
Red-throated Diver																		
European Golden Plover																		
Short-Eared owl																		
Dunlin																		
Great Cormorant																		
Great Black-backed Gull																		
Atlantic Puffin																		
Razorbill																		
Sandwich Tern																		
Common Tern																		
Little Tern																		
Manx Shearwater																		
Roseate Tern																		
Peregrine Falcon																		
Arctic Skua																		

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar
European/Ramsar Site	Glac na Criche	Mòine Mhòr	Merrick Kells	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Bann Estuary	Loch Fada	Mull Oakwoods	Mull of Galloway	North Antrim Coast	River Bladnoch	Tayvallich Juniper and Coast	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019775	UK0019839	UK0019841	UK0030041	UK0030055	UK0030067	UK0030084	UK0030191	UK0030219	UK0030220	UK0030224	UK0030249	UK0030287	UK0030341	UK0030360	UK0030361	UK0030365	UK12002
Whimbrel																		
Red-necked phalarope																		
Great Skua																		
Great Crested Grebe																		
Leach's Storm Petrel																		
Great Bittern																		
Common Redshank																		
Common Snipe																		

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

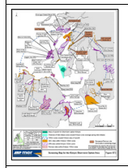
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar
 **European/Ramsar Site**	Glac na Criche	Móine Mhór	Merrick Kells	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Bann Estuary	Loch Fada	Mull Oakwoods	Mull of Galloway	North Antrim Coast	River Bladnoch	Tayvallich Juniper and Coast	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Belfast Lough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019775	UK0019839	UK0019841	UK0030041	UK0030055	UK0030067	UK0030084	UK0030191	UK0030219	UK0030220	UK0030224	UK0030249	UK0030287	UK0030341	UK0030360	UK0030361	UK0030365	UK12002
Pochard																		
Gadwall																		
Slavonian Grebe																		
Tufted Duck																		
Shoveler																		
Shelduck																		
Ringed Plover																		
Goosander																		
Greenshank																		
Eurasian Curlew																		
Common Scoter																		
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
Common Goldeneye																		
Black Guillemot																		
Eurasian Oystercatcher																		
Common (Mew) Gull																		
Black-headed Gull																		
Spotted Crake																		
Greylag Goose																		
Birds Overwintering/Passage																		
Wintering Waterfowl Assemblage																		
Common Redshank																		Cri 6
Great Crested Grebe																		
Whooper Swan																		
Barnacle Goose																		
Greylag Goose																		
Greenland White-fronted Goose																		
Pink-footed Goose																		
Light-bellied Brent Goose																		
Bar-tailed Godwit																		
Eurasian Wigeon																		
Northen Pintail																		
Red Knot																		
Purple Sandpiper																		
Ruddy Turnstone																		
Slavonian Grebe																		
Red-throated Diver																		
Common Eider																		
Common Shelduck																		
Great Cormorant																		
Mallard																		
Greater Scaup																		
Long-tailed Duck																		
Black (Common) Scoter																		
Velet Scoter																		
Common Goldeneye																		
Red-breasted Merganser																		
Eurasian Curlew																		
Eurasian Oystercatcher																		
Ringed Plover																		
European Golden Plover																		
Grey Plover																		
Northern Lapwing																		
Dunlin																		
Sandwich Tern																		
Sanderling																		
Black-tailed Godwit																		Cri 6
Goosander																		
Eurasian Teal																		
Gadwall																		

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar
European/Ramsar Site	Glac na Criche	Mòine Mhòr	Merrick Kells	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Bann Estuary	Loch Fada	Mull Oakwoods	Mull of Galloway	North Antrim Coast	River Bladnoch	Tayvallich Juniper and Coast	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Belfast Lough	Ram
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019775	UK0019839	UK0019841	UK0030041	UK0030055	UK0030067	UK0030084	UK0030191	UK0030219	UK0030220	UK0030224	UK0030249	UK0030287	UK0030341	UK0030360	UK0030361	UK0030365	UK12002	
Common Greenshank																			
Black-headed Gull																			
Common Tern																			
Common Gull (Mew)																			
Northern Shoveler																			
Bewick Swan																			
Common Pochard																			
Tufted Duck																			
Lesser Black-back Gull																			
Tundra Swan																			
Taiga Bean Goose																			

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

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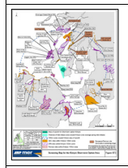
Designation	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Larne Lough	Lough Foyle	Lough Neagh and Lough Beg	Outer Ards	Strangford Lough	Bridgend Flats	Eilean na Muice Duibhe	Gruinart Flats	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Rinns of Islay	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK12013	UK12014	UK12016	UK12018	UK12021	UK13001	UK13014	UK13023	UK13024	UK13027	UK13037	UK13052	
Mammals													
Grey Seal													
Common Seal													
Bottlenose dolphin													
Otter													
Fish and other species													
Salmon		Cri 2											
Allis shad		Cri 2											
Twaite shad		Cri 2											
Sea Lamprey		Cri 2											
River Lamprey													
Freshwater Pearl Mussel													
Coastal Habitats													
Sandbanks which are slightly covered by seawater all the time													
Estuaries		Cri 1											
Mudflats and sandflats not covered by seawater at low tide		Cri 1			Cri 2								
Coastal lagoons													
Large shallow inlets and bays													
Reefs													
Submarine structures made by leaking gases													
Submerged or partially submerged sea caves													
Annual vegetation of drift lines													
Salicornia and other annuals colonising mud and sand													
Spartina swards													
Atlantic salt meadows													
Mediterranean and thermo-Atlantic halophilous scrubs													
Saltmarsh (type not specified)		Cri 1			Cri 1								
Perennial vegetation of stony banks													
Vegetated sea cliffs													
Sand dunes											Cri 1		
Birds-Breeding Season													
Breeding Seabird Assemblage													
Golden Eagle													
Osprey													
Wood Sandpiper													
Northern Gannet													
Lesser Black-backed Gull													
Herring Gull													
Black-legged Kittiwake													
Common Guillemot													
Corn Crake													
Merlin													
Black-throated Diver													
European Storm Petrel													
Arctic Tern													
Eurasian Dotterel													
Northern Fulmar													
European Shag													
Red-throated Diver													
European Golden Plover													
Short-Eared owl													
Dunlin													
Great Cormorant													
Great Black-backed Gull													
Atlantic Puffin													
Razorbill													
Sandwich Tern					Cri 6								
Common Tern	Cri 2				Cri 6								
Little Tern													
Manx Shearwater													
Roseate Tern	Cri 2												
Peregrine Falcon													
Arctic Skua													

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

Designation	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Larne Lough	Lough Foyle	Lough Neagh and Lough Beg	Outer Ards	Strangford Lough	Bridgend Flats	Eilean na Muice Duibhe	Gruinart Flats	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Rinns of Islay	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK12013	UK12014	UK12016	UK12018	UK12021	UK13001	UK13014	UK13023	UK13024	UK13027	UK13037	UK13052	
Whimbrel													
Red-necked phalarope													
Great Skua													
Great Crested Grebe			Cri 4										
Leach's Storm Petrel													
Great Bittern													
Common Redshank			Cri 4										
Common Snipe			Cri 4										

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

(back to contents page)

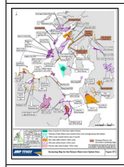
Designation	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Larne Lough	Lough Foyle	Lough Neagh and Lough Beg	Outer Ards	Strangford Lough	Bridgend Flats	Eilean na Muice Duibhe	Gruinart Flats	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Rinns of Islay	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK12013	UK12014	UK12016	UK12018	UK12021	UK13001	UK13014	UK13023	UK13024	UK13027	UK13037	UK13052	
Pochard			Cri 4										
Gadwall			Cri 4										
Slavonian Grebe													
Tufted Duck			Cri 4										
Shoveler			Cri 4										
Shelduck			Cri 4										
Ringed Plover													
Goosander													
Greenshank													
Eurasian Curlew			Cri 4										
Common Scoter													
Northern Lapwing			Cri 4										
Eurasian Teal			Cri 4										
Eurasian Wigeon													
Common Goldeneye													
Black Guillemot													
Eurasian Oystercatcher													
Common (Mew) Gull													
Black-headed Gull													
Spotted Crake													
Greylag Goose													
Birds Overwintering/Passage													
Wintering Waterfowl Assemblage			Cri 5 (86,639)										
Common Redshank	Cri 6	Cri 3			Cri 6				Cri 6				
Great Crested Grebe	Cri 6	Cri 3											
Whooper Swan		Cri 3 and Cri 6	Cri 6									Cri 6	
Barnacle Goose						Cri 6						Cri 6	
Greylag Goose		Cri 3						Cri 6					
Greenland White-fronted Goose							Cri 6	Cri 6		Cri 6	Cri 6	Cri 6	
Pink-footed Goose													
Light-bellied Brent Goose	Cri 6	Cri 3 and Cri 6		Cri 6	Cri 6			Cri 6					
Bar-tailed Godwit		Cri 3											
Eurasian Wigeon		Cri 3											
Northen Pintail													
Red Knot		Cri 3			Cri 6								
Purple Sandpiper				Cri 6									
Ruddy Turnstone				Cri 6									
Slavonian Grebe									Cri 6				
Red-throated Diver		Cri 3											
Common Eider	Cri 6	Cri 3							Cri 6				
Common Shelduck	Cri 6	Cri 3											
Great Cormorant	Cri 6								Cri 6				
Mallard		Cri 3											
Greater Scaup													
Long-tailed Duck													
Black (Common) Scoter													
Velet Scoter													
Common Goldeneye	Cri 6		Cri 6						Cri 6				
Red-breasted Merganser	Cri 6	Cri 3											
Eurasian Curlew		Cri 3											
Eurasian Oystercatcher		Cri 3							Cri 6				
Ringed Plover				Cri 6									
European Golden Plover		Cri 3		Cri 6									
Grey Plover		Cri 3											
Northern Lapwing		Cri 3											
Dunlin		Cri 3											
Sandwich Tern	Cri 6												
Sanderling													
Black-tailed Godwit													
Goosander													
Eurasian Teal		Cri 3											
Gadwall													

Table ST3 – Screening schedule for the Kintyre Short-term

NB This screening schedule table and map show sites within

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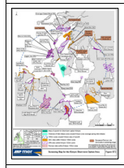
Designation	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Larne Lough	Lough Foyle	Lough Neagh and Lough Beg	Outer Ards	Strangford Lough	Bridgend Flats	Eilean na Muice Duibhe	Gruinart Flats	Inner Clyde	Kintyre Goose Roosts	Loch of Inch and Torrs Warren	Rinns of Islay	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK12013	UK12014	UK12016	UK12018	UK12021	UK13001	UK13014	UK13023	UK13024	UK13027	UK13037	UK13052	
Common Greenshank	Cri 6	Cri 3							Cri 6				
Black-headed Gull	Cri 6												
Common Tern	Cri 6												
Common Gull (Mew)	Cri 6												
Northern Shoveler													
Bewick Swan		Cri 3											
Common Pochard			Cri 6										
Tufted Duck			Cri 6										
Lesser Black-back Gull													
Tundra Swan													
Taiga Bean Goose													

Table ST4 – Screening schedule for the Islay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**
European/Ramsar Site	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	North Colonsay and Western Cliffs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9003171
Mammals																		
Grey Seal																		
Common Seal																		
Bottlenose dolphin																		
Otter																		
Fish and other species																		
Salmon																		
Allis shad																		
Twaite shad																		
Sea Lamprey																		
River Lamprey																		
Freshwater Pearl Mussel																		
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time																		
Estuaries																		
Mudflats and sandflats not covered by seawater at low tide																		
Coastal lagoons																		
Large shallow inlets and bays																		
Reefs																		
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves																		
Annual vegetation of drift lines																		
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows																		
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)																		
Perennial vegetation of stony banks																		
Vegetated sea cliffs																		
Sand dunes																		
Birds-Breeding Season																		
Breeding Seabird Assemblage																		30000
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet																		
Lesser Black-backed Gull																		
Herring Gull																		
Black-legged Kittiwake														Art 4.2				Art 4.2 sp
Common Guillemot														Art 4.2				Art 4.2 sp
Corn Crake			Art 4.1	Art 4.1						Art 4.1							Art 4.1	
Merlin																		
Black-throated Diver													Art 4.1					
European Storm Petrel					Art 4.1													
Arctic Tern																		
Eurasian Dotterel																		
Northern Fulmar																		
European Shag																		
Red-throated Diver																		
European Golden Plover																		
Short-Eared owl																		
Dunlin		Art 4.2																
Great Cormorant															Art 4.2			
Great Black-backed Gull																		
Atlantic Puffin																		
Razorbill														Art 4.2				
Sandwich Tern																		
Common Tern												Art 4.1						
Little Tern																		
Manx Shearwater																		
Roseate Tern																		
Peregrine Falcon														Art 4.1				
Arctic Skua																		
Whimbrel																		

Table ST4 – Screening schedule for the Islay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**
European/Ramsar Site	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	North Colonsay and Western Cliffs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9003171
Red-necked phalarope																		
Great Skua																		
Great Crested Grebe																		
Leach's Storm Petrel																		
Great Bittern																		
Common Redshank		Art 4.2																
Common Snipe																		
Pochard																		
Gadwall																		
Slavonian Grebe																		
Tufted Duck																		
Shoveler																		

Table ST4 – Screening schedule for the Islay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**
European/Ramsar Site	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	North Colonsay and Western Cliffs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9003171
Shelduck																		
Ringed Plover		Art 4.2																
Goosander																		
Greenshank																		
Eurasian Curlew																		
Common Scoter										Art 4.2								
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
Common Goldeneye																		
Black Guillemot																		
Eurasian Oystercatcher		Art 4.2																
Common (Mew) Gull																		
Black-headed Gull																		
Spotted Crake																		
Greylag Goose																		
Birds Overwintering/Passage																		
Wintering Waterfowl Assemblage																36,599		
Common Redshank																		
Great Crested Grebe																		
Whooper Swan																Art 4.1		
Barnacle Goose	Art 4.1	Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1										
Greylag Goose																		
Greenland White-fronted Goose	Art 4.1	Art 4.1				Art 4.1		Art 4.1	Art 4.1	Art 4.1	Art 4.1							
Pink-footed Goose																		
Light-bellied Brent Goose						Art 4.2										Art 4.2		
Bar-tailed Godwit																Art 4.1		
Eurasian Wigeon																		
Northen Pintail																		
Red Knot																		
Purple Sandpiper																		
Ruddy Turnstone		Art 4.2																
Slavonian Grebe																		
Red-throated Diver																		
Common Eider																		
Common Shelduck																		
Great Cormorant																		
Mallard																		
Greater Scaup																		
Long-tailed Duck																		
Black (Common) Scoter																		
Velet Scoter																		
Common Goldeneye																		
Red-breasted Merganser																		
Eurasian Curlew																		
Eurasian Oystercatcher																		
Ringed Plover		Art 4.2																
European Golden Plover																		
Grey Plover																		
Northern Lapwing																		
Dunlin																		
Sandwich Tern																		
Sanderling																		
Black-tailed Godwit																		
Goosander																		
Eurasian Teal																		
Gadwall																		
Common Greenshank																		
Black-headed Gull																		
Common Tern																		
Common Gull (Mew)																		
Northern Shoveler																		

Table ST4 – Screening schedule for the Islay Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**
European/Ramsar Site	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	North Colonsay and Western Cliffs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9003171
Bewick Swan																		
Common Pochard																		
Tufted Duck																		
Lesser Black-back Gull																		
Tundra Swan																		
Taiga Bean Goose																		

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring		Art 4.2 sp
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive			Cri 6	Ramsar Criterion No.
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)			A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation											
European/Ramsar Site	Trawbreaga Bay	Lough Swilly	Greers Isle	Inishtrahull	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Horn Head to Fanad Head	Inishtrahull	Lough Nagreany Dunes	Tranarossan And Melmore Lough	Sheephaven	Ballyhoorisky Point To Fanad Head	North Inishowen Coast	Mulroy Bay	Lough Swilly	Taynish and Knapdale Woods	Ardmeanach	Coll Machair	Tiree Machair
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	004034	004075	004082	004100	10114	UK9003311	004194	000154	000164	000194	001190	001975	002012	002159	002287	UK00126	UK0012958	UK0014728	UK0014744
Mammals																			
Grey Seal								■											
Common Seal																			
Bottlenose dolphin																			
Otter												■	■	■	■	A2 (Q)			
Fish and other species																			
Salmon																			
Allis shad																			
Twaite shad																			
Sea Lamprey																			
River Lamprey																			
Freshwater Pearl Mussel																			
Coastal Habitats																			
Sandbanks which are slightly covered by seawater all the time																			
Estuaries															■				
Mudflats and sandflats not covered by seawater at low tide										■	■		■						
Coastal lagoons															■				
Large shallow inlets and bays														■					
Reefs														■					
Submarine structures made by leaking gases																			
Submerged or partially submerged sea caves																			
Annual vegetation of drift lines																			
Salicornia and other annuals colonising mud and sand																			
Spartina swards																			
Atlantic salt meadows											■				■				
Mediterranean and thermo-Atlantic halophilous scrubs																	A1 (Q)		
Saltmarsh (type not specified)																			
Perennial vegetation of stony banks													■						
Vegetated sea cliffs												■	■						
Sand dunes									■	■	■		■					A1 (P)/A1 (Q)	A1 (P)/A1 (Q)
Birds-Breeding Season																			
Breeding Seabird Assemblage																			
Golden Eagle					Art 4.1	Art 4.1													
Osprey																			
Wood Sandpiper																			
Northern Gannet																			
Lesser Black-backed Gull																			
Herring Gull																			
Black-legged Kittiwake							Art 4.1												
Common Guillemot							Art 4.1												
Corn Crake																			
Merlin																			
Black-throated Diver																			
European Storm Petrel																			
Arctic Tern																			
Eurasian Dotterel																			
Northern Fulmar							Art 4.1												
European Shag				Art 4.1			Art 4.1												
Red-throated Diver																			
European Golden Plover																			
Short-Eared owl																			
Dunlin																			
Great Cormorant							Art 4.1												
Great Black-backed Gull				Art 4.1															
Atlantic Puffin																			
Razorbill							Art 4.1												
Sandwich Tern			Art 4.1																
Common Tern																			
Little Tern																			
Manx Shearwater																			
Roseate Tern																			
Peregrine Falcon																			
Arctic Skua																			
Whimbrel																			

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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								Special Area of Conservation											
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**
European/Ramsar Site	Trawbreaga Bay	Lough Swilly	Greers Isle	Inishtrahull	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Horn Head to Fanad Head	Inishtrahull	Lough Nagreany Dunes	Tranarossan And Melmore Lough	Sheephaven	Ballyhoorisky Point To Fanad Head	North Inishowen Coast	Mulroy Bay	Lough Swilly	Taynish and Knapdale Woods	Ardmeanach	Coll Machair	Tiree Machair
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	004034	004075	004082	004100	10114	UK9003311	004194	000154	000164	000194	001190	001975	002012	002159	002287	UK00126	UK0012958	UK0014728	UK0014744
Red-necked phalarope																			
Great Skua																			
Great Crested Grebe																			
Leach's Storm Petrel																			
Great Bittern																			
Common Redshank																			
Common Snipe																			
Pochard																			
Gadwall																			
Slavonian Grebe																			
Tufted Duck																			
Shoveler																			

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation											
European/Ramsar Site	Trawbreaga Bay	Lough Swilly	Greers Isle	Inishtrahull	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Horn Head to Fanad Head	Inishtrahull	Lough Nagreany Dunes	Tranarossan And Melmore Lough	Sheephaven	Ballyhoorisky Point To Fanad Head	North Inishowen Coast	Mulroy Bay	Lough Swilly	Taynish and Knapdale Woods	Ardmeanach	Coll Machair	Tiree Machair
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	004034	004075	004082	004100	10114	UK9003311	004194	000154	000164	000194	001190	001975	002012	002159	002287	UK00126	UK0012958	UK0014728	UK0014744
Shelduck																			
Ringed Plover																			
Goosander																			
Greenshank																			
Eurasian Curlew																			
Common Scoter																			
Northern Lapwing																			
Eurasian Teal																			
Eurasian Wigeon																			
Common Goldeneye																			
Black Guillemot							Art 4.1												
Eurasian Oystercatcher																			
Common (Mew) Gull			Art 4.1	Art 4.1															
Black-headed Gull			Art 4.1																
Spotted Crake																			
Greylag Goose																			
Birds Overwintering/Passage																			
Wintering Waterfowl Assemblage																			
Common Redshank																			
Great Crested Grebe																			
Whooper Swan		Art 4.2																	
Barnacle Goose	Art 4.2						Art 4.1												
Greylag Goose		Art 4.2																	
Greenland White-fronted Goose		Art 4.2					Art 4.1												
Pink-footed Goose																			
Light-bellied Brent Goose	Art 4.2																		
Bar-tailed Godwit																			
Eurasian Wigeon																			
Northen Pintail																			
Red Knot																			
Purple Sandpiper																			
Ruddy Turnstone																			
Slavonian Grebe																			
Red-throated Diver																			
Common Eider																			
Common Shelduck																			
Great Cormorant																			
Mallard																			
Greater Scaup																			
Long-tailed Duck																			
Black (Common) Scoter																			
Velet Scoter																			
Common Goldeneye																			
Red-breasted Merganser																			
Eurasian Curlew																			
Eurasian Oystercatcher																			
Ringed Plover																			
European Golden Plover																			
Grey Plover																			
Northern Lapwing																			
Dunlin																			
Sandwich Tern																			
Sanderling																			
Black-tailed Godwit																			
Goosander																			
Eurasian Teal																			
Gadwall																			
Common Greenshank																			
Black-headed Gull																			
Common Tern																			
Common Gull (Mew)																			
Northern Shoveler																			

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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								Special Area of Conservation											
Designation	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SPA**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**
European/Ramsar Site	Trawbreaga Bay	Lough Swilly	Greers Isle	Inishtrahull	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Horn Head to Fanad Head	Inishtrahull	Lough Nagreany Dunes	Tranarossan And Melmore Lough	Sheephaven	Ballyhoorisky Point To Fanad Head	North Inishowen Coast	Mulroy Bay	Lough Swilly	Taynish and Knapdale Woods	Ardmeanach	Coll Machair	Tiree Machair
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	004034	004075	004082	004100	10114	UK9003311	004194	000154	000164	000194	001190	001975	002012	002159	002287	UK00126	UK0012958	UK0014728	UK0014744
Bewick Swan																			
Common Pochard																			
Tufted Duck																			
Lesser Black-back Gull																			
Tundra Swan																			
Taiga Bean Goose																			

Species listed among those regularly occurring

Annex/Criterion unknown (Irish sites)

Annex II Species (qualifying)

of the Appropriate Assessment

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Magilligan	Glac na Criche	Sunart	Móine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Bann Estuary	Eileanan agus Sgeiran Lios mór	Loch Fada	Mingarry Burn	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016613	UK0019775	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030182	UK0030191	UK0030206	UK0030217	UK0030219	UK0030224	UK0030287
Mammals																
Grey Seal																
Common Seal							A2 (P)			A2 (P)						
Bottlenose dolphin																
Otter			A2 (P)	A2 (Q)							A2 (Q)		A2 (Q)	A2 (Q)		A2 (Q)
Fish and other species																
Salmon																
Allis shad																
Twaite shad																
Sea Lamprey																
River Lamprey										A2 (P)						
Freshwater Pearl Mussel								A2 (P)		A2 (Q)		A2 (P)				
Coastal Habitats																
Sandbanks which are slightly covered by seawater all the time						A1 (P)										
Estuaries																
Mudflats and sandflats not covered by seawater at low tide				A1 (Q)												
Coastal lagoons																
Large shallow inlets and bays																
Reefs			A1 (Q)		A1 (P)	A1 (P)										
Submarine structures made by leaking gases																
Submerged or partially submerged sea caves						A1 (P)										
Annual vegetation of drift lines						A1 (P)									A1 (Q)	
Salicornia and other annuals colonising mud and sand																
Spartina swards																
Atlantic salt meadows				A1 (Q)					A1 (Q)						A1 (Q)	
Mediterranean and thermo-Atlantic halophilous scrubs																
Saltmarsh (type not specified)																
Perennial vegetation of stony banks																
Vegetated sea cliffs		A1 (Q)				A1 (P)									A1 (P)	
Sand dunes	A1 (P)/A1 (Q)								A1 (P)/A1 (Q)						A1 (Q)	
Birds-Breeding Season																
Breeding Seabird Assemblage																
Golden Eagle																
Osprey																
Wood Sandpiper																
Northern Gannet																
Lesser Black-backed Gull																
Herring Gull																
Black-legged Kittiwake																
Common Guillemot																
Corn Crake																
Merlin																
Black-throated Diver																
European Storm Petrel																
Arctic Tern																
Eurasian Dotterel																
Northern Fulmar																
European Shag																
Red-throated Diver																
European Golden Plover																
Short-Eared owl																
Dunlin																
Great Cormorant																
Great Black-backed Gull																
Atlantic Puffin																
Razorbill																
Sandwich Tern																
Common Tern																
Little Tern																
Manx Shearwater																
Roseate Tern																
Peregrine Falcon																
Arctic Skua																
Whimbrel																

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Magilligan	Glac na Criche	Sunart	Móine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Bann Estuary	Eileanan agus Sgeiran Lios mór	Loch Fada	Mingarry Burn	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016613	UK0019775	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030182	UK0030191	UK0030206	UK0030217	UK0030219	UK0030224	UK0030287
Red-necked phalarope																
Great Skua																
Great Crested Grebe																
Leach's Storm Petrel																
Great Bittern																
Common Redshank																
Common Snipe																
Pochard																
Gadwall																
Slavonian Grebe																
Tufted Duck																
Shoveler																

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Magilligan	Glac na Criche	Sunart	Móine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Bann Estuary	Eileanan agus Sgeiran Lios mór	Loch Fada	Mingarry Burn	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016613	UK0019775	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030182	UK0030191	UK0030206	UK0030217	UK0030219	UK0030224	UK0030287
Shelduck																
Ringed Plover																
Goosander																
Greenshank																
Eurasian Curlew																
Common Scoter																
Northern Lapwing																
Eurasian Teal																
Eurasian Wigeon																
Common Goldeneye																
Black Guillemot																
Eurasian Oystercatcher																
Common (Mew) Gull																
Black-headed Gull																
Spotted Crake																
Greylag Goose																
Birds Overwintering/Passage																
Wintering Waterfowl Assemblage																
Common Redshank																
Great Crested Grebe																
Whooper Swan																
Barnacle Goose																
Greylag Goose																
Greenland White-fronted Goose																
Pink-footed Goose																
Light-bellied Brent Goose																
Bar-tailed Godwit																
Eurasian Wigeon																
Northen Pintail																
Red Knot																
Purple Sandpiper																
Ruddy Turnstone																
Slavonian Grebe																
Red-throated Diver																
Common Eider																
Common Shelduck																
Great Cormorant																
Mallard																
Greater Scaup																
Long-tailed Duck																
Black (Common) Scoter																
Velet Scoter																
Common Goldeneye																
Red-breasted Merganser																
Eurasian Curlew																
Eurasian Oystercatcher																
Ringed Plover																
European Golden Plover																
Grey Plover																
Northern Lapwing																
Dunlin																
Sandwich Tern																
Sanderling																
Black-tailed Godwit																
Goosander																
Eurasian Teal																
Gadwall																
Common Greenshank																
Black-headed Gull																
Common Tern																
Common Gull (Mew)																
Northern Shoveler																

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Magilligan	Glac na Criche	Sunart	Môine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Bann Estuary	Eileanan agus Sgeiran Lios mór	Loch Fada	Mingarry Burn	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016613	UK0019775	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030182	UK0030191	UK0030206	UK0030217	UK0030219	UK0030224	UK0030287
Bewick Swan																
Common Pochard																
Tufted Duck																
Lesser Black-back Gull																
Tundra Swan																
Taiga Bean Goose																

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Treshnish Isles	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030289	UK0030341	UK0030360	UK0030361	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	
Mammals															
Grey Seal	A2 (P)														
Common Seal															
Bottlenose dolphin															
Otter			A2 (Q)	A2 (Q)											
Fish and other species															
Salmon			A2 (P)	A2 (P)			Cri 2								
Allis shad							Cri 2								
Twaite shad							Cri 2								
Sea Lamprey							Cri 2								
River Lamprey															
Freshwater Pearl Mussel															
Coastal Habitats															
Sandbanks which are slightly covered by seawater all the time					A1 (P)										
Estuaries							Cri 1								
Mudflats and sandflats not covered by seawater at low tide							Cri 1								
Coastal lagoons															
Large shallow inlets and bays															
Reefs	A1 (Q)					A1 (P)									
Submarine structures made by leaking gases															
Submerged or partially submerged sea caves															
Annual vegetation of drift lines															
Salicornia and other annuals colonising mud and sand															
Spartina swards															
Atlantic salt meadows															
Mediterranean and thermo-Atlantic halophilous scrubs															
Saltmarsh (type not specified)							Cri 1								
Perennial vegetation of stony banks															
Vegetated sea cliffs															
Sand dunes		A1 (P)												Cri 1	
Birds-Breeding Season															
Breeding Seabird Assemblage															
Golden Eagle															
Osprey															
Wood Sandpiper															
Northern Gannet															
Lesser Black-backed Gull															
Herring Gull															
Black-legged Kittiwake															
Common Guillemot															
Corn Crake															
Merlin															
Black-throated Diver															
European Storm Petrel															
Arctic Tern															
Eurasian Dotterel															
Northern Fulmar															
European Shag															
Red-throated Diver															
European Golden Plover															
Short-Eared owl															
Dunlin														Cri 6	
Great Cormorant															
Great Black-backed Gull															
Atlantic Puffin															
Razorbill															
Sandwich Tern															
Common Tern															
Little Tern															
Manx Shearwater															
Roseate Tern															
Peregrine Falcon															
Arctic Skua															
Whimbrel															

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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							Ramsar								
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	Treshnish Isles	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030289	UK0030341	UK0030360	UK0030361	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	
Red-necked phalarope															
Great Skua															
Great Crested Grebe															
Leach's Storm Petrel															
Great Bittern															
Common Redshank															
Common Snipe															
Pochard															
Gadwall															
Slavonian Grebe															
Tufted Duck															
Shoveler															

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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							Ramsar								
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	Treshnish Isles	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030289	UK0030341	UK0030360	UK0030361	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	
Shelduck															
Ringed Plover															
Goosander															
Greenshank															
Eurasian Curlew															
Common Scoter															
Northern Lapwing															
Eurasian Teal															
Eurasian Wigeon															
Common Goldeneye															
Black Guillemot															
Eurasian Oystercatcher															
Common (Mew) Gull															
Black-headed Gull															
Spotted Crake															
Greylag Goose															
Birds Overwintering/Passage															
Wintering Waterfowl Assemblage															
Common Redshank							Cri 3								
Great Crested Grebe							Cri 3								
Whooper Swan							Cri 3 and Cri 6						Cri 6		
Barnacle Goose								Cri 6					Cri 6	Cri 6	
Greylag Goose							Cri 3				Cri 6				
Greenland White-fronted Goose										Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Pink-footed Goose															
Light-bellied Brent Goose							Cri 3 and Cri 6				Cri 6				
Bar-tailed Godwit							Cri 3								
Eurasian Wigeon							Cri 3								
Northen Pintail															
Red Knot							Cri 3								
Purple Sandpiper															
Ruddy Turnstone														Cri 6	
Slavonian Grebe															
Red-throated Diver							Cri 3								
Common Eider							Cri 3								
Common Shelduck							Cri 3								
Great Cormorant															
Mallard							Cri 3								
Greater Scaup															
Long-tailed Duck															
Black (Common) Scoter															
Velet Scoter															
Common Goldeneye															
Red-breasted Merganser							Cri 3								
Eurasian Curlew							Cri 3								
Eurasian Oystercatcher							Cri 3								
Ringed Plover														Cri 6	
European Golden Plover							Cri 3								
Grey Plover							Cri 3								
Northern Lapwing							Cri 3								
Dunlin							Cri 3								
Sandwich Tern															
Sanderling															
Black-tailed Godwit															
Goosander															
Eurasian Teal							Cri 3								
Gadwall															
Common Greenshank							Cri 3								
Black-headed Gull															
Common Tern															
Common Gull (Mew)															
Northern Shoveler															

Table ST4 – Screening schedule for the Islay Short-term Option

NB This screening schedule table and map show sites within 100k

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							Ramsar								
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	Treshnish Isles	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030289	UK0030341	UK0030360	UK0030361	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	
Bewick Swan							Cri 3								
Common Pochard															
Tufted Duck															
Lesser Black-back Gull															
Tundra Swan															
Taiga Bean Goose															

Table ST5 – Screening schedule for the Argyll Array Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	South Uist Machair	Kilpheder & Smerclate, South Uist	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Glas Eileanan	Knapdale Lochs	Oronsay and South Colonsay	Canna and Sanday	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhuile	Cuillins
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001082	UK9001083	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003211	UK9003301	UK9020299	UK9001431	UK9001121	UK9003171	UK9001341	10114	UK9003311	UK9001781
Mammals																									
Grey Seal																									
Common Seal																									
Bottlenose dolphin																									
Otter																									
Fish and other species																									
Salmon																									
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey																									
Freshwater Pearl Mussel																									
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time																									
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide																									
Coastal lagoons																									
Large shallow inlets and bays																									
Reefs																									
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																									
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																									
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																									
Perennial vegetation of stony banks																									
Vegetated sea cliffs																									
Sand dunes																									
Birds-Breeding Season																									
Breeding Seabird Assemblage																			21000	105000	30000	130000			
Golden Eagle																							Art 4.1	Art 4.1	Art 4.1
Osprey																									
Wood Sandpiper																									
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																			Art 4.2 sp						
Black-legged Kittiwake																				Art 4.2 sp	Art 4.2 sp	Art 4.2 sp			
Common Guillemot																			Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp			
Corn Crake	Art 4.1	Art 4.1		Art 4.1	Art 4.1			Art 4.1	Art 4.1						Art 4.1			Art 4.1							
Merlin																									
Black-throated Diver			Art 4.1														Art 4.1								
European Storm Petrel										Art 4.1															
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																				Art 4.2 sp					
European Shag																			Art 4.2 sp	Art 4.2 sp					
Red-throated Diver																						Art 4.1			
European Golden Plover																									
Short-Eared owl																									
Dunlin	Art 4.2						Art 4.2																		
Great Cormorant																									
Great Black-backed Gull																									
Atlantic Puffin																			Art 4.2 sp	Art 4.2 sp					
Razorbill																				Art 4.2					
Sandwich Tern																									
Common Tern																Art 4.1									
Little Tern	Art 4.1																								
Manx Shearwater																						Art 4.2			
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua																									
Whimbrel																									
Red-necked phalarope																									
Great Skua																									
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank	Art 4.2 sp						Art 4.2																		
Common Snipe	Art 4.2 sp																								
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover	Art 4.2						Art 4.2																		

Table ST5 – Screening schedule for the Argyll Array Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	South Uist Machair	Kilpheder & Smerclate, South Uist	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Glas Eileanan	Knapdale Lochs	Oronsay and South Colonsay	Canna and Sanday	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhuile	Cuillins
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001082	UK9001083	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003211	UK9003301	UK9020299	UK9001431	UK9001121	UK9003171	UK9001341	10114	UK9003311	UK9001781
Goosander																									
Greenshank																									
Eurasian Curlew																									
Common Scoter															Art 4.2										
Northern Lapwing	Art 4.2 sp																								
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot																									
Eurasian Oystercatcher	Art 4.2 sp						Art 4.2																		
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose	Art 4.2																								
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage																									
Common Redshank																									
Great Crested Grebe																									
Whooper Swan																									
Barnacle Goose						Art 4.1	Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1												
Greylag Goose																									
Greenland White-fronted Goose						Art 4.1	Art 4.1				Art 4.1		Art 4.1	Art 4.1	Art 4.1										
Pink-footed Goose																									
Light-bellied Brent Goose											Art 4.2														
Bar-tailed Godwit																									
Eurasian Wigeon																									
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone							Art 4.2																		
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover	Art 4.2						Art 4.2																		
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling	Art 4.2																								
Black-tailed Godwit																									
Goosander																									
Eurasian Teal																									
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table ST5 – Screening schedule for the Argyll Array Short-te

NB This screening schedule table and map show sites within 1(

(back to contents page)

		Special Area of Conservation																						
Designation	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Inishtrahull	Inishtrahull	North Inishowen Coast	Rum	Taynish and Knapdale Woods	South Uist Machair	Loch Etive Woods	Ardmeanach	River Moidart	Coll Machair	Tiree Machair	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	Mòine Mhòr	Firth of Lorn	South-East Islay Skerries	Ardnamurchan Burns	Glen Beasdale	Glen Creran Woods	Eileanan agus Sgeitan Lios mòr	Loch Creran	Loch Fada	Mingarry Burn
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	004100	000154	002012	UK0012594	UK0012682	UK0012713	UK0012750	UK0012958	UK0012994	UK0014728	UK0014744	UK0019775	UK0019802	UK0019803	UK0019839	UK0030041	UK0030067	UK0030079	UK0030154	UK0030155	UK0030182	UK0030190	UK0030191	UK0030206
Mammals																								
Grey Seal																								
Common Seal																	A2 (P)				A2 (P)			
Bottlenose dolphin																								
Otter				A2 (P)	A2 (Q)		A2 (Q)							A2 (P)	A2 (Q)				A2 (Q)	A2 (Q)			A2 (Q)	
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																					A2 (P)			
Freshwater Pearl Mussel									A2 (P)									A2 (P)			A2 (Q)			A2 (P)
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time													A1 (P)											
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide															A1 (Q)									
Coastal lagoons						A1 (Q)																		
Large shallow inlets and bays																								
Reefs														A1 (Q)		A1 (P)						A1 (P)		
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines						A1 (Q)																		
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows															A1 (Q)									
Mediterranean and thermo-Atlantic halophilous scrubs								A1 (Q)																
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs				A1 (Q)								A1 (Q)												
Sand dunes						A1 (P)/A1 (Q)				A1 (P)/A1 (Q)	A1 (P)/A1 (Q)													
Birds-Breeding Season																								
Breeding Seabird Assemblage																								
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																								
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake																								
Common Guillemot																								
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																								
Eurasian Dotterel																								
Northern Fulmar																								
European Shag	Art 4.1																							
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																								
Great Black-backed Gull	Art 4.1																							
Atlantic Puffin																								
Razorbill																								
Sandwich Tern																								
Common Tern																								
Little Tern																								
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								

Table ST5 – Screening schedule for the Argyll Array Short-te

NB This screening schedule table and map show sites within 1(

(back to contents page)

		Special Area of Conservation																						
Designation	**SPA**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**
European/Ramsar Site	Inishtrahull	Inishtrahull	North Inishowen Coast	Rum	Taynish and Knapdale Woods	South Uist Machair	Loch Etive Woods	Ardmeanach	River Moidart	Coll Machair	Tiree Machair	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	Mòine Mhòr	Firth of Lorn	South-East Islay Skerries	Ardnamurchan Burns	Glen Beasdale	Glen Creran Woods	Eileanan agus Sgeiran Lios mór	Loch Creran	Loch Fada	Mingarry Burn
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	004100	000154	002012	UK0012594	UK0012682	UK0012713	UK0012750	UK0012958	UK0012994	UK0014728	UK0014744	UK0019775	UK0019802	UK0019803	UK0019839	UK0030041	UK0030067	UK0030079	UK0030154	UK0030155	UK0030182	UK0030190	UK0030191	UK0030206
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull	Art 4.1																							
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage																								
Common Redshank																								
Great Crested Grebe																								
Whooper Swan																								
Barnacle Goose																								
Greylag Goose																								
Greenland White-fronted Goose																								
Pink-footed Goose																								
Light-bellied Brent Goose																								
Bar-tailed Godwit																								
Eurasian Wigeon																								
Northen Pintail																								
Red Knot																								
Purple Sandpiper																								
Ruddy Turnstone																								
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye																								
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover																								
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Table ST5 – Screening schedule for the Argyll Array Short-te

NB This screening schedule table and map show sites within 1(

(back to contents page)

								Ramsar						
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Tayvallich Juniper and Coast	Treshnish Isles	Oronsay	Stanton Banks	Bridgend Flats	Coll	Eilean na Muice Dubhe	Gruinart Flats	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030209	UK0030217	UK0030219	UK0030287	UK0030289	UK0030341	UK0030359	UK13001	UK13008	UK13014	UK13023	UK13052	UK13056	UK13058
Mammals														
Grey Seal					A2 (P)									
Common Seal														
Bottlenose dolphin														
Otter	A2 (Q)	A2 (Q)	A2 (Q)	A2 (Q)										Cri 2
Fish and other species														
Salmon														Cri 2
Allis shad														
Twaite shad														
Sea Lamprey														
River Lamprey														
Freshwater Pearl Mussel														
Coastal Habitats														
Sandbanks which are slightly covered by seawater all the time														
Estuaries														
Mudflats and sandflats not covered by seawater at low tide	A1 (Q)													
Coastal lagoons														
Large shallow inlets and bays														
Reefs					A1 (Q)		A1 (P)							
Submarine structures made by leaking gases														
Submerged or partially submerged sea caves														
Annual vegetation of drift lines														
Salicornia and other annuals colonising mud and sand														
Spartina swards														
Atlantic salt meadows														
Mediterranean and thermo-Atlantic halophilous scrubs														
Saltmarsh (type not specified)														
Perennial vegetation of stony banks														
Vegetated sea cliffs														
Sand dunes						A1 (P)							Cri 1	
Birds-Breeding Season														
Breeding Seabird Assemblage														
Golden Eagle														
Osprey														
Wood Sandpiper														
Northern Gannet														
Lesser Black-backed Gull														
Herring Gull														
Black-legged Kittiwake														
Common Guillemot														
Corn Crake														
Merlin														
Black-throated Diver														
European Storm Petrel														
Arctic Tern														
Eurasian Dotterel														
Northern Fulmar														
European Shag														
Red-throated Diver														
European Golden Plover														
Short-Eared owl														
Dunlin													Cri 6	
Great Cormorant														
Great Black-backed Gull														
Atlantic Puffin														
Razorbill														
Sandwich Tern														
Common Tern														
Little Tern														
Manx Shearwater														
Roseate Tern														
Peregrine Falcon														
Arctic Skua														
Whimbrel														
Red-necked phalarope														
Great Skua														
Great Crested Grebe														
Leach's Storm Petrel														
Great Bittern														
Common Redshank														
Common Snipe														
Pochard														
Gadwall														
Slavonian Grebe														
Tufted Duck														
Shoveler														
Shelduck														
Ringed Plover														Cri 6

Table ST5 – Screening schedule for the Argyll Array Short-te

NB This screening schedule table and map show sites within 1(

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								Ramsar						
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Tayvallich Juniper and Coast	Treshnish Isles	Oronsay	Stanton Banks	Bridgend Flats	Coll	Eilean na Muice Dubhe	Gruinart Flats	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030209	UK0030217	UK0030219	UK0030287	UK0030289	UK0030341	UK0030359	UK13001	UK13008	UK13014	UK13023	UK13052	UK13056	UK13058
Goosander														
Greenshank														
Eurasian Curlew														
Common Scoter														
Northern Lapwing														
Eurasian Teal														
Eurasian Wigeon														
Common Goldeneye														
Black Guillemot														
Eurasian Oystercatcher														
Common (Mew) Gull														
Black-headed Gull														
Spotted Crake														
Greylag Goose														
Birds Overwintering/Passage														
Wintering Waterfowl Assemblage														
Common Redshank														
Great Crested Grebe														
Whooper Swan												Cri 6		
Barnacle Goose								Cri 6				Cri 6	Cri 6	
Greylag Goose											Cri 6			
Greenland White-fronted Goose										Cri 6	Cri 6	Cri 6	Cri 6	
Pink-footed Goose														
Light-bellied Brent Goose											Cri 6			
Bar-tailed Godwit														
Eurasian Wigeon														
Northen Pintail														
Red Knot														
Purple Sandpiper														
Ruddy Turnstone													Cri 6	
Slavonian Grebe														
Red-throated Diver														
Common Eider														
Common Shelduck														
Great Cormorant														
Mallard														
Greater Scaup														
Long-tailed Duck														
Black (Common) Scoter														
Velet Scoter														
Common Goldeneye														
Red-breasted Merganser														
Eurasian Curlew														
Eurasian Oystercatcher														
Ringed Plover													Cri 6	Cri 6
European Golden Plover														
Grey Plover														
Northern Lapwing														
Dunlin														
Sandwich Tern														
Sanderling														
Black-tailed Godwit														
Goosander														
Eurasian Teal														
Gadwall														
Common Greenshank														
Black-headed Gull														
Common Tern														
Common Gull (Mew)														
Northern Shoveler														
Bewick Swan														
Common Pochard														
Tufted Duck														
Lesser Black-back Gull														
Tundra Swan														
Taiga Bean Goose														

Table ST6 – Screening schedule for the Beatrice Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																								Special Area of
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Lairg and Strathbrora Lochs	Loch Eye	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Moray & Nairn Coast	Loch Flemington	Loch Spynie	Loch of Strathbeg	Auskerry	Switha	Orkney Mainland Moors	Calf of Eday	Copinsay	East Caithness Cliffs	Hoy	Marwick Head	North Caithness Cliffs	Rousay	Troup, Pennan and Lion's Heads	Hoy
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001211	UK9001611	UK9001621	UK9001622	UK9001623	UK9001624	UK9001625	UK9001691	UK9002201	UK9002211	UK9002381	UK9002891	UK9002311	UK9002431	UK9002151	UK9001182	UK9002141	UK9002121	UK9001181	UK9002371	UK9002471	UK0012791
Mammals																									
Grey Seal																									
Common Seal																									
Bottlenose dolphin																									
Otter																									
Fish and other species																									
Salmon																									
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey																									
Freshwater Pearl Mussel																									
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time																									
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide																									
Coastal lagoons																									
Large shallow inlets and bays																									
Reefs																									
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																									
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																									
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																									
Perennial vegetation of stony banks																									
Vegetated sea cliffs																									A1 (P)
Sand dunes																									
Birds-Breeding Season																									
Breeding Seabird Assemblage								75,000									30,000	70,000	300,000	120,000	75,000	110,000	30,000	150,000	
Golden Eagle																									
Osprey									Art 4.1	Art 4.1															
Wood Sandpiper		Art 4.1																							
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																			Art 4.2					Art 4.2 sp	
Black-legged Kittiwake								Art 4.2 sp									Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2	
Common Guillemot								Art 4.2									Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2	
Corn Crake																									
Merlin		Art 4.1																							
Black-throated Diver		Art 4.1			Art 4.1																				
European Storm Petrel														Art 4.1											
Arctic Tern	Art 4.1													Art 4.1									Art 4.1		
Eurasian Dotterel																									
Northern Fulmar																	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	
European Shag																			Art 4.2						
Red-throated Diver		Art 4.1														Art 4.1				Art 4.1					
European Golden Plover		Art 4.1																							
Short-Eared owl		Art 4.1														Art 4.1									
Dunlin		Art 4.2																							
Great Cormorant																	Art 4.2 sp		Art 4.2 sp						
Great Black-backed Gull																	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp					
Atlantic Puffin																			Art 4.2 sp	Art 4.2 sp		Art 4.2 sp			
Razorbill																			Art 4.2			Art 4.2 sp		Art 4.2 sp	
Sandwich Tern													Art 4.1												
Common Tern									Art 4.1																
Little Tern																									
Manx Shearwater																									
Roseate Tern																									
Peregrine Falcon																			Art 4.1	Art 4.1		Art 4.1			
Arctic Skua																				Art 4.2 sp			Art 4.2 sp		
Whimbrel																									
Red-necked phalarope																									
Great Skua																				Art 4.2					
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank																									
Common Snipe																									
Pochard																									
Gadwall																									
Slavonian Grebe											Art 4.1														
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover																									
Goosander																									

Table ST6 – Screening schedule for the Beatrice Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																								Special Area of
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Lairg and Strathbrora Lochs	Loch Eye	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Moray & Nairn Coast	Loch Flemington	Loch Spynie	Loch of Strathbeg	Auskerry	Switha	Orkney Mainland Moors	Calf of Eday	Copinsay	East Caithness Cliffs	Hoy	Marwick Head	North Caithness Cliffs	Rousay	Troup, Pennan and Lion's Heads	Hoy
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001211	UK9001611	UK9001621	UK9001622	UK9001623	UK9001624	UK9001625	UK9001691	UK9002201	UK9002211	UK9002381	UK9002891	UK9002311	UK9002431	UK9002151	UK9001182	UK9002141	UK9002121	UK9001181	UK9002371	UK9002471	UK0012791
Greenshank																									
Eurasian Curlew																									
Common Scoter																									
Northern Lapwing																									
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot																									
Eurasian Oystercatcher																									
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose																									
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage										17,473			49,456												
Common Redshank									Art 4.2	Art 4.2															
Great Crested Grebe																									
Whooper Swan			Art 4.1			Art 4.1							Art 4.1												
Barnacle Goose				Art 4.1											Art 4.1										
Greylag Goose			Art 4.2			Art 4.2	Art 4.2		Art 4.2	Art 4.2		Art 4.2	Art 4.2												
Greenland White-fronted Goose			Art 4.1																						
Pink-footed Goose										Art 4.2			Art 4.2												
Light-bellied Brent Goose																									
Bar-tailed Godwit									Art 4.1																
Eurasian Wigeon																									
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone																									
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye													Art 4.2												
Red-breasted Merganser									Art 4.2																
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover																									
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling																									
Black-tailed Godwit																									
Goosander																									
Eurasian Teal													Art 4.2												
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table ST6 – Screening schedule for the Beatrice Short-term Op

NB This screening schedule table and map show sites within 100

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	f Conservation																			Ramsar					
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	River Borgie	Invernaver	Stromness Heaths and Coast	Caithness and Sutherland Peatlands	Loch of Stenness	Faray and Holm of Faray	Dornoch Firth and Morrich More	Culbin Bar	Moray Firth	River Spey	Strathy Point	Sanday	Berriedale and Langwell Waters	East Caithness Cliffs	Loch of Isbister	River Evelix	River Naver	River Oykel	River Thurso	Caithness and Sutherland Peatlands	Caithness Lochs	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Loch Eye
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012995	UK0013041	UK0013589	UK0013602	UK0014749	UK0017096	UK0019806	UK0019807	UK0019808	UK0019811	UK0030066	UK0030069	UK0030088	UK0030143	UK0030193	UK0030254	UK0030260	UK0030261	UK0030264	UK13003	UK13004	UK13009	UK13011	UK13025	UK13031
Mammals																									
Grey Seal						A2 (P)																			
Common Seal							A2 (P)					A2 (P)													
Bottlenose dolphin									A2 (P)																
Otter	A2 (Q)			A2 (P)			A2 (P)								A2 (Q)										
Fish and other species																									
Salmon	A2 (Q)									A2 (P)			A2 (P)				A2 (P)	A2 (Q)	A2 (P)						
Allis shad																									
Twaite shad																									
Sea Lamprey										A2 (P)															
River Lamprey																									
Freshwater Pearl Mussel	A2 (P)									A2 (P)						A2 (P)	A2 (P)	A2 (P)							
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time							A1 (Q)		A1 (Q)			A1 (Q)													
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide							A1 (P)					A1 (Q)										Cri 1		Cri 1	
Coastal lagoons					A1 (P)																				
Large shallow inlets and bays																									
Reefs							A1 (Q)					A1 (P)													
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																									
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand							A1 (P)																		
Spartina swards																									
Atlantic salt meadows							A1 (P)	A1 (Q)																	
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																								Cri 1	
Perennial vegetation of stony banks																									
Vegetated sea cliffs			A1 (P)					A1 (P)			A1 (P)			A1 (P)											
Sand dunes		A1 (P)/A1 (Q)					A1 (P)	A1 (Q)															Cri 1		
Birds-Breeding Season																									
Breeding Seabird Assemblage																									
Golden Eagle																									
Osprey																							Cri 6		
Wood Sandpiper																				Cri 2					
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																									
Black-legged Kittiwake																									
Common Guillemot																									
Corn Crake																									
Merlin																									
Black-throated Diver																				Cri 2					
European Storm Petrel																									
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																									
European Shag																									
Red-throated Diver																				Cri 2					
European Golden Plover																				Cri 2					
Short-Eared owl																									
Dunlin																				Cri 6					
Great Cormorant																									
Great Black-backed Gull																									
Atlantic Puffin																									
Razorbill																									
Sandwich Tern																									
Common Tern																									
Little Tern																									
Manx Shearwater																									
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua																				Cri 2					
Whimbrel																									
Red-necked phalarope																									
Great Skua																									
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank																									
Common Snipe																									
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover																									
Goosander																									

Table ST6 – Screening schedule for the Beatrice Short-term Op

NB This screening schedule table and map show sites within 100

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	f Conservation																			Ramsar					
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	River Borgie	Invernaver	Stromness Heaths and Coast	Caithness and Sutherland Peatlands	Loch of Stenness	Faray and Holm of Faray	Dornoch Firth and Morrich More	Culbin Bar	Moray Firth	River Spey	Strathy Point	Sanday	Berriedale and Langwell Waters	East Caithness Cliffs	Loch of Isbister	River Evelix	River Naver	River Oykel	River Thurso	Caithness and Sutherland Peatlands	Caithness Lochs	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Loch Eye
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012995	UK0013041	UK0013589	UK0013602	UK0014749	UK0017096	UK0019806	UK0019807	UK0019808	UK0019811	UK0030066	UK0030069	UK0030088	UK0030143	UK0030193	UK0030254	UK0030260	UK0030261	UK0030264	UK13003	UK13004	UK13009	UK13011	UK13025	UK13031
Greenshank																				Cri 2					
Eurasian Curlew																				Cri 2					
Common Scoter																				Cri 2					
Northern Lapwing																									
Eurasian Teal																				Cri 2					
Eurasian Wigeon																				Cri 2					
Common Goldeneye																									
Black Guillemot																									
Eurasian Oystercatcher																									
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose																									
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage																						Cri 5 (30,200)	Cri 5 (28,692)	Cri 5 (25,740)	
Common Redshank																							Cri 6	Cri 6	
Great Crested Grebe																									
Whooper Swan																					Cri 6		Cri 6		Cri 6
Barnacle Goose																									
Greylag Goose																					Cri 6	Cri 6	Cri 6	Cri 6	Cri 6
Greenland White-fronted Goose																					Cri 6				
Pink-footed Goose																									
Light-bellied Brent Goose																									
Bar-tailed Godwit																						Cri 6	Cri 6	Cri 6	
Eurasian Wigeon																							Cri 6		
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone																									
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																								Cri 6	
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover																									
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling																									
Black-tailed Godwit																									
Goosander																									
Eurasian Teal																									
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Table ST6 – Screening schedule for the Beatrice Short-term Op

NB This screening schedule table and map show sites within 100

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Designation	Ram	Ram	Ram
European/Ramsar Site	Loch of Strathbeg	Loch Spynie	Moray and Nairn Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13041	UK13043	UK13048
Mammals			
Grey Seal			
Common Seal			
Bottlenose dolphin			
Otter			
Fish and other species			
Salmon			
Allis shad			
Twaite shad			
Sea Lamprey			
River Lamprey			
Freshwater Pearl Mussel			
Coastal Habitats			
Sandbanks which are slightly covered by seawater all the time			
Estuaries			
Mudflats and sandflats not covered by seawater at low tide			Cri 1
Coastal lagoons			
Large shallow inlets and bays			
Reefs			
Submarine structures made by leaking gases			
Submerged or partially submerged sea caves			
Annual vegetation of drift lines			
Salicornia and other annuals colonising mud and sand			
Spartina swards			
Atlantic salt meadows			
Mediterranean and thermo-Atlantic halophilous scrubs			
Saltmarsh (type not specified)			Cri 1
Perennial vegetation of stony banks			Cri 1
Vegetated sea cliffs			
Sand dunes			Cri 1
Birds-Breeding Season			
Breeding Seabird Assemblage			
Golden Eagle			
Osprey			
Wood Sandpiper			
Northern Gannet			
Lesser Black-backed Gull			
Herring Gull			
Black-legged Kittiwake			
Common Guillemot			
Corn Crake			
Merlin			
Black-throated Diver			
European Storm Petrel			
Arctic Tern			
Eurasian Dotterel			
Northern Fulmar			
European Shag			
Red-throated Diver			
European Golden Plover			
Short-Eared owl			
Dunlin			
Great Cormorant			
Great Black-backed Gull			
Atlantic Puffin			
Razorbill			
Sandwich Tern			
Common Tern			
Little Tern			
Manx Shearwater			
Roseate Tern			
Peregrine Falcon			
Arctic Skua			
Whimbrel			
Red-necked phalarope			
Great Skua			
Great Crested Grebe			
Leach's Storm Petrel			
Great Bittern			
Common Redshank			
Common Snipe			
Pochard			
Gadwall			
Slavonian Grebe			
Tufted Duck			
Shoveler			
Shelduck			
Ringed Plover			
Goosander			

Table ST6 – Screening schedule for the Beatrice Short-term Op

NB This screening schedule table and map show sites within 100

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Designation	Ram	Ram	Ram
European/Ramsar Site	Loch of Strathbeg	Loch Spynie	Moray and Nairn Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13041	UK13043	UK13048
Greenshank			
Eurasian Curlew			
Common Scoter			
Northern Lapwing			
Eurasian Teal			
Eurasian Wigeon			
Common Goldeneye			
Black Guillemot			
Eurasian Oystercatcher			
Common (Mew) Gull			
Black-headed Gull			
Spotted Crake			
Greylag Goose			
Birds Overwintering/Passage			
Wintering Waterfowl Assemblage	Cri 5 (47,831)		Cri 5 (22,609)
Common Redshank			Cri 6
Great Crested Grebe			
Whooper Swan	Cri 6		
Barnacle Goose			
Greylag Goose	Cri 6	Cri 6	Cri 6
Greenland White-fronted Goose			
Pink-footed Goose	Cri 6		Cri 6
Light-bellied Brent Goose			
Bar-tailed Godwit			
Eurasian Wigeon			
Northen Pintail			
Red Knot			
Purple Sandpiper			
Ruddy Turnstone			
Slavonian Grebe			
Red-throated Diver			
Common Eider			
Common Shelduck			
Great Cormorant			
Mallard			
Greater Scaup			
Long-tailed Duck			
Black (Common) Scoter			
Velet Scoter			
Common Goldeneye			
Red-breasted Merganser			
Eurasian Curlew			
Eurasian Oystercatcher			
Ringed Plover			
European Golden Plover			
Grey Plover			
Northern Lapwing			
Dunlin			
Sandwich Tern			
Sanderling			
Black-tailed Godwit			
Goosander			
Eurasian Teal			
Gadwall			
Common Greenshank			
Black-headed Gull			
Common Tern			
Common Gull (Mew)			
Northern Shoveler			
Bewick Swan			
Common Pochard			
Tufted Duck			
Lesser Black-back Gull			
Tundra Swan			
Taiga Bean Goose			

Table ST7 – Screening schedule for the Inch Cape Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Muir of Dinnet	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Holburn Lake & Moss	Northumbria Coast	Buchan Ness to Collieston Coast	Forth Islands	Fowlsheugh	St Abb's Head to Fast Castle
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002221	UK9002261	UK9002791	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006041	UK9006131	UK9002491	UK9004171	UK9002271	UK9004271
Mammals																								
Grey Seal																								
Common Seal																								
Bottlenose dolphin																								
Otter																								
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																								
Freshwater Pearl Mussel																								
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																								
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide																								
Coastal lagoons																								
Large shallow inlets and bays																								
Reefs																								
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs																								
Sand dunes																								
Birds-Breeding Season																								
Breeding Seabird Assemblage																					95000	90000	145000	79560
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																						Art 4.2		
Lesser Black-backed Gull																						Art 4.2		
Herring Gull																					Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp
Black-legged Kittiwake																					Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp
Common Guillemot																					Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																		Art 4.1				Art 4.1		
Eurasian Dotterel																								
Northern Fulmar																					Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	
European Shag																					Art 4.2 sp	Art 4.2		Art 4.2 sp
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																						Art 4.2 sp		
Great Black-backed Gull																								
Atlantic Puffin																						Art 4.2		
Razorbill																						Art 4.2 sp	Art 4.2 sp	Art 4.2 sp
Sandwich Tern	Art 4.1																	Art 4.1				Art 4.1		
Common Tern	Art 4.1															Art 4.1		Art 4.1				Art 4.1		
Little Tern	Art 4.1							Art 4.1									Art 4.1			Art 4.1				
Manx Shearwater																								
Roseate Tern																	Art 4.1					Art 4.1		
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								
Goosander																								
Greenshank																								

Table ST7 – Screening schedule for the Inch Cape Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Muir of Dinnet	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Holburn Lake & Moss	Northumbria Coast	Buchan Ness to Collieston Coast	Forth Islands	Fowlsheugh	St Abb's Head to Fast Castle
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002221	UK9002261	UK9002791	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006041	UK9006131	UK9002491	UK9004171	UK9002271	UK9004271
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal														Art 4.2										
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage	22,817			54,930			34,280	48,000		3124					95,000									
Common Redshank				Art 4.2				Art 4.2							Art 4.2									
Great Crested Grebe															Art 4.2 sp									
Whooper Swan							Art 4.1										Art 4.1							
Barnacle Goose																								
Greylag Goose		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2		Art 4.2					Art 4.2	Art 4.2			Art 4.2		Art 4.2					
Greenland White-fronted Goose																								
Pink-footed Goose	Art 4.2			Art 4.2	Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2									
Light-bellied Brent Goose																	Art 4.2							
Bar-tailed Godwit								Art 4.1							Art 4.1		Art 4.1							
Eurasian Wigeon															Art 4.2 sp		Art 4.2							
Northen Pintail																								
Red Knot				Art 4.2											Art 4.2									
Purple Sandpiper																				Art 4.2				
Ruddy Turnstone															Art 4.2					Art 4.2				
Slavonian Grebe															Art 4.1									
Red-throated Diver															Art 4.1									
Common Eider								Art 4.2 sp							Art 4.2 sp		Art 4.2							
Common Shelduck								Art 4.2 sp							Art 4.2		Art 4.2							
Great Cormorant								Art 4.2 sp							Art 4.2 sp									
Mallard															Art 4.2 sp									
Greater Scaup															Art 4.2 sp									
Long-tailed Duck								Art 4.2 sp							Art 4.2 sp		Art 4.2							
Black (Common) Scoter								Art 4.2 sp							Art 4.2 sp									
Velet Scoter								Art 4.2 sp							Art 4.2 sp									
Common Goldeneye		Art 4.2						Art 4.2 sp							Art 4.2 sp									
Red-breasted Merganser															Art 4.2 sp		Art 4.2							
Eurasian Curlew															Art 4.2 sp									
Eurasian Oystercatcher				Art 4.2				Art 4.2 sp							Art 4.1									
Ringed Plover															Art 4.2 sp		Art 4.2							
European Golden Plover															Art 4.1		Art 4.1							
Grey Plover								Art 4.2 sp							Art 4.2 sp		Art 4.2							
Northern Lapwing															Art 4.2 sp									
Dunlin								Art 4.2 sp							Art 4.2 sp		Art 4.2							
Sandwich Tern															Art 4.1									
Sanderling								Art 4.2 sp									Art 4.2							
Black-tailed Godwit								Art 4.2 sp																
Goosander		Art 4.2																						
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler							Art 4.2																	
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table ST7 – Screening schedule for the Inch Cape Short-te

NB This screening schedule table and map show sites within

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Designation	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Calf of Eday	Copinsay	East Caithness Cliffs	Hoy	North Caithness Cliffs	Troup, Pennan and Lion's Heads	DunkeldBlairgowrie Lochs	River Tweed	Glen Tanar	Sands of Forvie	Barry Links	Cairngorms	Berwickshire and North Northumberland Coast	North Northumberland Dunes	River Spey	Muir of Dinnet	Ballochbuie	Buchan Ness to Collieston	Isle of May	River Dee	River South Esk	St Abb`s Head to Fast Castle	Tweed Estuary	Firth of Tay & Eden Estuary
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002431	UK9002151	UK9001182	UK9002141	UK9001181	UK9002471	UK0012638	UK0012691	UK0012756	UK0013042	UK0013044	UK0016412	UK0017072	UK0017097	UK0019811	UK0019959	UK0030030	UK0030101	UK0030172	UK0030251	UK0030262	UK0030281	UK0030292	UK0030311
Mammals																								
Grey Seal													A1 (P)						A2 (P)					
Common Seal																								A2 (P)
Bottlenose dolphin																								
Otter							A2 (Q)	A2 (P)	A2 (Q)			A2 (Q)				A2 (Q)	A2 (Q)			A2 (Q)				
Fish and other species																								
Salmon								A2 (P)							A2 (P)					A2 (P)	A2 (P)			
Allis shad																								
Twaite shad																								
Sea Lamprey								A2 (Q)							A2 (P)								A2 (Q)	
River Lamprey								A2 (Q)															A2 (Q)	
Freshwater Pearl Mussel															A2 (P)					A2 (P)	A2 (P)			
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																								A2 (Q)
Estuaries																								A1 (P)
Mudflats and sandflats not covered by seawater at low tide													A1 (P)										A1 (P)	A2 (Q)
Coastal lagoons																							A1 (P)	
Large shallow inlets and bays													A1 (P)											
Reefs													A1 (P)						A1 (Q)					
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves													A1 (P)											
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs																		A1 (P)				A1 (P)		
Sand dunes										A1 (P)	A1 (P)			A1 (P)										
Birds-Breeding Season																								
Breeding Seabird Assemblage	30,000	70,000	300,000	120,000	110,000	150,000																		
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																								
Lesser Black-backed Gull																								
Herring Gull			Art 4.2			Art 4.2 sp																		
Black-legged Kittiwake	Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2																		
Common Guillemot	Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2																		
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																								
Eurasian Dotterel																								
Northern Fulmar	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																		
European Shag			Art 4.2																					
Red-throated Diver				Art 4.1																				
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant	Art 4.2 sp		Art 4.2 sp																					
Great Black-backed Gull	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																				
Atlantic Puffin			Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																			
Razorbill			Art 4.2		Art 4.2 sp	Art 4.2 sp																		
Sandwich Tern																								
Common Tern																								
Little Tern																								
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon			Art 4.1	Art 4.1	Art 4.1																			
Arctic Skua				Art 4.2 sp																				
Whimbrel																								
Red-necked phalarope																								
Great Skua				Art 4.2																				
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								
Goosander																								
Greenshank																								

Table ST7 – Screening schedule for the Inch Cape Short-te

NB This screening schedule table and map show sites within

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							Special Area of Conservation																		
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Calf of Eday	Copinsay	East Caithness Cliffs	Hoy	North Caithness Cliffs	Troup, Pennan and Lion's Heads	Dunkeld&Blairgowrie Lochs	River Tweed	Glen Tanar	Sands of Forvie	Barry Links	Cairngorms	Berwickshire and North Northumberland Coast	North Northumberland Dunes	River Spey	Muir of Dinnet	Ballochbuie	Buchan Ness to Collieston	Isle of May	River Dee	River South Esk	St Abb`s Head to Fast Castle	Tweed Estuary	Firth of Tay & Eden Estuary
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002431	UK9002151	UK9001182	UK9002141	UK9001181	UK9002471	UK0012638	UK0012691	UK0012756	UK0013042	UK0013044	UK0016412	UK0017072	UK0017097	UK0019811	UK0019959	UK0030030	UK0030101	UK0030172	UK0030251	UK0030262	UK0030281	UK0030292	UK0030311
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage																								
Common Redshank																								
Great Crested Grebe																								
Whooper Swan																								
Barnacle Goose																								
Greylag Goose																								
Greenland White-fronted Goose																								
Pink-footed Goose																								
Light-bellied Brent Goose																								
Bar-tailed Godwit																								
Eurasian Wigeon																								
Northen Pintail																								
Red Knot																								
Purple Sandpiper																								
Ruddy Turnstone																								
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye																								
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover																								
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Table ST7 – Screening schedule for the Inch Cape Short-te

NB This screening schedule table and map show sites within

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Designation	SAC	Ramsar																
European/Ramsar Site	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Montrose Basin	Muir of Dinnet	South Tayside Goose Roosts	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030312	UK11030	UK11036	UK11049	UK13005	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13040	UK13046	UK13049	UK13057	UK13061
Mammals																		
Grey Seal									Cri 6									
Common Seal									Cri 6									
Bottlenose dolphin																		
Otter	A2 (Q)																	
Fish and other species																		
Salmon	A2 (P)																	
Allis shad																		
Twaite shad																		
Sea Lamprey	A2 (Q)																	
River Lamprey	A2 (Q)																	
Freshwater Pearl Mussel																		
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time																		
Estuaries															Cri 1			
Mudflats and sandflats not covered by seawater at low tide			Cri 1															
Coastal lagoons																		
Large shallow inlets and bays																		
Reefs																		
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves																		
Annual vegetation of drift lines																		
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows																		
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)			Cri 1															
Perennial vegetation of stony banks																		
Vegetated sea cliffs																		
Sand dunes			Cri 1															
Birds-Breeding Season																		
Breeding Seabird Assemblage																		
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet																		
Lesser Black-backed Gull																		
Herring Gull																		
Black-legged Kittiwake																		
Common Guillemot																		
Corn Crake																		
Merlin																		
Black-throated Diver																		
European Storm Petrel																		
Arctic Tern																		
Eurasian Dotterel																		
Northern Fulmar																		
European Shag																		
Red-throated Diver																		
European Golden Plover																		
Short-Eared owl																		
Dunlin																		
Great Cormorant																		
Great Black-backed Gull																		
Atlantic Puffin																		
Razorbill																		
Sandwich Tern																		Cri 6
Common Tern								Cri 6										
Little Tern				Cri 6														
Manx Shearwater																		
Roseate Tern																		
Peregrine Falcon																		
Arctic Skua																		
Whimbrel																		
Red-necked phalarope																		
Great Skua																		
Great Crested Grebe																		
Leach's Storm Petrel																		
Great Bittern																		
Common Redshank																		
Common Snipe																		
Pochard																		
Gadwall																		
Slavonian Grebe																		
Tufted Duck		Cri 4																
Shoveler		Cri 4																
Shelduck		Cri 4																
Ringed Plover																		
Goosander								Cri 6										
Greenshank																		

Table ST7 – Screening schedule for the Inch Cape Short-te

NB This screening schedule table and map show sites within

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		Ramsar																
Designation	**SAC**	**Ram**																
European/Ramsar Site	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Montrose Basin	Muir of Dinnet	South Tayside Goose Roosts	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030312	UK11030	UK11036	UK11049	UK13005	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13040	UK13046	UK13049	UK13057	UK13061
Eurasian Curlew																		
Common Scoter																		
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
Common Goldeneye																		
Black Guillemot																		
Eurasian Oystercatcher																		
Common (Mew) Gull																		
Black-headed Gull																		
Spotted Crake																		
Greylag Goose																		
Birds Overwintering/Passage																		
Wintering Waterfowl Assemblage			Cri 5 (44,970)					Cri 5 (72,281)	Cri 5 (72,028)		Cri 5 (18,463)				Cri 5 (29,116)	Cri 5 (30,000)		Cri 5 (9,271)
Common Redshank			Cri 6					Cri 6	Cri 6						Cri 6			
Great Crested Grebe											Cri 6							
Whooper Swan																		
Barnacle Goose																		
Greylag Goose		Cri 6 and 3	Cri 6			Cri 6			Cri 6			Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Greenland White-fronted Goose																		
Pink-footed Goose					Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		Cri 6			Cri 6		Cri 6	Cri 6
Light-bellied Brent Goose			Cri 6															
Bar-tailed Godwit			Cri 6					Cri 6	Cri 6									
Eurasian Wigeon		Cri 4	Cri 6															
Northen Pintail																		
Red Knot								Cri 6										
Purple Sandpiper				Cri 6														
Ruddy Turnstone				Cri 6				Cri 6										
Slavonian Grebe								Cri 6										
Red-throated Diver																		
Common Eider																		
Common Shelduck								Cri 6										
Great Cormorant																		
Mallard		Cri 4																
Greater Scaup																		
Long-tailed Duck																		
Black (Common) Scoter																		
Velet Scoter																		
Common Goldeneye								Cri 6										
Red-breasted Merganser																		
Eurasian Curlew																		
Eurasian Oystercatcher																		
Ringed Plover			Cri 6															
European Golden Plover																		
Grey Plover																		
Northern Lapwing																		
Dunlin																		
Sandwich Tern																		
Sanderling																		
Black-tailed Godwit																		
Goosander									Cri 6									
Eurasian Teal		Cri 4																
Gadwall																		
Common Greenshank																		
Black-headed Gull																		
Common Tern																		
Common Gull (Mew)																		
Northern Shoveler											Cri 6							
Bewick Swan																		
Common Pochard																		
Tufted Duck																		
Lesser Black-back Gull																		
Tundra Swan																		
Taiga Bean Goose																		

Table ST8 – Screening schedule for the Neart na Gaoithe Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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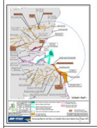

	Special Protection Area																							Special Area of Conservation							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch of Skene	Muir of Dinnet	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Westwater Reservoir	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Holburn Lake & Moss	Northumbria Coast	Forth Islands	Fowlsheugh	St Abb's Head to Fast Castle	DunkeldûBlairgowrie Lochs	River Tweed	Glen Tanar	Barry Links	Berwickshire and North Northumberland Coast	North Northumberland Dunes	Muir of Dinnet	Ballochbuie
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002261	UK9002791	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004251	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006041	UK9006131	UK9004171	UK9002271	UK9004271	UK0012638	UK0012691	UK0012756	UK0013044	UK0017072	UK0017097	UK0019959	UK0030030
Mammals																															
Grey Seal																												A1 (P)			
Common Seal																															
Bottlenose dolphin																															
Otter																								A2 (Q)	A2 (P)	A2 (Q)				A2 (Q)	A2 (Q)
Fish and other species																															
Salmon																									A2 (P)						
Allis shad																															
Twaite shad																															
Sea Lamprey																									A2 (Q)						
River Lamprey																									A2 (Q)						
Freshwater Pearl Mussel																															
Coastal Habitats																															
Sandbanks which are slightly covered by seawater all the time																															
Estuaries																															
Mudflats and sandflats not covered by seawater at low tide																												A1 (P)			
Coastal lagoons																															
Large shallow inlets and bays																												A1 (P)			
Reefs																												A1 (P)			
Submarine structures made by leaking gases																															
Submerged or partially submerged sea caves																												A1 (P)			
Annual vegetation of drift lines																															
Salicornia and other annuals colonising mud and sand																															
Spartina swards																															
Atlantic salt meadows																															
Mediterranean and thermo-Atlantic halophilous scrubs																															
Saltmarsh (type not specified)																															
Perennial vegetation of stony banks																															
Vegetated sea cliffs																															
Sand dunes																											A1 (P)		A1 (P)		
Birds-Breeding Season																															
Breeding Seabird Assemblage																					90000	145000	79560								
Golden Eagle																															
Osprey																															
Wood Sandpiper																															
Northern Gannet																					Art 4.2										
Lesser Black-backed Gull																					Art 4.2										
Herring Gull																					Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								
Black-legged Kittiwake																					Art 4.2 sp	Art 4.2	Art 4.2 sp								
Common Guillemot																					Art 4.2 sp	Art 4.2	Art 4.2 sp								
Corn Crake																															
Merlin																															
Black-throated Diver																															
European Storm Petrel																															
Arctic Tern																		Art 4.1			Art 4.1										
Eurasian Dotterel																															
Northern Fulmar																					Art 4.2 sp	Art 4.2 sp									
European Shag																					Art 4.2		Art 4.2 sp								
Red-throated Diver																															
European Golden Plover																															
Short-Eared owl																															
Dunlin																															
Great Cormorant																					Art 4.2 sp										
Great Black-backed Gull																															
Atlantic Puffin																					Art 4.2										
Razorbill																					Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								
Sandwich Tern																		Art 4.1			Art 4.1										
Common Tern																Art 4.1		Art 4.1			Art 4.1										
Little Tern							Art 4.1										Art 4.1			Art 4.1											
Manx Shearwater																															
Roseate Tern																	Art 4.1				Art 4.1										
Peregrine Falcon																															
Arctic Skua																															
Whimbrel																															
Red-necked phalarope																															
Great Skua																															
Great Crested Grebe																															
Leach's Storm Petrel																															
Great Bittern																															
Common Redshank																															
Common Snipe																															
Pochard																															
Gadwall																															
Slavonian Grebe																															
Tufted Duck																															
Shoveler																															
Shelduck																															
Ringed Plover																															
Goosander																															
Greenshank																															
Eurasian Curlew																															
Common Scoter																															
Northern Lapwing																															
Eurasian Teal														Art 4.2																	
Eurasian Wigeon																															
Common Goldeneye																															
Black Guillemot																															
Eurasian Oystercatcher																															
Common (Mew) Gull																															
Black-headed Gull																															
Spotted Crake																															
Greylag Goose																															
Birds Overwintering/Passage																															
Wintering Waterfowl Assemblage			54,930			34,280	48,000		3124		31,465				95,000																
Common Redshank			Art 4.2				Art 4.2								Art 4.2																
Great Crested Grebe															Art 4.2 sp																
Whooper Swan						Art 4.1											Art 4.1														
Barnacle Goose																															
Greylag Goose	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2		Art 4.2						Art 4.2	Art 4.2			Art 4.2		Art 4.2												
Greenland White-fronted Goose																															
Pink-footed Goose			Art 4.2	Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2																
Light-bellied Brent Goose																	Art 4.2														
Bar-tailed Godwit							Art 4.1								Art 4.1		Art 4.1														
Eurasian Wigeon															Art 4.2 sp		Art 4.2														
Northen Pintail																															
Red Knot			Art 4.2												Art 4.2																
Purple Sandpiper																				Art 4.2											

Table ST8 – Screening schedule for the Neart na Gaoithe Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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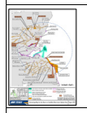

Designation	Special Protection Area																						Special Area of Conservation							
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch of Skene	Muir of Dinnet	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Westwater Reservoir	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Holburn Lake & Moss	Northumbria Coast	Forth Islands	Fowlsheugh	St Abb's Head to Fast Castle	Dunkeld/Blairgowrie Lochs	River Tweed	Glen Tanar	Barry Links	Berwickshire and North Northumberland Coast	North Northumberland Dunes	Muir of Dinnet	Ballochbuie
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002261	UK9002791	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004251	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006041	UK9006131	UK9004171	UK9002271	UK9004271	UK0012638	UK0012691	UK0012756	UK0013044	UK0017072	UK0017097	UK0019959	UK0030030
Ruddy Turnstone															Art 4.2					Art 4.2											
Slavonian Grebe															Art 4.1																
Red-throated Diver															Art 4.1																
Common Eider							Art 4.2 sp								Art 4.2 sp		Art 4.2														
Common Shelduck							Art 4.2 sp								Art 4.2		Art 4.2														
Great Cormorant							Art 4.2 sp								Art 4.2 sp																
Mallard															Art 4.2 sp																
Greater Scaup															Art 4.2 sp																
Long-tailed Duck							Art 4.2 sp								Art 4.2 sp		Art 4.2														
Black (Common) Scoter							Art 4.2 sp								Art 4.2 sp																
Velet Scoter							Art 4.2 sp								Art 4.2 sp																
Common Goldeneye	Art 4.2						Art 4.2 sp								Art 4.2 sp																
Red-breasted Merganser															Art 4.2 sp		Art 4.2														
Eurasian Curlew															Art 4.2 sp																
Eurasian Oystercatcher			Art 4.2				Art 4.2 sp								Art 4.1																
Ringed Plover															Art 4.2 sp		Art 4.2														
European Golden Plover															Art 4.1		Art 4.1														
Grey Plover							Art 4.2 sp								Art 4.2 sp		Art 4.2														
Northern Lapwing															Art 4.2 sp																
Dunlin							Art 4.2 sp								Art 4.2 sp		Art 4.2														
Sandwich Tern															Art 4.1																
Sanderling							Art 4.2 sp										Art 4.2														
Black-tailed Godwit							Art 4.2 sp																								
Goosander	Art 4.2																														
Eurasian Teal																															
Gadwall																															
Common Greenshank																															
Black-headed Gull																															
Common Tern																															
Common Gull (Mew)																															
Northern Shoveler						Art 4.2																									
Bewick Swan																															
Common Pochard																															
Tufted Duck																															
Lesser Black-back Gull																															
Tundra Swan																															
Taiga Bean Goose																															

Key for interest features that have been screened**into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table ST8 – Screening schedule for the Neart na Gaoithe S

NB This screening schedule table and map show sites withi

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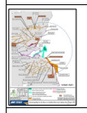
								Ramsar																
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Isle of May	River Dee	River South Esk	St Abb's Head to East Castle	Tweed Estuary	Firth of Tay & Eden Estuary	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Montrose Basin	Muir of Dinnet	South Tayside Goose Roosts	Westwater Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030172	UK0030251	UK0030262	UK0030281	UK0030292	UK0030311	UK0030312	UK11030	UK11036	UK11049	UK13005	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13040	UK13046	UK13049	UK13057	UK13060
Mammals																								
Grey Seal	A2 (P)														Cri 6									
Common Seal						A2 (P)									Cri 6									
Bottlenose dolphin																								
Otter		A2 (Q)					A2 (Q)																	
Fish and other species																								
Salmon		A2 (P)	A2 (P)				A2 (P)																	
Allis shad																								
Twaite shad																								
Sea Lamprey					A2 (Q)		A2 (Q)																	
River Lamprey					A2 (Q)		A2 (Q)																	
Freshwater Pearl Mussel		A2 (P)	A2 (P)																					
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time						A2 (Q)																		
Estuaries						A1 (P)															Cri 1			
Mudflats and sandflats not covered by seawater at low tide					A1 (P)	A2 (Q)			Cri 1															
Coastal lagoons					A1 (P)																			
Large shallow inlets and bays																								
Reefs	A1 (Q)																							
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)									Cri 1															
Perennial vegetation of stony banks																								
Vegetated sea cliffs				A1 (P)																				
Sand dunes									Cri 1															
Birds-Breeding Season																								
Breeding Seabird Assemblage																								
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																								
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake																								
Common Guillemot																								
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																								
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern																								
Common Tern														Cri 6										
Little Tern										Cri 6														
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck								Cri 4																
Shoveler								Cri 4																
Shelduck								Cri 4																
Ringed Plover																								
Goosander														Cri 6										
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage									Cri 5 (44,970)					Cri 5 (72,281)	Cri 5 (72,028)		Cri 5 (18,463)				Cri 5 (29,116)	Cri 5 (30,000)		Cri 5 (18,759)
Common Redshank									Cri 6					Cri 6	Cri 6						Cri 6			
Great Crested Grebe																	Cri 6							
Whooper Swan																								
Barnacle Goose																								
Greylag Goose								Cri 6 and 3	Cri 6			Cri 6			Cri 6			Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Greenland White-fronted Goose																								
Pink-footed Goose											Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		Cri 6			Cri 6		Cri 6	Cri 6
Light-bellied Brent Goose									Cri 6															
Bar-tailed Godwit									Cri 6					Cri 6	Cri 6									
Eurasian Wigeon								Cri 4	Cri 6															
Northen Pintail																								
Red Knot														Cri 6										
Purple Sandpiper										Cri 6														

Table ST8 – Screening schedule for the Neart na Gaoithe S

NB This screening schedule table and map show sites withi

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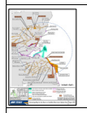
								Ramsar																
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Isle of May	River Dee	River South Esk	St Abb's Head to East Castle	Tweed Estuary	Firth of Tay & Eden Estuary	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Montrose Basin	Muir of Dinnet	South Tayside Goose Roosts	Westwater Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030172	UK0030251	UK0030262	UK0030281	UK0030292	UK0030311	UK0030312	UK11030	UK11036	UK11049	UK13005	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13040	UK13046	UK13049	UK13057	UK13060
Ruddy Turnstone										Cri 6				Cri 6										
Slavonian Grebe														Cri 6										
Red-throated Diver																								
Common Eider																								
Common Shelduck														Cri 6										
Great Cormorant																								
Mallard								Cri 4																
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye														Cri 6										
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover									Cri 6															
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander															Cri 6									
Eurasian Teal								Cri 4																
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																	Cri 6							
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Table ST9 – Screening schedule for the Forth Array Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																						Special Area of Conservatio	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC
European/Ramsar Site	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Westwater Reservoir	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Coquet Island	Holburn Lake & Moss	Northumbria Coast	Forth Islands	Fowlsheugh	St Abb's Head to Fast Castle	Dunkeld-Blairgowrie Lochs	River Tweed
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004251	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006031	UK9006041	UK9006131	UK9004171	UK9002271	UK9004271	UK0012638	UK0012691
Mammals																								
Grey Seal																								
Common Seal																								
Bottlenose dolphin																								
Otter																							A2 (Q)	A2 (P)
Fish and other species																								
Salmon																								A2 (P)
Allis shad																								
Twaite shad																								
Sea Lamprey																								A2 (Q)
River Lamprey																								A2 (Q)
Freshwater Pearl Mussel																								
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																								
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide																								
Coastal lagoons																								
Large shallow inlets and bays																								
Reefs																								
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs																								
Sand dunes																								
Birds-Breeding Season																								
Breeding Seabird Assemblage																				90000	145000	79560		
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																				Art 4.2				
Lesser Black-backed Gull																				Art 4.2				
Herring Gull																				Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		
Black-legged Kittiwake																				Art 4.2 sp	Art 4.2	Art 4.2 sp		
Common Guillemot																				Art 4.2 sp	Art 4.2	Art 4.2 sp		
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																Art 4.1	Art 4.1			Art 4.1				
Eurasian Dotterel																								
Northern Fulmar																				Art 4.2 sp	Art 4.2 sp			
European Shag																				Art 4.2		Art 4.2 sp		
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																				Art 4.2 sp				
Great Black-backed Gull																								
Atlantic Puffin																				Art 4.2				
Razorbill																				Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		
Sandwich Tern																Art 4.1	Art 4.1			Art 4.1				
Common Tern														Art 4.1		Art 4.1	Art 4.1			Art 4.1				
Little Tern					Art 4.1										Art 4.1				Art 4.1					
Manx Shearwater																								
Roseate Tern															Art 4.1		Art 4.1			Art 4.1				
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								
Goosander																								
Greenshank																								
Eurasian Curlew																								

Table ST9 – Screening schedule for the Forth Array Short-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																						Special Area of Conservatio	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC
European/Ramsar Site	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Westwater Reservoir	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Coquet Island	Holburn Lake & Moss	Northumbria Coast	Forth Islands	Fowlsheugh	St Abb's Head to Fast Castle	Dunkeld-Blairgowrie Lochs	River Tweed
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004251	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006031	UK9006041	UK9006131	UK9004171	UK9002271	UK9004271	UK0012638	UK0012691
Common Scoter																								
Northern Lapwing																								
Eurasian Teal												Art 4.2												
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage	54,930			34,280	48,000		3124		31,465				95,000											
Common Redshank	Art 4.2				Art 4.2								Art 4.2											
Great Crested Grebe													Art 4.2 sp											
Whooper Swan				Art 4.1											Art 4.1									
Barnacle Goose																								
Greylag Goose	Art 4.2	Art 4.2	Art 4.2		Art 4.2						Art 4.2	Art 4.2			Art 4.2			Art 4.2						
Greenland White-fronted Goose																								
Pink-footed Goose	Art 4.2	Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2											
Light-bellied Brent Goose															Art 4.2									
Bar-tailed Godwit					Art 4.1								Art 4.1		Art 4.1									
Eurasian Wigeon													Art 4.2 sp		Art 4.2									
Northen Pintail																								
Red Knot	Art 4.2												Art 4.2											
Purple Sandpiper																			Art 4.2					
Ruddy Turnstone													Art 4.2						Art 4.2					
Slavonian Grebe													Art 4.1											
Red-throated Diver													Art 4.1											
Common Eider					Art 4.2 sp								Art 4.2 sp		Art 4.2									
Common Shelduck					Art 4.2 sp								Art 4.2		Art 4.2									
Great Cormorant					Art 4.2 sp								Art 4.2 sp											
Mallard													Art 4.2 sp											
Greater Scaup													Art 4.2 sp											
Long-tailed Duck					Art 4.2 sp								Art 4.2 sp		Art 4.2									
Black (Common) Scoter					Art 4.2 sp								Art 4.2 sp											
Velet Scoter					Art 4.2 sp								Art 4.2 sp											
Common Goldeneye					Art 4.2 sp								Art 4.2 sp											
Red-breasted Merganser													Art 4.2 sp		Art 4.2									
Eurasian Curlew													Art 4.2 sp											
Eurasian Oystercatcher	Art 4.2				Art 4.2 sp								Art 4.1											
Ringed Plover													Art 4.2 sp		Art 4.2									
European Golden Plover													Art 4.1		Art 4.1									
Grey Plover					Art 4.2 sp								Art 4.2 sp		Art 4.2									
Northern Lapwing													Art 4.2 sp											
Dunlin					Art 4.2 sp								Art 4.2 sp		Art 4.2									
Sandwich Tern													Art 4.1											
Sanderling					Art 4.2 sp										Art 4.2									
Black-tailed Godwit					Art 4.2 sp																			
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler				Art 4.2																				
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

30,000	No. of seabirds regularly occurring					Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table ST9 – Screening schedule for the Forth Array Short-te

NB This screening schedule table and map show sites within 1

(back to contents page)

Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Barry Links	Berwickshire and North Northumberland Coast	North Northumberland Dunes	Isle of May	River Dee	River South Esk	St Abb's Head to Fast Castle	Tweed Estuary	Firth of Tay & Eden Estuary	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Montrose Basin	South Tayside Goose Roosts	Westwater Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0013044	UK0017072	UK0017097	UK0030172	UK0030251	UK0030262	UK0030281	UK0030292	UK0030311	UK0030312	UK11030	UK11036	UK11049	UK13005	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13046	UK13057	UK13060
Mammals																									
Grey Seal		A1 (P)		A2 (P)														Cri 6							
Common Seal									A2 (P)									Cri 6							
Bottlenose dolphin																									
Otter					A2 (Q)					A2 (Q)															
Fish and other species																									
Salmon					A2 (P)	A2 (P)				A2 (P)															
Allis shad																									
Twaite shad																									
Sea Lamprey								A2 (Q)		A2 (Q)															
River Lamprey								A2 (Q)		A2 (Q)															
Freshwater Pearl Mussel					A2 (P)	A2 (P)																			
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time									A2 (Q)																
Estuaries									A1 (P)														Cri 1		
Mudflats and sandflats not covered by seawater at low tide		A1 (P)						A1 (P)	A2 (Q)			Cri 1													
Coastal lagoons								A1 (P)																	
Large shallow inlets and bays		A1 (P)																							
Reefs		A1 (P)		A1 (Q)																					
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves		A1 (P)																							
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																									
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)												Cri 1													
Perennial vegetation of stony banks																									
Vegetated sea cliffs							A1 (P)																		
Sand dunes	A1 (P)		A1 (P)									Cri 1													
Birds-Breeding Season																									
Breeding Seabird Assemblage																									
Golden Eagle																									
Osprey																									
Wood Sandpiper																									
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																									
Black-legged Kittiwake																									
Common Guillemot																									
Corn Crake																									
Merlin																									
Black-throated Diver																									
European Storm Petrel																									
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																									
European Shag																									
Red-throated Diver																									
European Golden Plover																									
Short-Eared owl																									
Dunlin																									
Great Cormorant																									
Great Black-backed Gull																									
Atlantic Puffin																									
Razorbill																									
Sandwich Tern																									
Common Tern																	Cri 6								
Little Tern													Cri 6												
Manx Shearwater																									
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua																									
Whimbrel																									
Red-necked phalarope																									
Great Skua																									
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank																									
Common Snipe																									
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck											Cri 4														
Shoveler											Cri 4														
Shelduck											Cri 4														
Ringed Plover																									
Goosander																	Cri 6								
Greenshank																									
Eurasian Curlew																									

Table ST9 – Screening schedule for the Forth Array Short-te

NB This screening schedule table and map show sites within 1

(back to contents page)

	n										Ramsar														
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Barry Links	Berwickshire and North Northumberland Coast	North Northumberland Dunes	Isle of May	River Dee	River South Esk	St Abb's Head to Fast Castle	Tweed Estuary	Firth of Tay & Eden Estuary	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Montrose Basin	South Tayside Goose Roosts	Westwater Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0013044	UK0017072	UK0017097	UK0030172	UK0030251	UK0030262	UK0030281	UK0030292	UK0030311	UK0030312	UK11030	UK11036	UK11049	UK13005	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13046	UK13057	UK13060
Common Scoter																									
Northern Lapwing																									
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot																									
Eurasian Oystercatcher																									
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose																									
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage												Cri 5 (44,970)					Cri 5 (72,281)	Cri 5 (72,028)		Cri 5 (18,463)			Cri 5 (29,116)		Cri 5 (18,759)
Common Redshank												Cri 6					Cri 6	Cri 6					Cri 6		
Great Crested Grebe																				Cri 6					
Whooper Swan																									
Barnacle Goose																									
Greylag Goose											Cri 6 and 3	Cri 6			Cri 6			Cri 6			Cri 6	Cri 6	Cri 6	Cri 6	
Greenland White-fronted Goose																									
Pink-footed Goose														Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		Cri 6		Cri 6	Cri 6	Cri 6
Light-bellied Brent Goose												Cri 6													
Bar-tailed Godwit												Cri 6					Cri 6	Cri 6							
Eurasian Wigeon											Cri 4	Cri 6													
Northen Pintail																									
Red Knot																	Cri 6								
Purple Sandpiper													Cri 6												
Ruddy Turnstone													Cri 6				Cri 6								
Slavonian Grebe																	Cri 6								
Red-throated Diver																									
Common Eider																									
Common Shelduck																	Cri 6								
Great Cormorant																									
Mallard											Cri 4														
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																	Cri 6								
Red-breasted Merganser																									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover												Cri 6													
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling																									
Black-tailed Godwit																									
Goosander																		Cri 6							
Eurasian Teal											Cri 4														
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																				Cri 6					
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Table MT1 – Screening schedule for the E1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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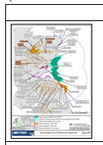
	Special Protection Area																										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
 **European/Ramsar Site**	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Muir of Dinnet	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Westwater Reservoir	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Coquet Island	Holburn Lake & Moss	Northumbria Coast	Slamannan Plateau	Buchan Ness to Collieston Coast	Forth Islands	Fowlsheugh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002211	UK9002221	UK9002261	UK9002791	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004251	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006031	UK9006041	UK9006131	UK9004441	UK9002491	UK9004171	UK9002271
Mammals																											
Grey Seal																											
Common Seal																											
Bottlenose dolphin																											
Otter																											
Fish and other species																											
Salmon																											
Allis shad																											
Twaite shad																											
Sea Lamprey																											
River Lamprey																											
Freshwater Pearl Mussel																											
Coastal Habitats																											
Sandbanks which are slightly covered by seawater all the time																											
Estuaries																											
Mudflats and sandflats not covered by seawater at low tide																											
Coastal lagoons																											
Large shallow inlets and bays																											
Reefs																											
Submarine structures made by leaking gases																											
Submerged or partially submerged sea caves																											
Annual vegetation of drift lines																											
Salicornia and other annuals colonising mud and sand																											
Spartina swards																											
Atlantic salt meadows																											
Mediterranean and thermo-Atlantic halophilous scrubs																											
Saltmarsh (type not specified)																											
Perennial vegetation of stony banks																											
Vegetated sea cliffs																											
Sand dunes																											
Birds-Breeding Season																											
Breeding Seabird Assemblage																									95000	90000	145000
Golden Eagle																											
Osprey																											
Wood Sandpiper																											
Northern Gannet																										Art 4.2	
Lesser Black-backed Gull																										Art 4.2	
Herring Gull																									Art 4.2 sp	Art 4.2 sp	Art 4.2 sp
Black-legged Kittiwake																									Art 4.2 sp	Art 4.2 sp	Art 4.2
Common Guillemot																									Art 4.2 sp	Art 4.2 sp	Art 4.2
Corn Crake																											
Merlin																											
Black-throated Diver																											
European Storm Petrel																											
Arctic Tern																				Art 4.1	Art 4.1					Art 4.1	
Eurasian Dotterel																											
Northern Fulmar																									Art 4.2 sp	Art 4.2 sp	Art 4.2 sp
European Shag																									Art 4.2 sp	Art 4.2	
Red-throated Diver																											
European Golden Plover																											
Short-Eared owl																											
Dunlin																											
Great Cormorant																										Art 4.2 sp	
Great Black-backed Gull																											
Atlantic Puffin																										Art 4.2	
Razorbill																										Art 4.2 sp	Art 4.2 sp
Sandwich Tern	Art 4.1	Art 4.1																		Art 4.1	Art 4.1					Art 4.1	
Common Tern		Art 4.1																Art 4.1		Art 4.1	Art 4.1					Art 4.1	
Little Tern		Art 4.1							Art 4.1										Art 4.1				Art 4.1				
Manx Shearwater																											
Roseate Tern																			Art 4.1		Art 4.1					Art 4.1	
Peregrine Falcon																											
Arctic Skua																											
Whimbrel																											
Red-necked phalarope																											
Great Skua																											
Great Crested Grebe																											
Leach's Storm Petrel																											
Great Bittern																											
Common Redshank																											
Common Snipe																											
Pochard																											
Gadwall																											
Slavonian Grebe																											
Tufted Duck																											
Shoveler																											
Shelduck																											
Ringed Plover																											
Goosander																											
Greenshank																											

Table MT1 – Screening schedule for the E1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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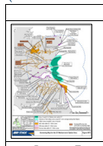
	Special Protection Area																										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
 **European/Ramsar Site**	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Muir of Dinnet	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Loch Leven	Firth of Tay and Eden Estuary	Cameron Reservoir	Gladhouse Reservoir	Fala Flow	Westwater Reservoir	Greenlaw Moor	Din Moss - Hoselaw Loch	South Tayside Goose Roosts	Firth of Forth	Imperial Dock Lock	Lindisfarne	Farne Islands	Coquet Island	Holburn Lake & Moss	Northumbria Coast	Slamannan Plateau	Buchan Ness to Collieston Coast	Forth Islands	Fowlsheugh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002211	UK9002221	UK9002261	UK9002791	UK9004031	UK9004051	UK9004061	UK9004111	UK9004121	UK9004131	UK9004231	UK9004241	UK9004251	UK9004281	UK9004291	UK9004401	UK9004411	UK9004451	UK9006011	UK9006021	UK9006031	UK9006041	UK9006131	UK9004441	UK9002491	UK9004171	UK9002271
Eurasian Curlew																											
Common Scoter																											
Northern Lapwing																											
Eurasian Teal																Art 4.2											
Eurasian Wigeon																											
Common Goldeneye																											
Black Guillemot																											
Eurasian Oystercatcher																											
Common (Mew) Gull																											
Black-headed Gull																											
Spotted Crake																											
Greylag Goose																											
Birds Overwintering/Passage																											
Wintering Waterfowl Assemblage	49,456	22,817			54,930			34,280	48,000		3124		31,465				95,000										
Common Redshank					Art 4.2				Art 4.2								Art 4.2										
Great Crested Grebe																	Art 4.2 sp										
Whooper Swan	Art 4.1							Art 4.1											Art 4.1								
Barnacle Goose																											
Greylag Goose	Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2		Art 4.2						Art 4.2	Art 4.2			Art 4.2			Art 4.2					
Greenland White-fronted Goose																											
Pink-footed Goose	Art 4.2	Art 4.2			Art 4.2	Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2										
Light-bellied Brent Goose																			Art 4.2								
Bar-tailed Godwit									Art 4.1								Art 4.1		Art 4.1								
Eurasian Wigeon																	Art 4.2 sp		Art 4.2								
Northen Pintail																											
Red Knot					Art 4.2												Art 4.2										
Purple Sandpiper																							Art 4.2				
Ruddy Turnstone																	Art 4.2						Art 4.2				
Slavonian Grebe																	Art 4.1										
Red-throated Diver																	Art 4.1										
Common Eider									Art 4.2 sp								Art 4.2 sp		Art 4.2								
Common Shelduck									Art 4.2 sp								Art 4.2		Art 4.2								
Great Cormorant									Art 4.2 sp								Art 4.2 sp										
Mallard																	Art 4.2 sp										
Greater Scaup																	Art 4.2 sp										
Long-tailed Duck									Art 4.2 sp								Art 4.2 sp		Art 4.2								
Black (Common) Scoter									Art 4.2 sp								Art 4.2 sp										
Velet Scoter									Art 4.2 sp								Art 4.2 sp										
Common Goldeneye	Art 4.2		Art 4.2						Art 4.2 sp								Art 4.2 sp										
Red-breasted Merganser																	Art 4.2 sp		Art 4.2								
Eurasian Curlew																	Art 4.2 sp										
Eurasian Oystercatcher					Art 4.2				Art 4.2 sp								Art 4.1										
Ringed Plover																	Art 4.2 sp		Art 4.2								
European Golden Plover																	Art 4.1		Art 4.1								
Grey Plover									Art 4.2 sp								Art 4.2 sp		Art 4.2								
Northern Lapwing																	Art 4.2 sp										
Dunlin									Art 4.2 sp								Art 4.2 sp		Art 4.2								
Sandwich Tern																	Art 4.1										
Sanderling									Art 4.2 sp										Art 4.2								
Black-tailed Godwit									Art 4.2 sp																		
Goosander			Art 4.2																								
Eurasian Teal	Art 4.2																										
Gadwall																											
Common Greenshank																											
Black-headed Gull																											
Common Tern																											
Common Gull (Mew)																											
Northern Shoveler								Art 4.2																			
Bewick Swan																											
Common Pochard																											
Tufted Duck																											
Lesser Black-back Gull																											
Tundra Swan																											
Taiga Bean Goose																								Art 4.1			

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

- 30,000 — No. of seabirds regularly occurring
- Art 4.2 sp — Species listed among those regularly occurring
- Art 4.1 — Article 4.1 of Birds Directive
- Art 4.2 — Article 4.2 of Birds Directive
- Cri 6 — Ramsar Criterion No.
- Annex/Criterion unknown (Irish sites)
- A1 (P) — Annex I Habitat (primary reason)
- A2 (P) — Annex II Species (primary reason)
- A1 (Q) — Annex I Habitat (qualifying)
- A2 (Q) — Annex II Species (qualifying)
- screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site
- Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT1 – Screening schedule for the E1 Medium-term Optio

NB This screening schedule table and map show sites within 100k

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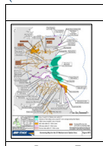

			Special Area of Conservation																					Ramsar			
Designation	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram
European/Ramsar Site	St Abb's Head to Fast Castle	Troup, Pennan and Lion's Heads	Dunkeld&Blairgowrie Lochs	River Eden	River Tweed	Glen Tanar	Sands of Forvie	Barry Links	Cairngorms	Berwickshire and North Northumberland Coast	North Northumberland Dunes	River Spey	Muir of Dinnet	Ballochbuie	Buchan Ness to Collieston	Isle of May	River Dee	River South Esk	River Teith	St Abb's Head to Fast Castle	Tweed Estuary	Firth of Tay & Eden Estuary	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9004271	UK9002471	UK0012638	UK0012643	UK0012691	UK0012756	UK0013042	UK0013044	UK0016412	UK0017072	UK0017097	UK0019811	UK0019959	UK0030030	UK0030101	UK0030172	UK0030251	UK0030262	UK0030263	UK0030281	UK0030292	UK0030311	UK0030312	UK11030	UK11036	UK11049	UK13005
Mammals																											
Grey Seal										A1 (P)						A2 (P)											
Common Seal																						A2 (P)					
Bottlenose dolphin																											
Otter			A2 (Q)	A2 (P)	A2 (P)	A2 (Q)			A2 (Q)				A2 (Q)	A2 (Q)			A2 (Q)						A2 (Q)				
Fish and other species																											
Salmon				A2 (P)	A2 (P)							A2 (P)					A2 (P)	A2 (P)	A2 (Q)				A2 (P)				
Allis shad																											
Twaite shad																											
Sea Lamprey				A2 (P)	A2 (Q)							A2 (P)							A2 (P)		A2 (Q)		A2 (Q)				
River Lamprey				A2 (P)	A2 (Q)														A2 (P)		A2 (Q)		A2 (Q)				
Freshwater Pearl Mussel												A2 (P)					A2 (P)	A2 (P)									
Coastal Habitats																											
Sandbanks which are slightly covered by seawater all the time																						A2 (Q)					
Estuaries																						A1 (P)					
Mudflats and sandflats not covered by seawater at low tide										A1 (P)											A1 (P)	A2 (Q)			Cri 1		
Coastal lagoons																					A1 (P)						
Large shallow inlets and bays										A1 (P)																	
Reefs										A1 (P)						A1 (Q)											
Submarine structures made by leaking gases																											
Submerged or partially submerged sea caves										A1 (P)																	
Annual vegetation of drift lines																											
Salicornia and other annuals colonising mud and sand																											
Spartina swards																											
Atlantic salt meadows																											
Mediterranean and thermo-Atlantic halophilous scrubs																											
Saltmarsh (type not specified)																									Cri 1		
Perennial vegetation of stony banks																											
Vegetated sea cliffs															A1 (P)					A1 (P)							
Sand dunes							A1 (P)	A1 (P)			A1 (P)														Cri 1		
Birds-Breeding Season																											
Breeding Seabird Assemblage	79560	150000																									
Golden Eagle																											
Osprey																											
Wood Sandpiper																											
Northern Gannet																											
Lesser Black-backed Gull																											
Herring Gull	Art 4.2 sp	Art 4.2 sp																									
Black-legged Kittiwake	Art 4.2 sp	Art 4.2																									
Common Guillemot	Art 4.2 sp	Art 4.2																									
Corn Crake																											
Merlin																											
Black-throated Diver																											
European Storm Petrel																											
Arctic Tern																											
Eurasian Dotterel																											
Northern Fulmar		Art 4.2 sp																									
European Shag	Art 4.2 sp																										
Red-throated Diver																											
European Golden Plover																											
Short-Eared owl																											
Dunlin																											
Great Cormorant																											
Great Black-backed Gull																											
Atlantic Puffin																											
Razorbill	Art 4.2 sp	Art 4.2 sp																									
Sandwich Tern																											
Common Tern																											
Little Tern																										Cri 6	
Manx Shearwater																											
Roseate Tern																											
Peregrine Falcon																											
Arctic Skua																											
Whimbrel																											
Red-necked phalarope																											
Great Skua																											
Great Crested Grebe																											
Leach's Storm Petrel																											
Great Bittern																											
Common Redshank																											
Common Snipe																											
Pochard																											
Gadwall																											
Slavonian Grebe																											
Tufted Duck																								Cri 4			
Shoveler																								Cri 4			
Shelduck																								Cri 4			
Ringed Plover																											
Goosander																											
Greenshank																											

Table MT1 – Screening schedule for the E1 Medium-term Optio

NB This screening schedule table and map show sites within 100k

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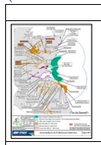
			Special Area of Conservation																					Ramsar			
Designation	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	St Abb's Head to Fast Castle	Troup, Pennan and Lion's Heads	Dunkeld&Blairgowrie Lochs	River Eden	River Tweed	Glen Tanar	Sands of Forvie	Barry Links	Cairngorms	Berwickshire and North Northumberland Coast	North Northumberland Dunes	River Spey	Muir of Dinnet	Ballochbuie	Buchan Ness to Collieston	Isle of May	River Dee	River South Esk	River Teith	St Abb's Head to Fast Castle	Tweed Estuary	Firth of Tay & Eden Estuary	River Tay	Holburn Lake & Moss	Lindisfarne	Northumbria Coast	Cameron Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9004271	UK9002471	UK0012638	UK0012643	UK0012691	UK0012756	UK0013042	UK0013044	UK0016412	UK0017072	UK0017097	UK0019811	UK0019959	UK0030030	UK0030101	UK0030172	UK0030251	UK0030262	UK0030263	UK0030281	UK0030292	UK0030311	UK0030312	UK11030	UK11036	UK11049	UK13005
Eurasian Curlew																											
Common Scoter																											
Northern Lapwing																											
Eurasian Teal																											
Eurasian Wigeon																											
Common Goldeneye																											
Black Guillemot																											
Eurasian Oystercatcher																											
Common (Mew) Gull																											
Black-headed Gull																											
Spotted Crake																											
Greylag Goose																											
Birds Overwintering/Passage																											
Wintering Waterfowl Assemblage																									Cri 5 (44,970)		
Common Redshank																									Cri 6		
Great Crested Grebe																											
Whooper Swan																											
Barnacle Goose																											
Greylag Goose																								Cri 6 and 3	Cri 6		
Greenland White-fronted Goose																											
Pink-footed Goose																											Cri 6
Light-bellied Brent Goose																									Cri 6		
Bar-tailed Godwit																									Cri 6		
Eurasian Wigeon																								Cri 4	Cri 6		
Northen Pintail																											
Red Knot																											
Purple Sandpiper																										Cri 6	
Ruddy Turnstone																										Cri 6	
Slavonian Grebe																											
Red-throated Diver																											
Common Eider																											
Common Shelduck																											
Great Cormorant																											
Mallard																								Cri 4			
Greater Scaup																											
Long-tailed Duck																											
Black (Common) Scoter																											
Velet Scoter																											
Common Goldeneye																											
Red-breasted Merganser																											
Eurasian Curlew																											
Eurasian Oystercatcher																											
Ringed Plover																									Cri 6		
European Golden Plover																											
Grey Plover																											
Northern Lapwing																											
Dunlin																											
Sandwich Tern																											
Sanderling																											
Black-tailed Godwit																											
Goosander																											
Eurasian Teal																								Cri 4			
Gadwall																											
Common Greenshank																											
Black-headed Gull																											
Common Tern																											
Common Gull (Mew)																											
Northern Shoveler																											
Bewick Swan																											
Common Pochard																											
Tufted Duck																											
Lesser Black-back Gull																											
Tundra Swan																											
Taiga Bean Goose																											

Table MT1 – Screening schedule for the E1 Medium-term Optio

NB This screening schedule table and map show sites within 100k

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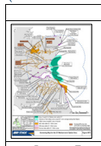
Designation	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Loch of Strathbeg	Montrose Basin	Muir of Dinnet	South Tayside Goose Roosts	Westwater Reservoir	Ythan Estuary and Meikle Loch	Gladhouse Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13040	UK13041	UK13046	UK13049	UK13057	UK13060	UK13061	UK13021
Mammals																
Grey Seal				Cri 6												
Common Seal				Cri 6												
Bottlenose dolphin																
Otter																
Fish and other species																
Salmon																
Allis shad																
Twaite shad																
Sea Lamprey																
River Lamprey																
Freshwater Pearl Mussel																
Coastal Habitats																
Sandbanks which are slightly covered by seawater all the time																
Estuaries											Cri 1					
Mudflats and sandflats not covered by seawater at low tide																
Coastal lagoons																
Large shallow inlets and bays																
Reefs																
Submarine structures made by leaking gases																
Submerged or partially submerged sea caves																
Annual vegetation of drift lines																
Salicornia and other annuals colonising mud and sand																
Spartina swards																
Atlantic salt meadows																
Mediterranean and thermo-Atlantic halophilous scrubs																
Saltmarsh (type not specified)																
Perennial vegetation of stony banks																
Vegetated sea cliffs																
Sand dunes																
Birds-Breeding Season																
Breeding Seabird Assemblage																
Golden Eagle																
Osprey																
Wood Sandpiper																
Northern Gannet																
Lesser Black-backed Gull																
Herring Gull																
Black-legged Kittiwake																
Common Guillemot																
Corn Crake																
Merlin																
Black-throated Diver																
European Storm Petrel																
Arctic Tern																
Eurasian Dotterel																
Northern Fulmar																
European Shag																
Red-throated Diver																
European Golden Plover																
Short-Eared owl																
Dunlin																
Great Cormorant																
Great Black-backed Gull																
Atlantic Puffin																
Razorbill																
Sandwich Tern															Cri 6	
Common Tern			Cri 6													
Little Tern																
Manx Shearwater																
Roseate Tern																
Peregrine Falcon																
Arctic Skua																
Whimbrel																
Red-necked phalarope																
Great Skua																
Great Crested Grebe																
Leach's Storm Petrel																
Great Bittern																
Common Redshank																
Common Snipe																
Pochard																
Gadwall																
Slavonian Grebe																
Tufted Duck																
Shoveler																
Shelduck																
Ringed Plover																
Goosander			Cri 6													
Greenshank																

Table MT1 – Screening schedule for the E1 Medium-term Optio

NB This screening schedule table and map show sites within 100k

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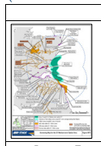
Designation	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Din Moss and Hoselaw Loch	Fala Flow	Firth of Forth	Firth of Tay and Eden Estuary	Greenlaw Moor	Loch Leven	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Loch of Strathbeg	Montrose Basin	Muir of Dinnet	South Tayside Goose Roosts	Westwater Reservoir	Ythan Estuary and Meikle Loch	Gladhouse Reservoir
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13010	UK13015	UK13017	UK13018	UK13022	UK13033	UK13038	UK13039	UK13040	UK13041	UK13046	UK13049	UK13057	UK13060	UK13061	UK13021
Eurasian Curlew																
Common Scoter																
Northern Lapwing																
Eurasian Teal																
Eurasian Wigeon																
Common Goldeneye																
Black Guillemot																
Eurasian Oystercatcher																
Common (Mew) Gull																
Black-headed Gull																
Spotted Crake																
Greylag Goose																
Birds Overwintering/Passage																
Wintering Waterfowl Assemblage			Cri 5 (72,281)	Cri 5 (72,028)		Cri 5 (18,463)				Cri 5 (47,831)	Cri 5 (29,116)	Cri 5 (30,000)		Cri 5 (18,759)	Cri 5 (9,271)	
Common Redshank			Cri 6	Cri 6							Cri 6					
Great Crested Grebe						Cri 6										
Whooper Swan										Cri 6						
Barnacle Goose																
Greylag Goose	Cri 6			Cri 6			Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6			
Greenland White-fronted Goose																
Pink-footed Goose	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		Cri 6			Cri 6	Cri 6		Cri 6	Cri 6	Cri 6	Cri 6
Light-bellied Brent Goose																
Bar-tailed Godwit			Cri 6	Cri 6												
Eurasian Wigeon																
Northen Pintail																
Red Knot			Cri 6													
Purple Sandpiper																
Ruddy Turnstone			Cri 6													
Slavonian Grebe			Cri 6													
Red-throated Diver																
Common Eider																
Common Shelduck			Cri 6													
Great Cormorant																
Mallard																
Greater Scaup																
Long-tailed Duck																
Black (Common) Scoter																
Velet Scoter																
Common Goldeneye			Cri 6													
Red-breasted Merganser																
Eurasian Curlew																
Eurasian Oystercatcher																
Ringed Plover																
European Golden Plover																
Grey Plover																
Northern Lapwing																
Dunlin																
Sandwich Tern																
Sanderling																
Black-tailed Godwit																
Goosander				Cri 6												
Eurasian Teal																
Gadwall																
Common Greenshank																
Black-headed Gull																
Common Tern																
Common Gull (Mew)																
Northern Shoveler						Cri 6										
Bewick Swan																
Common Pochard																
Tufted Duck																
Lesser Black-back Gull																
Tundra Swan																
Taiga Bean Goose																

Table MT2 – Screening schedule for the N1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																											Special Area o
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Inverpolly, Loch Urigill and Nearby Lochs	Lewis Peatlands	Assynt Lochs	Lairg and Strathbrora Lochs	Dornoch Firth and Loch Fleet	Ness & Barvas, Lewis	Papa Westray	East Sanday Coast	Auskerry	Switha	Orkney Mainland Moors	Calf of Eday	Cape Wrath	Copinsay	East Caithness Cliffs	Handa	Hoy	Marwick Head	North Caithness Cliffs	North Rona and Sula Sgeir	Rousay	Sule Skerry and Sule Stack	West Westray	North Rona
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001211	UK9001511	UK9001571	UK9001591	UK9001611	UK9001622	UK9001741	UK9002111	UK9002331	UK9002381	UK9002891	UK9002311	UK9002431	UK9001231	UK9002151	UK9001182	UK9001241	UK9002141	UK9002121	UK9001181	UK9001011	UK9002371	UK9002181	UK9002101	UK0012696
Mammals																												
Grey Seal																												A2 (P)
Common Seal																												
Bottlenose dolphin																												
Otter																												
Fish and other species																												
Salmon																												
Allis shad																												
Twaite shad																												
Sea Lamprey																												
River Lamprey																												
Freshwater Pearl Mussel																												
Coastal Habitats																												
Sandbanks which are slightly covered by seawater all the time																												
Estuaries																												
Mudflats and sandflats not covered by seawater at low tide																												
Coastal lagoons																												
Large shallow inlets and bays																												
Reefs																												A1 (Q)
Submarine structures made by leaking gases																												
Submerged or partially submerged sea caves																												A1 (Q)
Annual vegetation of drift lines																												
Salicornia and other annuals colonising mud and sand																												
Spartina swards																												
Atlantic salt meadows																												
Mediterranean and thermo-Atlantic halophilous scrubs																												
Saltmarsh (type not specified)																												
Perennial vegetation of stony banks																												
Vegetated sea cliffs																												A1 (Q)
Sand dunes																												
Birds-Breeding Season																												
Breeding Seabird Assemblage																30000	50000	70000	300000	200000	120000	75000	110000	130000	30000	100000	113000	
Golden Eagle																												
Osprey									Art 4.1																			
Wood Sandpiper		Art 4.1																										
Northern Gannet																								Art 4.2		Art 4.2		
Lesser Black-backed Gull																												
Herring Gull																			Art 4.2									
Black-legged Kittiwake																Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp	
Common Guillemot																Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2	
Corn Crake										Art 4.1																		
Merlin		Art 4.1				Art 4.1																						
Black-throated Diver		Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1																				
European Storm Petrel													Art 4.1											Art 4.1		Art 4.1		
Arctic Tern	Art 4.1										Art 4.1		Art 4.1												Art 4.1		Art 4.1	
Eurasian Dotterel																												
Northern Fulmar																Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp	
European Shag																			Art 4.2							Art 4.2 sp		
Red-throated Diver		Art 4.1				Art 4.1									Art 4.1						Art 4.1							
European Golden Plover		Art 4.1				Art 4.1																						
Short-Eared owl		Art 4.1													Art 4.1													
Dunlin		Art 4.2				Art 4.2																						
Great Cormorant																Art 4.2 sp			Art 4.2 sp									
Great Black-backed Gull																Art 4.2 sp		Art 4.2 sp	Art 4.2 sp		Art 4.2 sp			Art 4.2 sp				
Atlantic Puffin																	Art 4.2 sp		Art 4.2 sp		Art 4.2 sp		Art 4.2 sp	Art 4.2 sp		Art 4.2		
Razorbill																	Art 4.2 sp		Art 4.2	Art 4.2			Art 4.2 sp	Art 4.2 sp			Art 4.2 sp	
Sandwich Tern																												
Common Tern																												
Little Tern																												
Manx Shearwater																												
Roseate Tern																												
Peregrine Falcon																			Art 4.1		Art 4.1		Art 4.1					
Arctic Skua																					Art 4.2 sp				Art 4.2 sp		Art 4.2 sp	
Whimbrel																												
Red-necked phalarope																												
Great Skua																					Art 4.2							
Great Crested Grebe																												
Leach's Storm Petrel																								Art 4.1		Art 4.1		
Great Bittern																												
Common Redshank																												
Common Snipe																												
Pochard																												
Gadwall																												
Slavonian Grebe																												
Tufted Duck																												
Shoveler																												
Shelduck																												
Ringed Plover																												
Goosander																												
Greenshank						Art 4.2																						
Eurasian Curlew																												
Common Scoter																												

Table MT2 – Screening schedule for the N1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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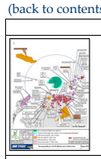
	Special Protection Area																											Special Area o
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC
 **European/Ramsar Site**	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Inverpolly, Loch Urigill and Nearby Lochs	Lewis Peatlands	Assynt Lochs	Lairg and Strathbrora Lochs	Dornoch Firth and Loch Fleet	Ness & Barvas, Lewis	Papa Westray	East Sanday Coast	Auskerry	Switha	Orkney Mainland Moors	Calf of Eday	Cape Wrath	Copinsay	East Caithness Cliffs	Handa	Hoy	Marwick Head	North Caithness Cliffs	North Rona and Sula Sgeir	Rousay	Sule Skerry and Sule Stack	West Westray	North Rona
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001211	UK9001511	UK9001571	UK9001591	UK9001611	UK9001622	UK9001741	UK9002111	UK9002331	UK9002381	UK9002891	UK9002311	UK9002431	UK9001231	UK9002151	UK9001182	UK9001241	UK9002141	UK9002121	UK9001181	UK9001011	UK9002371	UK9002181	UK9002101	UK0012696
Northern Lapwing																												
Eurasian Teal																												
Eurasian Wigeon																												
Common Goldeneye																												
Black Guillemot																												
Eurasian Oystercatcher																												
Common (Mew) Gull																												
Black-headed Gull																												
Spotted Crake																												
Greylag Goose																												
Birds Overwintering/Passage																												
Wintering Waterfowl Assemblage									35,202																			
Common Redshank																												
Great Crested Grebe																												
Whooper Swan			Art 4.1																									
Barnacle Goose				Art 4.1										Art 4.1														
Greylag Goose			Art 4.2						Art 4.2																			
Greenland White-fronted Goose			Art 4.1																									
Pink-footed Goose																												
Light-bellied Brent Goose																												
Bar-tailed Godwit									Art 4.1																			
Eurasian Wigeon									Art 4.2																			
Northen Pintail																												
Red Knot																												
Purple Sandpiper												Art 4.2																
Ruddy Turnstone												Art 4.2																
Slavonian Grebe																												
Red-throated Diver																												
Common Eider																												
Common Shelduck																												
Great Cormorant																												
Mallard																												
Greater Scaup																												
Long-tailed Duck																												
Black (Common) Scoter																												
Velet Scoter																												
Common Goldeneye																												
Red-breasted Merganser																												
Eurasian Curlew																												
Eurasian Oystercatcher																												
Ringed Plover																												
European Golden Plover																												
Grey Plover																												
Northern Lapwing																												
Dunlin																												
Sandwich Tern																												
Sanderling																												
Black-tailed Godwit																												
Goosander																												
Eurasian Teal																												
Gadwall																												
Common Greenshank																												
Black-headed Gull																												
Common Tern																												
Common Gull (Mew)																												
Northern Shoveler																												
Bewick Swan																												
Common Pochard																												
Tufted Duck																												
Lesser Black-back Gull																												
Tundra Swan																												
Taiga Bean Goose																												

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT2 – Screening schedule for the N1 Medium-term O

NB This screening schedule table and map show sites within 1

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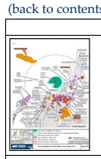
	of Conservation																										Ramsar
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram
 **European/Ramsar Site**	Dunnes	Hoy	River Borgie	Invernaver	Oldshoremore and Sandwood	Foinaven	Stromness Heaths and Coast	Caithness and Sutherland Peatlands	Loch of Stenness	Faray and Holm of Faray	Moray Firth	Strathy Point	Sanday	Abhainn Clais An Eas and Allt a 'Mhuilinn	Berriedale and Langwell Waters	Cape Wrath	East Caithness Cliffs	Inverpolly	Loch Laxford	Loch of Isbister	Ardvar and Loch a'Mhuilinn Woodlands	River Naver	River Oykel	River Thurso	Wyville Thomson Ridge	Caithness and Sutherland Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012786	UK0012791	UK0012995	UK0013041	UK0013055	UK0013141	UK0013589	UK0013602	UK0014749	UK0017096	UK0019808	UK0030066	UK0030069	UK0030081	UK0030088	UK0030108	UK0030143	UK0030171	UK0030192	UK0030193	UK0030231	UK0030260	UK0030261	UK0030264	UK0030355	UK13003
Mammals																										
Grey Seal										A2 (P)																
Common Seal													A2 (P)													
Bottlenose dolphin											A2 (P)															
Otter	A2 (Q)		A2 (Q)			A2 (Q)		A2 (P)										A2 (P)		A2 (Q)	A2 (Q)					
Fish and other species																										
Salmon			A2 (Q)												A2 (P)							A2 (P)	A2 (Q)	A2 (P)		
Allis shad																										
Twaite shad																										
Sea Lamprey																										
River Lamprey																										
Freshwater Pearl Mussel			A2 (P)			A2 (Q)								A2 (P)				A2 (Q)			A2 (Q)	A2 (P)	A2 (P)			
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time											A1 (Q)		A1 (Q)													
Estuaries																										
Mudflats and sandflats not covered by seawater at low tide													A1 (Q)													
Coastal lagoons									A1 (P)																	
Large shallow inlets and bays																			A1 (P)							
Reefs													A1 (P)						A1 (Q)						A1 (P)	
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																										
Annual vegetation of drift lines																										
Salicornia and other annuals colonising mud and sand																										
Spartina swards																										
Atlantic salt meadows																										
Mediterranean and thermo-Atlantic halophilous scrubs																										
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks																										
Vegetated sea cliffs		A1 (P)					A1 (P)					A1 (P)				A1 (P)	A1 (P)									
Sand dunes	A1 (P)/A1 (Q)			A1 (P)/A1 (Q)	A1 (P)/A1 (Q)																					
Birds-Breeding Season																										
Breeding Seabird Assemblage																										
Golden Eagle																										
Osprey																										
Wood Sandpiper																										Cri 2
Northern Gannet																										
Lesser Black-backed Gull																										
Herring Gull																										
Black-legged Kittiwake																										
Common Guillemot																										
Corn Crake																										
Merlin																										
Black-throated Diver																										Cri 2
European Storm Petrel																										
Arctic Tern																										
Eurasian Dotterel																										
Northern Fulmar																										
European Shag																										
Red-throated Diver																										Cri 2
European Golden Plover																										Cri 2
Short-Eared owl																										
Dunlin																										Cri 6
Great Cormorant																										
Great Black-backed Gull																										
Atlantic Puffin																										
Razorbill																										
Sandwich Tern																										
Common Tern																										
Little Tern																										
Manx Shearwater																										
Roseate Tern																										
Peregrine Falcon																										
Arctic Skua																										Cri 2
Whimbrel																										
Red-necked phalarope																										
Great Skua																										
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank																										
Common Snipe																										
Pochard																										
Gadwall																										
Slavonian Grebe																										
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover																										
Goosander																										
Greenshank																										Cri 2
Eurasian Curlew																										Cri 2
Common Scoter																										Cri 2

Table MT2 – Screening schedule for the N1 Medium-term O

NB This screening schedule table and map show sites within 1

(back to contents page)

	of Conservation																										Ramsar
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	Dunnes	Hoy	River Borgie	Invernaver	Oldshoremore and Sandwood	Foinaven	Stromness Heaths and Coast	Caithness and Sutherland Peatlands	Loch of Stenness	Faray and Holm of Faray	Moray Firth	Strathy Point	Sanday	Abhainn Clais An Eas and Allt a 'Mhuilinn	Berriedale and Langwell Waters	Cape Wrath	East Caithness Cliffs	Inverpolly	Loch Laxford	Loch of Isbister	Ardvar and Loch a'Mhuilinn Woodlands	River Naver	River Oykel	River Thurso	Wyville Thomson Ridge	Caithness and Sutherland Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012786	UK0012791	UK0012995	UK0013041	UK0013055	UK0013141	UK0013589	UK0013602	UK0014749	UK0017096	UK0019808	UK0030066	UK0030069	UK0030081	UK0030088	UK0030108	UK0030143	UK0030171	UK0030192	UK0030193	UK0030231	UK0030260	UK0030261	UK0030264	UK0030355	UK13003
Northern Lapwing																										
Eurasian Teal																										Cri 2
Eurasian Wigeon																										Cri 2
Common Goldeneye																										
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage																										
Common Redshank																										
Great Crested Grebe																										
Whooper Swan																										
Barnacle Goose																										
Greylag Goose																										
Greenland White-fronted Goose																										
Pink-footed Goose																										
Light-bellied Brent Goose																										
Bar-tailed Godwit																										
Eurasian Wigeon																										
Northen Pintail																										
Red Knot																										
Purple Sandpiper																										
Ruddy Turnstone																										
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck																										
Great Cormorant																										
Mallard																										
Greater Scaup																										
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye																										
Red-breasted Merganser																										
Eurasian Curlew																										
Eurasian Oystercatcher																										
Ringed Plover																										
European Golden Plover																										
Grey Plover																										
Northern Lapwing																										
Dunlin																										
Sandwich Tern																										
Sanderling																										
Black-tailed Godwit																										
Goosander																										
Eurasian Teal																										
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Table MT2 – Screening schedule for the N1 Medium-term O

NB This screening schedule table and map show sites within 1

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Designation	Ram	Ram	Ram	Ram
European/Ramsar Site	Caithness Lochs	Dornoch Firth and Loch Fleet	East Sanday Coast	Lewis Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13004	UK13011	UK13013	UK13028
Mammals				
Grey Seal				
Common Seal				
Bottlenose dolphin				
Otter				
Fish and other species				
Salmon				
Allis shad				
Twaite shad				
Sea Lamprey				
River Lamprey				
Freshwater Pearl Mussel				
Coastal Habitats				
Sandbanks which are slightly covered by seawater all the time				
Estuaries				
Mudflats and sandflats not covered by seawater at low tide				
Coastal lagoons				
Large shallow inlets and bays				
Reefs				
Submarine structures made by leaking gases				
Submerged or partially submerged sea caves				
Annual vegetation of drift lines				
Salicornia and other annuals colonising mud and sand				
Spartina swards				
Atlantic salt meadows				
Mediterranean and thermo-Atlantic halophilous scrubs				
Saltmarsh (type not specified)				
Perennial vegetation of stony banks				
Vegetated sea cliffs				
Sand dunes		Cri 1		
Birds-Breeding Season				
Breeding Seabird Assemblage				
Golden Eagle				
Osprey		Cri 6		
Wood Sandpiper				
Northern Gannet				
Lesser Black-backed Gull				
Herring Gull				
Black-legged Kittiwake				
Common Guillemot				
Corn Crake				
Merlin				
Black-throated Diver				Cri 2
European Storm Petrel				
Arctic Tern				
Eurasian Dotterel				
Northern Fulmar				
European Shag				
Red-throated Diver				Cri 2
European Golden Plover				Cri 2
Short-Eared owl				
Dunlin				Cri 6
Great Cormorant				
Great Black-backed Gull				
Atlantic Puffin				
Razorbill				
Sandwich Tern				
Common Tern				
Little Tern				
Manx Shearwater				
Roseate Tern				
Peregrine Falcon				
Arctic Skua				
Whimbrel				
Red-necked phalarope				
Great Skua				
Great Crested Grebe				
Leach's Storm Petrel				
Great Bittern				
Common Redshank				
Common Snipe				
Pochard				
Gadwall				
Slavonian Grebe				
Tufted Duck				
Shoveler				
Shelduck				
Ringed Plover				
Goosander				
Greenshank				Cri 2
Eurasian Curlew				
Common Scoter				

Table MT2 – Screening schedule for the N1 Medium-term O

NB This screening schedule table and map show sites within 1

(back to contents page)

Designation	Ram	Ram	Ram	Ram
European/Ramsar Site	Caithness Lochs	Dornoch Firth and Loch Fleet	East Sanday Coast	Lewis Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13004	UK13011	UK13013	UK13028
Northern Lapwing				
Eurasian Teal				
Eurasian Wigeon				
Common Goldeneye				
Black Guillemot				
Eurasian Oystercatcher				
Common (Mew) Gull				
Black-headed Gull				
Spotted Crake				
Greylag Goose				
Birds Overwintering/Passage				
Wintering Waterfowl Assemblage		Cri 5 (28,692)		
Common Redshank		Cri 6		
Great Crested Grebe				
Whooper Swan	Cri 6	Cri 6		
Barnacle Goose				
Greylag Goose	Cri 6	Cri 6		
Greenland White-fronted Goose	Cri 6			
Pink-footed Goose				
Light-bellied Brent Goose				
Bar-tailed Godwit		Cri 6		
Eurasian Wigeon		Cri 6		
Northen Pintail				
Red Knot				
Purple Sandpiper			Cri 6	
Ruddy Turnstone			Cri 6	
Slavonian Grebe				
Red-throated Diver				
Common Eider				
Common Shelduck				
Great Cormorant				
Mallard				
Greater Scaup				
Long-tailed Duck				
Black (Common) Scoter				
Velet Scoter				
Common Goldeneye				
Red-breasted Merganser				
Eurasian Curlew				
Eurasian Oystercatcher				
Ringed Plover				
European Golden Plover				
Grey Plover				
Northern Lapwing				
Dunlin				
Sandwich Tern				
Sanderling				
Black-tailed Godwit				
Goosander				
Eurasian Teal				
Gadwall				
Common Greenshank				
Black-headed Gull				
Common Tern				
Common Gull (Mew)				
Northern Shoveler				
Bewick Swan				
Common Pochard				
Tufted Duck				
Lesser Black-back Gull				
Tundra Swan				
Taiga Bean Goose				

Table MT3 – Screening schedule for the N4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																		Special Area of Conservation									Ramsar	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Papa Westray	East Sanday Coast	Mousa	Auskerry	Lochs of Spiggie & Brow	Otterswick and Graveland	Calf of Eday	Fair Isle	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Rousay	Sumburgh Head	West Westray	Yell Sound Coast	Mousa	The Vaddils	Papa Stour	Faray and Holm of Faray	Hascosay	Sanday	Fair Isle	Sullom Voe	East Sanday Coast	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002111	UK9002331	UK9002361	UK9002381	UK9002651	UK9002941	UK9002431	UK9002091	UK9002031	UK9002061	UK9002011	UK9002081	UK9002371	UK9002511	UK9002101	UK0012687	UK0012711	UK0017068	UK0017069	UK0017096	UK0019793	UK0030069	UK0030149	UK0030273	UK13013	UK13054
Mammals																													
Grey Seal																							A2 (P)						
Common Seal																			A2 (P)	A2 (P)					A2 (P)				Cri 2
Bottlenose dolphin																													
Otter																			A2 (P)					A2 (Q)					Cri 2
Fish and other species																													
Salmon																													
Allis shad																													
Twaite shad																													
Sea Lamprey																													
River Lamprey																													
Freshwater Pearl Mussel																													
Coastal Habitats																													
Sandbanks which are slightly covered by seawater all the time																									A1 (Q)				
Estuaries																													
Mudflats and sandflats not covered by seawater at low tide																									A1 (Q)				
Coastal lagoons																					A1 (P)						A1 (Q)		
Large shallow inlets and bays																											A1 (P)		
Reefs																				A1 (Q)		A1 (P)			A1 (P)		A1 (Q)		
Submarine structures made by leaking gases																													
Submerged or partially submerged sea caves																				A1 (Q)		A1 (P)							
Annual vegetation of drift lines																													
Salicornia and other annuals colonising mud and sand																													
Spartina swards																													
Atlantic salt meadows																													
Mediterranean and thermo-Atlantic halophilous scrubs																													
Saltmarsh (type not specified)																													
Perennial vegetation of stony banks																													
Vegetated sea cliffs																										A1 (P)			
Sand dunes																													
Birds-Breeding Season																													
Breeding Seabird Assemblage										30000	180000	22000	250000	157500	35000	30000	35000	113000											
Golden Eagle																													
Osprey																													
Wood Sandpiper																													
Northern Gannet											Art 4.2 sp			Art 4.2	Art 4.2														
Lesser Black-backed Gull																													
Herring Gull																													
Black-legged Kittiwake										Art 4.2 sp	Art 4.2 sp		Art 4.2 sp		Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp											
Common Guillemot										Art 4.2 sp	Art 4.2		Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2											
Corn Crake																													
Merlin																													
Black-throated Diver																													
European Storm Petrel						Art 4.1	Art 4.1																						
Arctic Tern			Art 4.1	Art 4.1		Art 4.1	Art 4.1				Art 4.1	Art 4.1	Art 4.1			Art 4.1	Art 4.1	Art 4.1											
Eurasian Dotterel																													
Northern Fulmar										Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp											
European Shag											Art 4.2 sp		Art 4.2																
Red-throated Diver		Art 4.1							Art 4.1				Art 4.1	Art 4.1															
European Golden Plover																													
Short-Eared owl																													
Dunlin												Art 4.2																	
Great Cormorant										Art 4.2 sp																			
Great Black-backed Gull										Art 4.2 sp																			
Atlantic Puffin											Art 4.2 sp		Art 4.2	Art 4.2	Art 4.2 sp														
Razorbill											Art 4.2 sp		Art 4.2 sp					Art 4.2 sp											
Sandwich Tern																													
Common Tern																													
Little Tern																													
Manx Shearwater																													
Roseate Tern																													
Peregrine Falcon																													
Arctic Skua											Art 4.2 sp	Art 4.2 sp	Art 4.2 sp			Art 4.2 sp		Art 4.2 sp											
Whimbrel												Art 4.2																	
Red-necked phalarope												Art 4.1																	
Great Skua		Art 4.2										Art 4.2	Art 4.2	Art 4.2	Art 4.2														
Great Crested Grebe																													
Leach's Storm Petrel	Art 4.1												Art 4.1																
Great Bittern																													
Common Redshank																													
Common Snipe																													
Pochard																													
Gadwall																													
Slavonian Grebe																													
Tufted Duck																													
Shoveler																													
Shelduck																													
Ringed Plover																													
Goosander																													
Greenshank																													
Eurasian Curlew																													

Table MT3 – Screening schedule for the N4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																		Special Area of Conservation									Ramsar	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Papa Westray	East Sanday Coast	Mousa	Auskerry	Lochs of Spiggie & Brow	Otterswick and Graveland	Calf of Eday	Fair Isle	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Rousay	Sumburgh Head	West Westray	Yell Sound Coast	Mousa	The Vaddils	Papa Stour	Faray and Holm of Faray	Hascosay	Sanday	Fair Isle	Sullom Voe	East Sanday Coast	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002111	UK9002331	UK9002361	UK9002381	UK9002651	UK9002941	UK9002431	UK9002091	UK9002031	UK9002061	UK9002011	UK9002081	UK9002371	UK9002511	UK9002101	UK0012687	UK0012711	UK0017068	UK0017069	UK0017096	UK0019793	UK0030069	UK0030149	UK0030273	UK13013	UK13054
Common Scoter																													
Northern Lapwing																													
Eurasian Teal																													
Eurasian Wigeon																													
Common Goldeneye																													
Black Guillemot																													
Eurasian Oystercatcher																													
Common (Mew) Gull																													
Black-headed Gull																													
Spotted Crake																													
Greylag Goose																													
Birds Overwintering/Passage																													
Wintering Waterfowl Assemblage																													
Common Redshank																													
Great Crested Grebe																													
Whooper Swan								Art 4.1																					
Barnacle Goose																													
Greylag Goose																													
Greenland White-fronted Goose																													
Pink-footed Goose																													
Light-bellied Brent Goose																													
Bar-tailed Godwit																													
Eurasian Wigeon																													
Northen Pintail																													
Red Knot																													
Purple Sandpiper					Art 4.2																							Cri 6	
Ruddy Turnstone					Art 4.2																							Cri 6	
Slavonian Grebe																													
Red-throated Diver																													
Common Eider																													
Common Shelduck																													
Great Cormorant																													
Mallard																													
Greater Scaup																													
Long-tailed Duck																													
Black (Common) Scoter																													
Velet Scoter																													
Common Goldeneye																													
Red-breasted Merganser																													
Eurasian Curlew																													
Eurasian Oystercatcher																													
Ringed Plover																													
European Golden Plover																													
Grey Plover																													
Northern Lapwing																													
Dunlin																													
Sandwich Tern																													
Sanderling																													
Black-tailed Godwit																													
Goosander																													
Eurasian Teal																													
Gadwall																													
Common Greenshank																													
Black-headed Gull																													
Common Tern																													
Common Gull (Mew)																													
Northern Shoveler																													
Bewick Swan																													
Common Pochard																													
Tufted Duck																													
Lesser Black-back Gull																													
Tundra Swan																													
Taiga Bean Goose																													

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT4 – Screening schedule for the N5 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area														Special Area of Conservation								Ramsar	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Papa Westray	East Sanday Coast	Mousa	Loch of Spiggie & Brow	Otterswick and Graveland	Fair Isle	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Sumburgh Head	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sanday	Fair Isle	Sullom Voe	East Sanday Coast	Ronas Hill - North Roe and Tingon
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002111	UK9002331	UK9002361	UK9002651	UK9002941	UK9002091	UK9002031	UK9002061	UK9002011	UK9002081	UK9002511	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030069	UK0030149	UK0030273	UK13013	UK13054
Mammals																								
Grey Seal																								
Common Seal															A2 (P)	A2 (P)				A2 (P)				Cri 2
Bottlenose dolphin																								
Otter															A2 (P)				A2 (Q)					Cri 2
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																								
Freshwater Pearl Mussel																								
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																				A1 (Q)				
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide																				A1 (Q)				
Coastal lagoons																	A1 (P)					A1 (Q)		
Large shallow inlets and bays																						A1 (P)		
Reefs																A1 (Q)		A1 (P)		A1 (P)		A1 (Q)		
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																A1 (Q)		A1 (P)						
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs																					A1 (P)			
Sand dunes																								
Birds-Breeding Season																								
Breeding Seabird Assemblage									180000	22000	250000	157500	35000	35000										
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet									Art 4.2 sp			Art 4.2	Art 4.2											
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake									Art 4.2 sp		Art 4.2 sp		Art 4.2 sp	Art 4.2 sp										
Common Guillemot									Art 4.2		Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2 sp										
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel						Art 4.1																		
Arctic Tern			Art 4.1	Art 4.1		Art 4.1			Art 4.1	Art 4.1	Art 4.1			Art 4.1										
Eurasian Dotterel																								
Northern Fulmar									Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp										
European Shag									Art 4.2 sp		Art 4.2													
Red-throated Diver		Art 4.1						Art 4.1			Art 4.1	Art 4.1												
European Golden Plover																								
Short-Eared owl																								
Dunlin										Art 4.2														
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin									Art 4.2 sp		Art 4.2	Art 4.2	Art 4.2 sp											
Razorbill									Art 4.2 sp		Art 4.2 sp													
Sandwich Tern																								
Common Tern																								
Little Tern																								
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua									Art 4.2 sp	Art 4.2 sp	Art 4.2 sp													
Whimbrel										Art 4.2														
Red-necked phalarope										Art 4.1														
Great Skua		Art 4.2								Art 4.2	Art 4.2	Art 4.2	Art 4.2											
Great Crested Grebe																								
Leach's Storm Petrel	Art 4.1										Art 4.1													
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								
Goosander																								
Greenshank																								
Eurasian Curlew																								

Table MT4 – Screening schedule for the N5 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area														Special Area of Conservation								Ramsar	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Papa Westray	East Sanday Coast	Mousa	Loch of Spiggie & Brow	Otterswick and Graveland	Fair Isle	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Sumburgh Head	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sanday	Fair Isle	Sullom Voe	East Sanday Coast	Ronas Hill - North Roe and Tingon
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002111	UK9002331	UK9002361	UK9002651	UK9002941	UK9002091	UK9002031	UK9002061	UK9002011	UK9002081	UK9002511	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030069	UK0030149	UK0030273	UK13013	UK13054
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage																								
Common Redshank																								
Great Crested Grebe																								
Whooper Swan							Art 4.1																	
Barnacle Goose																								
Greylag Goose																								
Greenland White-fronted Goose																								
Pink-footed Goose																								
Light-bellied Brent Goose																								
Bar-tailed Godwit																								
Eurasian Wigeon																								
Northen Pintail																								
Red Knot																								
Purple Sandpiper					Art 4.2																		Cri 6	
Ruddy Turnstone					Art 4.2																		Cri 6	
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye																								
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover																								
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT5 – Screening schedule for the N6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area											Special Area of Conservation						Ramsar
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Mousa	Lochs of Spiggie & Brow	Otterswick and Graveland	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Sumburgh Head	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sullom Voe	Ronas Hill - North Roe and Tingon
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002361	UK9002651	UK9002941	UK9002031	UK9002061	UK9002011	UK9002081	UK9002511	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030273	UK13054
Mammals																		
Grey Seal																		
Common Seal												A2 (P)	A2 (P)					Cri 2
Bottlenose dolphin																		
Otter												A2 (P)				A2 (Q)		Cri 2
Fish and other species																		
Salmon																		
Allis shad																		
Twaite shad																		
Sea Lamprey																		
River Lamprey																		
Freshwater Pearl Mussel																		
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time																		
Estuaries																		
Mudflats and sandflats not covered by seawater at low tide																		
Coastal lagoons														A1 (P)			A1 (Q)	
Large shallow inlets and bays																	A1 (P)	
Reefs													A1 (Q)		A1 (P)		A1 (Q)	
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves													A1 (Q)		A1 (P)			
Annual vegetation of drift lines																		
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows																		
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)																		
Perennial vegetation of stony banks																		
Vegetated sea cliffs																		
Sand dunes																		
Birds-Breeding Season																		
Breeding Seabird Assemblage							22000	250000	157500	35000	35000							
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet									Art 4.2	Art 4.2								
Lesser Black-backed Gull																		
Herring Gull																		
Black-legged Kittiwake								Art 4.2 sp		Art 4.2 sp	Art 4.2 sp							
Common Guillemot								Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2 sp							
Corn Crake																		
Merlin																		
Black-throated Diver																		
European Storm Petrel				Art 4.1														
Arctic Tern			Art 4.1	Art 4.1			Art 4.1	Art 4.1			Art 4.1							
Eurasian Dotterel																		
Northern Fulmar							Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp							
European Shag								Art 4.2										
Red-throated Diver		Art 4.1				Art 4.1		Art 4.1	Art 4.1									
European Golden Plover																		
Short-Eared owl																		
Dunlin							Art 4.2											
Great Cormorant																		
Great Black-backed Gull																		
Atlantic Puffin								Art 4.2	Art 4.2	Art 4.2 sp								
Razorbill								Art 4.2 sp										
Sandwich Tern																		
Common Tern																		
Little Tern																		
Manx Shearwater																		
Roseate Tern																		
Peregrine Falcon																		
Arctic Skua							Art 4.2 sp	Art 4.2 sp										
Whimbrel							Art 4.2											
Red-necked phalarope							Art 4.1											
Great Skua		Art 4.2					Art 4.2	Art 4.2	Art 4.2	Art 4.2								
Great Crested Grebe																		
Leach's Storm Petrel	Art 4.1							Art 4.1										
Great Bittern																		
Common Redshank																		
Common Snipe																		
Pochard																		
Gadwall																		
Slavonian Grebe																		
Tufted Duck																		
Shoveler																		
Shelduck																		
Ringed Plover																		

Table MT5 – Screening schedule for the N6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area											Special Area of Conservation						Ramsar
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Mousa	Lochs of Spiggie & Brow	Otterswick and Graveland	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Sumburgh Head	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sullom Voe	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002361	UK9002651	UK9002941	UK9002031	UK9002061	UK9002011	UK9002081	UK9002511	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030273	UK13054
Goosander																		
Greenshank																		
Eurasian Curlew																		
Common Scoter																		
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
Common Goldeneye																		
Black Guillemot																		
Eurasian Oystercatcher																		
Common (Mew) Gull																		
Black-headed Gull																		
Spotted Crake																		
Greylag Goose																		
Birds Overwintering/Passage																		
Wintering Waterfowl Assemblage																		
Common Redshank																		
Great Crested Grebe																		
Whooper Swan					Art 4.1													
Barnacle Goose																		
Greylag Goose																		
Greenland White-fronted Goose																		
Pink-footed Goose																		
Light-bellied Brent Goose																		
Bar-tailed Godwit																		
Eurasian Wigeon																		
Northen Pintail																		
Red Knot																		
Purple Sandpiper																		
Ruddy Turnstone																		
Slavonian Grebe																		
Red-throated Diver																		
Common Eider																		
Common Shelduck																		
Great Cormorant																		
Mallard																		
Greater Scaup																		
Long-tailed Duck																		
Black (Common) Scoter																		
Velet Scoter																		
Common Goldeneye																		
Red-breasted Merganser																		
Eurasian Curlew																		
Eurasian Oystercatcher																		
Ringed Plover																		
European Golden Plover																		
Grey Plover																		
Northern Lapwing																		
Dunlin																		
Sandwich Tern																		
Sanderling																		
Black-tailed Godwit																		
Goosander																		
Eurasian Teal																		
Gadwall																		
Common Greenshank																		
Black-headed Gull																		
Common Tern																		
Common Gull (Mew)																		
Northern Shoveler																		
Bewick Swan																		
Common Pochard																		
Tufted Duck																		
Lesser Black-back Gull																		
Tundra Swan																		
Taiga Bean Goose																		

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT6 – Screening schedule for the N7 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area														Special Area of Conservation								Ramsar	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	East Sanday Coast	Mousa	Lochs of Spiggie & Brow	Otterswick and Graveland	Calf of Eday	Fair Isle	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Sumburgh Head	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sanday	Fair Isle	Sullom Voe	East Sanday Coast	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002331	UK9002361	UK9002651	UK9002941	UK9002431	UK9002091	UK9002031	UK9002061	UK9002011	UK9002081	UK9002511	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030069	UK0030149	UK0030273	UK13013	UK13054
Mammals																								
Grey Seal																								
Common Seal															A2 (P)	A2 (P)				A2 (P)				Cri 2
Bottlenose dolphin																								
Otter															A2 (P)				A2 (Q)					Cri 2
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																								
Freshwater Pearl Mussel																								
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																				A1 (Q)				
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide																				A1 (Q)				
Coastal lagoons																	A1 (P)					A1 (Q)		
Large shallow inlets and bays																						A1 (P)		
Reefs																A1 (Q)		A1 (P)		A1 (P)		A1 (Q)		
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																A1 (Q)		A1 (P)						
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs																					A1 (P)			
Sand dunes																								
Birds-Breeding Season																								
Breeding Seabird Assemblage								30000	180000	22000	250000	157500	35000	35000										
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet									Art 4.2 sp			Art 4.2	Art 4.2											
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake								Art 4.2 sp	Art 4.2 sp		Art 4.2 sp		Art 4.2 sp	Art 4.2 sp										
Common Guillemot								Art 4.2 sp	Art 4.2		Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2 sp										
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel					Art 4.1																			
Arctic Tern			Art 4.1		Art 4.1				Art 4.1	Art 4.1	Art 4.1			Art 4.1										
Eurasian Dotterel																								
Northern Fulmar								Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp										
European Shag									Art 4.2 sp		Art 4.2													
Red-throated Diver		Art 4.1					Art 4.1				Art 4.1	Art 4.1												
European Golden Plover																								
Short-Eared owl																								
Dunlin										Art 4.2														
Great Cormorant								Art 4.2 sp																
Great Black-backed Gull								Art 4.2 sp																
Atlantic Puffin									Art 4.2 sp		Art 4.2	Art 4.2	Art 4.2 sp											
Razorbill									Art 4.2 sp		Art 4.2 sp													
Sandwich Tern																								
Common Tern																								
Little Tern																								
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua									Art 4.2 sp	Art 4.2 sp	Art 4.2 sp													
Whimbrel										Art 4.2														
Red-necked phalarope										Art 4.1														
Great Skua		Art 4.2								Art 4.2	Art 4.2	Art 4.2	Art 4.2											
Great Crested Grebe																								
Leach's Storm Petrel	Art 4.1										Art 4.1													
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								

Table MT6 – Screening schedule for the N7 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area														Special Area of Conservation								Ramsar	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	East Sanday Coast	Mousa	Lochs of Spiggie & Brow	Otterswick and Graveland	Calf of Eday	Fair Isle	Fetlar	Foula	Hermaness, Saxa Vord and Valla Field	Noss	Sumburgh Head	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sanday	Fair Isle	Sullom Voe	East Sanday Coast	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002331	UK9002361	UK9002651	UK9002941	UK9002431	UK9002091	UK9002031	UK9002061	UK9002011	UK9002081	UK9002511	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030069	UK0030149	UK0030273	UK13013	UK13054
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage																								
Common Redshank																								
Great Crested Grebe																								
Whooper Swan						Art 4.1																		
Barnacle Goose																								
Greylag Goose																								
Greenland White-fronted Goose																								
Pink-footed Goose																								
Light-bellied Brent Goose																								
Bar-tailed Godwit																								
Eurasian Wigeon																								
Northen Pintail																								
Red Knot																								
Purple Sandpiper				Art 4.2																			Cri 6	
Ruddy Turnstone				Art 4.2																			Cri 6	
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye																								
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover																								
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT7 – Screening schedule for the N8 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area								Special Area of Conservation						Ramsar
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Mousa	Otterswick and Graveland	Fetlar	Hermaness, Saxa Vord and Valla Field	Noss	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sullom Voe	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002361	UK9002941	UK9002031	UK9002011	UK9002081	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030273	UK13054
Mammals															
Grey Seal															
Common Seal									A2 (P)	A2 (P)					Cri 2
Bottlenose dolphin															
Otter									A2 (P)				A2 (Q)		Cri 2
Fish and other species															
Salmon															
Allis shad															
Twaite shad															
Sea Lamprey															
River Lamprey															
Freshwater Pearl Mussel															
Coastal Habitats															
Sandbanks which are slightly covered by seawater all the time															
Estuaries															
Mudflats and sandflats not covered by seawater at low tide															
Coastal lagoons											A1 (P)			A1 (Q)	
Large shallow inlets and bays														A1 (P)	
Reefs										A1 (Q)		A1 (P)		A1 (Q)	
Submarine structures made by leaking gases															
Submerged or partially submerged sea caves										A1 (Q)		A1 (P)			
Annual vegetation of drift lines															
Salicornia and other annuals colonising mud and sand															
Spartina swards															
Atlantic salt meadows															
Mediterranean and thermo-Atlantic halophilous scrubs															
Saltmarsh (type not specified)															
Perennial vegetation of stony banks															
Vegetated sea cliffs															
Sand dunes															
Birds-Breeding Season															
Breeding Seabird Assemblage						22000	157500	35000							
Golden Eagle															
Osprey															
Wood Sandpiper															
Northern Gannet							Art 4.2	Art 4.2							
Lesser Black-backed Gull															
Herring Gull															
Black-legged Kittiwake								Art 4.2 sp							
Common Guillemot							Art 4.2 sp	Art 4.2							
Corn Crake															
Merlin															
Black-throated Diver															
European Storm Petrel				Art 4.1											
Arctic Tern			Art 4.1	Art 4.1		Art 4.1									
Eurasian Dotterel															
Northern Fulmar						Art 4.2 sp	Art 4.2 sp	Art 4.2 sp							
European Shag															
Red-throated Diver		Art 4.1			Art 4.1		Art 4.1								
European Golden Plover															
Short-Eared owl															
Dunlin						Art 4.2									
Great Cormorant															
Great Black-backed Gull															
Atlantic Puffin							Art 4.2	Art 4.2 sp							
Razorbill															
Sandwich Tern															
Common Tern															
Little Tern															
Manx Shearwater															
Roseate Tern															
Peregrine Falcon															
Arctic Skua						Art 4.2 sp									
Whimbrel						Art 4.2									
Red-necked phalarope						Art 4.1									
Great Skua		Art 4.2				Art 4.2	Art 4.2	Art 4.2							
Great Crested Grebe															
Leach's Storm Petrel	Art 4.1														
Great Bittern															
Common Redshank															
Common Snipe															
Pochard															
Gadwall															

Table MT7 – Screening schedule for the N8 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area								Special Area of Conservation						Ramsar
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	Ramna Stacks and Gruney	Ronas Hill - North Roe and Tingon	Papa Stour	Mousa	Otterswick and Graveland	Fetlar	Hermaness, Saxa Vord and Valla Field	Ness	Yell Sound Coast	Mousa	The Vadills	Papa Stour	Hascosay	Sullom Voe	Ronas Hill - North Roe and Tingo
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002021	UK9002041	UK9002051	UK9002361	UK9002941	UK9002031	UK9002011	UK9002081	UK0012687	UK0012711	UK0017068	UK0017069	UK0019793	UK0030273	UK13054
Slavonian Grebe															
Tufted Duck															
Shoveler															
Shelduck															
Ringed Plover															
Goosander															
Greenshank															
Eurasian Curlew															
Common Scoter															
Northern Lapwing															
Eurasian Teal															
Eurasian Wigeon															
Common Goldeneye															
Black Guillemot															
Eurasian Oystercatcher															
Common (Mew) Gull															
Black-headed Gull															
Spotted Crake															
Greylag Goose															
Birds Overwintering/Passage															
Wintering Waterfowl Assemblage															
Common Redshank															
Great Crested Grebe															
Whooper Swan															
Barnacle Goose															
Greylag Goose															
Greenland White-fronted Goose															
Pink-footed Goose															
Light-bellied Brent Goose															
Bar-tailed Godwit															
Eurasian Wigeon															
Northen Pintail															
Red Knot															
Purple Sandpiper															
Ruddy Turnstone															
Slavonian Grebe															
Red-throated Diver															
Common Eider															
Common Shelduck															
Great Cormorant															
Mallard															
Greater Scaup															
Long-tailed Duck															
Black (Common) Scoter															
Velet Scoter															
Common Goldeneye															
Red-breasted Merganser															
Eurasian Curlew															
Eurasian Oystercatcher															
Ringed Plover															
European Golden Plover															
Grey Plover															
Northern Lapwing															
Dunlin															
Sandwich Tern															
Sanderling															
Black-tailed Godwit															
Goosander															
Eurasian Teal															
Gadwall															
Common Greenshank															
Black-headed Gull															
Common Tern															
Common Gull (Mew)															
Northern Shoveler															
Bewick Swan															
Common Pochard															
Tufted Duck															
Lesser Black-back Gull															
Tundra Swan															
Taiga Bean Goose															

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT8 – Screening schedule for the NE1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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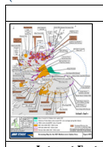

Designation	Special Protection Area																										
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Inverpolly, Loch Urigill and Nearby Lochs	Loch Ruthven	Loch Knockie & Nearby Lochs	North Inverness Lochs	Loch Ashie	Assynt Lochs	Lairg and Strathbrora Lochs	Loch Eye	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Moray & Nairn Coast	Loch Flemington	Achanalt Marshes	Loch Spynie	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	River Spey Insh Marshes	Loch of Skene	Loch Vaa	Muir of Dinnet	Swiftha
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001211	UK9001511	UK9001551	UK9001552	UK9001553	UK9001554	UK9001591	UK9001611	UK9001621	UK9001622	UK9001623	UK9001624	UK9001625	UK9001691	UK9001701	UK9002201	UK9002211	UK9002221	UK9002231	UK9002261	UK9002751	UK9002791	UK9002891
Mammals																											
Grey Seal																											
Common Seal																											
Bottlenose dolphin																											
Otter																											
Fish and other species																											
Salmon																											
Allis shad																											
Twaite shad																											
Sea Lamprey																											
River Lamprey																											
Freshwater Pearl Mussel																											
Coastal Habitats																											
Sandbanks which are slightly covered by seawater all the time																											
Estuaries																											
Mudflats and sandflats not covered by seawater at low tide																											
Coastal lagoons																											
Large shallow inlets and bays																											
Reefs																											
Submarine structures made by leaking gases																											
Submerged or partially submerged sea caves																											
Annual vegetation of drift lines																											
Salicornia and other annuals colonising mud and sand																											
Spartina swards																											
Atlantic salt meadows																											
Mediterranean and thermo-Atlantic halophilous scrubs																											
Saltmarsh (type not specified)																											
Perennial vegetation of stony banks																											
Vegetated sea cliffs																											
Sand dunes																											
Birds-Breeding Season																											
Breeding Seabird Assemblage																											
Golden Eagle																											
Osprey													Art 4.1	Art 4.1	Art 4.1	Art 4.1						Art 4.1				
Wood Sandpiper		Art 4.1																Art 4.1				Art 4.1				
Northern Gannet																											
Lesser Black-backed Gull																											
Herring Gull																											
Black-legged Kittiwake																											
Common Guillemot																											
Corn Crake																											
Merlin		Art 4.1																									
Black-throated Diver		Art 4.1			Art 4.1					Art 4.1	Art 4.1																
European Storm Petrel																											
Arctic Tern	Art 4.1																										
Eurasian Dotterel																											
Northern Fulmar																											
European Shag																											
Red-throated Diver		Art 4.1																									
European Golden Plover		Art 4.1																									
Short-Eared owl		Art 4.1																									
Dunlin		Art 4.2																									
Great Cormorant																											
Great Black-backed Gull																											
Atlantic Puffin																											
Razorbill																											
Sandwich Tern																				Art 4.1	Art 4.1						
Common Tern														Art 4.1	Art 4.1						Art 4.1						
Little Tern																					Art 4.1						
Manx Shearwater																											
Roseate Tern																											
Peregrine Falcon																											
Arctic Skua																											
Whimbrel																											
Red-necked phalarope																											
Great Skua																											
Great Crested Grebe																											
Leach's Storm Petrel																											
Great Bittern																											
Common Redshank																											
Common Snipe																											
Pochard																											
Gadwall																											
Slavonian Grebe						Art 4.1	Art 4.1	Art 4.1	Art 4.1								Art 4.1							Art 4.1		
Tufted Duck																											
Shoveler																											
Shelduck																											
Ringed Plover																											

Table MT8 – Screening schedule for the NE1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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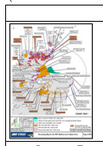

Designation	Special Protection Area																										
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Inverpolly, Loch Urigill and Nearby Lochs	Loch Ruthven	Loch Knockie & Nearby Lochs	North Inverness Lochs	Loch Ashie	Assynt Lochs	Lairg and Strathbrora Lochs	Loch Eye	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Moray & Nairn Coast	Loch Flemington	Achanalt Marshes	Loch Spynie	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	River Spey Insh Marshes	Loch of Skene	Loch Vaa	Muir of Dinnet	Swiftha
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001211	UK9001511	UK9001551	UK9001552	UK9001553	UK9001554	UK9001591	UK9001611	UK9001621	UK9001622	UK9001623	UK9001624	UK9001625	UK9001691	UK9001701	UK9002201	UK9002211	UK9002221	UK9002231	UK9002261	UK9002751	UK9002791	UK9002891
Goosander																										
Greenshank																										
Eurasian Curlew																										
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																								Art 4.2		
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																						Art 4.1				
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage													35,202	30,200		17,473				49,456	22,817					
Common Redshank															Art 4.2	Art 4.2										
Great Crested Grebe																										
Whooper Swan			Art 4.1									Art 4.1		Art 4.1						Art 4.1		Art 4.1				
Barnacle Goose				Art 4.1																						Art 4.1
Greylag Goose			Art 4.2									Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2			Art 4.2	Art 4.2			Art 4.2		Art 4.2	
Greenland White-fronted Goose			Art 4.1																							
Pink-footed Goose																Art 4.2				Art 4.2	Art 4.2					
Light-bellied Brent Goose																										
Bar-tailed Godwit													Art 4.1	Art 4.1	Art 4.1											
Eurasian Wigeon													Art 4.2													
Northen Pintail																										
Red Knot																										
Purple Sandpiper																										
Ruddy Turnstone																										
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck																										
Great Cormorant																										
Mallard																										
Greater Scaup																										
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye																				Art 4.2			Art 4.2			
Red-breasted Merganser															Art 4.2											
Eurasian Curlew																										
Eurasian Oystercatcher																										
Ringed Plover																										
European Golden Plover																										
Grey Plover																										
Northern Lapwing																										
Dunlin																										
Sandwich Tern																										
Sanderling																										
Black-tailed Godwit																										
Goosander																							Art 4.2			
Eurasian Teal																				Art 4.2						
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring		
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT8 – Screening schedule for the NE1 Medium-term Opti

NB This screening schedule table and map show sites within 100kn

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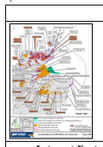

Designation	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Buchan Ness to Collieston Coast	East Caithness Cliffs	Fowlsheugh	Hoy	North Caithness Cliffs	Troup, Pennan and Lion's Heads	Glen Tanar	Hoy	River Borgie	Invernaver	Sands of Forvie	Foinaven	Caithness and Sutherland Peatlands	Strathglass Complex	Cairngorms	Dornoch Firth and Morrich More	Culbin Bar	Moray Firth	River Spey	Insh Marshes	Muir of Dinnet	Ballochbuie	Strathy Point	Berriedale and Langwell Waters	Buchan Ness to Collieston	East Caithness Cliffs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002491	UK9001182	UK9002271	UK9002141	UK9001181	UK9002471	UK0012756	UK0012791	UK0012995	UK0013041	UK0013042	UK0013141	UK0013602	UK0014739	UK0016412	UK0019806	UK0019807	UK0019808	UK0019811	UK0019812	UK0019959	UK0030030	UK0030066	UK0030088	UK0030101	UK0030143
Mammals																										
Grey Seal																										
Common Seal																A2 (P)										
Bottlenose dolphin																		A2 (P)								
Otter							A2 (Q)		A2 (Q)			A2 (Q)	A2 (P)	A2 (Q)	A2 (Q)	A2 (P)				A2 (P)	A2 (Q)	A2 (Q)				
Fish and other species																										
Salmon									A2 (Q)										A2 (P)					A2 (P)		
Allis shad																										
Twaite shad																										
Sea Lamprey																			A2 (P)							
River Lamprey																										
Freshwater Pearl Mussel									A2 (P)			A2 (Q)							A2 (P)							
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time																A1 (Q)		A1 (Q)								
Estuaries																										
Mudflats and sandflats not covered by seawater at low tide																A1 (P)										
Coastal lagoons																										
Large shallow inlets and bays																										
Reefs																A1 (Q)										
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																										
Annual vegetation of drift lines																										
Salicornia and other annuals colonising mud and sand																A1 (P)										
Spartina swards																										
Atlantic salt meadows																A1 (P)	A1 (Q)									
Mediterranean and thermo-Atlantic halophilous scrubs																										
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks																										
Vegetated sea cliffs								A1 (P)									A1 (P)						A1 (P)		A1 (P)	A1 (P)
Sand dunes										A1 (P)/A1 (Q)	A1 (P)					A1 (P)	A1 (Q)									
Birds-Breeding Season																										
Breeding Seabird Assemblage	95000	300000	145000	120000	110000	150000																				
Golden Eagle																										
Osprey																										
Wood Sandpiper																										
Northern Gannet																										
Lesser Black-backed Gull																										
Herring Gull	Art 4.2 sp	Art 4.2	Art 4.2 sp			Art 4.2 sp																				
Black-legged Kittiwake	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2																				
Common Guillemot	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2	Art 4.2																				
Corn Crake																										
Merlin																										
Black-throated Diver																										
European Storm Petrel																										
Arctic Tern																										
Eurasian Dotterel																										
Northern Fulmar	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																				
European Shag	Art 4.2 sp	Art 4.2																								
Red-throated Diver				Art 4.1																						
European Golden Plover																										
Short-Eared owl																										
Dunlin																										
Great Cormorant		Art 4.2 sp																								
Great Black-backed Gull		Art 4.2 sp		Art 4.2 sp																						
Atlantic Puffin		Art 4.2 sp		Art 4.2 sp	Art 4.2 sp																					
Razorbill		Art 4.2	Art 4.2 sp		Art 4.2 sp	Art 4.2 sp																				
Sandwich Tern																										
Common Tern																										
Little Tern																										
Manx Shearwater																										
Roseate Tern																										
Peregrine Falcon		Art 4.1		Art 4.1	Art 4.1																					
Arctic Skua				Art 4.2 sp																						
Whimbrel																										
Red-necked phalarope																										
Great Skua				Art 4.2																						
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank																										
Common Snipe																										
Pochard																										
Gadwall																										
Slavonian Grebe																										
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover																										

Table MT8 – Screening schedule for the NE1 Medium-term Opti

NB This screening schedule table and map show sites within 100kn

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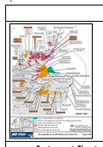
							Special Area of Conservation																			
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Buchan Ness to Collieston Coast	East Caithness Cliffs	Fowlsheugh	Hoy	North Caithness Cliffs	Troup, Pennan and Lion's Heads	Glen Tanar	Hoy	River Borgie	Invernaver	Sands of Forvie	Foinaven	Caithness and Sutherland Peatlands	Strathglass Complex	Cairngorms	Dornoch Firth and Morrich More	Culbin Bar	Moray Firth	River Spey	Insh Marshes	Muir of Dinnet	Ballochbuie	Strathy Point	Berriedale and Langwell Waters	Buchan Ness to Collieston	East Caithness Cliffs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9002491	UK9001182	UK9002271	UK9002141	UK9001181	UK9002471	UK0012756	UK0012791	UK0012995	UK0013041	UK0013042	UK0013141	UK0013602	UK0014739	UK0016412	UK0019806	UK0019807	UK0019808	UK0019811	UK0019812	UK0019959	UK0030030	UK0030066	UK0030088	UK0030101	UK0030143
Goosander																										
Greenshank																										
Eurasian Curlew																										
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage																										
Common Redshank																										
Great Crested Grebe																										
Whooper Swan																										
Barnacle Goose																										
Greylag Goose																										
Greenland White-fronted Goose																										
Pink-footed Goose																										
Light-bellied Brent Goose																										
Bar-tailed Godwit																										
Eurasian Wigeon																										
Northen Pintail																										
Red Knot																										
Purple Sandpiper																										
Ruddy Turnstone																										
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck																										
Great Cormorant																										
Mallard																										
Greater Scaup																										
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye																										
Red-breasted Merganser																										
Eurasian Curlew																										
Eurasian Oystercatcher																										
Ringed Plover																										
European Golden Plover																										
Grey Plover																										
Northern Lapwing																										
Dunlin																										
Sandwich Tern																										
Sanderling																										
Black-tailed Godwit																										
Goosander																										
Eurasian Teal																										
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Table MT8 – Screening schedule for the NE1 Medium-term Opti

NB This screening schedule table and map show sites within 100kn

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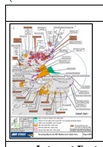
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Inverpolly	Loch Ruthven	Ness Woods	Ardvar and Loch a Mhuilinn Woodlands	River Dee	River Evelix	River Moriston	River Naver	River Oykel	River South Esk	River Thurso	Caithness and Sutherland Peatlands	Caithness Lochs	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Loch Eye	Loch of Skene	Loch of Strathbeg	Loch Ruthven	Loch Spynie	Moray and Nairn Coast	Muir of Dinnet	River Spey - Insh Marshes	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030171	UK0030195	UK0030223	UK0030231	UK0030251	UK0030254	UK0030259	UK0030260	UK0030261	UK0030262	UK0030264	UK13003	UK13004	UK13009	UK13011	UK13025	UK13031	UK13040	UK13041	UK13042	UK13043	UK13048	UK13049	UK13053	UK13061
Mammals																									
Grey Seal																									
Common Seal																									
Bottlenose dolphin																									
Otter	A2 (P)	A2 (Q)	A2 (Q)	A2 (Q)	A2 (Q)																			Cri 2	
Fish and other species																									
Salmon					A2 (P)		A2 (Q)	A2 (P)	A2 (Q)	A2 (P)	A2 (P)														
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey																									
Freshwater Pearl Mussel	A2 (Q)			A2 (Q)	A2 (P)	A2 (P)	A2 (P)	A2 (P)	A2 (P)	A2 (P)															
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time																									
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide														Cri 1		Cri 1						Cri 1			
Coastal lagoons																									
Large shallow inlets and bays																									
Reefs																									
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																									
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																									
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																Cri 1						Cri 1			
Perennial vegetation of stony banks																						Cri 1			
Vegetated sea cliffs																									
Sand dunes															Cri 1							Cri 1			
Birds-Breeding Season																									
Breeding Seabird Assemblage																									
Golden Eagle																									
Osprey															Cri 6										
Wood Sandpiper												Cri 2													
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																									
Black-legged Kittiwake																									
Common Guillemot																									
Corn Crake																									
Merlin																									
Black-throated Diver												Cri 2													
European Storm Petrel																									
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																									
European Shag																									
Red-throated Diver												Cri 2													
European Golden Plover												Cri 2													
Short-Eared owl																									
Dunlin												Cri 6													
Great Cormorant																									
Great Black-backed Gull																									
Atlantic Puffin																									
Razorbill																									
Sandwich Tern																									Cri 6
Common Tern																									
Little Tern																									
Manx Shearwater																									
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua												Cri 2													
Whimbrel																									
Red-necked phalarope																									
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Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank																									
Common Snipe																									
Pochard																									
Gadwall																									
Slavonian Grebe																				Cri 3					
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover																									

Table MT8 – Screening schedule for the NE1 Medium-term Opti

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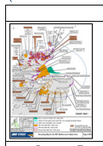
												Ramsar													
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Inverpolly	Loch Ruthven	Ness Woods	Ardvar and Loch a Mhuilinn Woodlands	River Dee	River Evelix	River Moriston	River Naver	River Oykel	River South Esk	River Thurso	Caithness and Sutherland Peatlands	Caithness Lochs	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Loch Eye	Loch of Skene	Loch of Strathbeg	Loch Ruthven	Loch Spynie	Moray and Nairn Coast	Muir of Dinnet	River Spey - Insh Marshes	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030171	UK0030195	UK0030223	UK0030231	UK0030251	UK0030254	UK0030259	UK0030260	UK0030261	UK0030262	UK0030264	UK13003	UK13004	UK13009	UK13011	UK13025	UK13031	UK13040	UK13041	UK13042	UK13043	UK13048	UK13049	UK13053	UK13061
Goosander																									
Greenshank												Cri 2													
Eurasian Curlew												Cri 2													
Common Scoter												Cri 2													
Northern Lapwing																									
Eurasian Teal												Cri 2													
Eurasian Wigeon												Cri 2													
Common Goldeneye																									
Black Guillemot																									
Eurasian Oystercatcher																									
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose																									
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage														Cri 5 (30,200)	Cri 5 (28,692)	Cri 5 (25,740)			Cri 5 (47,831)			Cri 5 (22,609)	Cri 5 (30,000)		Cri 5 (9,271)
Common Redshank															Cri 6	Cri 6						Cri 6			
Great Crested Grebe																									
Whooper Swan													Cri 6		Cri 6		Cri 6		Cri 6					Cri 6	
Barnacle Goose																									
Greylag Goose													Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		Cri 6	Cri 6	Cri 6		
Greenland White-fronted Goose													Cri 6												
Pink-footed Goose																			Cri 6			Cri 6			Cri 6
Light-bellied Brent Goose																									
Bar-tailed Godwit														Cri 6	Cri 6	Cri 6									
Eurasian Wigeon															Cri 6										
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone																									
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
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Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																Cri 6									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover																									
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling																									
Black-tailed Godwit																									
Goosander																									
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Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

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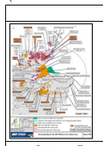
Designation	
	**European/Ramsar Site**
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	
Mammals	
Grey Seal	
Common Seal	
Bottlenose dolphin	
Otter	
Fish and other species	
Salmon	
Allis shad	
Twaite shad	
Sea Lamprey	
River Lamprey	
Freshwater Pearl Mussel	
Coastal Habitats	
Sandbanks which are slightly covered by seawater all the time	
Estuaries	
Mudflats and sandflats not covered by seawater at low tide	
Coastal lagoons	
Large shallow inlets and bays	
Reefs	
Submarine structures made by leaking gases	
Submerged or partially submerged sea caves	
Annual vegetation of drift lines	
Salicornia and other annuals colonising mud and sand	
Spartina swards	
Atlantic salt meadows	
Mediterranean and thermo-Atlantic halophilous scrubs	
Saltmarsh (type not specified)	
Perennial vegetation of stony banks	
Vegetated sea cliffs	
Sand dunes	
Birds-Breeding Season	
Breeding Seabird Assemblage	
Golden Eagle	
Osprey	
Wood Sandpiper	
Northern Gannet	
Lesser Black-backed Gull	
Herring Gull	
Black-legged Kittiwake	
Common Guillemot	
Corn Crake	
Merlin	
Black-throated Diver	
European Storm Petrel	
Arctic Tern	
Eurasian Dotterel	
Northern Fulmar	
European Shag	
Red-throated Diver	
European Golden Plover	
Short-Eared owl	
Dunlin	
Great Cormorant	
Great Black-backed Gull	
Atlantic Puffin	
Razorbill	
Sandwich Tern	
Common Tern	
Little Tern	
Manx Shearwater	
Roseate Tern	
Peregrine Falcon	
Arctic Skua	
Whimbrel	
Red-necked phalarope	
Great Skua	
Great Crested Grebe	
Leach's Storm Petrel	
Great Bittern	
Common Redshank	
Common Snipe	
Pochard	
Gadwall	
Slavonian Grebe	
Tufted Duck	
Shoveler	
Shelduck	
Ringed Plover	

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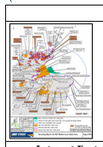
Designation
 **European/Ramsar Site**
Interest Features (NB grouped in some cases e.g. dunes)/Site Code
Goosander
Greenshank
Eurasian Curlew
Common Scoter
Northern Lapwing
Eurasian Teal
Eurasian Wigeon
Common Goldeneye
Black Guillemot
Eurasian Oystercatcher
Common (Mew) Gull
Black-headed Gull
Spotted Crake
Greylag Goose
Birds Overwintering/Passage
Wintering Waterfowl Assemblage
Common Redshank
Great Crested Grebe
Whooper Swan
Barnacle Goose
Greylag Goose
Greenland White-fronted Goose
Pink-footed Goose
Light-bellied Brent Goose
Bar-tailed Godwit
Eurasian Wigeon
Northen Pintail
Red Knot
Purple Sandpiper
Ruddy Turnstone
Slavonian Grebe
Red-throated Diver
Common Eider
Common Shelduck
Great Cormorant
Mallard
Greater Scaup
Long-tailed Duck
Black (Common) Scoter
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Common Goldeneye
Red-breasted Merganser
Eurasian Curlew
Eurasian Oystercatcher
Ringed Plover
European Golden Plover
Grey Plover
Northern Lapwing
Dunlin
Sandwich Tern
Sanderling
Black-tailed Godwit
Goosander
Eurasian Teal
Gadwall
Common Greenshank
Black-headed Gull
Common Tern
Common Gull (Mew)
Northern Shoveler
Bewick Swan
Common Pochard
Tufted Duck
Lesser Black-back Gull
Tundra Swan
Taiga Bean Goose

Table MT9 – Screening schedule for the NE2 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																					Special Area of Conservation					
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	Lairg and Strathbrora Lochs	Loch Eye	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Moray & Nairn Coast	Loch Flemington	Loch Spynie	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Loch Vaa	Muir of Dinnet	Buchan Ness to Collieston Coast	East Caithness Cliffs	Fowlsheugh	North Caithness Cliffs	Troup, Pennan and Lion's Heads	Glen Tanar	Sands of Forvie	Caithness and Sutherland Peatlands	Cairngorms	Dornoch Firth and Morrich More	Culbin Bar
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001611	UK9001621	UK9001622	UK9001623	UK9001624	UK9001625	UK9001691	UK9002201	UK9002211	UK9002221	UK9002261	UK9002751	UK9002791	UK9002491	UK9001182	UK9002271	UK9001181	UK9002471	UK0012756	UK0013042	UK0013602	UK0016412	UK0019806	UK0019807
Mammals																											
Grey Seal																											
Common Seal																										A2 (P)	
Bottlenose dolphin																											
Otter																						A2 (Q)		A2 (P)	A2 (Q)	A2 (P)	
Fish and other species																											
Salmon																											
Allis shad																											
Twaite shad																											
Sea Lamprey																											
River Lamprey																											
Freshwater Pearl Mussel																											
Coastal Habitats																											
Sandbanks which are slightly covered by seawater all the time																										A1 (Q)	
Estuaries																											
Mudflats and sandflats not covered by seawater at low tide																										A1 (P)	
Coastal lagoons																											
Large shallow inlets and bays																											
Reefs																										A1 (Q)	
Submarine structures made by leaking gases																											
Submerged or partially submerged sea caves																											
Annual vegetation of drift lines																											
Salicornia and other annuals colonising mud and sand																										A1 (P)	
Spartina swards																											
Atlantic salt meadows																										A1 (P)	A1 (Q)
Mediterranean and thermo-Atlantic halophilous scrubs																											
Saltmarsh (type not specified)																											
Perennial vegetation of stony banks																											
Vegetated sea cliffs																											A1 (P)
Sand dunes																							A1 (P)			A1 (P)	A1 (Q)
Birds-Breeding Season																											
Breeding Seabird Assemblage																	95000	300000	145000	110000	150000						
Golden Eagle																											
Osprey						Art 4.1	Art 4.1	Art 4.1	Art 4.1																		
Wood Sandpiper		Art 4.1																									
Northern Gannet																											
Lesser Black-backed Gull																											
Herring Gull																	Art 4.2 sp	Art 4.2	Art 4.2 sp		Art 4.2 sp						
Black-legged Kittiwake																	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2						
Common Guillemot																	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2	Art 4.2						
Corn Crake																											
Merlin		Art 4.1																									
Black-throated Diver		Art 4.1		Art 4.1																							
European Storm Petrel																											
Arctic Tern	Art 4.1																										
Eurasian Dotterel																											
Northern Fulmar																	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp						
European Shag																	Art 4.2 sp	Art 4.2									
Red-throated Diver		Art 4.1																									
European Golden Plover		Art 4.1																									
Short-Eared owl		Art 4.1																									
Dunlin		Art 4.2																									
Great Cormorant																		Art 4.2 sp									
Great Black-backed Gull																		Art 4.2 sp									
Atlantic Puffin																		Art 4.2 sp		Art 4.2 sp							
Razorbill																		Art 4.2	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp						
Sandwich Tern												Art 4.1	Art 4.1														
Common Tern							Art 4.1	Art 4.1					Art 4.1														
Little Tern													Art 4.1														
Manx Shearwater																											
Roseate Tern																											
Peregrine Falcon																		Art 4.1		Art 4.1							
Arctic Skua																											
Whimbrel																											
Red-necked phalarope																											
Great Skua																											
Great Crested Grebe																											
Leach's Storm Petrel																											
Great Bittern																											
Common Redshank																											
Common Snipe																											
Pochard																											
Gadwall																											
Slavonian Grebe										Art 4.1					Art 4.1												
Tufted Duck																											
Shoveler																											
Shelduck																											
Ringed Plover																											
Goosander																											

Table MT9 – Screening schedule for the NE2 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																					Special Area of Conservation					
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Pentland Firth Islands	Caithness & Sutherland Peatlands	Caithness Lochs	Lairg and Strathbrora Lochs	Loch Eye	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Moray & Nairn Coast	Loch Flemington	Loch Spynie	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Loch Vaa	Muir of Dinnet	Buchan Ness to Collieston Coast	East Caithness Cliffs	Fowlsheugh	North Caithness Cliffs	Troup, Pennan and Lion's Heads	Glen Tanar	Sands of Forvie	Caithness and Sutherland Peatlands	Cairngorms	Dornoch Firth and Morrich More	Culbin Bar
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001131	UK9001151	UK9001171	UK9001611	UK9001621	UK9001622	UK9001623	UK9001624	UK9001625	UK9001691	UK9002201	UK9002211	UK9002221	UK9002261	UK9002751	UK9002791	UK9002491	UK9001182	UK9002271	UK9001181	UK9002471	UK0012756	UK0013042	UK0013602	UK0016412	UK0019806	UK0019807
Greenshank																											
Eurasian Curlew																											
Common Scoter																											
Northern Lapwing																											
Eurasian Teal																											
Eurasian Wigeon																											
Common Goldeneye															Art 4.2												
Black Guillemot																											
Eurasian Oystercatcher																											
Common (Mew) Gull																											
Black-headed Gull																											
Spotted Crake																											
Greylag Goose																											
Birds Overwintering/Passage																											
Wintering Waterfowl Assemblage						35,202	30,200		17,473			49,456	22,817														
Common Redshank								Art 4.2	Art 4.2																		
Great Crested Grebe																											
Whooper Swan			Art 4.1		Art 4.1		Art 4.1					Art 4.1															
Barnacle Goose																											
Greylag Goose			Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2	Art 4.2		Art 4.2	Art 4.2		Art 4.2		Art 4.2											
Greenland White-fronted Goose			Art 4.1																								
Pink-footed Goose									Art 4.2			Art 4.2	Art 4.2														
Light-bellied Brent Goose																											
Bar-tailed Godwit						Art 4.1	Art 4.1	Art 4.1																			
Eurasian Wigeon						Art 4.2																					
Northen Pintail																											
Red Knot																											
Purple Sandpiper																											
Ruddy Turnstone																											
Slavonian Grebe																											
Red-throated Diver																											
Common Eider																											
Common Shelduck																											
Great Cormorant																											
Mallard																											
Greater Scaup																											
Long-tailed Duck																											
Black (Common) Scoter																											
Velet Scoter																											
Common Goldeneye												Art 4.2		Art 4.2													
Red-breasted Merganser								Art 4.2																			
Eurasian Curlew																											
Eurasian Oystercatcher																											
Ringed Plover																											
European Golden Plover																											
Grey Plover																											
Northern Lapwing																											
Dunlin																											
Sandwich Tern																											
Sanderling																											
Black-tailed Godwit																											
Goosander														Art 4.2													
Eurasian Teal												Art 4.2															
Gadwall																											
Common Greenshank																											
Black-headed Gull																											
Common Tern																											
Common Gull (Mew)																											
Northern Shoveler																											
Bewick Swan																											
Common Pochard																											
Tufted Duck																											
Lesser Black-back Gull																											
Tundra Swan																											
Taiga Bean Goose																											

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT9 – Screening schedule for the NE2 Medium-term C

NB This screening schedule table and map show sites within 1(

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											Ramsar											
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Moray Firth	River Spey	Muir of Dinnet	Ballochbuie	Berriedale and Langwell Waters	Buchan Ness to Collieston	East Caithness Cliffs	River Dee	River Evelix	River Thurso	Caithness and Sutherland Peatlands	Caithness Lochs	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Loch Eye	Loch of Skene	Loch of Strathbeg	Loch Spynie	Moray and Nairn Coast	Muir of Dinnet	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019808	UK0019811	UK0019959	UK0030030	UK0030088	UK0030101	UK0030143	UK0030251	UK0030254	UK0030264	UK13003	UK13004	UK13009	UK13011	UK13025	UK13031	UK13040	UK13041	UK13043	UK13048	UK13049	UK13061
Mammals																						
Grey Seal																						
Common Seal																						
Bottlenose dolphin	A2 (P)																					
Otter			A2 (Q)	A2 (Q)				A2 (Q)														
Fish and other species																						
Salmon		A2 (P)			A2 (P)			A2 (P)		A2 (P)												
Allis shad																						
Twaite shad																						
Sea Lamprey		A2 (P)																				
River Lamprey																						
Freshwater Pearl Mussel		A2 (P)						A2 (P)	A2 (P)													
Coastal Habitats																						
Sandbanks which are slightly covered by seawater all the time	A1 (Q)																					
Estuaries																						
Mudflats and sandflats not covered by seawater at low tide													Cri 1		Cri 1					Cri 1		
Coastal lagoons																						
Large shallow inlets and bays																						
Reefs																						
Submarine structures made by leaking gases																						
Submerged or partially submerged sea caves																						
Annual vegetation of drift lines																						
Salicornia and other annuals colonising mud and sand																						
Spartina swards																						
Atlantic salt meadows																						
Mediterranean and thermo-Atlantic halophilous scrubs																						
Saltmarsh (type not specified)															Cri 1					Cri 1		
Perennial vegetation of stony banks																				Cri 1		
Vegetated sea cliffs						A1 (P)	A1 (P)															
Sand dunes														Cri 1						Cri 1		
Birds-Breeding Season																						
Breeding Seabird Assemblage																						
Golden Eagle																						
Osprey														Cri 6								
Wood Sandpiper											Cri 2											
Northern Gannet																						
Lesser Black-backed Gull																						
Herring Gull																						
Black-legged Kittiwake																						
Common Guillemot																						
Corn Crake																						
Merlin																						
Black-throated Diver											Cri 2											
European Storm Petrel																						
Arctic Tern																						
Eurasian Dotterel																						
Northern Fulmar																						
European Shag																						
Red-throated Diver											Cri 2											
European Golden Plover											Cri 2											
Short-Eared owl																						
Dunlin											Cri 6											
Great Cormorant																						
Great Black-backed Gull																						
Atlantic Puffin																						
Razorbill																						
Sandwich Tern																						Cri 6
Common Tern																						
Little Tern																						
Manx Shearwater																						
Roseate Tern																						
Peregrine Falcon																						
Arctic Skua											Cri 2											
Whimbrel																						
Red-necked phalarope																						
Great Skua																						
Great Crested Grebe																						
Leach's Storm Petrel																						
Great Bittern																						
Common Redshank																						
Common Snipe																						
Pochard																						
Gadwall																						
Slavonian Grebe																						
Tufted Duck																						
Shoveler																						
Shelduck																						
Ringed Plover																						
Goosander																						

Table MT9 – Screening schedule for the NE2 Medium-term C

NB This screening schedule table and map show sites within 1(

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											Ramsar											
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Moray Firth	River Spey	Muir of Dinnet	Ballochbuie	Berriedale and Langwell Waters	Buchan Ness to Collieston	East Caithness Cliffs	River Dee	River Evelix	River Thurso	Caithness and Sutherland Peatlands	Caithness Lochs	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Loch Eye	Loch of Skene	Loch of Strathbeg	Loch Spynie	Moray and Nairn Coast	Muir of Dinnet	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019808	UK0019811	UK0019959	UK0030030	UK0030088	UK0030101	UK0030143	UK0030251	UK0030254	UK0030264	UK13003	UK13004	UK13009	UK13011	UK13025	UK13031	UK13040	UK13041	UK13043	UK13048	UK13049	UK13061
Greenshank											Cri 2											
Eurasian Curlew											Cri 2											
Common Scoter											Cri 2											
Northern Lapwing																						
Eurasian Teal											Cri 2											
Eurasian Wigeon											Cri 2											
Common Goldeneye																						
Black Guillemot																						
Eurasian Oystercatcher																						
Common (Mew) Gull																						
Black-headed Gull																						
Spotted Crake																						
Greylag Goose																						
Birds Overwintering/Passage																						
Wintering Waterfowl Assemblage													Cri 5 (30,200)	Cri 5 (28,692)	Cri 5 (25,740)			Cri 5 (47,831)		Cri 5 (22,609)	Cri 5 (30,000)	Cri 5 (9,271)
Common Redshank														Cri 6	Cri 6					Cri 6		
Great Crested Grebe																						
Whooper Swan												Cri 6		Cri 6		Cri 6		Cri 6				
Barnacle Goose																						
Greylag Goose												Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Greenland White-fronted Goose												Cri 6										
Pink-footed Goose																		Cri 6		Cri 6		Cri 6
Light-bellied Brent Goose																						
Bar-tailed Godwit													Cri 6	Cri 6	Cri 6							
Eurasian Wigeon														Cri 6								
Northen Pintail																						
Red Knot																						
Purple Sandpiper																						
Ruddy Turnstone																						
Slavonian Grebe																						
Red-throated Diver																						
Common Eider																						
Common Shelduck																						
Great Cormorant																						
Mallard																						
Greater Scaup																						
Long-tailed Duck																						
Black (Common) Scoter																						
Velet Scoter																						
Common Goldeneye																						
Red-breasted Merganser															Cri 6							
Eurasian Curlew																						
Eurasian Oystercatcher																						
Ringed Plover																						
European Golden Plover																						
Grey Plover																						
Northern Lapwing																						
Dunlin																						
Sandwich Tern																						
Sanderling																						
Black-tailed Godwit																						
Goosander																						
Eurasian Teal																						
Gadwall																						
Common Greenshank																						
Black-headed Gull																						
Common Tern																						
Common Gull (Mew)																						
Northern Shoveler																						
Bewick Swan																						
Common Pochard																						
Tufted Duck																						
Lesser Black-back Gull																						
Tundra Swan																						
Taiga Bean Goose																						

Table MT10 – Screening schedule for the NE3 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																		Special Area of Conservation							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Moray & Nairn Coast	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Glen Tanar	Muir of Dinnet	Caenlochan	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Firth of Tay and Eden Estuary	Cameron Reservoir	Forest of Clunie	Firth of Forth	Buchan Ness to Collieston Coast	Forth Islands	Fowlsheugh	Troup, Pennan and Lion's Heads	Glen Tanar	Sands of Forvie	Barry Links	Cairngorms	River Spey	Muir of Dinnet	Ballochbuie	Buchan Ness to Collieston
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001625	UK9002211	UK9002221	UK9002261	UK9002771	UK9002791	UK9004011	UK9004031	UK9004051	UK9004061	UK9004121	UK9004131	UK9004381	UK9004411	UK9002491	UK9004171	UK9002271	UK9002471	UK0012756	UK0013042	UK0013044	UK0016412	UK0019811	UK0019959	UK0030030	UK0030101
Mammals																										
Grey Seal																										
Common Seal																										
Bottlenose dolphin																										
Otter																			A2 (Q)			A2 (Q)		A2 (Q)	A2 (Q)	
Fish and other species																										
Salmon																							A2 (P)			
Allis shad																										
Twaite shad																										
Sea Lamprey																							A2 (P)			
River Lamprey																										
Freshwater Pearl Mussel																							A2 (P)			
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time																										
Estuaries																										
Mudflats and sandflats not covered by seawater at low tide																										
Coastal lagoons																										
Large shallow inlets and bays																										
Reefs																										
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																										
Annual vegetation of drift lines																										
Salicornia and other annuals colonising mud and sand																										
Spartina swards																										
Atlantic salt meadows																										
Mediterranean and thermo-Atlantic halophilous scrubs																										
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks																										
Vegetated sea cliffs																										A1 (P)
Sand dunes																				A1 (P)	A1 (P)					
Birds-Breeding Season																										
Breeding Seabird Assemblage															95000	90000	145000	150000								
Golden Eagle																										
Osprey	Art 4.1				Art 4.1								Art 4.1													
Wood Sandpiper																										
Northern Gannet																Art 4.2										
Lesser Black-backed Gull																Art 4.2										
Herring Gull															Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								
Black-legged Kittiwake															Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2								
Common Guillemot															Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2								
Corn Crake																										
Merlin													Art 4.1													
Black-throated Diver																										
European Storm Petrel																										
Arctic Tern																Art 4.1										
Eurasian Dotterel							Art 4.1																			
Northern Fulmar															Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								
European Shag															Art 4.2 sp	Art 4.2										
Red-throated Diver																										
European Golden Plover																										
Short-Eared owl													Art 4.1													
Dunlin																										
Great Cormorant																Art 4.2 sp										
Great Black-backed Gull																										
Atlantic Puffin																Art 4.2										
Razorbill																Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								
Sandwich Tern		Art 4.1	Art 4.1													Art 4.1										
Common Tern			Art 4.1													Art 4.1										
Little Tern			Art 4.1								Art 4.1															
Manx Shearwater																										
Roseate Tern																Art 4.1										
Peregrine Falcon																										
Arctic Skua																										
Whimbrel																										
Red-necked phalarope																										
Great Skua																										
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank																										
Common Snipe																										
Pochard																										
Gadwall																										
Slavonian Grebe																										
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover																										

Table MT10 – Screening schedule for the NE3 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																		Special Area of Conservation							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Moray & Nairn Coast	Loch of Strathbeg	Ythan Estuary, Sands of Forvie and Meikle loch	Loch of Skene	Glen Tanar	Muir of Dinnet	Caenlochan	Montrose Basin	Loch of Kinnordy	Loch of Lintrathen	Firth of Tay and Eden Estuary	Cameron Reservoir	Forest of Clunie	Firth of Forth	Buchan Ness to Collieston Coast	Forth Islands	Fowlsheugh	Troup, Pennan and Lion's Heads	Glen Tanar	Sands of Forvie	Barry Links	Cairngorms	River Spey	Muir of Dinnet	Ballochbuie	Buchan Ness to Collieston
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001625	UK9002211	UK9002221	UK9002261	UK9002771	UK9002791	UK9004011	UK9004031	UK9004051	UK9004061	UK9004121	UK9004131	UK9004381	UK9004411	UK9002491	UK9004171	UK9002271	UK9002471	UK0012756	UK0013042	UK0013044	UK0016412	UK0019811	UK0019959	UK0030030	UK0030101
Goosander																										
Greenshank																										
Eurasian Curlew																										
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage	17,473	49,456	22,817					54,930			48,000			95,000												
Common Redshank	Art 4.2							Art 4.2			Art 4.2			Art 4.2												
Great Crested Grebe														Art 4.2 sp												
Whooper Swan		Art 4.1																								
Barnacle Goose																										
Greylag Goose	Art 4.2	Art 4.2		Art 4.2		Art 4.2		Art 4.2	Art 4.2	Art 4.2	Art 4.2															
Greenland White-fronted Goose																										
Pink-footed Goose	Art 4.2	Art 4.2	Art 4.2					Art 4.2	Art 4.2		Art 4.2	Art 4.2		Art 4.2												
Light-bellied Brent Goose																										
Bar-tailed Godwit											Art 4.1			Art 4.1												
Eurasian Wigeon														Art 4.2 sp												
Northen Pintail																										
Red Knot								Art 4.2						Art 4.2												
Purple Sandpiper																										
Ruddy Turnstone														Art 4.2												
Slavonian Grebe														Art 4.1												
Red-throated Diver														Art 4.1												
Common Eider											Art 4.2 sp			Art 4.2 sp												
Common Shelduck											Art 4.2 sp			Art 4.2												
Great Cormorant											Art 4.2 sp			Art 4.2 sp												
Mallard														Art 4.2 sp												
Greater Scaup														Art 4.2 sp												
Long-tailed Duck											Art 4.2 sp			Art 4.2 sp												
Black (Common) Scoter											Art 4.2 sp			Art 4.2 sp												
Velet Scoter											Art 4.2 sp			Art 4.2 sp												
Common Goldeneye		Art 4.2		Art 4.2							Art 4.2 sp			Art 4.2 sp												
Red-breasted Merganser														Art 4.2 sp												
Eurasian Curlew														Art 4.2 sp												
Eurasian Oystercatcher								Art 4.2			Art 4.2 sp			Art 4.1												
Ringed Plover														Art 4.2 sp												
European Golden Plover														Art 4.1												
Grey Plover											Art 4.2 sp			Art 4.2 sp												
Northern Lapwing														Art 4.2 sp												
Dunlin											Art 4.2 sp			Art 4.2 sp												
Sandwich Tern														Art 4.1												
Sanderling											Art 4.2 sp															
Black-tailed Godwit											Art 4.2 sp															
Goosander				Art 4.2																						
Eurasian Teal		Art 4.2																								
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT10 – Screening schedule for the NE3 Medium-term C

NB This screening schedule table and map show sites within 10

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							Ramsar										
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	Isle of May	River Dee	River South Esk	Firth of Tay & Eden Estuary	River Tay	Cameron Reservoir	Firth of Forth	Firth of Tay and Eden Estuary	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Loch of Strathbeg	Montrose Basin	Moray and Nairn Coast	Muir of Dinnet	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030172	UK0030251	UK0030262	UK0030311	UK0030312	UK13005	UK13017	UK13018	UK13038	UK13039	UK13040	UK13041	UK13046	UK13048	UK13049	UK13061
Mammals																
Grey Seal	A2 (P)							Cri 6								
Common Seal				A2 (P)				Cri 6								
Bottlenose dolphin																
Otter		A2 (Q)			A2 (Q)											
Fish and other species																
Salmon		A2 (P)	A2 (P)		A2 (P)											
Allis shad																
Twaite shad																
Sea Lamprey					A2 (Q)											
River Lamprey					A2 (Q)											
Freshwater Pearl Mussel		A2 (P)	A2 (P)													
Coastal Habitats																
Sandbanks which are slightly covered by seawater all the time				A2 (Q)												
Estuaries				A1 (P)									Cri 1			
Mudflats and sandflats not covered by seawater at low tide				A2 (Q)										Cri 1		
Coastal lagoons																
Large shallow inlets and bays																
Reefs	A1 (Q)															
Submarine structures made by leaking gases																
Submerged or partially submerged sea caves																
Annual vegetation of drift lines																
Salicornia and other annuals colonising mud and sand																
Spartina swards																
Atlantic salt meadows																
Mediterranean and thermo-Atlantic halophilous scrubs																
Saltmarsh (type not specified)														Cri 1		
Perennial vegetation of stony banks														Cri 1		
Vegetated sea cliffs																
Sand dunes														Cri 1		
Birds-Breeding Season																
Breeding Seabird Assemblage																
Golden Eagle																
Osprey																
Wood Sandpiper																
Northern Gannet																
Lesser Black-backed Gull																
Herring Gull																
Black-legged Kittiwake																
Common Guillemot																
Corn Crake																
Merlin																
Black-throated Diver																
European Storm Petrel																
Arctic Tern																
Eurasian Dotterel																
Northern Fulmar																
European Shag																
Red-throated Diver																
European Golden Plover																
Short-Eared owl																
Dunlin																
Great Cormorant																
Great Black-backed Gull																
Atlantic Puffin																
Razorbill																
Sandwich Tern																Cri 6
Common Tern							Cri 6									
Little Tern																
Manx Shearwater																
Roseate Tern																
Peregrine Falcon																
Arctic Skua																
Whimbrel																
Red-necked phalarope																
Great Skua																
Great Crested Grebe																
Leach's Storm Petrel																
Great Bittern																
Common Redshank																
Common Snipe																
Pochard																
Gadwall																
Slavonian Grebe																
Tufted Duck																
Shoveler																
Shelduck																
Ringed Plover																

Table MT10 – Screening schedule for the NE3 Medium-term C

NB This screening schedule table and map show sites within 10

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							Ramsar									
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	Isle of May	River Dee	River South Esk	Firth of Tay & Eden Estuary	River Tay	Cameron Reservoir	Firth of Forth	Firth of Tay and Eden Estuary	Loch of Kinnordy	Loch of Lintrathen	Loch of Skene	Loch of Strathbeg	Montrose Basin	Moray and Nairn Coast	Muir of Dinnet	Ythan Estuary and Meikle Loch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030172	UK0030251	UK0030262	UK0030311	UK0030312	UK13005	UK13017	UK13018	UK13038	UK13039	UK13040	UK13041	UK13046	UK13048	UK13049	UK13061
Goosander							Cri 6									
Greenshank																
Eurasian Curlew																
Common Scoter																
Northern Lapwing																
Eurasian Teal																
Eurasian Wigeon																
Common Goldeneye																
Black Guillemot																
Eurasian Oystercatcher																
Common (Mew) Gull																
Black-headed Gull																
Spotted Crake																
Greylag Goose																
Birds Overwintering/Passage																
Wintering Waterfowl Assemblage							Cri 5 (72,281)	Cri 5 (72,028)				Cri 5 (47,831)	Cri 5 (29,116)	Cri 5 (22,609)	Cri 5 (30,000)	Cri 5 (9,271)
Common Redshank							Cri 6	Cri 6					Cri 6	Cri 6		
Great Crested Grebe																
Whooper Swan												Cri 6				
Barnacle Goose																
Greylag Goose								Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Greenland White-fronted Goose																
Pink-footed Goose						Cri 6	Cri 6	Cri 6	Cri 6			Cri 6	Cri 6	Cri 6		Cri 6
Light-bellied Brent Goose																
Bar-tailed Godwit							Cri 6	Cri 6								
Eurasian Wigeon																
Northen Pintail																
Red Knot							Cri 6									
Purple Sandpiper																
Ruddy Turnstone							Cri 6									
Slavonian Grebe							Cri 6									
Red-throated Diver																
Common Eider																
Common Shelduck							Cri 6									
Great Cormorant																
Mallard																
Greater Scaup																
Long-tailed Duck																
Black (Common) Scoter																
Velet Scoter																
Common Goldeneye							Cri 6									
Red-breasted Merganser																
Eurasian Curlew																
Eurasian Oystercatcher																
Ringed Plover																
European Golden Plover																
Grey Plover																
Northern Lapwing																
Dunlin																
Sandwich Tern																
Sanderling																
Black-tailed Godwit																
Goosander								Cri 6								
Eurasian Teal																
Gadwall																
Common Greenshank																
Black-headed Gull																
Common Tern																
Common Gull (Mew)																
Northern Shoveler																
Bewick Swan																
Common Pochard																
Tufted Duck																
Lesser Black-back Gull																
Tundra Swan																
Taiga Bean Goose																

Table MT11 – Screening schedule for the NW2 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area												Special Area of Conservation												Ramsar
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Mointeach Scadabhaigh	Lewis Peatlands	Ness & Barvas, Lewis	Aird and Borve, Benbecula	Flannan Isles	North Rona and Sula Sgeir	Shiant Isles	North Harris Mountains	St Kilda	Monach Islands	South Uist Machair	North Harris	St Kilda	Loch nam Madadh	Loch Roag Lagoons	Obain Loch Euphoirt	North Uist Machair	Lewis Peatlands	Ascrib, Isay and Dunvegan	Langavat	Traigh na Berie	Lewis Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001501	UK9001571	UK9001741	UK9001751	UK9001021	UK9001011	UK9001041	UK9001572	UK9001031	UK0012694	UK0012713	UK0012935	UK0013695	UK0017070	UK0017074	UK0017101	UK0019804	UK0019815	UK0030230	UK0030255	UK0030340	UK13028
Mammals																									
Grey Seal													A2 (P)												
Common Seal																						A2 (P)			
Bottlenose dolphin																									
Otter															A2 (Q)		A2 (P)				A2 (Q)				
Fish and other species																									
Salmon															A2 (Q)								A2 (Q)		
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey																									
Freshwater Pearl Mussel															A2 (P)										
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time																	A1 (Q)								
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide																	A1 (Q)								
Coastal lagoons														A1 (Q)			A1 (P)	A1 (P)	A1 (P)						
Large shallow inlets and bays																	A1 (P)								
Reefs																A1 (P)									
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																A1 (P)									
Annual vegetation of drift lines														A1 (Q)						A1 (Q)					
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																				A1 (P)					
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																									
Perennial vegetation of stony banks																									
Vegetated sea cliffs																A1 (P)									
Sand dunes													A1 (P)/A1 (Q)	A1 (P)/A1 (Q)						A1 (P)/A1 (Q)				A1 (P)	
Birds-Breeding Season																									
Breeding Seabird Assemblage								50000	130000	200000		600000													
Golden Eagle											Art 4.1														
Osprey																									
Wood Sandpiper																									
Northern Gannet									Art 4.2			Art 4.2													
Lesser Black-backed Gull																									
Herring Gull																									
Black-legged Kittiwake								Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp													
Common Guillemot								Art 4.2 sp	Art 4.2	Art 4.2 sp		Art 4.2 sp													
Corn Crake	Art 4.1		Art 4.1			Art 4.1	Art 4.1																		
Merlin					Art 4.1																				
Black-throated Diver				Art 4.1	Art 4.1																				Cri 2
European Storm Petrel									Art 4.1			Art 4.1													
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar								Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp													
European Shag										Art 4.2															
Red-throated Diver				Art 4.1	Art 4.1																				Cri 2
European Golden Plover					Art 4.1																				Cri 2
Short-Eared owl																									
Dunlin	Art 4.2		Art 4.2		Art 4.2																				Cri 6
Great Cormorant																									
Great Black-backed Gull									Art 4.2 sp																
Atlantic Puffin								Art 4.2 sp	Art 4.2 sp	Art 4.2		Art 4.2													
Razorbill								Art 4.2 sp	Art 4.2 sp	Art 4.2		Art 4.2 sp													
Sandwich Tern																									
Common Tern		Art 4.1																							
Little Tern		Art 4.1	Art 4.1																						
Manx Shearwater												Art 4.2 sp													
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua																									
Whimbrel																									
Red-necked phalarope																									
Great Skua												Art 4.2													
Great Crested Grebe																									
Leach's Storm Petrel								Art 4.1	Art 4.1			Art 4.1													
Great Bittern																									
Common Redshank			Art 4.2 sp																						
Common Snipe			Art 4.2 sp																						
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover	Art 4.2		Art 4.2																						
Goosander																									
Greenshank					Art 4.2																				Cri 2
Eurasian Curlew																									

Table MT11 – Screening schedule for the NW2 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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Designation	Special Protection Area												Special Area of Conservation													Ramsar
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Mointeach Scadabhaigh	Lewis Peatlands	Ness & Barvas, Lewis	Aird and Borve, Benbecula	Flannan Isles	North Rona and Sula Sgeir	Shiant Isles	North Harris Mountains	St Kilda	Monach Islands	South Uist Machair	North Harris	St Kilda	Loch nam Madadh	Loch Roag Lagoons	Obain Loch Euphoirt	North Uist Machair	Lewis Peatlands	Ascrib, Isay and Dunvegan	Langavat	Traigh na Berie	Lewis Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001501	UK9001571	UK9001741	UK9001751	UK9001021	UK9001011	UK9001041	UK9001572	UK9001031	UK0012694	UK0012713	UK0012935	UK0013695	UK0017070	UK0017074	UK0017101	UK0019804	UK0019815	UK0030230	UK0030255	UK0030340	UK13028
Common Scoter																									
Northern Lapwing			Art 4.2 sp																						
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot		Art 4.2																							
Eurasian Oystercatcher			Art 4.2 sp																						
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose			Art 4.2																						
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage																									
Common Redshank																									
Great Crested Grebe																									
Whooper Swan																									
Barnacle Goose	Art 4.1	Art 4.1																							
Greylag Goose																									
Greenland White-fronted Goose																									
Pink-footed Goose																									
Light-bellied Brent Goose																									
Bar-tailed Godwit																									
Eurasian Wigeon																									
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone	Art 4.2																								
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover	Art 4.2		Art 4.2																						
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling			Art 4.2																						
Black-tailed Godwit																									
Goosander																									
Eurasian Teal																									
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT11 – Screening schedule for the NW2 Medium-terr

NB This screening schedule table and map show sites within 1

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Designation	Ram	Ram
European/Ramsar Site	North Uist Machair and Islands	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13050	UK13058
Mammals		
Grey Seal		
Common Seal		
Bottlenose dolphin		
Otter		Cri 2
Fish and other species		
Salmon		Cri 2
Allis shad		
Twaite shad		
Sea Lamprey		
River Lamprey		
Freshwater Pearl Mussel		
Coastal Habitats		
Sandbanks which are slightly covered by seawater all the time		
Estuaries		
Mudflats and sandflats not covered by seawater at low tide		
Coastal lagoons		
Large shallow inlets and bays		
Reefs		
Submarine structures made by leaking gases		
Submerged or partially submerged sea caves		
Annual vegetation of drift lines		
Salicornia and other annuals colonising mud and sand		
Spartina swards		
Atlantic salt meadows		
Mediterranean and thermo-Atlantic halophilous scrubs		
Saltmarsh (type not specified)		
Perennial vegetation of stony banks		
Vegetated sea cliffs		
Sand dunes		
Birds-Breeding Season		
Breeding Seabird Assemblage		
Golden Eagle		
Osprey		
Wood Sandpiper		
Northern Gannet		
Lesser Black-backed Gull		
Herring Gull		
Black-legged Kittiwake		
Common Guillemot		
Corn Crake		
Merlin		
Black-throated Diver		
European Storm Petrel		
Arctic Tern		
Eurasian Dotterel		
Northern Fulmar		
European Shag		
Red-throated Diver		
European Golden Plover		
Short-Eared owl		
Dunlin	Cri 6	
Great Cormorant		
Great Black-backed Gull		
Atlantic Puffin		
Razorbill		
Sandwich Tern		
Common Tern		
Little Tern		
Manx Shearwater		
Roseate Tern		
Peregrine Falcon		
Arctic Skua		
Whimbrel		
Red-necked phalarope		
Great Skua		
Great Crested Grebe		
Leach's Storm Petrel		
Great Bittern		
Common Redshank		
Common Snipe		
Pochard		
Gadwall		
Slavonian Grebe		
Tufted Duck		
Shoveler		
Shelduck		
Ringed Plover	Cri 6	Cri 6
Goosander		
Greenshank		
Eurasian Curlew		

Table MT11 – Screening schedule for the NW2 Medium-terr

NB This screening schedule table and map show sites within 1

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Designation	Ram	Ram
European/Ramsar Site	North Uist Machair and Islands	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13050	UK13058
Common Scoter		
Northern Lapwing		
Eurasian Teal		
Eurasian Wigeon		
Common Goldeneye		
Black Guillemot		
Eurasian Oystercatcher		
Common (Mew) Gull		
Black-headed Gull		
Spotted Crake		
Greylag Goose		
Birds Overwintering/Passage		
Wintering Waterfowl Assemblage		
Common Redshank		
Great Crested Grebe		
Whooper Swan		
Barnacle Goose	Cri 6	
Greylag Goose		
Greenland White-fronted Goose		
Pink-footed Goose		
Light-bellied Brent Goose		
Bar-tailed Godwit		
Eurasian Wigeon		
Northen Pintail		
Red Knot		
Purple Sandpiper		
Ruddy Turnstone	Cri 6	
Slavonian Grebe		
Red-throated Diver		
Common Eider		
Common Shelduck		
Great Cormorant		
Mallard		
Greater Scaup		
Long-tailed Duck		
Black (Common) Scoter		
Velet Scoter		
Common Goldeneye		
Red-breasted Merganser		
Eurasian Curlew		
Eurasian Oystercatcher		
Ringed Plover	Cri 6	Cri 6
European Golden Plover		
Grey Plover		
Northern Lapwing		
Dunlin		
Sandwich Tern		
Sanderling		
Black-tailed Godwit		
Goosander		
Eurasian Teal		
Gadwall		
Common Greenshank		
Black-headed Gull		
Common Tern		
Common Gull (Mew)		
Northern Shoveler		
Bewick Swan		
Common Pochard		
Tufted Duck		
Lesser Black-back Gull		
Tundra Swan		
Taiga Bean Goose		

Table MT12 – Screening schedule for the NW4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																							Special Area of Conservation	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Mointeach Scadabhaigh	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Glas Eileanan	Oronsay and South Colonsay	Cairna and Sanday	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhuile	Cuillins	West Inverness-shire Lochs	Rum	Monach Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001501	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003211	UK9020299	UK9001431	UK9001121	UK9003171	UK9001341	10114	UK9003311	UK9001781	UK9020298	UK0012594	UK0012694
Mammals																									
Grey Seal																									A2 (P)
Common Seal																									
Bottlenose dolphin																									
Otter																								A2 (P)	
Fish and other species																									
Salmon																									
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey																									
Freshwater Pearl Mussel																									
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time																									
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide																									
Coastal lagoons																									
Large shallow inlets and bays																									
Reefs																									
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																									
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																									
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																									
Perennial vegetation of stony banks																									
Vegetated sea cliffs																								A1 (Q)	
Sand dunes																									A1 (P)/A1 (Q)
Birds-Breeding Season																									
Breeding Seabird Assemblage																21000	105000	30000	130000						
Golden Eagle																				Art 4.1	Art 4.1	Art 4.1			
Osprey																									
Wood Sandpiper																									
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																Art 4.2 sp									
Black-legged Kittiwake																	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp						
Common Guillemot																Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp						
Corn Crake	Art 4.1		Art 4.1	Art 4.1			Art 4.1	Art 4.1			Art 4.1	Art 4.1			Art 4.1										
Merlin																									
Black-throated Diver					Art 4.1	Art 4.1																	Art 4.1		
European Storm Petrel													Art 4.1												
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																	Art 4.2 sp								
European Shag																Art 4.2 sp	Art 4.2 sp								
Red-throated Diver					Art 4.1														Art 4.1						
European Golden Plover																									
Short-Eared owl																									
Dunlin	Art 4.2		Art 4.2							Art 4.2															
Great Cormorant																									
Great Black-backed Gull																									
Atlantic Puffin																Art 4.2 sp	Art 4.2 sp								
Razorbill																	Art 4.2								
Sandwich Tern																									
Common Tern		Art 4.1												Art 4.1											
Little Tern		Art 4.1	Art 4.1																						
Manx Shearwater																			Art 4.2						
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua																									
Whimbrel																									
Red-necked phalarope																									
Great Skua																									
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank			Art 4.2 sp							Art 4.2															
Common Snipe			Art 4.2 sp																						
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover	Art 4.2		Art 4.2							Art 4.2															

Table MT12 – Screening schedule for the NW4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																							Special Area of Conservation	
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilphedder & Smerclate, South Uist	Mointeach Scadabhaigh	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Glas Eileanan	Oronsay and South Colonsay	Canna and Sanday	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Iura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Cuillins	West Inverness-shire Lochs	Rum	Monach Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001501	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003211	UK9020299	UK9001431	UK9001121	UK9003171	UK9001341	10114	UK9003311	UK9001781	UK9020298	UK0012594	UK0012694
Goosander																									
Greenshank																									
Eurasian Curlew																									
Common Scoter																							Art 4.2		
Northern Lapwing			Art 4.2 sp																						
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot		Art 4.2																							
Eurasian Oystercatcher			Art 4.2 sp							Art 4.2															
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose			Art 4.2																						
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage																									
Common Redshank																									
Great Crested Grebe																									
Whooper Swan																									
Barnacle Goose	Art 4.1	Art 4.1							Art 4.1	Art 4.1			Art 4.1												
Greylag Goose																									
Greenland White-fronted Goose									Art 4.1	Art 4.1															
Pink-footed Goose																									
Light-bellied Brent Goose																									
Bar-tailed Godwit																									
Eurasian Wigeon																									
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone	Art 4.2									Art 4.2															
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover	Art 4.2		Art 4.2							Art 4.2															
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling			Art 4.2																						
Black-tailed Godwit																									
Goosander																									
Eurasian Teal																									
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT12 – Screening schedule for the NW4 Medium-term C

NB This screening schedule table and map show sites within 100

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	South Uist Machair	Loch Eilve Woods	Ardmeanach	River Moidart	Coll Machair	Tiree Machair	Loch nam Madadh	Lochs Duich, Long and Alsh Reefs	Obain Loch Euphoirt	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	North Uist Machair	Firth of Lorn	Ardnamurchan Burns	Glen Beasdale	Glen Creran Woods	Kinloch and Kyleakin Hills	Eileanan agus Sgeiran Lios mór	Loch Creran	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012713	UK0012750	UK0012958	UK0012994	UK0014728	UK0014744	UK0017070	UK0017077	UK0017101	UK0019802	UK0019803	UK0019804	UK0030041	UK0030079	UK0030154	UK0030155	UK0030176	UK0030182	UK0030190	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219
Mammals																								
Grey Seal																								
Common Seal																		A2 (P)						
Bottlenose dolphin																								
Otter		A2 (Q)					A2 (P)				A2 (P)				A2 (Q)	A2 (Q)	A2 (Q)			A2 (Q)		A2 (Q)	A2 (Q)	A2 (Q)
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																		A2 (P)						
Freshwater Pearl Mussel				A2 (P)										A2 (P)				A2 (Q)			A2 (P)			
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time							A1 (Q)			A1 (P)														
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide							A1 (Q)															A1 (Q)		
Coastal lagoons	A1 (Q)						A1 (P)	A1 (P)	A1 (P)															
Large shallow inlets and bays							A1 (P)																	
Reefs											A1 (Q)		A1 (P)						A1 (P)					
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines	A1 (Q)											A1 (Q)												
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows												A1 (P)												
Mediterranean and thermo-Atlantic halophilous scrubs			A1 (Q)																					
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs																								
Sand dunes	A1 (P)/A1 (Q)				A1 (P)/A1 (Q)	A1 (P)/A1 (Q)						A1 (P)/A1 (Q)												
Birds-Breeding Season																								
Breeding Seabird Assemblage																								
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																								
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake																								
Common Guillemot																								
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																								
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern																								
Common Tern																								
Little Tern																								
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								

Table MT12 – Screening schedule for the NW4 Medium-term C

NB This screening schedule table and map show sites within 100

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	South Uist Machair	Loch Eitive Woods	Ardmeanach	River Moidart	Coll Machair	Tiree Machair	Loch nam Madadh	Lochs Duich, Long and Alsh Reefs	Obain Loch Euphoirt	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	North Uist Machair	Firth of Lorn	Ardnamurchan Burns	Glen Beasdale	Glen Creran Woods	Kinloch and Kyleakin Hills	Eilean agus Sgeiran Lios mór	Loch Creran	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012713	UK0012750	UK0012958	UK0012994	UK0014728	UK0014744	UK0017070	UK0017077	UK0017101	UK0019802	UK0019803	UK0019804	UK0030041	UK0030079	UK0030154	UK0030155	UK0030176	UK0030182	UK0030190	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage																								
Common Redshank																								
Great Crested Grebe																								
Whooper Swan																								
Barnacle Goose																								
Greylag Goose																								
Greenland White-fronted Goose																								
Pink-footed Goose																								
Light-bellied Brent Goose																								
Bar-tailed Godwit																								
Eurasian Wigeon																								
Northen Pintail																								
Red Knot																								
Purple Sandpiper																								
Ruddy Turnstone																								
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye																								
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover																								
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Table MT12 – Screening schedule for the NW4 Medium-term C

NB This screening schedule table and map show sites within 100

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						Ramsar			
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	Ascrib, Isay and Dunvegan	Treshnish Isles	Rigg - Bile	Oronsay	Stanton Banks	Coll	North Uist Machair and Islands	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030230	UK0030289	UK0030307	UK0030341	UK0030359	UK13008	UK13050	UK13056	UK13058
Mammals									
Grey Seal		A2 (P)							
Common Seal	A2 (P)								
Bottlenose dolphin									
Otter									Cri 2
Fish and other species									
Salmon									Cri 2
Allis shad									
Twaite shad									
Sea Lamprey									
River Lamprey									
Freshwater Pearl Mussel									
Coastal Habitats									
Sandbanks which are slightly covered by seawater all the time									
Estuaries									
Mudflats and sandflats not covered by seawater at low tide									
Coastal lagoons									
Large shallow inlets and bays									
Reefs		A1 (Q)			A1 (P)				
Submarine structures made by leaking gases									
Submerged or partially submerged sea caves									
Annual vegetation of drift lines									
Salicornia and other annuals colonising mud and sand									
Spartina swards									
Atlantic salt meadows									
Mediterranean and thermo-Atlantic halophilous scrubs									
Saltmarsh (type not specified)									
Perennial vegetation of stony banks									
Vegetated sea cliffs			A1 (P)						
Sand dunes				A1 (P)				Cri 1	
Birds-Breeding Season									
Breeding Seabird Assemblage									
Golden Eagle									
Osprey									
Wood Sandpiper									
Northern Gannet									
Lesser Black-backed Gull									
Herring Gull									
Black-legged Kittiwake									
Common Guillemot									
Corn Crake									
Merlin									
Black-throated Diver									
European Storm Petrel									
Arctic Tern									
Eurasian Dotterel									
Northern Fulmar									
European Shag									
Red-throated Diver									
European Golden Plover									
Short-Eared owl									
Dunlin							Cri 6	Cri 6	
Great Cormorant									
Great Black-backed Gull									
Atlantic Puffin									
Razorbill									
Sandwich Tern									
Common Tern									
Little Tern									
Manx Shearwater									
Roseate Tern									
Peregrine Falcon									
Arctic Skua									
Whimbrel									
Red-necked phalarope									
Great Skua									
Great Crested Grebe									
Leach's Storm Petrel									
Great Bittern									
Common Redshank									
Common Snipe									
Pochard									
Gadwall									
Slavonian Grebe									
Tufted Duck									
Shoveler									
Shelduck									
Ringed Plover							Cri 6		Cri 6

Table MT12 – Screening schedule for the NW4 Medium-term C

NB This screening schedule table and map show sites within 100

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						Ramsar			
Designation	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram
European/Ramsar Site	Ascrib, Isay and Dunvegan	Treshnish Isles	Rigg - Bike	Oronsay	Stanton Banks	Coll	North Uist Machair and Islands	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030230	UK0030289	UK0030307	UK0030341	UK0030359	UK13008	UK13050	UK13056	UK13058
Goosander									
Greenshank									
Eurasian Curlew									
Common Scoter									
Northern Lapwing									
Eurasian Teal									
Eurasian Wigeon									
Common Goldeneye									
Black Guillemot									
Eurasian Oystercatcher									
Common (Mew) Gull									
Black-headed Gull									
Spotted Crake									
Greylag Goose									
Birds Overwintering/Passage									
Wintering Waterfowl Assemblage									
Common Redshank									
Great Crested Grebe									
Whooper Swan									
Barnacle Goose							Cri 6	Cri 6	
Greylag Goose									
Greenland White-fronted Goose								Cri 6	
Pink-footed Goose									
Light-bellied Brent Goose									
Bar-tailed Godwit									
Eurasian Wigeon									
Northen Pintail									
Red Knot									
Purple Sandpiper									
Ruddy Turnstone							Cri 6	Cri 6	
Slavonian Grebe									
Red-throated Diver									
Common Eider									
Common Shelduck									
Great Cormorant									
Mallard									
Greater Scaup									
Long-tailed Duck									
Black (Common) Scoter									
Velet Scoter									
Common Goldeneye									
Red-breasted Merganser									
Eurasian Curlew									
Eurasian Oystercatcher									
Ringed Plover							Cri 6	Cri 6	Cri 6
European Golden Plover									
Grey Plover									
Northern Lapwing									
Dunlin									
Sandwich Tern									
Sanderling									
Black-tailed Godwit									
Goosander									
Eurasian Teal									
Gadwall									
Common Greenshank									
Black-headed Gull									
Common Tern									
Common Gull (Mew)									
Northern Shoveler									
Bewick Swan									
Common Pochard									
Tufted Duck									
Lesser Black-back Gull									
Tundra Swan									
Taiga Bean Goose									

Table MT13 – Screening schedule for the NW5 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Priest Island	Mointeach Scadabhaigh	Loch Maree	Lewis Peatlands	Wester Ross Lochs	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhteon agus Cladach Thiriosh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Glas Eileanan	Canna and Sanday	Mingulay and Berneray	Rum	Shiant Isles	North Harris Mountains	Cruic agus Cladach Mhulie	Cuillins	West Inverness-shire Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001261	UK9001501	UK9001531	UK9001571	UK9001711	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003211	UK9001431	UK9001121	UK9001341	UK9001041	UK9001572	UK9003311	UK9001781	UK9020298
Mammals																										
Grey Seal																										
Common Seal																										
Bottlenose dolphin																										
Otter																										
Fish and other species																										
Salmon																										
Allis shad																										
Twaite shad																										
Sea Lamprey																										
River Lamprey																										
Freshwater Pearl Mussel																										
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time																										
Estuaries																										
Mudflats and sandflats not covered by seawater at low tide																										
Coastal lagoons																										
Large shallow inlets and bays																										
Reefs																										
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																										
Annual vegetation of drift lines																										
Salicornia and other annuals colonising mud and sand																										
Spartina swards																										
Atlantic salt meadows																										
Mediterranean and thermo-Atlantic halophilous scrubs																										
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks																										
Vegetated sea cliffs																										
Sand dunes																										
Birds-Breeding Season																										
Breeding Seabird Assemblage																			21000	105000	130000	200000				
Golden Eagle																							Art 4.1	Art 4.1	Art 4.1	
Osprey																										
Wood Sandpiper																										
Northern Gannet																										
Lesser Black-backed Gull																										
Herring Gull																			Art 4.2 sp							
Black-legged Kittiwake																				Art 4.2 sp	Art 4.2 sp	Art 4.2 sp				
Common Guillemot																			Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp				
Corn Crake	Art 4.1		Art 4.1	Art 4.1							Art 4.1	Art 4.1			Art 4.1	Art 4.1										
Merlin								Art 4.1																		
Black-throated Diver						Art 4.1	Art 4.1	Art 4.1	Art 4.1	Art 4.1																Art 4.1
European Storm Petrel					Art 4.1												Art 4.1									
Arctic Tern																										
Eurasian Dotterel																										
Northern Fulmar																				Art 4.2 sp		Art 4.2 sp				
European Shag																			Art 4.2 sp	Art 4.2 sp		Art 4.2				
Red-throated Diver						Art 4.1		Art 4.1													Art 4.1					
European Golden Plover								Art 4.1																		
Short-Eared owl																										
Dunlin	Art 4.2		Art 4.2					Art 4.2						Art 4.2												
Great Cormorant																										
Great Black-backed Gull																										
Atlantic Puffin																			Art 4.2 sp	Art 4.2 sp		Art 4.2				
Razorbill																				Art 4.2		Art 4.2				
Sandwich Tern																										
Common Tern		Art 4.1																Art 4.1								
Little Tern		Art 4.1	Art 4.1																							
Manx Shearwater																					Art 4.2					
Roseate Tern																										
Peregrine Falcon																										
Arctic Skua																										
Whimbrel																										
Red-necked phalarope																										
Great Skua																										
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank			Art 4.2 sp											Art 4.2												
Common Snipe			Art 4.2 sp																							
Pochard																										
Gadwall																										
Slavonian Grebe																										

Table MT13 – Screening schedule for the NW5 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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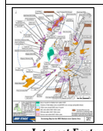

	Special Protection Area																										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Priest Island	Mointeach Scadabhaigh	Loch Maree	Lewis Peatlands	Wester Ross Lochs	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhteon agus Cladach Thiriosh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Glas Eileanan	Canna and Sanday	Mingulay and Berneray	Rum	Shiant Isles	North Harris Mountains	Cruic agus Cladach Mhulie	Cuillins	West Inverness-shire Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001261	UK9001501	UK9001531	UK9001571	UK9001711	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003211	UK9001431	UK9001121	UK9001341	UK9001041	UK9001572	UK9003311	UK9001781	UK9020298
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover	Art 4.2		Art 4.2											Art 4.2												
Goosander																										
Greenshank								Art 4.2																		
Eurasian Curlew																										
Common Scoter																										Art 4.2
Northern Lapwing			Art 4.2 sp																							
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot		Art 4.2																								
Eurasian Oystercatcher			Art 4.2 sp											Art 4.2												
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																										
Greylag Goose			Art 4.2																							
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage																										
Common Redshank																										
Great Crested Grebe																										
Whooper Swan																										
Barnacle Goose	Art 4.1	Art 4.1											Art 4.1	Art 4.1			Art 4.1									
Greylag Goose																										
Greenland White-fronted Goose													Art 4.1	Art 4.1												
Pink-footed Goose																										
Light-bellied Brent Goose																										
Bar-tailed Godwit																										
Eurasian Wigeon																										
Northen Pintail																										
Red Knot																										
Purple Sandpiper																										
Ruddy Turnstone	Art 4.2													Art 4.2												
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck																										
Great Cormorant																										
Mallard																										
Greater Scaup																										
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye																										
Red-breasted Merganser																										
Eurasian Curlew																										
Eurasian Oystercatcher																										
Ringed Plover	Art 4.2		Art 4.2											Art 4.2												
European Golden Plover																										
Grey Plover																										
Northern Lapwing																										
Dunlin																										
Sandwich Tern																										
Sanderling			Art 4.2																							
Black-tailed Godwit																										
Goosander																										
Eurasian Teal																										
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT13 – Screening schedule for the NW5 Medium-term O

NB This screening schedule table and map show sites within 100

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Designation	Special Area of Conservation																							
	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Rum	Monach Islands	South Uist Machair	North Harris	Ardmeanach	River Moidart	River Kerry	Loch Maree Complex	Coll Machair	Strathglass Complex	Tiree Machair	Loch nam Madadh	Loch Roag Lagoons	Lochs Duich, Long and Alsh Reefs	Oban Loch Euphoirt	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	North Uist Machair	Lewis Peatlands	Ardnamurchan Burns	Glen Beasdale	Kinloch and Kyleakin Hills	Eileanan agus Sgeiran Lios mór	Little Gruinard River
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012594	UK0012694	UK0012713	UK0012935	UK0012958	UK0012994	UK0012996	UK0013597	UK0014728	UK0014739	UK0014744	UK0017070	UK0017074	UK0017077	UK0017101	UK0019802	UK0019803	UK0019804	UK0019815	UK0030079	UK0030154	UK0030176	UK0030182	UK0030183
Mammals																								
Grey Seal		A2 (P)																						
Common Seal																							A2 (P)	
Bottlenose dolphin																								
Otter	A2 (P)			A2 (Q)				A2 (P)		A2 (Q)		A2 (P)					A2 (P)		A2 (Q)		A2 (Q)	A2 (Q)		
Fish and other species																								
Salmon				A2 (Q)																				A2 (Q)
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																							A2 (P)	
Freshwater Pearl Mussel				A2 (P)		A2 (P)	A2 (P)													A2 (P)			A2 (Q)	
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time												A1 (Q)				A1 (P)								
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide												A1 (Q)												
Coastal lagoons			A1 (Q)									A1 (P)	A1 (P)	A1 (P)	A1 (P)									
Large shallow inlets and bays												A1 (P)												
Reefs																	A1 (Q)							
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines			A1 (Q)															A1 (Q)						
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																		A1 (P)						
Mediterranean and thermo-Atlantic halophilous scrubs					A1 (Q)																			
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs	A1 (Q)																							
Sand dunes		A1 (P)/A1 (Q)	A1 (P)/A1 (Q)						A1 (P)/A1 (Q)		A1 (P)/A1 (Q)							A1 (P)/A1 (Q)						
Birds-Breeding Season																								
Breeding Seabird Assemblage																								
Golden Eagle																								
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Eurasian Dotterel																								
Northern Fulmar																								
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Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern																								
Common Tern																								
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Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
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Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								

Table MT13 – Screening schedule for the NW5 Medium-term O

NB This screening schedule table and map show sites within 100

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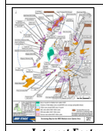
	Special Area of Conservation																								
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Rum	Monach Islands	South Uist Machair	North Harris	Ardmeanach	River Moidart	River Kerry	Loch Maree Complex	Coll Machair	Strathglass Complex	Tiree Machair	Loch nam Madadh	Loch Roag Lagoons	Lochs Duich, Long and Alsh Reefs	Oban Loch Euphoirt	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	North Uist Machair	Lewis Peatlands	Ardnamurchan Burns	Glen Beasdale	Kinloch and Kyleakin Hills	Eileanan agus Sgeiran Lios mór	Little Gruinard River
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0012594	UK0012694	UK0012713	UK0012935	UK0012958	UK0012994	UK0012996	UK0013597	UK0014728	UK0014739	UK0014744	UK0017070	UK0017074	UK0017077	UK0017101	UK0019802	UK0019803	UK0019804	UK0019815	UK0030079	UK0030154	UK0030176	UK0030182	UK0030183
Tufted Duck																								
Shoveler																								
Shelduck																								
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Goosander																								
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Eurasian Curlew																								
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Lesser Black-back Gull																								
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Table MT13 – Screening schedule for the NW5 Medium-term O

NB This screening schedule table and map show sites within 100

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													Ramsar					
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Loch Creran	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Ascrib, Isay and Dunvegan	Langavat	River Moriston	Treshnish Isles	Rigg - Bile	Traigh na Berie	Stanton Banks	Coll	Lewis Peatlands	Loch Maree	North Uist Machair and Islands	Slebhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030190	UK0030206	UK0030209	UK0030217	UK0030219	UK0030230	UK0030255	UK0030259	UK0030289	UK0030307	UK0030340	UK0030359	UK13008	UK13028	UK13035	UK13050	UK13056	UK13058
Mammals																		
Grey Seal									A2 (P)									
Common Seal						A2 (P)												
Bottlenose dolphin																		
Otter			A2 (Q)	A2 (Q)	A2 (Q)													Cri 2
Fish and other species																		
Salmon							A2 (Q)	A2 (Q)										Cri 2
Allis shad																		
Twaite shad																		
Sea Lamprey																		
River Lamprey																		
Freshwater Pearl Mussel		A2 (P)						A2 (P)										
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time																		
Estuaries																		
Mudflats and sandflats not covered by seawater at low tide			A1 (Q)															
Coastal lagoons																		
Large shallow inlets and bays																		
Reefs	A1 (P)								A1 (Q)			A1 (P)						
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves																		
Annual vegetation of drift lines																		
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows																		
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)																		
Perennial vegetation of stony banks																		
Vegetated sea cliffs										A1 (P)								
Sand dunes											A1 (P)						Cri 1	
Birds-Breeding Season																		
Breeding Seabird Assemblage																		
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet																		
Lesser Black-backed Gull																		
Herring Gull																		
Black-legged Kittiwake																		
Common Guillemot																		
Corn Crake																		
Merlin																		
Black-throated Diver														Cri 2	Cri 2			
European Storm Petrel																		
Arctic Tern																		
Eurasian Dotterel																		
Northern Fulmar																		
European Shag																		
Red-throated Diver														Cri 2				
European Golden Plover														Cri 2				
Short-Eared owl																		
Dunlin														Cri 6		Cri 6	Cri 6	
Great Cormorant																		
Great Black-backed Gull																		
Atlantic Puffin																		
Razorbill																		
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Pochard																		
Gadwall																		
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Table MT13 – Screening schedule for the NW5 Medium-term O

NB This screening schedule table and map show sites within 100

(back to contents page)

													Ramsar					
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Loch Creran	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Ascrib, Isay and Dunvegan	Langavat	River Moriston	Treshnish Isles	Rigg - Bile	Tràigh na Berie	Stanton Banks	Coll	Lewis Peatlands	Loch Maree	North Uist Machair and Islands	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030190	UK0030206	UK0030209	UK0030217	UK0030219	UK0030230	UK0030255	UK0030259	UK0030289	UK0030307	UK0030340	UK0030359	UK13008	UK13028	UK13035	UK13050	UK13056	UK13058
Tufted Duck																		
Shoveler																		
Shelduck																		
Ringed Plover																Cri 6		Cri 6
Goosander																		
Greenshank														Cri 2				
Eurasian Curlew																		
Common Scoter																		
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
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Birds Overwintering/Passage																		
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Common Redshank																		
Great Crested Grebe																		
Whooper Swan																		
Barnacle Goose																Cri 6	Cri 6	
Greylag Goose																		
Greenland White-fronted Goose																	Cri 6	
Pink-footed Goose																		
Light-bellied Brent Goose																		
Bar-tailed Godwit																		
Eurasian Wigeon																		
Northen Pintail																		
Red Knot																		
Purple Sandpiper																		
Ruddy Turnstone																Cri 6	Cri 6	
Slavonian Grebe																		
Red-throated Diver																		
Common Eider																		
Common Shelduck																		
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Mallard																		
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Long-tailed Duck																		
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Velet Scoter																		
Common Goldeneye																		
Red-breasted Merganser																		
Eurasian Curlew																		
Eurasian Oystercatcher																		
Ringed Plover																Cri 6	Cri 6	Cri 6
European Golden Plover																		
Grey Plover																		
Northern Lapwing																		
Dunlin																		
Sandwich Tern																		
Sanderling																		
Black-tailed Godwit																		
Goosander																		
Eurasian Teal																		
Gadwall																		
Common Greenshank																		
Black-headed Gull																		
Common Tern																		
Common Gull (Mew)																		
Northern Shoveler																		
Bewick Swan																		
Common Pochard																		
Tufted Duck																		
Lesser Black-back Gull																		
Tundra Swan																		
Taiga Bean Goose																		

Table MT14 – Screening schedule for the NW6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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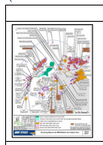
	Special Protection Area																							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
 **European/Ramsar Site**	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Caithness & Sutherland Peatlands	North Sutherland Coastal Islands	Priest Island	Mointeach Scadabhaigh	Inverpolly, Loch Urigill and Nearby Lochs	Loch Maree	Lewis Peatlands	Assynt Lochs	Lairg and Strathbrora Lochs	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Achanalt Marshes	Wester Ross Lochs	Ness & Barvas, Lewis	Aird and Borve, Berkecula	Eoligarry, Barra	Canna and Sanday	Cape Wrath
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001151	UK9001211	UK9001261	UK9001501	UK9001511	UK9001531	UK9001571	UK9001591	UK9001611	UK9001622	UK9001623	UK9001624	UK9001701	UK9001711	UK9001741	UK9001751	UK9001761	UK9001431	UK9001231
Mammals																							
Grey Seal																							
Common Seal																							
Bottlenose dolphin																							
Otter																							
Fish and other species																							
Salmon																							
Allis shad																							
Twaite shad																							
Sea Lamprey																							
River Lamprey																							
Freshwater Pearl Mussel																							
Coastal Habitats																							
Sandbanks which are slightly covered by seawater all the time																							
Estuaries																							
Mudflats and sandflats not covered by seawater at low tide																							
Coastal lagoons																							
Large shallow inlets and bays																							
Reefs																							
Submarine structures made by leaking gases																							
Submerged or partially submerged sea caves																							
Annual vegetation of drift lines																							
Salicornia and other annuals colonising mud and sand																							
Spartina swards																							
Atlantic salt meadows																							
Mediterranean and thermo-Atlantic halophilous scrubs																							
Saltmarsh (type not specified)																							
Perennial vegetation of stony banks																							
Vegetated sea cliffs																							
Sand dunes																							
Birds-Breeding Season																							
Breeding Seabird Assemblage																						21000	50000
Golden Eagle																							
Osprey														Art 4.1	Art 4.1	Art 4.1							
Wood Sandpiper					Art 4.1												Art 4.1						
Northern Gannet																							
Lesser Black-backed Gull																							
Herring Gull																						Art 4.2 sp	
Black-legged Kittiwake																							Art 4.2 sp
Common Guillemot																						Art 4.2 sp	Art 4.2 sp
Corn Crake	Art 4.1		Art 4.1	Art 4.1															Art 4.1	Art 4.1	Art 4.1		
Merlin					Art 4.1						Art 4.1												
Black-throated Diver					Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1	Art 4.1	Art 4.1					Art 4.1					
European Storm Petrel							Art 4.1																
Arctic Tern																							
Eurasian Dotterel																							
Northern Fulmar																							Art 4.2 sp
European Shag																						Art 4.2 sp	
Red-throated Diver					Art 4.1			Art 4.1			Art 4.1												
European Golden Plover					Art 4.1						Art 4.1												
Short-Eared owl					Art 4.1																		
Dunlin	Art 4.2		Art 4.2		Art 4.2						Art 4.2												
Great Cormorant																							
Great Black-backed Gull																							
Atlantic Puffin																						Art 4.2 sp	Art 4.2 sp
Razorbill																							Art 4.2 sp
Sandwich Tern																							
Common Tern		Art 4.1													Art 4.1	Art 4.1							
Little Tern		Art 4.1	Art 4.1																				
Manx Shearwater																							
Roseate Tern																							
Peregrine Falcon																							
Arctic Skua																							
Whimbrel																							
Red-necked phalarope																							
Great Skua																							
Great Crested Grebe																							
Leach's Storm Petrel																							
Great Bittern																							
Common Redshank			Art 4.2 sp																				
Common Snipe			Art 4.2 sp																				
Pochard																							
Gadwall																							
Slavonian Grebe																							
Tufted Duck																							
Shoveler																							

Table MT14 – Screening schedule for the NW6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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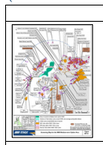
	Special Protection Area																							
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
 **European/Ramsar Site**	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Caithness & Sutherland Peatlands	North Sutherland Coastal Islands	Priest Island	Mointeach Scadabhaigh	Inverpolly, Loch Urigill and Nearby Lochs	Loch Maree	Lewis Peatlands	Assynt Lochs	Lairg and Strathbrora Lochs	Dornoch Firth and Loch Fleet	Cromarty Firth	Inner Moray Firth	Achanalt Marshes	Wester Ross Lochs	Ness & Barvas, Lewis	Aird and Borve, Berkecula	Eoligarry, Barra	Canna and Sanday	Cape Wrath
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001151	UK9001211	UK9001261	UK9001501	UK9001511	UK9001531	UK9001571	UK9001591	UK9001611	UK9001622	UK9001623	UK9001624	UK9001701	UK9001711	UK9001741	UK9001751	UK9001761	UK9001431	UK9001231
Shelduck																							
Ringed Plover	Art 4.2		Art 4.2																				
Goosander																							
Greenshank											Art 4.2												
Eurasian Curlew																							
Common Scoter																							
Northern Lapwing			Art 4.2 sp																				
Eurasian Teal																							
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot		Art 4.2																					
Eurasian Oystercatcher			Art 4.2 sp																				
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose			Art 4.2																				
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage														35,202	30,200								
Common Redshank																Art 4.2							
Great Crested Grebe																							
Whooper Swan															Art 4.1								
Barnacle Goose	Art 4.1	Art 4.1				Art 4.1																	
Greylag Goose														Art 4.2	Art 4.2	Art 4.2							
Greenland White-fronted Goose																							
Pink-footed Goose																							
Light-bellied Brent Goose																							
Bar-tailed Godwit														Art 4.1	Art 4.1	Art 4.1							
Eurasian Wigeon														Art 4.2									
Northen Pintail																							
Red Knot																							
Purple Sandpiper																							
Ruddy Turnstone	Art 4.2																						
Slavonian Grebe																							
Red-throated Diver																							
Common Eider																							
Common Shelduck																							
Great Cormorant																							
Mallard																							
Greater Scaup																							
Long-tailed Duck																							
Black (Common) Scoter																							
Velet Scoter																							
Common Goldeneye																							
Red-breasted Merganser																Art 4.2							
Eurasian Curlew																							
Eurasian Oystercatcher																							
Ringed Plover	Art 4.2		Art 4.2																				
European Golden Plover																							
Grey Plover																							
Northern Lapwing																							
Dunlin																							
Sandwich Tern																							
Sanderling			Art 4.2																				
Black-tailed Godwit																							
Goosander																							
Eurasian Teal																							
Gadwall																							
Common Greenshank																							
Black-headed Gull																							
Common Tern																							
Common Gull (Mew)																							
Northern Shoveler																							
Bewick Swan																							
Common Pochard																							
Tufted Duck																							
Lesser Black-back Gull																							
Tundra Swan																							
Taiga Bean Goose																							

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

30,000	No. of seabirds regularly occurring					Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT14 – Screening schedule for the NW6 Medium-term Op

NB This screening schedule table and map show sites within 100kn

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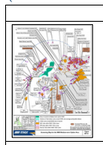

Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Flannan Isles	Handa	North Rona and Sula Sgeir	Rum	Shiant Isles	North Harris Mountains	Cuillins	West Inverness-shire Lochs	Rum	Monach Islands	North Rona	South Uist Machair	Dunnes	North Harris	River Borgie	River Kerry	Invernaver	Oldshoremore and Sandwood	Foinaven	Loch Maree Complex	Caithness and Sutherland Peatlands	Strathglass Complex
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001021	UK9001241	UK9001011	UK9001341	UK9001041	UK9001572	UK9001781	UK9020298	UK0012594	UK0012694	UK0012696	UK0012713	UK0012786	UK0012935	UK0012995	UK0012996	UK0013041	UK0013055	UK0013141	UK0013597	UK0013602	UK0014739
Mammals																						
Grey Seal										A2 (P)	A2 (P)											
Common Seal																						
Bottlenose dolphin																						
Otter									A2 (P)				A2 (Q)	A2 (Q)	A2 (Q)				A2 (Q)	A2 (P)	A2 (P)	A2 (Q)
Fish and other species																						
Salmon														A2 (Q)	A2 (Q)							
Allis shad																						
Twaite shad																						
Sea Lamprey																						
River Lamprey																						
Freshwater Pearl Mussel														A2 (P)	A2 (P)	A2 (P)			A2 (Q)			
Coastal Habitats																						
Sandbanks which are slightly covered by seawater all the time																						
Estuaries																						
Mudflats and sandflats not covered by seawater at low tide																						
Coastal lagoons												A1 (Q)										
Large shallow inlets and bays																						
Reefs											A1 (Q)											
Submarine structures made by leaking gases																						
Submerged or partially submerged sea caves											A1 (Q)											
Annual vegetation of drift lines												A1 (Q)										
Salicornia and other annuals colonising mud and sand																						
Spartina swards																						
Atlantic salt meadows																						
Mediterranean and thermo-Atlantic halophilous scrubs																						
Saltmarsh (type not specified)																						
Perennial vegetation of stony banks																						
Vegetated sea cliffs									A1 (Q)		A1 (Q)											
Sand dunes										A1 (P)/A1 (Q)		A1 (P)/A1 (Q)	A1 (P)/A1 (Q)				A1 (P)/A1 (Q)	A1 (P)/A1 (Q)				
Birds-Breeding Season																						
Breeding Seabird Assemblage	50000	200000	130000	130000	200000																	
Golden Eagle						Art 4.1	Art 4.1															
Osprey																						
Wood Sandpiper																						
Northern Gannet			Art 4.2																			
Lesser Black-backed Gull																						
Herring Gull																						
Black-legged Kittiwake	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																	
Common Guillemot	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp	Art 4.2 sp																	
Corn Crake																						
Merlin																						
Black-throated Diver								Art 4.1														
European Storm Petrel			Art 4.1																			
Arctic Tern																						
Eurasian Dotterel																						
Northern Fulmar	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp		Art 4.2 sp																	
European Shag					Art 4.2																	
Red-throated Diver				Art 4.1																		
European Golden Plover																						
Short-Eared owl																						
Dunlin																						
Great Cormorant																						
Great Black-backed Gull			Art 4.2 sp																			
Atlantic Puffin	Art 4.2 sp		Art 4.2 sp		Art 4.2																	
Razorbill	Art 4.2 sp	Art 4.2	Art 4.2 sp		Art 4.2																	
Sandwich Tern																						
Common Tern																						
Little Tern																						
Manx Shearwater				Art 4.2																		
Roseate Tern																						
Peregrine Falcon																						
Arctic Skua																						
Whimbrel																						
Red-necked phalarope																						
Great Skua																						
Great Crested Grebe																						
Leach's Storm Petrel	Art 4.1		Art 4.1																			
Great Bittern																						
Common Redshank																						
Common Snipe																						
Pochard																						
Gadwall																						
Slavonian Grebe																						
Tufted Duck																						
Shoveler																						

Table MT14 – Screening schedule for the NW6 Medium-term Op

NB This screening schedule table and map show sites within 100kn

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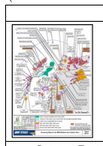
									Special Area of Conservation													
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Flannan Isles	Handa	North Rona and Sula Sgeir	Rum	Shiant Isles	North Harris Mountains	Cuillins	West Inverness-shire Lochs	Rum	Monach Islands	North Rona	South Uist Machair	Dornes	North Harris	River Borgie	River Kerry	Invernaver	Oldshoremore and Sandwood	Foinaven	Loch Maree Complex	Caithness and Sutherland Peatlands	Strathglass Complex
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001021	UK9001241	UK9001011	UK9001341	UK9001041	UK9001572	UK9001781	UK9020298	UK0012594	UK0012694	UK0012696	UK0012713	UK0012786	UK0012935	UK0012995	UK0012996	UK0013041	UK0013055	UK0013141	UK0013597	UK0013602	UK0014739
Shelduck																						
Ringed Plover																						
Goosander																						
Greenshank																						
Eurasian Curlew																						
Common Scoter								Art 4.2														
Northern Lapwing																						
Eurasian Teal																						
Eurasian Wigeon																						
Common Goldeneye																						
Black Guillemot																						
Eurasian Oystercatcher																						
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Birds Overwintering/Passage																						
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Pink-footed Goose																						
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Bar-tailed Godwit																						
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Northen Pintail																						
Red Knot																						
Purple Sandpiper																						
Ruddy Turnstone																						
Slavonian Grebe																						
Red-throated Diver																						
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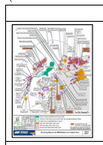
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Loch nam Madadh	Loch Roag Lagoons	Lochs Duich, Long and Alsh Reefs	Obain Loch Euphoirt	North Uist Machair	Dornoch Firth and Morrich More	Moray Firth	Lewis Peatlands	Strathy Point	Abhainn Clais An Eas and Allt a'Mhuilinn	Cape Wrath	Glen Beasdale	Inverpolly	Kinloch and Kyleakin Hills	Little Grunard River	Loch Laxford	Ascrib Isay and Dunvegan	Ardvar and Loch a'Mhuilinn Woodlands	River Evelix	Langavat	River Moriston	River Naver	River Oykel
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0017070	UK0017074	UK0017077	UK0017101	UK0019804	UK0019806	UK0019808	UK0019815	UK0030066	UK0030081	UK0030108	UK0030154	UK0030171	UK0030176	UK0030183	UK0030192	UK0030230	UK0030231	UK0030254	UK0030255	UK0030259	UK0030260	UK0030261
Mammals																							
Grey Seal																							
Common Seal						A2 (P)											A2 (P)						
Bottlenose dolphin							A2 (P)																
Otter	A2 (P)					A2 (P)		A2 (Q)				A2 (Q)	A2 (P)	A2 (Q)				A2 (Q)					
Fish and other species																							
Salmon															A2 (Q)					A2 (Q)	A2 (Q)	A2 (P)	A2 (Q)
Allis shad																							
Twaite shad																							
Sea Lamprey																							
River Lamprey																							
Freshwater Pearl Mussel										A2 (P)			A2 (Q)					A2 (Q)	A2 (P)		A2 (P)	A2 (P)	A2 (P)
Coastal Habitats																							
Sandbanks which are slightly covered by seawater all the time	A1 (Q)					A1 (Q)	A1 (Q)																
Estuaries																							
Mudflats and sandflats not covered by seawater at low tide	A1 (Q)					A1 (P)																	
Coastal lagoons	A1 (P)	A1 (P)	A1 (P)	A1 (P)																			
Large shallow inlets and bays	A1 (P)															A1 (P)							
Reefs						A1 (Q)										A1 (Q)							
Submarine structures made by leaking gases																							
Submerged or partially submerged sea caves																							
Annual vegetation of drift lines					A1 (Q)																		
Salicornia and other annuals colonising mud and sand						A1 (P)																	
Spartina swards																							
Atlantic salt meadows					A1 (P)	A1 (P)																	
Mediterranean and thermo-Atlantic halophilous scrubs																							
Saltmarsh (type not specified)																							
Perennial vegetation of stony banks																							
Vegetated sea cliffs									A1 (P)		A1 (P)												
Sand dunes					A1 (P)/A1 (Q)	A1 (P)																	
Birds-Breeding Season																							
Breeding Seabird Assemblage																							
Golden Eagle																							
Osprey																							
Wood Sandpiper																							
Northern Gannet																							
Lesser Black-backed Gull																							
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Common Redshank																							
Common Snipe																							
Pochard																							
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Slavonian Grebe																							
Tufted Duck																							
Shoveler																							

Table MT14 – Screening schedule for the NW6 Medium-term Op

NB This screening schedule table and map show sites within 100kn

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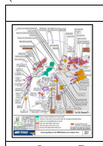
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Loch nam Madadh	Loch Roag Lagoons	Lochs Duich, Long and Alsh Reefs	Obain Loch Euphoirt	North Uist Machair	Dornoch Firth and Morrich More	Moray Firth	Lewis Peatlands	Strathy Point	Abhainn Clais An Eas and Allt a 'Mhuilinn	Cape Wrath	Glen Beasdale	Inverpolly	Kinloch and Kyleakin Hills	Little Grunard River	Loch Laxford	Ascrib Isay and Dunvegan	Ardvar and Loch a 'Mhuilinn Woodlands	River Evelix	Langavat	River Moriston	River Naver	River Oykel
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0017070	UK0017074	UK0017077	UK0017101	UK0019804	UK0019806	UK0019808	UK0019815	UK0030066	UK0030081	UK0030108	UK0030154	UK0030171	UK0030176	UK0030183	UK0030192	UK0030230	UK0030231	UK0030254	UK0030255	UK0030259	UK0030260	UK0030261
Shelduck																							
Ringed Plover																							
Goosander																							
Greenshank																							
Eurasian Curlew																							
Common Scoter																							
Northern Lapwing																							
Eurasian Teal																							
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot																							
Eurasian Oystercatcher																							
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose																							
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage																							
Common Redshank																							
Great Crested Grebe																							
Whooper Swan																							
Barnacle Goose																							
Greylag Goose																							
Greenland White-fronted Goose																							
Pink-footed Goose																							
Light-bellied Brent Goose																							
Bar-tailed Godwit																							
Eurasian Wigeon																							
Northen Pintail																							
Red Knot																							
Purple Sandpiper																							
Ruddy Turnstone																							
Slavonian Grebe																							
Red-throated Diver																							
Common Eider																							
Common Shelduck																							
Great Cormorant																							
Mallard																							
Greater Scaup																							
Long-tailed Duck																							
Black (Common) Scoter																							
Velet Scoter																							
Common Goldeneye																							
Red-breasted Merganser																							
Eurasian Curlew																							
Eurasian Oystercatcher																							
Ringed Plover																							
European Golden Plover																							
Grey Plover																							
Northern Lapwing																							
Dunlin																							
Sandwich Tern																							
Sanderling																							
Black-tailed Godwit																							
Goosander																							
Eurasian Teal																							
Gadwall																							
Common Greenshank																							
Black-headed Gull																							
Common Tern																							
Common Gull (Mew)																							
Northern Shoveler																							
Bewick Swan																							
Common Pochard																							
Tufted Duck																							
Lesser Black-back Gull																							
Tundra Swan																							
Taiga Bean Goose																							

Table MT14 – Screening schedule for the NW6 Medium-term Op

NB This screening schedule table and map show sites within 100kn

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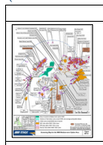
			Ramsar							
Designation	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Rigg - Bile	Traigh na Berie	Caithness and Sutherland Peatlands	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Lewis Peatlands	Loch Maree	North Uist Machair and Islands	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030307	UK0030340	UK13003	UK13009	UK13011	UK13025	UK13028	UK13035	UK13050	UK13058
Mammals										
Grey Seal										
Common Seal										
Bottlenose dolphin										
Otter										Cri 2
Fish and other species										
Salmon										Cri 2
Allis shad										
Twaite shad										
Sea Lamprey										
River Lamprey										
Freshwater Pearl Mussel										
Coastal Habitats										
Sandbanks which are slightly covered by seawater all the time										
Estuaries										
Mudflats and sandflats not covered by seawater at low tide				Cri 1		Cri 1				
Coastal lagoons										
Large shallow inlets and bays										
Reefs										
Submarine structures made by leaking gases										
Submerged or partially submerged sea caves										
Annual vegetation of drift lines										
Salicornia and other annuals colonising mud and sand										
Spartina swards										
Atlantic salt meadows										
Mediterranean and thermo-Atlantic halophilous scrubs										
Saltmarsh (type not specified)						Cri 1				
Perennial vegetation of stony banks										
Vegetated sea cliffs	A1 (P)									
Sand dunes		A1 (P)			Cri 1					
Birds-Breeding Season										
Breeding Seabird Assemblage										
Golden Eagle										
Osprey					Cri 6					
Wood Sandpiper			Cri 2							
Northern Gannet										
Lesser Black-backed Gull										
Herring Gull										
Black-legged Kittiwake										
Common Guillemot										
Corn Crake										
Merlin										
Black-throated Diver			Cri 2				Cri 2	Cri 2		
European Storm Petrel										
Arctic Tern										
Eurasian Dotterel										
Northern Fulmar										
European Shag										
Red-throated Diver			Cri 2				Cri 2			
European Golden Plover			Cri 2				Cri 2			
Short-Eared owl										
Dunlin			Cri 6				Cri 6		Cri 6	
Great Cormorant										
Great Black-backed Gull										
Atlantic Puffin										
Razorbill										
Sandwich Tern										
Common Tern										
Little Tern										
Manx Shearwater										
Roseate Tern										
Peregrine Falcon										
Arctic Skua			Cri 2							
Whimbrel										
Red-necked phalarope										
Great Skua										
Great Crested Grebe										
Leach's Storm Petrel										
Great Bittern										
Common Redshank										
Common Snipe										
Pochard										
Gadwall										
Slavonian Grebe										
Tufted Duck										
Shoveler										

Table MT14 – Screening schedule for the NW6 Medium-term Op

NB This screening schedule table and map show sites within 100kn

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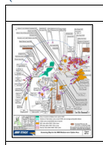
			Ramsar							
Designation	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Rigg - Bile	Traigh na Berie	Caithness and Sutherland Peatlands	Cromarty Firth	Dornoch Firth and Loch Fleet	Inner Moray Firth	Lewis Peatlands	Loch Maree	North Uist Machair and Islands	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030307	UK0030340	UK13003	UK13009	UK13011	UK13025	UK13028	UK13035	UK13050	UK13058
Shelduck										
Ringed Plover									Cri 6	Cri 6
Goosander										
Greenshank			Cri 2				Cri 2			
Eurasian Curlew			Cri 2							
Common Scoter			Cri 2							
Northern Lapwing										
Eurasian Teal			Cri 2							
Eurasian Wigeon			Cri 2							
Common Goldeneye										
Black Guillemot										
Eurasian Oystercatcher										
Common (Mew) Gull										
Black-headed Gull										
Spotted Crake										
Greylag Goose										
Birds Overwintering/Passage										
Wintering Waterfowl Assemblage				Cri 5 (30,200)	Cri 5 (28,692)	Cri 5 (25,740)				
Common Redshank					Cri 6	Cri 6				
Great Crested Grebe										
Whooper Swan					Cri 6					
Barnacle Goose									Cri 6	
Greylag Goose				Cri 6	Cri 6	Cri 6				
Greenland White-fronted Goose										
Pink-footed Goose										
Light-bellied Brent Goose										
Bar-tailed Godwit				Cri 6	Cri 6	Cri 6				
Eurasian Wigeon					Cri 6					
Northen Pintail										
Red Knot										
Purple Sandpiper										
Ruddy Turnstone									Cri 6	
Slavonian Grebe										
Red-throated Diver										
Common Eider										
Common Shelduck										
Great Cormorant										
Mallard										
Greater Scaup										
Long-tailed Duck										
Black (Common) Scoter										
Velet Scoter										
Common Goldeneye										
Red-breasted Merganser						Cri 6				
Eurasian Curlew										
Eurasian Oystercatcher										
Ringed Plover									Cri 6	Cri 6
European Golden Plover										
Grey Plover										
Northern Lapwing										
Dunlin										
Sandwich Tern										
Sanderling										
Black-tailed Godwit										
Goosander										
Eurasian Teal										
Gadwall										
Common Greenshank										
Black-headed Gull										
Common Tern										
Common Gull (Mew)										
Northern Shoveler										
Bewick Swan										
Common Pochard										
Tufted Duck										
Lesser Black-back Gull										
Tundra Swan										
Taiga Bean Goose										

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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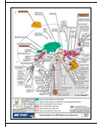

	Special Protection Area																						
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Priest Island	Mointeach Scadabhaigh	Inverpolly, Loch Urigill and Nearby Lochs	Loch Maree	Lewis Peatlands	Assynt Lochs	Lairg and Strathbrora Lochs	Dornoch Firth and Loch Fleet	Beinn Dearg	Ben Wyvis	Achanalt Marshes	Wester Ross Lochs	Ness & Barvas, Lewis	Cape Wrath	Flannan Isles	Handa	Hoy	Marwick Head
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001151	UK9001171	UK9001211	UK9001261	UK9001501	UK9001511	UK9001531	UK9001571	UK9001591	UK9001611	UK9001622	UK9001631	UK9001641	UK9001701	UK9001711	UK9001741	UK9001231	UK9001021	UK9001241	UK9002141	UK9002121
Mammals																							
Grey Seal																							
Common Seal																							
Bottlenose dolphin																							
Otter																							
Fish and other species																							
Salmon																							
Allis shad																							
Twaite shad																							
Sea Lamprey																							
River Lamprey																							
Freshwater Pearl Mussel																							
Coastal Habitats																							
Sandbanks which are slightly covered by seawater all the time																							
Estuaries																							
Mudflats and sandflats not covered by seawater at low tide																							
Coastal lagoons																							
Large shallow inlets and bays																							
Reefs																							
Submarine structures made by leaking gases																							
Submerged or partially submerged sea caves																							
Annual vegetation of drift lines																							
Salicornia and other annuals colonising mud and sand																							
Spartina swards																							
Atlantic salt meadows																							
Mediterranean and thermo-Atlantic halophilous scrubs																							
Saltmarsh (type not specified)																							
Perennial vegetation of stony banks																							
Vegetated sea cliffs																							
Sand dunes																							
Birds-Breeding Season																							
Breeding Seabird Assemblage																			50000	50000	200000	120000	75000
Golden Eagle																							
Osprey													Art 4.1										
Wood Sandpiper			Art 4.1													Art 4.1							
Northern Gannet																							
Lesser Black-backed Gull																							
Herring Gull																							
Black-legged Kittiwake																			Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp
Common Guillemot																			Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp	Art 4.2
Corn Crake	Art 4.1																	Art 4.1					
Merlin			Art 4.1							Art 4.1													
Black-throated Diver			Art 4.1				Art 4.1	Art 4.1	Art 4.1	Art 4.1	Art 4.1	Art 4.1					Art 4.1						
European Storm Petrel						Art 4.1																	
Arctic Tern																							
Eurasian Dotterel														Art 4.1	Art 4.1								
Northern Fulmar																			Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	
European Shag																							
Red-throated Diver			Art 4.1				Art 4.1			Art 4.1												Art 4.1	
European Golden Plover			Art 4.1							Art 4.1													
Short-Eared owl			Art 4.1																				
Dunlin	Art 4.2		Art 4.2							Art 4.2													
Great Cormorant																							
Great Black-backed Gull																						Art 4.2 sp	
Atlantic Puffin																			Art 4.2 sp	Art 4.2 sp		Art 4.2 sp	
Razorbill																			Art 4.2 sp	Art 4.2 sp	Art 4.2		
Sandwich Tern																							
Common Tern		Art 4.1																					
Little Tern		Art 4.1																					
Manx Shearwater																							
Roseate Tern																							
Peregrine Falcon																						Art 4.1	
Arctic Skua																						Art 4.2 sp	
Whimbrel																							
Red-necked phalarope																							
Great Skua																						Art 4.2	
Great Crested Grebe																							
Leach's Storm Petrel																				Art 4.1			
Great Bittern																							
Common Redshank																							
Common Snipe																							
Pochard																							
Gadwall																							
Slavonian Grebe																							
Tufted Duck																							
Shoveler																							
Shelduck																							
Ringed Plover	Art 4.2																						
Goosander																							
Greenshank										Art 4.2													

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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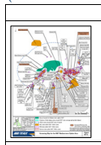


	Special Protection Area																						
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	Caithness & Sutherland Peatlands	Caithness Lochs	North Sutherland Coastal Islands	Priest Island	Mointeach Sadabhaigh	Inverpolly, Loch Urigill and Nearby Lochs	Loch Maree	Lewis Peatlands	Assynt Lochs	Lairg and Strathbrora Lochs	Dornoch Firth and Loch Fleet	Beinn Dearg	Ben Wyvis	Achanalt Marshes	Wester Ross Lochs	Ness & Barvas, Lewis	Cape Wrath	Flannan Isles	Handa	Hoy	Marwick Head
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001151	UK9001171	UK9001211	UK9001261	UK9001501	UK9001511	UK9001531	UK9001571	UK9001591	UK9001611	UK9001622	UK9001631	UK9001641	UK9001701	UK9001711	UK9001741	UK9001231	UK9001021	UK9001241	UK9002141	UK9002121
Eurasian Curlew																							
Common Scoter																							
Northern Lapwing																							
Eurasian Teal																							
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot		Art 4.2																					
Eurasian Oystercatcher																							
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose																							
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage													35,202										
Common Redshank																							
Great Crested Grebe																							
Whooper Swan				Art 4.1																			
Barnacle Goose	Art 4.1	Art 4.1			Art 4.1																		
Greylag Goose				Art 4.2									Art 4.2										
Greenland White-fronted Goose				Art 4.1																			
Pink-footed Goose																							
Light-bellied Brent Goose																							
Bar-tailed Godwit													Art 4.1										
Eurasian Wigeon													Art 4.2										
Northen Pintail																							
Red Knot																							
Purple Sandpiper																							
Ruddy Turnstone	Art 4.2																						
Slavonian Grebe																							
Red-throated Diver																							
Common Eider																							
Common Shelduck																							
Great Cormorant																							
Mallard																							
Greater Scaup																							
Long-tailed Duck																							
Black (Common) Scoter																							
Velet Scoter																							
Common Goldeneye																							
Red-breasted Merganser																							
Eurasian Curlew																							
Eurasian Oystercatcher																							
Ringed Plover	Art 4.2																						
European Golden Plover																							
Grey Plover																							
Northern Lapwing																							
Dunlin																							
Sandwich Tern																							
Sanderling																							
Black-tailed Godwit																							
Goosander																							
Eurasian Teal																							
Gadwall																							
Common Greenshank																							
Black-headed Gull																							
Common Tern																							
Common Gull (Mew)																							
Northern Shoveler																							
Bewick Swan																							
Common Pochard																							
Tufted Duck																							
Lesser Black-back Gull																							
Tundra Swan																							
Taiga Bean Goose																							

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (s

NB This screening schedule table and map show sites within 100km of the opti

(back to contents page)

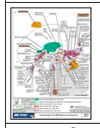
						Special Area of Conservation															
Designation	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	North Caithness Cliffs	North Rona and Sula Sgeir	Shiant Isles	North Harris Mountains	Sule Skerry and Sule Stack	Monach Islands	North Rona	Dunnes	Hoy	North Harris	River Borgie	River Kerry	Invernaver	Oldshoremore and Sandwood	Foinaven	Stromness Heaths and Coast	Loch Maree Complex	Caithness and Sutherland Peatlands	Loch of Stenness	Loch nam Madadh	Loch Roag Lagoons
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001181	UK9001011	UK9001041	UK9001572	UK9002181	UK0012694	UK0012696	UK0012786	UK0012791	UK0012935	UK0012995	UK0012996	UK0013041	UK0013055	UK0013141	UK0013589	UK0013597	UK0013602	UK0014749	UK0017070	UK0017074
Mammals																					
Grey Seal						A2 (P)	A2 (P)														
Common Seal																					
Bottlenose dolphin																					
Otter								A2 (Q)		A2 (Q)	A2 (Q)				A2 (Q)		A2 (P)	A2 (P)		A2 (P)	
Fish and other species																					
Salmon										A2 (Q)	A2 (Q)										
Allis shad																					
Twaite shad																					
Sea Lamprey																					
River Lamprey																					
Freshwater Pearl Mussel										A2 (P)	A2 (P)	A2 (P)			A2 (Q)						
Coastal Habitats																					
Sandbanks which are slightly covered by seawater all the time																				A1 (Q)	
Estuaries																					
Mudflats and sandflats not covered by seawater at low tide																				A1 (Q)	
Coastal lagoons																			A1 (P)	A1 (P)	A1 (P)
Large shallow inlets and bays																				A1 (P)	
Reefs							A1 (Q)														
Submarine structures made by leaking gases																					
Submerged or partially submerged sea caves							A1 (Q)														
Annual vegetation of drift lines																					
Salicornia and other annuals colonising mud and sand																					
Spartina swards																					
Atlantic salt meadows																					
Mediterranean and thermo-Atlantic halophilous scrubs																					
Saltmarsh (type not specified)																					
Perennial vegetation of stony banks																					
Vegetated sea cliffs							A1 (Q)		A1 (P)							A1 (P)					
Sand dunes						A1 (P)/A1 (Q)		A1 (P)/A1 (Q)					A1 (P)/A1 (Q)	A1 (P)/A1 (Q)							
Birds-Breeding Season																					
Breeding Seabird Assemblage	110000	130000	200000		100000																
Golden Eagle				Art 4.1																	
Osprey																					
Wood Sandpiper																					
Northern Gannet		Art 4.2			Art 4.2																
Lesser Black-backed Gull																					
Herring Gull																					
Black-legged Kittiwake	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																		
Common Guillemot	Art 4.2	Art 4.2	Art 4.2 sp		Art 4.2 sp																
Corn Crake																					
Merlin																					
Black-throated Diver																					
European Storm Petrel		Art 4.1			Art 4.1																
Arctic Tern																					
Eurasian Dotterel																					
Northern Fulmar	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp																		
European Shag			Art 4.2		Art 4.2 sp																
Red-throated Diver																					
European Golden Plover																					
Short-Eared owl																					
Dunlin																					
Great Cormorant																					
Great Black-backed Gull		Art 4.2 sp																			
Atlantic Puffin	Art 4.2 sp	Art 4.2 sp	Art 4.2		Art 4.2																
Razorbill	Art 4.2 sp	Art 4.2 sp	Art 4.2																		
Sandwich Tern																					
Common Tern																					
Little Tern																					
Manx Shearwater																					
Roseate Tern																					
Peregrine Falcon	Art 4.1																				
Arctic Skua																					
Whimbrel																					
Red-necked phalarope																					
Great Skua																					
Great Crested Grebe																					
Leach's Storm Petrel		Art 4.1			Art 4.1																
Great Bittern																					
Common Redshank																					
Common Snipe																					
Pochard																					
Gadwall																					
Slavonian Grebe																					
Tufted Duck																					
Shoveler																					
Shelduck																					
Ringed Plover																					
Goosander																					
Greenshank																					

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (s

NB This screening schedule table and map show sites within 100km of the opti

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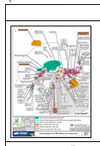
						Special Area of Conservation															
Designation	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	North Caithness Cliffs	North Rona and Sula Sgeir	Shiant Isles	North Harris Mountains	Sule Skerry and Sule Stack	Monach Islands	North Rona	Dunnes	Hoy	North Harris	River Borgie	River Kerry	Invernaver	Oldshoremore and Sandwood	Foinaven	Stromness Heaths and Coast	Loch Maree Complex	Caithness and Sutherland Peatlands	Loch of Stenness	Loch nam Madadh	Loch Roag Lagoons
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001181	UK9001011	UK9001041	UK9001572	UK9002181	UK0012694	UK0012696	UK0012786	UK0012791	UK0012935	UK0012995	UK0012996	UK0013041	UK0013055	UK0013141	UK0013589	UK0013597	UK0013602	UK0014749	UK0017070	UK0017074
Eurasian Curlew																					
Common Scoter																					
Northern Lapwing																					
Eurasian Teal																					
Eurasian Wigeon																					
Common Goldeneye																					
Black Guillemot																					
Eurasian Oystercatcher																					
Common (Mew) Gull																					
Black-headed Gull																					
Spotted Crake																					
Greylag Goose																					
Birds Overwintering/Passage																					
Wintering Waterfowl Assemblage																					
Common Redshank																					
Great Crested Grebe																					
Whooper Swan																					
Barnacle Goose																					
Greylag Goose																					
Greenland White-fronted Goose																					
Pink-footed Goose																					
Light-bellied Brent Goose																					
Bar-tailed Godwit																					
Eurasian Wigeon																					
Northen Pintail																					
Red Knot																					
Purple Sandpiper																					
Ruddy Turnstone																					
Slavonian Grebe																					
Red-throated Diver																					
Common Eider																					
Common Shelduck																					
Great Cormorant																					
Mallard																					
Greater Scaup																					
Long-tailed Duck																					
Black (Common) Scoter																					
Velet Scoter																					
Common Goldeneye																					
Red-breasted Merganser																					
Eurasian Curlew																					
Eurasian Oystercatcher																					
Ringed Plover																					
European Golden Plover																					
Grey Plover																					
Northern Lapwing																					
Dunlin																					
Sandwich Tern																					
Sanderling																					
Black-tailed Godwit																					
Goosander																					
Eurasian Teal																					
Gadwall																					
Common Greenshank																					
Black-headed Gull																					
Common Tern																					
Common Gull (Mew)																					
Northern Shoveler																					
Bewick Swan																					
Common Pochard																					
Tufted Duck																					
Lesser Black-back Gull																					
Tundra Swan																					
Taiga Bean Goose																					

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (s

NB This screening schedule table and map show sites within 100km of the opti

(back to contents page)

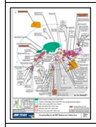
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Ohain Loch Euphairt	North Uist Machair	Dornoch Firth and Morrich More	Moray Firth	Lewis Peatlands	Strathy Point	Abhainn Clais An Eas and Allt a'Mhuilinn	Berriedale and Langwell Waters	Cape Wrath	Inverpolly	Little Gruinard River	Loch Laxford	Ascrib, Isay and Dunvegan	Ardvar and Loch a'Mhuilinn Woodlands	River Evelix	Langavat	River Naver	River Oykel	River Thurso	Rigg - Bilé	Tràigh na Berie	Darwin Mounds
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0017101	UK0019804	UK0019806	UK0019808	UK0019815	UK0030066	UK0030081	UK0030088	UK0030108	UK0030171	UK0030183	UK0030192	UK0030230	UK0030231	UK0030254	UK0030255	UK0030260	UK0030261	UK0030264	UK0030307	UK0030340	UK0030317
Mammals																						
Grey Seal																						
Common Seal			A2 (P)										A2 (P)									
Bottlenose dolphin				A2 (P)																		
Otter			A2 (P)		A2 (Q)					A2 (P)				A2 (Q)								
Fish and other species																						
Salmon								A2 (P)			A2 (Q)					A2 (Q)	A2 (P)	A2 (Q)	A2 (P)			
Allis shad																						
Twaite shad																						
Sea Lamprey																						
River Lamprey																						
Freshwater Pearl Mussel							A2 (P)			A2 (Q)				A2 (Q)	A2 (P)		A2 (P)	A2 (P)				
Coastal Habitats																						
Sandbanks which are slightly covered by seawater all the time			A1 (Q)	A1 (Q)																		
Estuaries																						
Mudflats and sandflats not covered by seawater at low tide			A1 (P)																			
Coastal lagoons	A1 (P)																					
Large shallow inlets and bays												A1 (P)										
Reefs			A1 (Q)									A1 (Q)										A1 (P)
Submarine structures made by leaking gases																						
Submerged or partially submerged sea caves																						
Annual vegetation of drift lines		A1 (Q)																				
Salicornia and other annuals colonising mud and sand			A1 (P)																			
Spartina swards																						
Atlantic salt meadows		A1 (P)	A1 (P)																			
Mediterranean and thermo-Atlantic halophilous scrubs																						
Saltmarsh (type not specified)																						
Perennial vegetation of stony banks																						
Vegetated sea cliffs						A1 (P)			A1 (P)											A1 (P)		
Sand dunes		A1 (P)/A1 (Q)	A1 (P)																		A1 (P)	
Birds-Breeding Season																						
Breeding Seabird Assemblage																						
Golden Eagle																						
Osprey																						
Wood Sandpiper																						
Northern Gannet																						
Lesser Black-backed Gull																						
Herring Gull																						
Black-legged Kittiwake																						
Common Guillemot																						
Corn Crake																						
Merlin																						
Black-throated Diver																						
European Storm Petrel																						
Arctic Tern																						
Eurasian Dotterel																						
Northern Fulmar																						
European Shag																						
Red-throated Diver																						
European Golden Plover																						
Short-Eared owl																						
Dunlin																						
Great Cormorant																						
Great Black-backed Gull																						
Atlantic Puffin																						
Razorbill																						
Sandwich Tern																						
Common Tern																						
Little Tern																						
Manx Shearwater																						
Roseate Tern																						
Peregrine Falcon																						
Arctic Skua																						
Whimbrel																						
Red-necked phalarope																						
Great Skua																						
Great Crested Grebe																						
Leach's Storm Petrel																						
Great Bittern																						
Common Redshank																						
Common Snipe																						
Pochard																						
Gadwall																						
Slavonian Grebe																						
Tufted Duck																						
Shoveler																						
Shelduck																						
Ringed Plover																						
Goosander																						
Greenshank																						

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (s

NB This screening schedule table and map show sites within 100km of the opti

(back to contents page)

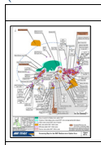
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Obain Loch Euphoirt	North Uist Machair	Dornoch Firth and Morrich More	Moray Firth	Lewis Peatlands	Strathy Point	Abhainn Clais An Eas and Allt a'Mhuilinn	Berriedale and Langwell Waters	Cape Wrath	Inverpolly	Little Gruinard River	Loch Laxford	Ascrib, Isay and Dunvegan	Ardvar and Loch a'Mhuilinn Woodlands	River Evelix	Langavat	River Naver	River Oykel	River Thurso	Rigg - Bile	Traigh na Berie	Darwin Mounds
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0017101	UK0019804	UK0019806	UK0019808	UK0019815	UK0030066	UK0030081	UK0030088	UK0030108	UK0030171	UK0030183	UK0030192	UK0030230	UK0030231	UK0030254	UK0030255	UK0030260	UK0030261	UK0030264	UK0030307	UK0030340	UK0030317
Eurasian Curlew																						
Common Scoter																						
Northern Lapwing																						
Eurasian Teal																						
Eurasian Wigeon																						
Common Goldeneye																						
Black Guillemot																						
Eurasian Oystercatcher																						
Common (Mew) Gull																						
Black-headed Gull																						
Spotted Crake																						
Greylag Goose																						
Birds Overwintering/Passage																						
Wintering Waterfowl Assemblage																						
Common Redshank																						
Great Crested Grebe																						
Whooper Swan																						
Barnacle Goose																						
Greylag Goose																						
Greenland White-fronted Goose																						
Pink-footed Goose																						
Light-bellied Brent Goose																						
Bar-tailed Godwit																						
Eurasian Wigeon																						
Northen Pintail																						
Red Knot																						
Purple Sandpiper																						
Ruddy Turnstone																						
Slavonian Grebe																						
Red-throated Diver																						
Common Eider																						
Common Shelduck																						
Great Cormorant																						
Mallard																						
Greater Scaup																						
Long-tailed Duck																						
Black (Common) Scoter																						
Velet Scoter																						
Common Goldeneye																						
Red-breasted Merganser																						
Eurasian Curlew																						
Eurasian Oystercatcher																						
Ringed Plover																						
European Golden Plover																						
Grey Plover																						
Northern Lapwing																						
Dunlin																						
Sandwich Tern																						
Sanderling																						
Black-tailed Godwit																						
Goosander																						
Eurasian Teal																						
Gadwall																						
Common Greenshank																						
Black-headed Gull																						
Common Tern																						
Common Gull (Mew)																						
Northern Shoveler																						
Bewick Swan																						
Common Pochard																						
Tufted Duck																						
Lesser Black-back Gull																						
Tundra Swan																						
Taiga Bean Goose																						

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (s

NB This screening schedule table and map show sites within 100km of the opti

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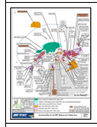
	Ramsar					
Designation	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Caithness and Sutherland Peatlands	Caithness Lochs	Dornoch Firth and Loch Fleet	Lewis Peatlands	Loch Maree	North Uist Machair and Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13003	UK13004	UK13011	UK13028	UK13035	UK13050
Mammals						
Grey Seal						
Common Seal						
Bottlenose dolphin						
Otter						
Fish and other species						
Salmon						
Allis shad						
Twaite shad						
Sea Lamprey						
River Lamprey						
Freshwater Pearl Mussel						
Coastal Habitats						
Sandbanks which are slightly covered by seawater all the time						
Estuaries						
Mudflats and sandflats not covered by seawater at low tide						
Coastal lagoons						
Large shallow inlets and bays						
Reefs						
Submarine structures made by leaking gases						
Submerged or partially submerged sea caves						
Annual vegetation of drift lines						
Salicornia and other annuals colonising mud and sand						
Spartina swards						
Atlantic salt meadows						
Mediterranean and thermo-Atlantic halophilous scrubs						
Saltmarsh (type not specified)						
Perennial vegetation of stony banks						
Vegetated sea cliffs						
Sand dunes			Cri 1			
Birds-Breeding Season						
Breeding Seabird Assemblage						
Golden Eagle						
Osprey			Cri 6			
Wood Sandpiper	Cri 2					
Northern Gannet						
Lesser Black-backed Gull						
Herring Gull						
Black-legged Kittiwake						
Common Guillemot						
Corn Crake						
Merlin						
Black-throated Diver	Cri 2			Cri 2	Cri 2	
European Storm Petrel						
Arctic Tern						
Eurasian Dotterel						
Northern Fulmar						
European Shag						
Red-throated Diver	Cri 2			Cri 2		
European Golden Plover	Cri 2			Cri 2		
Short-Eared owl						
Dunlin	Cri 6			Cri 6		Cri 6
Great Cormorant						
Great Black-backed Gull						
Atlantic Puffin						
Razorbill						
Sandwich Tern						
Common Tern						
Little Tern						
Manx Shearwater						
Roseate Tern						
Peregrine Falcon						
Arctic Skua	Cri 2					
Whimbrel						
Red-necked phalarope						
Great Skua						
Great Crested Grebe						
Leach's Storm Petrel						
Great Bittern						
Common Redshank						
Common Snipe						
Pochard						
Gadwall						
Slavonian Grebe						
Tufted Duck						
Shoveler						
Shelduck						
Ringed Plover						Cri 6
Goosander						
Greenshank	Cri 2			Cri 2		

Table MT15 – Screening schedule for the NW7 Medium-term Option Area (s

NB This screening schedule table and map show sites within 100km of the opti

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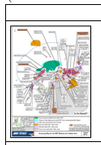
	Ramsar					
Designation	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Caithness and Sutherland Peatlands	Caithness Lochs	Dornoch Firth and Loch Fleet	Lewis Peatlands	Loch Maree	North Uist Machair and Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13003	UK13004	UK13011	UK13028	UK13035	UK13050
Eurasian Curlew	Cri 2					
Common Scoter	Cri 2					
Northern Lapwing						
Eurasian Teal	Cri 2					
Eurasian Wigeon	Cri 2					
Common Goldeneye						
Black Guillemot						
Eurasian Oystercatcher						
Common (Mew) Gull						
Black-headed Gull						
Spotted Crake						
Greylag Goose						
Birds Overwintering/Passage						
Wintering Waterfowl Assemblage			Cri 5 (28,692)			
Common Redshank			Cri 6			
Great Crested Grebe						
Whooper Swan		Cri 6	Cri 6			
Barnacle Goose						Cri 6
Greylag Goose		Cri 6	Cri 6			
Greenland White-fronted Goose		Cri 6				
Pink-footed Goose						
Light-bellied Brent Goose						
Bar-tailed Godwit			Cri 6			
Eurasian Wigeon			Cri 6			
Northen Pintail						
Red Knot						
Purple Sandpiper						
Ruddy Turnstone						Cri 6
Slavonian Grebe						
Red-throated Diver						
Common Eider						
Common Shelduck						
Great Cormorant						
Mallard						
Greater Scaup						
Long-tailed Duck						
Black (Common) Scoter						
Velet Scoter						
Common Goldeneye						
Red-breasted Merganser						
Eurasian Curlew						
Eurasian Oystercatcher						
Ringed Plover						Cri 6
European Golden Plover						
Grey Plover						
Northern Lapwing						
Dunlin						
Sandwich Tern						
Sanderling						
Black-tailed Godwit						
Goosander						
Eurasian Teal						
Gadwall						
Common Greenshank						
Black-headed Gull						
Common Tern						
Common Gull (Mew)						
Northern Shoveler						
Bewick Swan						
Common Pochard						
Tufted Duck						
Lesser Black-back Gull						
Tundra Swan						
Taiga Bean Goose						

Table MT16 – Screening schedule for the NW8 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area											Special Area of Conservation										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Caithness & Sutherland Peatlands	North Sutherland Coastal Islands	Inverpolly, Loch Urigill and Nearby Lochs	Lewis Peatlands	Assynt Lochs	Ness & Barvas, Lewis	Cape Wrath	Flannan Isles	Handa	North Rona and Sula Sgeir	Sule Skerry and Sule Stack	North Rona	Dunnes	River Borgie	Invernaver	Oldshoremore and Sandwood	Foinaven	Caithness and Sutherland Peatlands	Loch Roag Lagoons	Lewis Peatlands	Strathy Point	Abhainn Clais An Eas and Allt a'Mhuilinn
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001151	UK9001211	UK9001511	UK9001571	UK9001591	UK9001741	UK9001231	UK9001021	UK9001241	UK9001011	UK9002181	UK0012696	UK0012786	UK0012995	UK0013041	UK0013055	UK0013141	UK0013602	UK0017074	UK0019815	UK0030066	UK0030081
Mammals																						
Grey Seal												A2 (P)										
Common Seal																						
Bottlenose dolphin																						
Otter													A2 (Q)	A2 (Q)			A2 (Q)	A2 (P)		A2 (Q)		
Fish and other species																						
Salmon														A2 (Q)								
Allis shad																						
Twaite shad																						
Sea Lamprey																						
River Lamprey																						
Freshwater Pearl Mussel														A2 (P)			A2 (Q)					A2 (P)
Coastal Habitats																						
Sandbanks which are slightly covered by seawater all the time																						
Estuaries																						
Mudflats and sandflats not covered by seawater at low tide																						
Coastal lagoons																			A1 (P)			
Large shallow inlets and bays																						
Reefs												A1 (Q)										
Submarine structures made by leaking gases																						
Submerged or partially submerged sea caves												A1 (Q)										
Annual vegetation of drift lines																						
Salicornia and other annuals colonising mud and sand																						
Spartina swards																						
Atlantic salt meadows																						
Mediterranean and thermo-Atlantic halophilous scrubs																						
Saltmarsh (type not specified)																						
Perennial vegetation of stony banks																						
Vegetated sea cliffs												A1 (Q)									A1 (P)	
Sand dunes													A1 (P)/A1 (Q)		A1 (P)/A1 (Q)	A1 (P)/A1 (Q)						
Birds-Breeding Season																						
Breeding Seabird Assemblage							50000	50000	200000	130000	100000											
Golden Eagle																						
Osprey																						
Wood Sandpiper	Art 4.1																					
Northern Gannet										Art 4.2	Art 4.2											
Lesser Black-backed Gull																						
Herring Gull																						
Black-legged Kittiwake							Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp												
Common Guillemot							Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2	Art 4.2 sp											
Corn Crake						Art 4.1																
Merlin	Art 4.1			Art 4.1																		
Black-throated Diver	Art 4.1		Art 4.1	Art 4.1	Art 4.1																	
European Storm Petrel										Art 4.1	Art 4.1											
Arctic Tern																						
Eurasian Dotterel																						
Northern Fulmar							Art 4.2 sp	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp												
European Shag											Art 4.2 sp											
Red-throated Diver	Art 4.1			Art 4.1																		
European Golden Plover	Art 4.1			Art 4.1																		
Short-Eared owl	Art 4.1																					
Dunlin	Art 4.2			Art 4.2																		
Great Cormorant																						
Great Black-backed Gull										Art 4.2 sp												
Atlantic Puffin							Art 4.2 sp	Art 4.2 sp		Art 4.2 sp	Art 4.2											
Razorbill							Art 4.2 sp	Art 4.2 sp	Art 4.2	Art 4.2 sp												
Sandwich Tern																						
Common Tern																						
Little Tern																						
Manx Shearwater																						
Roseate Tern																						
Peregrine Falcon																						
Arctic Skua																						
Whimbrel																						
Red-necked phalarope																						
Great Skua																						
Great Crested Grebe																						
Leach's Storm Petrel								Art 4.1		Art 4.1	Art 4.1											
Great Bittern																						
Common Redshank																						
Common Snipe																						
Pochard																						
Gadwall																						
Slavonian Grebe																						
Tufted Duck																						
Shoveler																						

Table MT16 – Screening schedule for the NW8 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area											Special Area of Conservation										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Caithness & Sutherland Peatlands	North Sutherland Coastal Islands	Inverpolly, Loch Urigill and Nearby Lochs	Lewis Peatlands	Assynt Lochs	Ness & Barvas, Lewis	Cape Wrath	Flannan Isles	Handa	North Rona and Sula Sgeir	Sule Skerry and Sule Stack	North Rona	Dunnes	River Borgie	Invernaver	Oldshoremore and Sandwood	Foinaven	Caithness and Sutherland Peatlands	Loch Roag Lagoons	Lewis Peatlands	Strathy Point	Abhainn Clais An Eas and Allt a'Mhuilinn
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001151	UK9001211	UK9001511	UK9001571	UK9001591	UK9001741	UK9001231	UK9001021	UK9001241	UK9001011	UK9002181	UK0012696	UK0012786	UK0012995	UK0013041	UK0013055	UK0013141	UK0013602	UK0017074	UK0019815	UK0030066	UK0030081
Shelduck																						
Ringed Plover																						
Goosander																						
Greenshank				Art 4.2																		
Eurasian Curlew																						
Common Scoter																						
Northern Lapwing																						
Eurasian Teal																						
Eurasian Wigeon																						
Common Goldeneye																						
Black Guillemot																						
Eurasian Oystercatcher																						
Common (Mew) Gull																						
Black-headed Gull																						
Spotted Crake																						
Greylag Goose																						
Birds Overwintering/Passage																						
Wintering Waterfowl Assemblage																						
Common Redshank																						
Great Crested Grebe																						
Whooper Swan																						
Barnacle Goose		Art 4.1																				
Greylag Goose																						
Greenland White-fronted Goose																						
Pink-footed Goose																						
Light-bellied Brent Goose																						
Bar-tailed Godwit																						
Eurasian Wigeon																						
Northen Pintail																						
Red Knot																						
Purple Sandpiper																						
Ruddy Turnstone																						
Slavonian Grebe																						
Red-throated Diver																						
Common Eider																						
Common Shelduck																						
Great Cormorant																						
Mallard																						
Greater Scaup																						
Long-tailed Duck																						
Black (Common) Scoter																						
Velet Scoter																						
Common Goldeneye																						
Red-breasted Merganser																						
Eurasian Curlew																						
Eurasian Oystercatcher																						
Ringed Plover																						
European Golden Plover																						
Grey Plover																						
Northern Lapwing																						
Dunlin																						
Sandwich Tern																						
Sanderling																						
Black-tailed Godwit																						
Goosander																						
Eurasian Teal																						
Gadwall																						
Common Greenshank																						
Black-headed Gull																						
Common Tern																						
Common Gull (Mew)																						
Northern Shoveler																						
Bewick Swan																						
Common Pochard																						
Tufted Duck																						
Lesser Black-back Gull																						
Tundra Swan																						
Taiga Bean Goose																						

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT16 – Screening schedule for the NW8 Medium-term

NB This screening schedule table and map show sites within 10

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											Ramsar	
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Cape Wrath	Inverpolly	Loch Laxford	Ardvar and Loch a' Mhuilinn Woodlands	Langavat	River Naver	River Oykel	Traigh na Berie	Darwin Mounds	Wyville Thomson Ridge	Caithness and Sutherland Peatlands	Lewis Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030108	UK0030171	UK0030192	UK0030231	UK0030255	UK0030260	UK0030261	UK0030340	UK0030317	UK0030355	UK13003	UK13028
Mammals												
Grey Seal												
Common Seal												
Bottlenose dolphin												
Otter		A2 (P)		A2 (Q)								
Fish and other species												
Salmon					A2 (Q)	A2 (P)	A2 (Q)					
Allis shad												
Twaite shad												
Sea Lamprey												
River Lamprey												
Freshwater Pearl Mussel		A2 (Q)		A2 (Q)		A2 (P)	A2 (P)					
Coastal Habitats												
Sandbanks which are slightly covered by seawater all the time												
Estuaries												
Mudflats and sandflats not covered by seawater at low tide												
Coastal lagoons												
Large shallow inlets and bays			A1 (P)									
Reefs			A1 (Q)						A1 (P)	A1 (P)		
Submarine structures made by leaking gases												
Submerged or partially submerged sea caves												
Annual vegetation of drift lines												
Salicornia and other annuals colonising mud and sand												
Spartina swards												
Atlantic salt meadows												
Mediterranean and thermo-Atlantic halophilous scrubs												
Saltmarsh (type not specified)												
Perennial vegetation of stony banks												
Vegetated sea cliffs	A1 (P)											
Sand dunes								A1 (P)				
Birds-Breeding Season												
Breeding Seabird Assemblage												
Golden Eagle												
Osprey												
Wood Sandpiper											Cri 2	
Northern Gannet												
Lesser Black-backed Gull												
Herring Gull												
Black-legged Kittiwake												
Common Guillemot												
Corn Crake												
Merlin												
Black-throated Diver											Cri 2	Cri 2
European Storm Petrel												
Arctic Tern												
Eurasian Dotterel												
Northern Fulmar												
European Shag												
Red-throated Diver											Cri 2	Cri 2
European Golden Plover											Cri 2	Cri 2
Short-Eared owl												
Dunlin											Cri 6	Cri 6
Great Cormorant												
Great Black-backed Gull												
Atlantic Puffin												
Razorbill												
Sandwich Tern												
Common Tern												
Little Tern												
Manx Shearwater												
Roseate Tern												
Peregrine Falcon												
Arctic Skua											Cri 2	
Whimbrel												
Red-necked phalarope												
Great Skua												
Great Crested Grebe												
Leach's Storm Petrel												
Great Bittern												
Common Redshank												
Common Snipe												
Pochard												
Gadwall												
Slavonian Grebe												
Tufted Duck												
Shoveler												

Table MT16 – Screening schedule for the NW8 Medium-term

NB This screening schedule table and map show sites within 10

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											Ramsar	
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram
European/Ramsar Site	Cape Wrath	Inverpolly	Loch Laxford	Ardvar and Loch a' Mhuilinn Woodlands	Langavat	River Naver	River Oykel	Traigh na Berie	Darwin Mounds	Wyville Thomson Ridge	Caithness and Sutherland Peatlands	Lewis Peatlands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030108	UK0030171	UK0030192	UK0030231	UK0030255	UK0030260	UK0030261	UK0030340	UK0030317	UK0030355	UK13003	UK13028
Shelduck												
Ringed Plover												
Goosander												
Greenshank											Cri 2	Cri 2
Eurasian Curlew											Cri 2	
Common Scoter											Cri 2	
Northern Lapwing												
Eurasian Teal											Cri 2	
Eurasian Wigeon											Cri 2	
Common Goldeneye												
Black Guillemot												
Eurasian Oystercatcher												
Common (Mew) Gull												
Black-headed Gull												
Spotted Crake												
Greylag Goose												
Birds Overwintering/Passage												
Wintering Waterfowl Assemblage												
Common Redshank												
Great Crested Grebe												
Whooper Swan												
Barnacle Goose												
Greylag Goose												
Greenland White-fronted Goose												
Pink-footed Goose												
Light-bellied Brent Goose												
Bar-tailed Godwit												
Eurasian Wigeon												
Northen Pintail												
Red Knot												
Purple Sandpiper												
Ruddy Turnstone												
Slavonian Grebe												
Red-throated Diver												
Common Eider												
Common Shelduck												
Great Cormorant												
Mallard												
Greater Scaup												
Long-tailed Duck												
Black (Common) Scoter												
Velet Scoter												
Common Goldeneye												
Red-breasted Merganser												
Eurasian Curlew												
Eurasian Oystercatcher												
Ringed Plover												
European Golden Plover												
Grey Plover												
Northern Lapwing												
Dunlin												
Sandwich Tern												
Sanderling												
Black-tailed Godwit												
Goosander												
Eurasian Teal												
Gadwall												
Common Greenshank												
Black-headed Gull												
Common Tern												
Common Gull (Mew)												
Northern Shoveler												
Bewick Swan												
Common Pochard												
Tufted Duck												
Lesser Black-back Gull												
Tundra Swan												
Taiga Bean Goose												

Table MT17 – Screening schedule for the SW1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																		Special Area of Conservation					
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Antrim Hills	Laggan, Islay	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Muirkirk and North Lowther	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough	Strangford Lough	Killough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Luce Bay and Sands	North Irishtown	Murlough	Magilligan	Strangford Lough	Merrick Kells
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9003053	UK9003071	UK9003111	UK9003121	UK9003261	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101	UK9020111	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	UK0013039	2012	UK0016612	UK0016613	UK0016618	UK0019841
Mammals																								
Grey Seal																								
Common Seal																					A2 (P)			
Bottlenose dolphin																								
Otter																								A2 (Q)
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																								
Freshwater Pearl Mussel																								
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																			A1 (Q)		A1 (Q)			
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide																			A1 (Q)		A1 (Q)		A1 (P)	
Coastal lagoons																							A1 (P)	
Large shallow inlets and bays																			A1 (P)				A1 (P)	
Reefs																			A1 (Q)				A1 (P)	
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																							A1 (Q)	
Salicornia and other annuals colonising mud and sand																							A1 (Q)	
Spartina swards																								
Atlantic salt meadows																					A1 (Q)		A1 (Q)	
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																							A1 (Q)	
Vegetated sea cliffs																								
Sand dunes																			A1 (P)		A1 (P)/A1 (Q)	A1 (P)/A1 (Q)		
Birds-Breeding Season																								
Breeding Seabird Assemblage																65000								
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																Art 4.2								
Lesser Black-backed Gull																Art 4.2								
Herring Gull																Art 4.2 sp								
Black-legged Kittiwake							Art 4.2									Art 4.2 sp								
Common Guillemot							Art 4.2									Art 4.2 sp								
Corn Crake																								
Merlin	Art 4.1					Art 4.1																		
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern													Art 4.1		Art 4.1			Art 4.1						
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover						Art 4.1																		
Short-Eared owl						Art 4.1																		
Dunlin																								
Great Cormorant								Art 4.2																
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill							Art 4.2																	
Sandwich Tern													Art 4.1											
Common Tern										Art 4.1	Art 4.1		Art 4.1											
Little Tern																								
Manx Shearwater																		Art 4.2						
Roseate Tern										Art 4.1														
Peregrine Falcon						Art 4.1	Art 4.1																	
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								

Table MT17 – Screening schedule for the SW1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																		Special Area of Conservation					
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Antrim Hills	Laggan, Islay	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Muirkirk and North Lowther	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough	Strangford Lough	Killough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Luce Bay and Sands	North Irishtown	Murlough	Magilligan	Strangford Lough	Merrick Kells
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9003053	UK9003071	UK9003111	UK9003121	UK9003261	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101	UK9020111	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	UK0013039	2012	UK0016612	UK0016613	UK0016618	UK0019841
Shelduck																								
Ringed Plover																								
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage									36,599		99,262		70,200											
Common Redshank												Art 4.2	Art 4.2											
Great Crested Grebe																	Art 4.2							
Whooper Swan									Art 4.1		Art 4.1													
Barnacle Goose		Art 4.1																						
Greylag Goose				Art 4.2																				
Greenland White-fronted Goose		Art 4.1	Art 4.1	Art 4.1	Art 4.1																			
Pink-footed Goose																								
Light-bellied Brent Goose									Art 4.2	Art 4.2			Art 4.2	Art 4.2	Art 4.2									
Bar-tailed Godwit									Art 4.1															
Eurasian Wigeon																								
Northen Pintail																								
Red Knot													Art 4.2											
Purple Sandpiper																								
Ruddy Turnstone															Art 4.2									
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye											Art 4.2													
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover															Art 4.2									
European Golden Plover															Art 4.1									
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard											Art 4.2													
Tufted Duck											Art 4.2													
Lesser Black-back Gull																								
Tundra Swan											Art 4.1													
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT17 – Screening schedule for the SW1 Mediu

NB This screening schedule table and map show sites

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Rathlin Island	South-East Islay Skerries	Bann Estuary	Mull of Galloway	North Antrim Coast	Owenkillew River	River Bladnoch	Upper Ballinderry River	River Roe and Tributaries	Red Bay SAC	Belfast Lough	Kilkeel Bay	Larne Lough	Lough Foyle	Lough Neagh & Lough Beg	Outer Ards	Strangford Lough	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030055	UK0030067	UK0030084	UK0030220	UK0030224	UK0030233	UK0030249	UK0030296	UK0030360	UK0030365	UK12002	UK12012	UK12013	UK12014	UK12016	UK12018	UK12021	UK13027	UK13032	UK13037	UK210001
Mammals																					
Grey Seal																					
Common Seal		A2 (P)																			
Bottlenose dolphin																					
Otter						A2 (Q)		A2 (Q)	A2 (Q)												
Fish and other species																					
Salmon						A2 (Q)	A2 (P)		A2 (P)					Cri 2							
Allis shad														Cri 2							
Twaite shad														Cri 2							
Sea Lamprey														Cri 2							
River Lamprey																					
Freshwater Pearl Mussel						A2 (P)		A2 (P)													
Coastal Habitats																					
Sandbanks which are slightly covered by seawater all the time	A1 (P)									A1 (P)											
Estuaries														Cri 1							
Mudflats and sandflats not covered by seawater at low tide														Cri 1			Cri 2				
Coastal lagoons																					
Large shallow inlets and bays																					
Reefs	A1 (P)																				
Submarine structures made by leaking gases																					
Submerged or partially submerged sea caves	A1 (P)																				
Annual vegetation of drift lines	A1 (P)				A1 (Q)																
Salicornia and other annuals colonising mud and sand																					
Spartina swards																					
Atlantic salt meadows			A1 (Q)		A1 (Q)																
Mediterranean and thermo-Atlantic halophilous scrubs																					
Saltmarsh (type not specified)														Cri 1			Cri 1				
Perennial vegetation of stony banks																					
Vegetated sea cliffs	A1 (P)			A1 (P)	A1 (P)																
Sand dunes			A1 (P)/A1 (Q)		A1 (Q)															Cri 1	
Birds-Breeding Season																					
Breeding Seabird Assemblage																					
Golden Eagle																					
Osprey																					
Wood Sandpiper																					
Northern Gannet																					
Lesser Black-backed Gull																					
Herring Gull																					
Black-legged Kittiwake																					
Common Guillemot																					
Corn Crake																					Cri 2
Merlin																					
Black-throated Diver																					
European Storm Petrel																					
Arctic Tern																					
Eurasian Dotterel																					
Northern Fulmar																					
European Shag																					
Red-throated Diver																					
European Golden Plover																					
Short-Eared owl																					
Dunlin																					
Great Cormorant																					
Great Black-backed Gull																					
Atlantic Puffin																					
Razorbill																					
Sandwich Tern																	Cri 6				
Common Tern													Cri 2				Cri 6				
Little Tern																					
Manx Shearwater																					
Roseate Tern													Cri 2								
Peregrine Falcon																					
Arctic Skua																					
Whimbrel																					
Red-necked phalarope																					
Great Skua																					
Great Crested Grebe															Cri 4						
Leach's Storm Petrel																					
Great Bittern																					
Common Redshank															Cri 4						
Common Snipe															Cri 4						
Pochard															Cri 4						
Gadwall															Cri 4						
Slavonian Grebe																					
Tufted Duck															Cri 4						
Shoveler															Cri 4						

Table MT17 – Screening schedule for the SW1 Mediu

NB This screening schedule table and map show sites

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ramsar	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Rathlin Island	South-East Islay Skerries	Bann Estuary	Mull of Galloway	North Antrim Coast	Owenkillew River	River Bladnoch	Upper Ballinderry River	River Roe and Tributaries	Red Bay SAC	Belfast Lough	Kilkeel Bay	Larne Lough	Lough Foyle	Lough Neagh & Lough Beg	Outer Ards	Strangford Lough	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030055	UK0030067	UK0030084	UK0030220	UK0030224	UK0030233	UK0030249	UK0030296	UK0030360	UK0030365	UK12002	UK12012	UK12013	UK12014	UK12016	UK12018	UK12021	UK13027	UK13032	UK13037	UK210001
Shelduck															Cri 4						
Ringed Plover																					
Goosander																					
Greenshank																					
Eurasian Curlew															Cri 4						
Common Scoter																					
Northern Lapwing															Cri 4						
Eurasian Teal															Cri 4						
Eurasian Wigeon																					
Common Goldeneye																					
Black Guillemot																					
Eurasian Oystercatcher																					
Common (Mew) Gull																					
Black-headed Gull																					
Spotted Crake																					
Greylag Goose																					
Birds Overwintering/Passage																					
Wintering Waterfowl Assemblage															Cri 5 (86,639)						
Common Redshank											Cri 6		Cri 6	Cri 3			Cri 6				
Great Crested Grebe													Cri 6	Cri 3							
Whooper Swan														Cri 3 and Cri 6	Cri 6				Cri 6		
Barnacle Goose																					
Greylag Goose														Cri 3					Cri 6		
Greenland White-fronted Goose																		Cri 6	Cri 6	Cri 6	
Pink-footed Goose																					
Light-bellied Brent Goose												Cri 6	Cri 6	Cri 3 and Cri 6		Cri 6	Cri 6				
Bar-tailed Godwit														Cri 3							
Eurasian Wigeon														Cri 3							
Northen Pintail																					
Red Knot														Cri 3			Cri 6				
Purple Sandpiper																Cri 6					
Ruddy Turnstone																Cri 6					
Slavonian Grebe																					
Red-throated Diver														Cri 3							
Common Eider													Cri 6	Cri 3							
Common Shelduck													Cri 6	Cri 3							
Great Cormorant													Cri 6								
Mallard														Cri 3							
Greater Scaup																					
Long-tailed Duck																					
Black (Common) Scoter																					
Velet Scoter																					
Common Goldeneye													Cri 6		Cri 6						
Red-breasted Merganser													Cri 6	Cri 3							
Eurasian Curlew														Cri 3							
Eurasian Oystercatcher														Cri 3							
Ringed Plover																Cri 6					
European Golden Plover														Cri 3		Cri 6					
Grey Plover														Cri 3							
Northern Lapwing														Cri 3							
Dunlin														Cri 3							
Sandwich Tern													Cri 6								
Sanderling																					
Black-tailed Godwit											Cri 6										
Goosander																					
Eurasian Teal														Cri 3							
Gadwall																					
Common Greenshank													Cri 6	Cri 3							
Black-headed Gull													Cri 6								
Common Tern													Cri 6								
Common Gull (Mew)													Cri 6								
Northern Shoveler																					
Bewick Swan														Cri 3							
Common Pochard															Cri 6						
Tufted Duck															Cri 6						
Lesser Black-back Gull																					
Tundra Swan																					
Taiga Bean Goose																					

Table MT18 – Screening schedule for the SW3 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																										
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Antrim Hills	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough	Strangford Lough	Carlingford Lough	Killough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Dundalk Bay SPA	Dundalk Bay	Carlingford Shore	River Eden	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9020042	UK9020091	UK9020101	UK9020111	UK9020161	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	004026	000455	002306	UK0012643	UK0013025	UK0013027	UK0013031	UK0013039
Mammals																											
Grey Seal																											
Common Seal																											
Bottlenose dolphin																											
Otter																						A2 (P)					
Fish and other species																											
Salmon																						A2 (P)					
Allis shad																											
Twaite shad																											
Sea Lamprey																						A2 (P)	A2 (Q)				
River Lamprey																						A2 (P)	A2 (Q)				
Freshwater Pearl Mussel																											
Coastal Habitats																											
Sandbanks which are slightly covered by seawater all the time																							A1 (P)	A1 (Q)			A1 (Q)
Estuaries																							A1 (P)	A1 (P)	A1 (P)		
Mudflats and sandflats not covered by seawater at low tide																							A1 (P)	A1 (P)			A1 (Q)
Coastal lagoons																								A1 (Q)			
Large shallow inlets and bays																								A1 (P)			A1 (P)
Reefs																							A1 (Q)	A1 (Q)			A1 (Q)
Submarine structures made by leaking gases																											
Submerged or partially submerged sea caves																											
Annual vegetation of drift lines																											
Salicornia and other annuals colonising mud and sand																							A1 (P)	A1 (P)			
Spartina swards																											
Atlantic salt meadows																							A1 (P)	A1 (P)			
Mediterranean and thermo-Atlantic halophilous scrubs																											
Saltmarsh (type not specified)																											
Perennial vegetation of stony banks																							A1 (Q)	A1 (P)			
Vegetated sea cliffs																											
Sand dunes																							A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)		A1 (P)
Birds-Breeding Season																											
Breeding Seabird Assemblage								61858								65000											
Golden Eagle																											
Osprey																											
Wood Sandpiper																											
Northern Gannet																Art 4.2											
Lesser Black-backed Gull																Art 4.2											
Herring Gull																Art 4.2 sp											
Black-legged Kittiwake																Art 4.2 sp											
Common Guillemot																Art 4.2 sp											
Corn Crake																											
Merlin	Art 4.1				Art 4.1																						
Black-throated Diver																											
European Storm Petrel																											
Arctic Tern												Art 4.1			Art 4.1			Art 4.1									
Eurasian Dotterel																											
Northern Fulmar																											
European Shag																											
Red-throated Diver																											
European Golden Plover					Art 4.1																						
Short-Eared owl					Art 4.1																						
Dunlin																											
Great Cormorant																											
Great Black-backed Gull																											
Atlantic Puffin																											
Razorbill																											
Sandwich Tern							Art 4.1	Art 4.1				Art 4.1	Art 4.1														
Common Tern									Art 4.1	Art 4.1		Art 4.1	Art 4.1														
Little Tern																											
Manx Shearwater																		Art 4.2									
Roseate Tern									Art 4.1																		
Peregrine Falcon					Art 4.1																						
Arctic Skua																											
Whimbrel																											
Red-necked phalarope																											
Great Skua																											
Great Crested Grebe																											
Leach's Storm Petrel																											
Great Bittern																											
Common Redshank																											
Common Snipe																											
Pochard																											
Gadwall																											
Slavonian Grebe																											
Tufted Duck																											

Table MT18 – Screening schedule for the SW3 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																									
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Antrim Hills	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough	Strangford Lough	Carlingford Lough	Killough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Dundalk Bay SPA	Dundalk Bay	Carlingford Shore	River Eden	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9020042	UK9020091	UK9020101	UK9020111	UK9020161	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	004026	000455	002306	UK0012643	UK0013025	UK0013027	UK0013031	UK0013039
Shoveler																										
Shelduck																										
Ringed Plover																										
Goosander																										
Greenshank																										
Eurasian Curlew																										
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage						133,440	31,505	210,668		99,262		70,200							40,781							
Common Redshank						Art 4.2	Art 4.2	Art 4.2			Art 4.2	Art 4.2														
Great Crested Grebe																	Art 4.2									
Whooper Swan						Art 4.1				Art 4.1																
Barnacle Goose						Art 4.1																				
Greylag Goose		Art 4.2																								
Greenland White-fronted Goose		Art 4.1	Art 4.1																							
Pink-footed Goose				Art 4.2		Art 4.2		Art 4.2																		
Light-bellied Brent Goose									Art 4.2			Art 4.2		Art 4.2	Art 4.2				Art 4.2							
Bar-tailed Godwit						Art 4.1		Art 4.2											Art 4.2							
Eurasian Wigeon																										
Northen Pintail						Art 4.2	Art 4.2	Art 4.2																		
Red Knot						Art 4.2	Art 4.2	Art 4.2				Art 4.2														
Purple Sandpiper																										
Ruddy Turnstone						Art 4.2		Art 4.2							Art 4.2											
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck						Art 4.2		Art 4.2																		
Great Cormorant																										
Mallard																										
Greater Scaup						Art 4.2																				
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye						Art 4.2				Art 4.2																
Red-breasted Merganser																										
Eurasian Curlew						Art 4.2		Art 4.2																		
Eurasian Oystercatcher						Art 4.2		Art 4.2																		
Ringed Plover															Art 4.2											
European Golden Plover						Art 4.1									Art 4.1											
Grey Plover						Art 4.2		Art 4.2																		
Northern Lapwing																										
Dunlin						Art 4.2		Art 4.2																		
Sandwich Tern																										
Sanderling						Art 4.2																				
Black-tailed Godwit																			Art 4.2							
Goosander																										
Eurasian Teal						Art 4.2																				
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler						Art 4.2																				
Bewick Swan																										
Common Pochard										Art 4.2																
Tufted Duck										Art 4.2																
Lesser Black-back Gull																										
Tundra Swan										Art 4.1																
Taiga Bean Goose																										

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT18 – Screening schedule for the SW3 Medium-term

NB This screening schedule table and map show sites within 1

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									Ramsar													
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Murlough	Strangford Lough	Mertick Kells	River Derwent and Bassenthwaite Lake	River Elwen	Mull of Galloway	River Bladnoch	Red Bay	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Cardingford Lough	Killough Bay	Larne Lough	Lough Neagh & Lough Beg	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballangh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016612	UK0016618	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030365	UK11022	UK11045	UK11079	UK12002	UK12004	UK12012	UK12013	UK12016	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Mammals																						
Grey Seal																						
Common Seal	A2 (P)																					
Bottlenose dolphin																						
Otter			A2 (Q)	A2 (P)																		
Fish and other species																						
Salmon				A2 (P)	A2 (Q)		A2 (P)															
Allis shad																						
Twaite shad																						
Sea Lamprey				A2 (P)																		
River Lamprey				A2 (P)																		
Freshwater Pearl Mussel					A2 (P)																	
Coastal Habitats																						
Sandbanks which are slightly covered by seawater all the time	A1 (Q)							A1 (P)														
Estuaries																						
Mudflats and sandflats not covered by seawater at low tide	A1 (Q)	A1 (P)																Cri 2				
Coastal lagoons		A1 (P)																				
Large shallow inlets and bays		A1 (P)																				
Reefs		A1 (P)																				
Submarine structures made by leaking gases																						
Submerged or partially submerged sea caves																						
Annual vegetation of drift lines		A1 (Q)																				
Salicornia and other annuals colonising mud and sand		A1 (Q)																				
Spartina swards																						
Atlantic salt meadows	A1 (Q)	A1 (Q)																				
Mediterranean and thermo-Atlantic halophilous scrubs																						
Saltmarsh (type not specified)																		Cri 1				
Perennial vegetation of stony banks		A1 (Q)																				
Vegetated sea cliffs						A1 (P)																
Sand dunes	A1 (P)/A1 (Q)																				Cri 1	
Birds-Breeding Season																						
Breeding Seabird Assemblage																						
Golden Eagle																						
Osprey																						
Wood Sandpiper																						
Northern Gannet																						
Lesser Black-backed Gull										Cri 6												
Herring Gull										Cri 6												
Black-legged Kittiwake																						
Common Guillemot																						
Corn Crake																						Cri 2
Merlin																						
Black-throated Diver																						
European Storm Petrel																						
Arctic Tern													Cri 2									
Eurasian Dotterel																						
Northern Fulmar																						
European Shag																						
Red-throated Diver																						
European Golden Plover																						
Short-Eared owl																						
Dunlin																						
Great Cormorant																						
Great Black-backed Gull																						
Atlantic Puffin																						
Razorbill																						
Sandwich Tern										Cri 6			Cri 6					Cri 6				
Common Tern													Cri 2		Cri 2			Cri 6				
Little Tern																						
Manx Shearwater																						
Roseate Tern													Cri 2		Cri 2							
Peregrine Falcon																						
Arctic Skua																						
Whimbrel																						
Red-necked phalarope																						
Great Skua																						
Great Crested Grebe																Cri 4						
Leach's Storm Petrel																						
Great Bittern																						
Common Redshank																Cri 4						
Common Snipe																Cri 4						
Pochard																Cri 4						
Gadwall																Cri 4						
Slavonian Grebe																						
Tufted Duck																Cri 4						

Table MT18 – Screening schedule for the SW3 Medium-term

NB This screening schedule table and map show sites within 1

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									Ramsar													
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Murlough	Strangford Lough	Mertick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	Red Bay	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Carlingford Lough	Killough Bay	Larne Lough	Lough Neagh & Lough Beg	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016612	UK0016618	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030365	UK11022	UK11045	UK11079	UK12002	UK12004	UK12012	UK12013	UK12016	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Shoveler																Cri 4						
Shelduck																Cri 4						
Ringed Plover																						
Goosander																						
Greenshank																						
Eurasian Curlew																Cri 4						
Common Scoter																						
Northern Lapwing																Cri 4						
Eurasian Teal																Cri 4						
Eurasian Wigeon																						
Common Goldeneye																						
Black Guillemot																						
Eurasian Oystercatcher																						
Common (Mew) Gull																						
Black-headed Gull																						
Spotted Crake																						
Greylag Goose																						
Birds Overwintering/Passage																						
Wintering Waterfowl Assemblage									Cri 5 (26,326)	Cri 5 (223,709)	Cri 5 (135,720)					Cri 5 (86,639)						
Common Redshank									Cri 6	Cri 6	Cri 6	Cri 6			Cri 6			Cri 6				
Great Crested Grebe										Cri 6					Cri 6							
Whooper Swan											Cri 6					Cri 6				Cri 6		
Barnacle Goose																			Cri 6			
Greylag Goose																				Cri 6		
Greenland White-fronted Goose																			Cri 6	Cri 6	Cri 6	
Pink-footed Goose										Cri 6	Cri 6								Cri 6			
Light-bellied Brent Goose													Cri 6	Cri 6	Cri 6		Cri 6	Cri 6				
Bar-tailed Godwit										Cri 6	Cri 6											
Eurasian Wigeon										Cri 6												
Northen Pintail									Cri 6	Cri 6	Cri 6											
Red Knot									Cri 6	Cri 6	Cri 6							Cri 6				
Purple Sandpiper																	Cri 6					
Ruddy Turnstone										Cri 6							Cri 6					
Slavonian Grebe																						
Red-throated Diver																						
Common Eider										Cri 6					Cri 6							
Common Shelduck										Cri 6					Cri 6							
Great Cormorant										Cri 6					Cri 6							
Mallard																						
Greater Scaup											Cri 6											
Long-tailed Duck																						
Black (Common) Scoter																						
Velet Scoter																						
Common Goldeneye										Cri 6					Cri 6	Cri 6						
Red-breasted Merganser										Cri 6					Cri 6							
Eurasian Curlew										Cri 6	Cri 6											
Eurasian Oystercatcher										Cri 6	Cri 6											
Ringed Plover										Cri 4							Cri 6					
European Golden Plover										Cri 6							Cri 6					
Grey Plover										Cri 6												
Northern Lapwing										Cri 6												
Dunlin										Cri 6												
Sandwich Tern															Cri 6							
Sanderling										Cri 6												
Black-tailed Godwit												Cri 6										
Goosander																						
Eurasian Teal																						
Gadwall																						
Common Greenshank															Cri 6							
Black-headed Gull															Cri 6							
Common Tern															Cri 6							
Common Gull (Mew)															Cri 6							
Northern Shoveler																						
Bewick Swan																						
Common Pochard																Cri 6						
Tufted Duck																Cri 6						
Lesser Black-back Gull										Cri 6												
Tundra Swan																						
Taiga Bean Goose																						

Table MT19 – Screening schedule for the SW4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	Special Area of Conservation					
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Antrim Hills	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Larne Lough	Belfast Lough	Strangford Lough	Kilkough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Liverpool Bay	River Eden	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Murlough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9020042	UK9020101	UK9020111	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	UK9020294	UK0012643	UK0013025	UK0013027	UK0013031	UK0013039	UK0016612
Mammals																							
Grey Seal																							
Common Seal																							A2 (P)
Bottlenose dolphin																							
Otter																		A2 (P)					
Fish and other species																							
Salmon																		A2 (P)					
Allis shad																							
Twaite shad																							
Sea Lamprey																		A2 (P)	A2 (Q)				
River Lamprey																		A2 (P)	A2 (Q)				
Freshwater Pearl Mussel																							
Coastal Habitats																							
Sandbanks which are slightly covered by seawater all the time																			A1 (P)	A1 (Q)		A1 (Q)	A1 (Q)
Estuaries																			A1 (P)	A1 (P)	A1 (P)		
Mudflats and sandflats not covered by seawater at low tide																			A1 (P)	A1 (P)		A1 (Q)	A1 (Q)
Coastal lagoons																				A1 (Q)			
Large shallow inlets and bays																				A1 (P)		A1 (P)	
Reefs																			A1 (Q)	A1 (Q)		A1 (Q)	
Submarine structures made by leaking gases																							
Submerged or partially submerged sea caves																							
Annual vegetation of drift lines																							
Salicornia and other annuals colonising mud and sand																			A1 (P)	A1 (P)			
Spartina swards																							
Atlantic salt meadows																			A1 (P)	A1 (P)			A1 (Q)
Mediterranean and thermo-Atlantic halophilous scrubs																							
Saltmarsh (type not specified)																							
Perennial vegetation of stony banks																			A1 (Q)	A1 (P)			
Vegetated sea cliffs																							
Sand dunes																			A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)	A1 (P)/A1 (Q)
Birds-Breeding Season																							
Breeding Seabird Assemblage								61858						65000									
Golden Eagle																							
Osprey																							
Wood Sandpiper																							
Northern Gannet														Art 4.2									
Lesser Black-backed Gull														Art 4.2									
Herring Gull														Art 4.2 sp									
Black-legged Kittiwake														Art 4.2 sp									
Common Guillemot														Art 4.2 sp									
Corn Crake																							
Merlin	Art 4.1				Art 4.1																		
Black-throated Diver																							
European Storm Petrel																							
Arctic Tern											Art 4.1		Art 4.1			Art 4.1							
Eurasian Dotterel																							
Northern Fulmar																							
European Shag																							
Red-throated Diver																							
European Golden Plover					Art 4.1																		
Short-Eared owl					Art 4.1																		
Dunlin																							
Great Cormorant																							
Great Black-backed Gull																							
Atlantic Puffin																							
Razorbill																							
Sandwich Tern							Art 4.1	Art 4.1			Art 4.1												
Common Tern									Art 4.1		Art 4.1												
Little Tern																							
Manx Shearwater																Art 4.2							
Roseate Tern									Art 4.1														
Peregrine Falcon					Art 4.1																		
Arctic Skua																							
Whimbrel																							
Red-necked phalarope																							
Great Skua																							
Great Crested Grebe																							
Leach's Storm Petrel																							
Great Bittern																							
Common Redshank																							
Common Snipe																							
Pochard																							
Gadwall																							
Slavonian Grebe																							
Tufted Duck																							
Shoveler																							
Shelduck																							
Ringed Plover																							

Table MT19 – Screening schedule for the SW4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	Special Area of Conservation					
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Antrim Hills	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Larne Lough	Belfast Lough	Strangford Lough	Kilkough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Liverpool Bay	River Eden	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Murlough
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9020042	UK9020101	UK9020111	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	UK9020294	UK0012643	UK0013025	UK0013027	UK0013031	UK0013039	UK0016612
Goosander																							
Greenshank																							
Eurasian Curlew																							
Common Scoter																							
Northern Lapwing																							
Eurasian Teal																							
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot																							
Eurasian Oystercatcher																							
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose																							
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage						133,440	31,505	210,668			70,200						55,597						
Common Redshank						Art 4.2	Art 4.2	Art 4.2		Art 4.2	Art 4.2												
Great Crested Grebe															Art 4.2								
Whooper Swan						Art 4.1																	
Barnacle Goose						Art 4.1																	
Greylag Goose		Art 4.2																					
Greenland White-fronted Goose		Art 4.1	Art 4.1																				
Pink-footed Goose				Art 4.2		Art 4.2		Art 4.2															
Light-bellied Brent Goose									Art 4.2		Art 4.2	Art 4.2	Art 4.2										
Bar-tailed Godwit						Art 4.1		Art 4.2															
Eurasian Wigeon																							
Northen Pintail						Art 4.2	Art 4.2	Art 4.2															
Red Knot						Art 4.2	Art 4.2	Art 4.2			Art 4.2												
Purple Sandpiper																							
Ruddy Turnstone						Art 4.2		Art 4.2					Art 4.2										
Slavonian Grebe																							
Red-throated Diver																	Art 4.1						
Common Eider																							
Common Shelduck						Art 4.2		Art 4.2															
Great Cormorant																							
Mallard																							
Greater Scaup						Art 4.2																	
Long-tailed Duck																							
Black (Common) Scoter																	Art 4.2						
Velet Scoter																							
Common Goldeneye						Art 4.2																	
Red-breasted Merganser																							
Eurasian Curlew						Art 4.2		Art 4.2															
Eurasian Oystercatcher						Art 4.2		Art 4.2															
Ringed Plover													Art 4.2										
European Golden Plover						Art 4.1							Art 4.1										
Grey Plover						Art 4.2		Art 4.2															
Northern Lapwing																							
Dunlin						Art 4.2		Art 4.2															
Sandwich Tern																							
Sanderling						Art 4.2																	
Black-tailed Godwit																							
Goosander																							
Eurasian Teal						Art 4.2																	
Gadwall																							
Common Greenshank																							
Black-headed Gull																							
Common Tern																							
Common Gull (Mew)																							
Northern Shoveler						Art 4.2																	
Bewick Swan																							
Common Pochard																							
Tufted Duck																							
Lesser Black-back Gull																							
Tundra Swan																							
Taiga Bean Goose																							

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT19 – Screening schedule for the SW4 Medium-term

NB This screening schedule table and map show sites within 10

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								Ramsar											
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Kilkough Bay	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016618	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256	UK11022	UK11045	UK11079	UK12002	UK12012	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Mammals																			
Grey Seal																			
Common Seal																			
Bottlenose dolphin																			
Otter		A2 (Q)	A2 (P)																
Fish and other species																			
Salmon			A2 (P)	A2 (Q)		A2 (P)													
Allis shad																			
Twaite shad																			
Sea Lamprey			A2 (P)																
River Lamprey			A2 (P)																
Freshwater Pearl Mussel				A2 (P)			A2 (Q)												
Coastal Habitats																			
Sandbanks which are slightly covered by seawater all the time																			
Estuaries																			
Mudflats and sandflats not covered by seawater at low tide	A1 (P)														Cri 2				
Coastal lagoons	A1 (P)																		
Large shallow inlets and bays	A1 (P)																		
Reefs	A1 (P)																		
Submarine structures made by leaking gases																			
Submerged or partially submerged sea caves																			
Annual vegetation of drift lines	A1 (Q)																		
Salicornia and other annuals colonising mud and sand	A1 (Q)																		
Spartina swards																			
Atlantic salt meadows	A1 (Q)																		
Mediterranean and thermo-Atlantic halophilous scrubs																			
Saltmarsh (type not specified)															Cri 1				
Perennial vegetation of stony banks	A1 (Q)																		
Vegetated sea cliffs					A1 (P)														
Sand dunes																		Cri 1	
Birds-Breeding Season																			
Breeding Seabird Assemblage																			
Golden Eagle																			
Osprey																			
Wood Sandpiper																			
Northern Gannet																			
Lesser Black-backed Gull									Cri 6										
Herring Gull									Cri 6										
Black-legged Kittiwake																			
Common Guillemot																			
Corn Crake																			Cri 2
Merlin																			
Black-throated Diver																			
European Storm Petrel																			
Arctic Tern																			
Eurasian Dotterel																			
Northern Fulmar																			
European Shag																			
Red-throated Diver																			
European Golden Plover																			
Short-Eared owl																			
Dunlin																			
Great Cormorant																			
Great Black-backed Gull																			
Atlantic Puffin																			
Razorbill																			
Sandwich Tern									Cri 6						Cri 6				
Common Tern													Cri 2		Cri 6				
Little Tern																			
Manx Shearwater																			
Roseate Tern													Cri 2						
Peregrine Falcon																			
Arctic Skua																			
Whimbrel																			
Red-necked phalarope																			
Great Skua																			
Great Crested Grebe																			
Leach's Storm Petrel																			
Great Bittern																			
Common Redshank																			
Common Snipe																			
Pochard																			
Gadwall																			
Slavonian Grebe																			
Tufted Duck																			
Shoveler																			
Shelduck																			
Ringed Plover																			

Table MT19 – Screening schedule for the SW4 Medium-term

NB This screening schedule table and map show sites within 10

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								Ramsar											
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Kilkough Bay	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0016618	UK0019841	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256	UK11022	UK11045	UK11079	UK12002	UK12012	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Goosander																			
Greenshank																			
Eurasian Curlew																			
Common Scoter																			
Northern Lapwing																			
Eurasian Teal																			
Eurasian Wigeon																			
Common Goldeneye																			
Black Guillemot																			
Eurasian Oystercatcher																			
Common (Mew) Gull																			
Black-headed Gull																			
Spotted Crake																			
Greylag Goose																			
Birds Overwintering/Passage																			
Wintering Waterfowl Assemblage								Cri 5 (26,326)	Cri 5 (223,709)	Cri 5 (135,720)									
Common Redshank								Cri 6	Cri 6	Cri 6	Cri 6		Cri 6		Cri 6				
Great Crested Grebe									Cri 6				Cri 6						
Whooper Swan										Cri 6							Cri 6		
Barnacle Goose																Cri 6			
Greylag Goose																	Cri 6		
Greenland White-fronted Goose																Cri 6	Cri 6	Cri 6	
Pink-footed Goose									Cri 6	Cri 6						Cri 6			
Light-bellied Brent Goose												Cri 6	Cri 6	Cri 6	Cri 6				
Bar-tailed Godwit									Cri 6	Cri 6									
Eurasian Wigeon									Cri 6										
Northen Pintail								Cri 6	Cri 6	Cri 6									
Red Knot								Cri 6	Cri 6	Cri 6					Cri 6				
Purple Sandpiper														Cri 6					
Ruddy Turnstone									Cri 6					Cri 6					
Slavonian Grebe																			
Red-throated Diver																			
Common Eider									Cri 6				Cri 6						
Common Shelduck									Cri 6				Cri 6						
Great Cormorant									Cri 6				Cri 6						
Mallard																			
Greater Scaup										Cri 6									
Long-tailed Duck																			
Black (Common) Scoter																			
Velet Scoter																			
Common Goldeneye									Cri 6				Cri 6						
Red-breasted Merganser									Cri 6				Cri 6						
Eurasian Curlew									Cri 6	Cri 6									
Eurasian Oystercatcher									Cri 6	Cri 6									
Ringed Plover									Cri 4					Cri 6					
European Golden Plover									Cri 6					Cri 6					
Grey Plover									Cri 6										
Northern Lapwing									Cri 6										
Dunlin									Cri 6										
Sandwich Tern													Cri 6						
Sanderling									Cri 6										
Black-tailed Godwit											Cri 6								
Goosander																			
Eurasian Teal																			
Gadwall																			
Common Greenshank													Cri 6						
Black-headed Gull													Cri 6						
Common Tern													Cri 6						
Common Gull (Mew)													Cri 6						
Northern Shoveler																			
Bewick Swan																			
Common Pochard																			
Tufted Duck																			
Lesser Black-back Gull									Cri 6										
Tundra Swan																			
Taiga Bean Goose																			

Table MT20 – Screening schedule for the SW5 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	Special Area of Conservation								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Larne Lough	Belfast Lough	Strangford Lough	Killough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Liverpool Bay	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Murlough	Strangford Lough	Merrick Kells
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9020042	UK9020101	UK9020111	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	UK9020294	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016612	UK0016618	UK0019841
Mammals																										
Grey Seal																										
Common Seal																								A2 (P)		
Bottlenose dolphin																										
Otter																		A2 (P)	A2 (P)							A2 (Q)
Fish and other species																										
Salmon																		A2 (P)	A2 (P)							
Allis shad																										
Twaite shad																										
Sea Lamprey																		A2 (P)	A2 (Q)	A2 (Q)						
River Lamprey																		A2 (P)	A2 (Q)	A2 (Q)						
Freshwater Pearl Mussel																										
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time																				A1 (P)	A1 (Q)		A1 (Q)	A1 (Q)		
Estuaries																				A1 (P)	A1 (P)	A1 (P)				
Mudflats and sandflats not covered by seawater at low tide																				A1 (P)	A1 (P)		A1 (Q)	A1 (Q)	A1 (P)	
Coastal lagoons																					A1 (Q)				A1 (P)	
Large shallow inlets and bays																					A1 (P)		A1 (P)		A1 (P)	
Reefs																				A1 (Q)	A1 (Q)		A1 (Q)		A1 (P)	
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																										
Annual vegetation of drift lines																									A1 (Q)	
Salicornia and other annuals colonising mud and sand																				A1 (P)	A1 (P)				A1 (Q)	
Spartina swards																										
Atlantic salt meadows																				A1 (P)	A1 (P)			A1 (Q)	A1 (Q)	
Mediterranean and thermo-Atlantic halophilous scrubs																										
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks																				A1 (Q)	A1 (P)				A1 (Q)	
Vegetated sea cliffs																										
Sand dunes																				A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)	A1 (P)/A1 (Q)		
Birds-Breeding Season																										
Breeding Seabird Assemblage							61858							65000												
Golden Eagle																										
Osprey																										
Wood Sandpiper																										
Northern Gannet														Art 4.2												
Lesser Black-backed Gull														Art 4.2												
Herring Gull														Art 4.2 sp												
Black-legged Kittiwake														Art 4.2 sp												
Common Guillemot														Art 4.2 sp												
Corn Crake																										
Merlin				Art 4.1				Art 4.1																		
Black-throated Diver																										
European Storm Petrel																										
Arctic Tern											Art 4.1		Art 4.1			Art 4.1										
Eurasian Dotterel																										
Northern Fulmar																										
European Shag																										
Red-throated Diver																										
European Golden Plover				Art 4.1				Art 4.1																		
Short-Eared owl				Art 4.1																						
Dunlin																										
Great Cormorant																										
Great Black-backed Gull																										
Atlantic Puffin																										
Razorbill																										
Sandwich Tern						Art 4.1	Art 4.1				Art 4.1															
Common Tern									Art 4.1		Art 4.1															
Little Tern																										
Manx Shearwater																Art 4.2										
Roseate Tern									Art 4.1																	
Peregrine Falcon				Art 4.1				Art 4.1																		
Arctic Skua																										
Whimbrel																										
Red-necked phalarope																										
Great Skua																										
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank																										
Common Snipe																										
Pochard																										
Gadwall																										
Slavonian Grebe																										
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover																										

Table MT20 – Screening schedule for the SW5 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																	Special Area of Conservation								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	North Pennine Moors	Larne Lough	Belfast Lough	Strangford Lough	Killough Bay	Outer Ards	Ailsa Craig	Belfast Lough Open Water	Copeland Islands	Liverpool Bay	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Murlough	Strangford Lough	Merrick Kells
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9006272	UK9020042	UK9020101	UK9020111	UK9020221	UK9020271	UK9003091	UK9020290	UK9020291	UK9020294	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016612	UK0016618	UK0019841
Goosander																										
Greenshank																										
Eurasian Curlew																										
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull																										
Black-headed Gull																										
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage					133,440	31,505	210,668				70,200						55,597									
Common Redshank					Art 4.2	Art 4.2	Art 4.2			Art 4.2	Art 4.2															
Great Crested Grebe															Art 4.2											
Whooper Swan					Art 4.1																					
Barnacle Goose					Art 4.1																					
Greylag Goose	Art 4.2																									
Greenland White-fronted Goose	Art 4.1	Art 4.1																								
Pink-footed Goose			Art 4.2		Art 4.2		Art 4.2																			
Light-bellied Brent Goose									Art 4.2		Art 4.2	Art 4.2	Art 4.2													
Bar-tailed Godwit					Art 4.1		Art 4.2																			
Eurasian Wigeon																										
Northen Pintail					Art 4.2	Art 4.2	Art 4.2																			
Red Knot					Art 4.2	Art 4.2	Art 4.2				Art 4.2															
Purple Sandpiper																										
Ruddy Turnstone					Art 4.2		Art 4.2						Art 4.2													
Slavonian Grebe																										
Red-throated Diver																	Art 4.1									
Common Eider																										
Common Shelduck					Art 4.2		Art 4.2																			
Great Cormorant																										
Mallard																										
Greater Scaup					Art 4.2																					
Long-tailed Duck																										
Black (Common) Scoter																	Art 4.2									
Velet Scoter																										
Common Goldeneye					Art 4.2																					
Red-breasted Merganser																										
Eurasian Curlew					Art 4.2		Art 4.2																			
Eurasian Oystercatcher					Art 4.2		Art 4.2																			
Ringed Plover													Art 4.2													
European Golden Plover					Art 4.1								Art 4.1													
Grey Plover					Art 4.2		Art 4.2																			
Northern Lapwing																										
Dunlin					Art 4.2		Art 4.2																			
Sandwich Tern																										
Sanderling					Art 4.2																					
Black-tailed Godwit																										
Goosander																										
Eurasian Teal					Art 4.2																					
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler					Art 4.2																					
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

30,000	No. of seabirds regularly occurring					Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT20 – Screening schedule for the SW5 Medium-ter

NB This screening schedule table and map show sites within

(back to contents page)

							Ramsar											
Designation	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent	Shell Flat and Lune Deep	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Killough Bay	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256	UK0030376	UK11022	UK11045	UK11079	UK12002	UK12012	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Mammals																		
Grey Seal																		
Common Seal																		
Bottlenose dolphin																		
Otter	A2 (P)																	
Fish and other species																		
Salmon	A2 (P)	A2 (Q)		A2 (P)														
Allis shad																		
Twaite shad																		
Sea Lamprey	A2 (P)																	
River Lamprey	A2 (P)																	
Freshwater Pearl Mussel		A2 (P)			A2 (Q)													
Coastal Habitats																		
Sandbanks which are slightly covered by seawater all the time						A1 (P)												
Estuaries																		
Mudflats and sandflats not covered by seawater at low tide														Cri 2				
Coastal lagoons																		
Large shallow inlets and bays																		
Reefs																		
Submarine structures made by leaking gases																		
Submerged or partially submerged sea caves																		
Annual vegetation of drift lines																		
Salicornia and other annuals colonising mud and sand																		
Spartina swards																		
Atlantic salt meadows																		
Mediterranean and thermo-Atlantic halophilous scrubs																		
Saltmarsh (type not specified)														Cri 1				
Perennial vegetation of stony banks																		
Vegetated sea cliffs			A1 (P)															
Sand dunes																	Cri 1	
Birds-Breeding Season																		
Breeding Seabird Assemblage																		
Golden Eagle																		
Osprey																		
Wood Sandpiper																		
Northern Gannet																		
Lesser Black-backed Gull								Cri 6										
Herring Gull								Cri 6										
Black-legged Kittiwake																		
Common Guillemot																		
Corn Crake																		Cri 2
Merlin																		
Black-throated Diver																		
European Storm Petrel																		
Arctic Tern																		
Eurasian Dotterel																		
Northern Fulmar																		
European Shag																		
Red-throated Diver																		
European Golden Plover																		
Short-Eared owl																		
Dunlin																		
Great Cormorant																		
Great Black-backed Gull																		
Atlantic Puffin																		
Razorbill																		
Sandwich Tern								Cri 6						Cri 6				
Common Tern												Cri 2		Cri 6				
Little Tern																		
Manx Shearwater																		
Roseate Tern												Cri 2						
Peregrine Falcon																		
Arctic Skua																		
Whimbrel																		
Red-necked phalarope																		
Great Skua																		
Great Crested Grebe																		
Leach's Storm Petrel																		
Great Bittern																		
Common Redshank																		
Common Snipe																		
Pochard																		
Gadwall																		
Slavonian Grebe																		
Tufted Duck																		
Shoveler																		
Shelduck																		
Ringed Plover																		

Table MT20 – Screening schedule for the SW5 Medium-ter

NB This screening schedule table and map show sites within

(back to contents page)

							Ramsar											
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
European/Ramsar Site	River Derwent and Bassenthwaite Lake	River Eden	Mull of Galloway	River Bladnoch	River Kent	Shell Flat and Lune Deep	Duddon Estuary	Morecambe Bay	Upper Solway Flats and Marshes	Belfast Lough	Killough Bay	Larne Lough	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030032	UK0030057	UK0030220	UK0030249	UK0030256	UK0030376	UK11022	UK11045	UK11079	UK12002	UK12012	UK12013	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Goosander																		
Greenshank																		
Eurasian Curlew																		
Common Scoter																		
Northern Lapwing																		
Eurasian Teal																		
Eurasian Wigeon																		
Common Goldeneye																		
Black Guillemot																		
Eurasian Oystercatcher																		
Common (Mew) Gull																		
Black-headed Gull																		
Spotted Crake																		
Greylag Goose																		
Birds Overwintering/Passage																		
Wintering Waterfowl Assemblage							Cri 5 (26,326)	Cri 5 (223,709)	Cri 5 (135,720)									
Common Redshank							Cri 6	Cri 6	Cri 6	Cri 6		Cri 6		Cri 6				
Great Crested Grebe								Cri 6				Cri 6						
Whooper Swan									Cri 6							Cri 6		
Barnacle Goose															Cri 6			
Greylag Goose																Cri 6		
Greenland White-fronted Goose															Cri 6	Cri 6	Cri 6	
Pink-footed Goose								Cri 6	Cri 6						Cri 6			
Light-bellied Brent Goose											Cri 6	Cri 6	Cri 6	Cri 6				
Bar-tailed Godwit								Cri 6	Cri 6									
Eurasian Wigeon								Cri 6										
Northen Pintail							Cri 6	Cri 6	Cri 6									
Red Knot							Cri 6	Cri 6	Cri 6					Cri 6				
Purple Sandpiper													Cri 6					
Ruddy Turnstone								Cri 6					Cri 6					
Slavonian Grebe																		
Red-throated Diver																		
Common Eider								Cri 6				Cri 6						
Common Shelduck								Cri 6				Cri 6						
Great Cormorant								Cri 6				Cri 6						
Mallard																		
Greater Scaup									Cri 6									
Long-tailed Duck																		
Black (Common) Scoter																		
Velet Scoter																		
Common Goldeneye								Cri 6				Cri 6						
Red-breasted Merganser								Cri 6				Cri 6						
Eurasian Curlew								Cri 6	Cri 6									
Eurasian Oystercatcher								Cri 6	Cri 6									
Ringed Plover								Cri 4					Cri 6					
European Golden Plover								Cri 6					Cri 6					
Grey Plover								Cri 6										
Northern Lapwing								Cri 6										
Dunlin								Cri 6										
Sandwich Tern												Cri 6						
Sanderling								Cri 6										
Black-tailed Godwit										Cri 6								
Goosander																		
Eurasian Teal																		
Gadwall																		
Common Greenshank												Cri 6						
Black-headed Gull												Cri 6						
Common Tern												Cri 6						
Common Gull (Mew)												Cri 6						
Northern Shoveler																		
Bewick Swan																		
Common Pochard																		
Tufted Duck																		
Lesser Black-back Gull								Cri 6										
Tundra Swan																		
Taiga Bean Goose																		

Table MT21 – Screening schedule for the SW6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

(back to contents page)

	Special Protection Area														Special Area of Conservation									
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Leighton Moss	North Pennine Moors	Strangford Lough	Outer Ards	Ailsa Craig	Copeland Islands	Liverpool Bay	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake	River Ehen
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9005091	UK9006272	UK9020111	UK9020271	UK9003091	UK9020291	UK9020294	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032	UK0030057
Mammals																								
Grey Seal																								
Common Seal																								
Bottlenose dolphin																								
Otter															A2 (P)	A2 (P)						A2 (Q)	A2 (P)	
Fish and other species																								
Salmon															A2 (P)	A2 (P)							A2 (P)	A2 (Q)
Allis shad																								
Twaite shad																								
Sea Lamprey															A2 (P)	A2 (Q)	A2 (Q)						A2 (P)	
River Lamprey															A2 (P)	A2 (Q)	A2 (Q)						A2 (P)	
Freshwater Pearl Mussel																								A2 (P)
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time																	A1 (P)	A1 (Q)		A1 (Q)				
Estuaries																	A1 (P)	A1 (P)	A1 (P)					
Mudflats and sandflats not covered by seawater at low tide																	A1 (P)	A1 (P)		A1 (Q)	A1 (P)			
Coastal lagoons																		A1 (Q)			A1 (P)			
Large shallow inlets and bays																		A1 (P)		A1 (P)	A1 (P)			
Reefs																	A1 (Q)	A1 (Q)		A1 (Q)	A1 (P)			
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																					A1 (Q)			
Salicornia and other annuals colonising mud and sand																	A1 (P)	A1 (P)			A1 (Q)			
Spartina swards																								
Atlantic salt meadows																	A1 (P)	A1 (P)			A1 (Q)			
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																	A1 (Q)	A1 (P)			A1 (Q)			
Vegetated sea cliffs																								
Sand dunes																	A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)				
Birds-Breeding Season																								
Breeding Seabird Assemblage							61858					65000												
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet												Art 4.2												
Lesser Black-backed Gull												Art 4.2												
Herring Gull												Art 4.2 sp												
Black-legged Kittiwake												Art 4.2 sp												
Common Guillemot												Art 4.2 sp												
Corn Crake																								
Merlin				Art 4.1					Art 4.1															
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern										Art 4.1	Art 4.1		Art 4.1											
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover				Art 4.1					Art 4.1															
Short-Eared owl				Art 4.1																				
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern						Art 4.1	Art 4.1			Art 4.1														
Common Tern										Art 4.1														
Little Tern																								
Manx Shearwater													Art 4.2											
Roseate Tern																								
Peregrine Falcon				Art 4.1					Art 4.1															
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern								Art 4.1																
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								

Table MT21 – Screening schedule for the SW6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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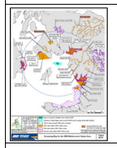
	Special Protection Area														Special Area of Conservation									
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Leighton Moss	North Pennine Moors	Strangford Lough	Outer Ards	Ailsa Craig	Copeland Islands	Liverpool Bay	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake	River Ehen
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9005091	UK9006272	UK9020111	UK9020271	UK9003091	UK9020291	UK9020294	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032	UK0030057
Shelduck																								

Table MT21 – Screening schedule for the SW6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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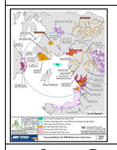

	Special Protection Area														Special Area of Conservation									
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Leighton Moss	North Pennine Moors	Strangford Lough	Outer Ards	Ailsa Craig	Copeland Islands	Liverpool Bay	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake	River Ehen
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9005091	UK9006272	UK9020111	UK9020271	UK9003091	UK9020291	UK9020294	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032	UK0030057
Ringed Plover																								
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage					133,440	31,505	210,668			70,200				55,597										
Common Redshank					Art 4.2	Art 4.2	Art 4.2			Art 4.2														
Great Crested Grebe																								
Whooper Swan					Art 4.1																			
Barnacle Goose					Art 4.1																			
Greylag Goose	Art 4.2																							
Greenland White-fronted Goose	Art 4.1	Art 4.1																						
Pink-footed Goose			Art 4.2		Art 4.2		Art 4.2																	
Light-bellied Brent Goose										Art 4.2	Art 4.2													
Bar-tailed Godwit					Art 4.1		Art 4.2																	
Eurasian Wigeon																								
Northen Pintail					Art 4.2	Art 4.2	Art 4.2																	
Red Knot					Art 4.2	Art 4.2	Art 4.2			Art 4.2														
Purple Sandpiper																								
Ruddy Turnstone					Art 4.2		Art 4.2				Art 4.2													
Slavonian Grebe																								
Red-throated Diver														Art 4.1										
Common Eider																								
Common Shelduck					Art 4.2		Art 4.2																	
Great Cormorant																								
Mallard																								
Greater Scaup					Art 4.2																			
Long-tailed Duck																								
Black (Common) Scoter														Art 4.2										
Velet Scoter																								
Common Goldeneye					Art 4.2																			
Red-breasted Merganser																								
Eurasian Curlew					Art 4.2		Art 4.2																	
Eurasian Oystercatcher					Art 4.2		Art 4.2																	
Ringed Plover											Art 4.2													
European Golden Plover					Art 4.1						Art 4.1													
Grey Plover					Art 4.2		Art 4.2																	
Northern Lapwing																								
Dunlin					Art 4.2		Art 4.2																	
Sandwich Tern																								
Sanderling					Art 4.2																			
Black-tailed Godwit																								
Goosander																								
Eurasian Teal					Art 4.2																			
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler					Art 4.2																			
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT21 – Screening schedule for the SW6 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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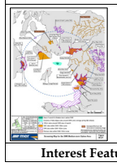
	Special Protection Area														Special Area of Conservation									
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Castle Loch, Lochmaben	Muirkirk and North Lowther	Upper Solway Flats and Marshes	Duddon Estuary	Morecambe Bay	Leighton Moss	North Pennine Moors	Strangford Lough	Outer Ards	Ailsa Craig	Copeland Islands	Liverpool Bay	River Eden	River Tweed	Solway Firth	Morecambe Bay	Drigg Coast	Luce Bay and Sands	Strangford Lough	Merrick Kells	River Derwent and Bassenthwaite Lake	River Ehen
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003111	UK9003121	UK9003191	UK9003261	UK9005012	UK9005031	UK9005081	UK9005091	UK9006272	UK9020111	UK9020271	UK9003091	UK9020291	UK9020294	UK0012643	UK0012691	UK0013025	UK0013027	UK0013031	UK0013039	UK0016618	UK0019841	UK0030032	UK0030057

Table MT21 – Screening schedule for the SW6 Medium-term Op

NB This screening schedule table and map show sites within 100k

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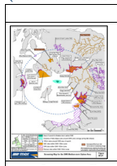
					Ramsar									
Designation	**SAC**	**SAC**	**SAC**	**SAC**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**	**Ram**
 **European/Ramsar Site**	Mull of Galloway	River Bladnoch	River Kent	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030220	UK0030249	UK0030256	UK0030376	UK11022	UK11035	UK11045	UK11079	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Mammals														
Grey Seal														
Common Seal														
Bottlenose dolphin														
Otter														
Fish and other species														
Salmon		A2 (P)												
Allis shad														
Twaite shad														
Sea Lamprey														
River Lamprey														
Freshwater Pearl Mussel			A2 (Q)											
Coastal Habitats														
Sandbanks which are slightly covered by seawater all the time				A1 (P)										
Estuaries														
Mudflats and sandflats not covered by seawater at low tide										Cri 2				
Coastal lagoons														
Large shallow inlets and bays														
Reefs														
Submarine structures made by leaking gases														
Submerged or partially submerged sea caves														
Annual vegetation of drift lines														
Salicornia and other annuals colonising mud and sand														
Spartina swards														
Atlantic salt meadows														
Mediterranean and thermo-Atlantic halophilous scrubs														
Saltmarsh (type not specified)										Cri 1				
Perennial vegetation of stony banks														
Vegetated sea cliffs	A1 (P)													
Sand dunes													Cri 1	
Birds-Breeding Season														
Breeding Seabird Assemblage														
Golden Eagle														
Osprey														
Wood Sandpiper														
Northern Gannet														
Lesser Black-backed Gull							Cri 6							
Herring Gull							Cri 6							
Black-legged Kittiwake														
Common Guillemot														
Corn Crake														Cri 2
Merlin														
Black-throated Diver														
European Storm Petrel														
Arctic Tern														
Eurasian Dotterel														
Northern Fulmar														
European Shag														
Red-throated Diver														
European Golden Plover														
Short-Eared owl														
Dunlin														
Great Cormorant														
Great Black-backed Gull														
Atlantic Puffin														
Razorbill														
Sandwich Tern							Cri 6			Cri 6				
Common Tern										Cri 6				
Little Tern														
Manx Shearwater														
Roseate Tern														
Peregrine Falcon														
Arctic Skua														
Whimbrel														
Red-necked phalarope														
Great Skua														
Great Crested Grebe														
Leach's Storm Petrel														
Great Bittern						Cri 3								
Common Redshank														
Common Snipe														
Pochard														
Gadwall														
Slavonian Grebe														
Tufted Duck														
Shoveler														

Table MT21 – Screening schedule for the SW6 Medium-term Op

NB This screening schedule table and map show sites within 100k

(back to contents page)

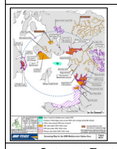
					Ramsar									
Designation	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Mull of Galloway	River Bladnoch	River Kent	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030220	UK0030249	UK0030256	UK0030376	UK11022	UK11035	UK11045	UK11079	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Shelduck														

Table MT21 – Screening schedule for the SW6 Medium-term Op

NB This screening schedule table and map show sites within 100k

(back to contents page)

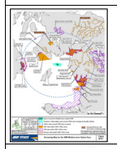
					Ramsar									
Designation	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Mull of Galloway	River Bladnoch	River Kent	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030220	UK0030249	UK0030256	UK0030376	UK11022	UK11035	UK11045	UK11079	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001
Ringed Plover														
Goosander														
Greenshank														
Eurasian Curlew														
Common Scoter														
Northern Lapwing														
Eurasian Teal														
Eurasian Wigeon														
Common Goldeneye														
Black Guillemot														
Eurasian Oystercatcher														
Common (Mew) Gull														
Black-headed Gull														
Spotted Crake														
Greylag Goose														
Birds Overwintering/Passage														
Wintering Waterfowl Assemblage					Cri 5 (26,326)		Cri 5 (223,709)	Cri 5 (135,720)						
Common Redshank					Cri 6		Cri 6	Cri 6		Cri 6				
Great Crested Grebe							Cri 6							
Whooper Swan								Cri 6				Cri 6		
Barnacle Goose											Cri 6			
Greylag Goose												Cri 6		
Greenland White-fronted Goose											Cri 6	Cri 6	Cri 6	
Pink-footed Goose							Cri 6	Cri 6			Cri 6			
Light-bellied Brent Goose									Cri 6	Cri 6				
Bar-tailed Godwit							Cri 6	Cri 6						
Eurasian Wigeon							Cri 6							
Northen Pintail					Cri 6		Cri 6	Cri 6						
Red Knot					Cri 6		Cri 6	Cri 6		Cri 6				
Purple Sandpiper									Cri 6					
Ruddy Turnstone							Cri 6		Cri 6					
Slavonian Grebe														
Red-throated Diver														
Common Eider							Cri 6							
Common Shelduck							Cri 6							
Great Cormorant							Cri 6							
Mallard														
Greater Scaup								Cri 6						
Long-tailed Duck														
Black (Common) Scoter														
Velet Scoter														
Common Goldeneye							Cri 6							
Red-breasted Merganser							Cri 6							
Eurasian Curlew							Cri 6	Cri 6						
Eurasian Oystercatcher							Cri 6	Cri 6						
Ringed Plover							Cri 4		Cri 6					
European Golden Plover							Cri 6		Cri 6					
Grey Plover							Cri 6							
Northern Lapwing							Cri 6							
Dunlin							Cri 6							
Sandwich Tern														
Sanderling							Cri 6							
Black-tailed Godwit														
Goosander														
Eurasian Teal														
Gadwall														
Common Greenshank														
Black-headed Gull														
Common Tern														
Common Gull (Mew)														
Northern Shoveler						Cri 6								
Bewick Swan														
Common Pochard														
Tufted Duck														
Lesser Black-back Gull							Cri 6							
Tundra Swan														
Taiga Bean Goose														

Table MT21 – Screening schedule for the SW6 Medium-term Op

NB This screening schedule table and map show sites within 100k

(back to contents page)

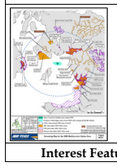
					Ramsar									
Designation	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
 **European/Ramsar Site**	Mull of Galloway	River Bladnoch	River Kent	Shell Flat and Lune Deep	Duddon Estuary	Leighton Moss	Morecambe Bay	Upper Solway Flats and Marshes	Outer Ards	Strangford Lough	Castle Loch, Lochmaben	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Ballaugh Curragh
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030220	UK0030249	UK0030256	UK0030376	UK11022	UK11035	UK11045	UK11079	UK12018	UK12021	UK13006	UK13032	UK13037	UK210001

Table MT22 – Screening schedule for the W1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																			
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Mointeach Scadabhaigh	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Rinns of Islay	Glas Eileanan	Oronsay and South Colonsay	Canna and Sanday
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001501	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003057	UK9003211	UK9020299	UK9001431
Mammals																				
Grey Seal																				
Common Seal																				
Bottlenose dolphin																				
Otter																				
Fish and other species																				
Salmon																				
Allis shad																				
Twaite shad																				
Sea Lamprey																				
River Lamprey																				
Freshwater Pearl Mussel																				
Coastal Habitats																				
Sandbanks which are slightly covered by seawater all the time																				
Estuaries																				
Mudflats and sandflats not covered by seawater at low tide																				
Coastal lagoons																				
Large shallow inlets and bays																				
Reefs																				
Submarine structures made by leaking gases																				
Submerged or partially submerged sea caves																				
Annual vegetation of drift lines																				
Salicornia and other annuals colonising mud and sand																				
Spartina swards																				
Atlantic salt meadows																				
Mediterranean and thermo-Atlantic halophilous scrubs																				
Saltmarsh (type not specified)																				
Perennial vegetation of stony banks																				
Vegetated sea cliffs																				
Sand dunes																				
Birds-Breeding Season																				
Breeding Seabird Assemblage																				21000
Golden Eagle																				
Osprey																				
Wood Sandpiper																				
Northern Gannet																				
Lesser Black-backed Gull																				
Herring Gull																				Art 4.2 sp
Black-legged Kittiwake																				
Common Guillemot																				Art 4.2 sp
Corn Crake	Art 4.1		Art 4.1	Art 4.1			Art 4.1	Art 4.1			Art 4.1	Art 4.1					Art 4.1		Art 4.1	
Merlin																				
Black-throated Diver					Art 4.1	Art 4.1														
European Storm Petrel													Art 4.1							
Arctic Tern																				
Eurasian Dotterel																				
Northern Fulmar																				
European Shag																				Art 4.2 sp
Red-throated Diver					Art 4.1															
European Golden Plover																				
Short-Eared owl																				
Dunlin	Art 4.2		Art 4.2							Art 4.2										
Great Cormorant																				
Great Black-backed Gull																				
Atlantic Puffin																				Art 4.2 sp
Razorbill																				
Sandwich Tern																				
Common Tern		Art 4.1																Art 4.1		
Little Tern		Art 4.1	Art 4.1																	
Manx Shearwater																				
Roseate Tern																				
Peregrine Falcon																				
Arctic Skua																				
Whimbrel																				
Red-necked phalarope																				
Great Skua																				
Great Crested Grebe																				
Leach's Storm Petrel																				
Great Bittern																				
Common Redshank			Art 4.2 sp							Art 4.2										
Common Snipe			Art 4.2 sp																	
Pochard																				
Gadwall																				
Slavonian Grebe																				
Tufted Duck																				
Shoveler																				

Table MT22 – Screening schedule for the W1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																			
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Mointeach Scadabhaigh	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Rinns of Islay	Glas Eileanan	Oronsay and South Colonsay	Canna and Sanday
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001501	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003057	UK9003211	UK9020299	UK9001431
Shelduck																				
Ringed Plover	Art 4.2		Art 4.2							Art 4.2										
Goosander																				
Greenshank																				
Eurasian Curlew																				
Common Scoter																	Art 4.2			
Northern Lapwing			Art 4.2 sp																	
Eurasian Teal																				
Eurasian Wigeon																				
Common Goldeneye																				
Black Guillemot		Art 4.2																		
Eurasian Oystercatcher			Art 4.2 sp							Art 4.2										
Common (Mew) Gull																				
Black-headed Gull																				
Spotted Crake																				
Greylag Goose			Art 4.2																	
Birds Overwintering/Passage																				
Wintering Waterfowl Assemblage																				
Common Redshank																				
Great Crested Grebe																				
Whooper Swan																				
Barnacle Goose	Art 4.1	Art 4.1							Art 4.1	Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1				
Greylag Goose																				
Greenland White-fronted Goose									Art 4.1	Art 4.1				Art 4.1		Art 4.1	Art 4.1			
Pink-footed Goose																				
Light-bellied Brent Goose														Art 4.2						
Bar-tailed Godwit																				
Eurasian Wigeon																				
Northen Pintail																				
Red Knot																				
Purple Sandpiper																				
Ruddy Turnstone	Art 4.2									Art 4.2										
Slavonian Grebe																				
Red-throated Diver																				
Common Eider																				
Common Shelduck																				
Great Cormorant																				
Mallard																				
Greater Scaup																				
Long-tailed Duck																				
Black (Common) Scoter																				
Velet Scoter																				
Common Goldeneye																				
Red-breasted Merganser																				
Eurasian Curlew																				
Eurasian Oystercatcher																				
Ringed Plover	Art 4.2		Art 4.2							Art 4.2										
European Golden Plover																				
Grey Plover																				
Northern Lapwing																				
Dunlin																				
Sandwich Tern																				
Sanderling			Art 4.2																	
Black-tailed Godwit																				
Goosander																				
Eurasian Teal																				
Gadwall																				
Common Greenshank																				
Black-headed Gull																				
Common Tern																				
Common Gull (Mew)																				
Northern Shoveler																				
Bewick Swan																				
Common Pochard																				
Tufted Duck																				
Lesser Black-back Gull																				
Tundra Swan																				
Taiga Bean Goose																				

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

				30,000	No. of seabirds regularly occurring	Art 4.2 sp	Species listed an
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Asse

Table MT22 – Screening schedule for the W1 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																			
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	North Uist Machair	Monach Islands	South Uist Machair	Kilpheder & Smerclate, South Uist	Mointeach Scadabhaigh	Loch Shiel	Aird and Borve, Benbecula	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Rinns of Islay	Glas Eileanan	Oronsay and South Colonsay	Canna and Sanday
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001051	UK9001071	UK9001082	UK9001083	UK9001501	UK9001721	UK9001751	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003057	UK9003211	UK9020299	UK9001431

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

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Designation	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Cnuic agus Cladach Mhulie	Cuillins	St Kilda	Rum	Monach Islands	South Uist Machair	Ardmeanach	River Moidart	St Kilda	Coll Machair	Tiree Machair	Loch nam Madadh	Obain Loch Euphoirt	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001121	UK9003171	UK9001341	UK9003311	UK9001781	UK9001031	UK0012594	UK0012694	UK0012713	UK0012958	UK0012994	UK0013695	UK0014728	UK0014744	UK0017070	UK0017101	UK0019775	UK0019802	UK0019803
Mammals																			
Grey Seal								A2 (P)											
Common Seal																			
Bottlenose dolphin																			
Otter							A2 (P)								A2 (P)				A2 (P)
Fish and other species																			
Salmon																			
Allis shad																			
Twaite shad																			
Sea Lamprey																			
River Lamprey																			
Freshwater Pearl Mussel											A2 (P)								
Coastal Habitats																			
Sandbanks which are slightly covered by seawater all the time															A1 (Q)			A1 (P)	
Estuaries																			
Mudflats and sandflats not covered by seawater at low tide															A1 (Q)				
Coastal lagoons									A1 (Q)						A1 (P)	A1 (P)			
Large shallow inlets and bays															A1 (P)				
Reefs												A1 (P)							A1 (Q)
Submarine structures made by leaking gases																			
Submerged or partially submerged sea caves												A1 (P)							
Annual vegetation of drift lines									A1 (Q)										
Salicornia and other annuals colonising mud and sanc																			
Spartina swards																			
Atlantic salt meadows																			
Mediterranean and thermo-Atlantic halophilous scrubs										A1 (Q)									
Saltmarsh (type not specified)																			
Perennial vegetation of stony banks																			
Vegetated sea cliffs							A1 (Q)					A1 (P)					A1 (Q)		
Sand dunes								A1 (P)/A1 (Q)	A1 (P)/A1 (Q)				A1 (P)/A1 (Q)	A1 (P)/A1 (Q)					
Birds-Breeding Season																			
Breeding Seabird Assemblage	105000	30000	130000			600000													
Golden Eagle				Art 4.1	Art 4.1														
Osprey																			
Wood Sandpiper																			
Northern Gannet						Art 4.2													
Lesser Black-backed Gull																			
Herring Gull																			
Black-legged Kittiwake	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp			Art 4.2 sp													
Common Guillemot	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp			Art 4.2 sp													
Corn Crake																			
Merlin																			
Black-throated Diver																			
European Storm Petrel						Art 4.1													
Arctic Tern																			
Eurasian Dotterel																			
Northern Fulmar	Art 4.2 sp					Art 4.2 sp													
European Shag	Art 4.2 sp																		
Red-throated Diver			Art 4.1																
European Golden Plover																			
Short-Eared owl																			
Dunlin																			
Great Cormorant																			
Great Black-backed Gull																			
Atlantic Puffin	Art 4.2 sp					Art 4.2													
Razorbill	Art 4.2					Art 4.2 sp													
Sandwich Tern																			
Common Tern																			
Little Tern																			
Manx Shearwater			Art 4.2			Art 4.2 sp													
Roseate Tern																			
Peregrine Falcon																			
Arctic Skua																			
Whimbrel																			
Red-necked phalarope																			
Great Skua						Art 4.2													
Great Crested Grebe																			
Leach's Storm Petrel						Art 4.1													
Great Bittern																			
Common Redshank																			
Common Snipe																			
Pochard																			
Gadwall																			
Slavonian Grebe																			
Tufted Duck																			
Shoveler																			

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

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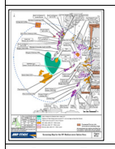
							Special Area of Conservation												
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
 **European/Ramsar Site**	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Cnuic agus Cladach Mhulie	Cuillins	St Kilda	Rum	Monach Islands	South Uist Machair	Ardmeanach	River Moidart	St Kilda	Coll Machair	Tiree Machair	Loch nam Madadh	Obain Loch Euphoirt	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001121	UK9003171	UK9001341	UK9003311	UK9001781	UK9001031	UK0012594	UK0012694	UK0012713	UK0012958	UK0012994	UK0013695	UK0014728	UK0014744	UK0017070	UK0017101	UK0019775	UK0019802	UK0019803
Shelduck																			
Ringed Plover																			
Goosander																			
Greenshank																			
Eurasian Curlew																			
Common Scoter																			
Northern Lapwing																			
Eurasian Teal																			
Eurasian Wigeon																			
Common Goldeneye																			
Black Guillemot																			
Eurasian Oystercatcher																			
Common (Mew) Gull																			
Black-headed Gull																			
Spotted Crake																			
Greylag Goose																			
Birds Overwintering/Passage																			
Wintering Waterfowl Assemblage																			
Common Redshank																			
Great Crested Grebe																			
Whooper Swan																			
Barnacle Goose																			
Greylag Goose																			
Greenland White-fronted Goose																			
Pink-footed Goose																			
Light-bellied Brent Goose																			
Bar-tailed Godwit																			
Eurasian Wigeon																			
Northen Pintail																			
Red Knot																			
Purple Sandpiper																			
Ruddy Turnstone																			
Slavonian Grebe																			
Red-throated Diver																			
Common Eider																			
Common Shelduck																			
Great Cormorant																			
Mallard																			
Greater Scaup																			
Long-tailed Duck																			
Black (Common) Scoter																			
Velet Scoter																			
Common Goldeneye																			
Red-breasted Merganser																			
Eurasian Curlew																			
Eurasian Oystercatcher																			
Ringed Plover																			
European Golden Plover																			
Grey Plover																			
Northern Lapwing																			
Dunlin																			
Sandwich Tern																			
Sanderling																			
Black-tailed Godwit																			
Goosander																			
Eurasian Teal																			
Gadwall																			
Common Greenshank																			
Black-headed Gull																			
Common Tern																			
Common Gull (Mew)																			
Northern Shoveler																			
Bewick Swan																			
Common Pochard																			
Tufted Duck																			
Lesser Black-back Gull																			
Tundra Swan																			
Taiga Bean Goose																			

nong those regularly occurring

ı unknown (Irish sites)

s (qualifying)

ssment

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

							Special Area of Conservation												
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Cnuic agus Cladach Mhulie	Cuillins	St Kilda	Rum	Monach Islands	South Uist Machair	Ardmeanach	River Moidart	St Kilda	Coll Machair	Tiree Machair	Loch nam Madadh	Obain Loch Euphoirt	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001121	UK9003171	UK9001341	UK9003311	UK9001781	UK9001031	UK0012594	UK0012694	UK0012713	UK0012958	UK0012994	UK0013695	UK0014728	UK0014744	UK0017070	UK0017101	UK0019775	UK0019802	UK0019803

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

																Ramsar			
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram
European/Ramsar Site	North Uist Machair	Firth of Lorn	Ardnamurchan Burns	Glen Beasdale	Kinloch and Kyleakin Hills	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Ascrib, Isay and Dunvegan	Treshnish Isles	Rigg - Bile	Oronsay	Stanton Banks	Bridgend Flats	Coll	Gruinart Flats	North Uist Machair and Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019804	UK0030041	UK0030079	UK0030154	UK0030176	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219	UK0030230	UK0030289	UK0030307	UK0030341	UK0030359	UK13001	UK13008	UK13023	UK13050
Mammals																			
Grey Seal												A2 (P)							
Common Seal											A2 (P)								
Bottlenose dolphin																			
Otter				A2 (Q)	A2 (Q)	A2 (Q)		A2 (Q)	A2 (Q)	A2 (Q)									
Fish and other species																			
Salmon																			
Allis shad																			
Twaite shad																			
Sea Lamprey																			
River Lamprey																			
Freshwater Pearl Mussel			A2 (P)				A2 (P)												
Coastal Habitats																			
Sandbanks which are slightly covered by seawater all the time																			
Estuaries																			
Mudflats and sandflats not covered by seawater at low tide								A1 (Q)											
Coastal lagoons																			
Large shallow inlets and bays																			
Reefs		A1 (P)										A1 (Q)			A1 (P)				
Submarine structures made by leaking gases																			
Submerged or partially submerged sea caves																			
Annual vegetation of drift lines	A1 (Q)																		
Salicornia and other annuals colonising mud and sanc																			
Spartina swards																			
Atlantic salt meadows	A1 (P)																		
Mediterranean and thermo-Atlantic halophilous scrubs																			
Saltmarsh (type not specified)																			
Perennial vegetation of stony banks																			
Vegetated sea cliffs													A1 (P)						
Sand dunes	A1 (P)/A1 (Q)													A1 (P)					
Birds-Breeding Season																			
Breeding Seabird Assemblage																			
Golden Eagle																			
Osprey																			
Wood Sandpiper																			
Northern Gannet																			
Lesser Black-backed Gull																			
Herring Gull																			
Black-legged Kittiwake																			
Common Guillemot																			
Corn Crake																			
Merlin																			
Black-throated Diver																			
European Storm Petrel																			
Arctic Tern																			
Eurasian Dotterel																			
Northern Fulmar																			
European Shag																			
Red-throated Diver																			
European Golden Plover																			
Short-Eared owl																			
Dunlin																			Cri 6
Great Cormorant																			
Great Black-backed Gull																			
Atlantic Puffin																			
Razorbill																			
Sandwich Tern																			
Common Tern																			
Little Tern																			
Manx Shearwater																			
Roseate Tern																			
Peregrine Falcon																			
Arctic Skua																			
Whimbrel																			
Red-necked phalarope																			
Great Skua																			
Great Crested Grebe																			
Leach's Storm Petrel																			
Great Bittern																			
Common Redshank																			
Common Snipe																			
Pochard																			
Gadwall																			
Slavonian Grebe																			
Tufted Duck																			
Shoveler																			

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

																Ramsar			
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram
European/Ramsar Site	North Uist Machair	Firth of Lorn	Ardnamurchan Burns	Glen Beasdale	Kinloch and Kyleakin Hills	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Ascrib, Isay and Dunvegan	Treshnish Isles	Rigg - Bile	Oronsay	Stanton Banks	Bridgend Flats	Coll	Gruinart Flats	North Uist Machair and Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019804	UK0030041	UK0030079	UK0030154	UK0030176	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219	UK0030230	UK0030289	UK0030307	UK0030341	UK0030359	UK13001	UK13008	UK13023	UK13050
Shelduck																			
Ringed Plover																			Cri 6
Goosander																			
Greenshank																			
Eurasian Curlew																			
Common Scoter																			
Northern Lapwing																			
Eurasian Teal																			
Eurasian Wigeon																			
Common Goldeneye																			
Black Guillemot																			
Eurasian Oystercatcher																			
Common (Mew) Gull																			
Black-headed Gull																			
Spotted Crake																			
Greylag Goose																			
Birds Overwintering/Passage																			
Wintering Waterfowl Assemblage																			
Common Redshank																			
Great Crested Grebe																			
Whooper Swan																			
Barnacle Goose																Cri 6			Cri 6
Greylag Goose																		Cri 6	
Greenland White-fronted Goose																		Cri 6	
Pink-footed Goose																			
Light-bellied Brent Goose																		Cri 6	
Bar-tailed Godwit																			
Eurasian Wigeon																			
Northen Pintail																			
Red Knot																			
Purple Sandpiper																			
Ruddy Turnstone																			Cri 6
Slavonian Grebe																			
Red-throated Diver																			
Common Eider																			
Common Shelduck																			
Great Cormorant																			
Mallard																			
Greater Scaup																			
Long-tailed Duck																			
Black (Common) Scoter																			
Velet Scoter																			
Common Goldeneye																			
Red-breasted Merganser																			
Eurasian Curlew																			
Eurasian Oystercatcher																			
Ringed Plover																			Cri 6
European Golden Plover																			
Grey Plover																			
Northern Lapwing																			
Dunlin																			
Sandwich Tern																			
Sanderling																			
Black-tailed Godwit																			
Goosander																			
Eurasian Teal																			
Gadwall																			
Common Greenshank																			
Black-headed Gull																			
Common Tern																			
Common Gull (Mew)																			
Northern Shoveler																			
Bewick Swan																			
Common Pochard																			
Tufted Duck																			
Lesser Black-back Gull																			
Tundra Swan																			
Taiga Bean Goose																			

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

																Ramsar			
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram
European/Ramsar Site	North Uist Machair	Firth of Lorn	Ardnamurchan Burns	Glen Beasdale	Kinloch and Kyleakin Hills	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	Ascrib, Isay and Dunvegan	Treshnish Isles	Rigg - Bile	Oronsay	Stanton Banks	Bridgend Flats	Coll	Gruinart Flats	North Uist Machair and Islands
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0019804	UK0030041	UK0030079	UK0030154	UK0030176	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219	UK0030230	UK0030289	UK0030307	UK0030341	UK0030359	UK13001	UK13008	UK13023	UK13050

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

Designation	Ram	Ram	Ram
European/Ramsar Site	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13052	UK13056	UK13058
Mammals			
Grey Seal			
Common Seal			
Bottlenose dolphin			
Otter			Cri 2
Fish and other species			
Salmon			Cri 2
Allis shad			
Twaite shad			
Sea Lamprey			
River Lamprey			
Freshwater Pearl Mussel			
Coastal Habitats			
Sandbanks which are slightly covered by seawater all the time			
Estuaries			
Mudflats and sandflats not covered by seawater at low tide			
Coastal lagoons			
Large shallow inlets and bays			
Reefs			
Submarine structures made by leaking gases			
Submerged or partially submerged sea caves			
Annual vegetation of drift lines			
Salicornia and other annuals colonising mud and sanc			
Spartina swards			
Atlantic salt meadows			
Mediterranean and thermo-Atlantic halophilous scrubs			
Saltmarsh (type not specified)			
Perennial vegetation of stony banks			
Vegetated sea cliffs			
Sand dunes		Cri 1	
Birds-Breeding Season			
Breeding Seabird Assemblage			
Golden Eagle			
Osprey			
Wood Sandpiper			
Northern Gannet			
Lesser Black-backed Gull			
Herring Gull			
Black-legged Kittiwake			
Common Guillemot			
Corn Crake			
Merlin			
Black-throated Diver			
European Storm Petrel			
Arctic Tern			
Eurasian Dotterel			
Northern Fulmar			
European Shag			
Red-throated Diver			
European Golden Plover			
Short-Eared owl			
Dunlin		Cri 6	
Great Cormorant			
Great Black-backed Gull			
Atlantic Puffin			
Razorbill			
Sandwich Tern			
Common Tern			
Little Tern			
Manx Shearwater			
Roseate Tern			
Peregrine Falcon			
Arctic Skua			
Whimbrel			
Red-necked phalarope			
Great Skua			
Great Crested Grebe			
Leach's Storm Petrel			
Great Bittern			
Common Redshank			
Common Snipe			
Pochard			
Gadwall			
Slavonian Grebe			
Tufted Duck			
Shoveler			

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

Designation	Ram	Ram	Ram
European/Ramsar Site	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13052	UK13056	UK13058
Shelduck			
Ringed Plover			Cri 6
Goosander			
Greenshank			
Eurasian Curlew			
Common Scoter			
Northern Lapwing			
Eurasian Teal			
Eurasian Wigeon			
Common Goldeneye			
Black Guillemot			
Eurasian Oystercatcher			
Common (Mew) Gull			
Black-headed Gull			
Spotted Crake			
Greylag Goose			
Birds Overwintering/Passage			
Wintering Waterfowl Assemblage			
Common Redshank			
Great Crested Grebe			
Whooper Swan	Cri 6		
Barnacle Goose	Cri 6	Cri 6	
Greylag Goose			
Greenland White-fronted Goose	Cri 6	Cri 6	
Pink-footed Goose			
Light-bellied Brent Goose			
Bar-tailed Godwit			
Eurasian Wigeon			
Northen Pintail			
Red Knot			
Purple Sandpiper			
Ruddy Turnstone		Cri 6	
Slavonian Grebe			
Red-throated Diver			
Common Eider			
Common Shelduck			
Great Cormorant			
Mallard			
Greater Scaup			
Long-tailed Duck			
Black (Common) Scoter			
Velet Scoter			
Common Goldeneye			
Red-breasted Merganser			
Eurasian Curlew			
Eurasian Oystercatcher			
Ringed Plover		Cri 6	Cri 6
European Golden Plover			
Grey Plover			
Northern Lapwing			
Dunlin			
Sandwich Tern			
Sanderling			
Black-tailed Godwit			
Goosander			
Eurasian Teal			
Gadwall			
Common Greenshank			
Black-headed Gull			
Common Tern			
Common Gull (Mew)			
Northern Shoveler			
Bewick Swan			
Common Pochard			
Tufted Duck			
Lesser Black-back Gull			
Tundra Swan			
Taiga Bean Goose			

Table MT22 – Screening schedule for the W1 Medium-term C

NB This screening schedule table and map show sites within 1(

(back to contents page)

Designation	Ram	Ram	Ram
European/Ramsar Site	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK13052	UK13056	UK13058

Table MT23 – Screening schedule for the W2 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																						
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Antrim Hills	South Uist Machair	Kilpheder & Smerclate, South Uist	Loch Shiel	Eoligarry, Barra	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Dutch Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	Canna and Sanday
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9001082	UK9001083	UK9001721	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9001431
Mammals																							
Grey Seal																							
Common Seal																							
Bottlenose dolphin																							
Otter																							
Fish and other species																							
Salmon																							
Allis shad																							
Twaite shad																							
Sea Lamprey																							
River Lamprey																							
Freshwater Pearl Mussel																							
Coastal Habitats																							
Sandbanks which are slightly covered by seawater all the time																							
Estuaries																							
Mudflats and sandflats not covered by seawater at low tide																							
Coastal lagoons																							
Large shallow inlets and bays																							
Reefs																							
Submarine structures made by leaking gases																							
Submerged or partially submerged sea caves																							
Annual vegetation of drift lines																							
Salicornia and other annuals colonising mud and sand																							
Spartina swards																							
Atlantic salt meadows																							
Mediterranean and thermo-Atlantic halophilous scrubs																							
Saltmarsh (type not specified)																							
Perennial vegetation of stony banks																							
Vegetated sea cliffs																							
Sand dunes																							
Birds-Breeding Season																							
Breeding Seabird Assemblage																							21000
Golden Eagle																							
Osprey																							
Wood Sandpiper																							
Northern Gannet																							
Lesser Black-backed Gull																							
Herring Gull																							Art 4.2 sp
Black-legged Kittiwake																			Art 4.2				
Common Guillemot																			Art 4.2				Art 4.2 sp
Corn Crake		Art 4.1	Art 4.1		Art 4.1			Art 4.1	Art 4.1						Art 4.1							Art 4.1	
Merlin	Art 4.1																						
Black-throated Diver				Art 4.1														Art 4.1					
European Storm Petrel										Art 4.1													
Arctic Tern																							
Eurasian Dotterel																							
Northern Fulmar																							
European Shag																							Art 4.2 sp
Red-throated Diver																							
European Golden Plover																							
Short-Eared owl																							
Dunlin		Art 4.2					Art 4.2																
Great Cormorant																				Art 4.2			
Great Black-backed Gull																							
Atlantic Puffin																							Art 4.2 sp
Razorbill																			Art 4.2				
Sandwich Tern																							
Common Tern																	Art 4.1						
Little Tern		Art 4.1																					
Manx Shearwater																							
Roseate Tern																							
Peregrine Falcon																			Art 4.1				
Arctic Skua																							
Whimbrel																							
Red-necked phalarope																							
Great Skua																							
Great Crested Grebe																							
Leach's Storm Petrel																							
Great Bittern																							
Common Redshank		Art 4.2 sp					Art 4.2																
Common Snipe		Art 4.2 sp																					
Pochard																							
Gadwall																							
Slavonian Grebe																							
Tufted Duck																							
Shoveler																							
Shelduck																							
Ringed Plover		Art 4.2					Art 4.2																
Goosander																							
Greenshank																							
Eurasian Curlew																							

Table MT23 – Screening schedule for the W2 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																						
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Antrim Hills	South Uist Machair	Kilpheder & Smerclate, South Uist	Loch Shiel	Eoligarry, Barra	Coll	Steibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Dutch Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	Canna and Sanday
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9001082	UK9001083	UK9001721	UK9001761	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9001431
Common Scoter															Art 4.2								
Northern Lapwing		Art 4.2 sp																					
Eurasian Teal																							
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot																							
Eurasian Oystercatcher		Art 4.2 sp					Art 4.2																
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose		Art 4.2																					
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage																					36,599		
Common Redshank																							
Great Crested Grebe																							
Whooper Swan																					Art 4.1		
Barnacle Goose						Art 4.1	Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1										
Greylag Goose																							
Greenland White-fronted Goose						Art 4.1	Art 4.1				Art 4.1		Art 4.1	Art 4.1	Art 4.1	Art 4.1							
Pink-footed Goose																							
Light-bellied Brent Goose											Art 4.2										Art 4.2		
Bar-tailed Godwit																					Art 4.1		
Eurasian Wigeon																							
Northen Pintail																							
Red Knot																							
Purple Sandpiper																							
Ruddy Turnstone							Art 4.2																
Slavonian Grebe																							
Red-throated Diver																							
Common Eider																							
Common Shelduck																							
Great Cormorant																							
Mallard																							
Greater Scaup																							
Long-tailed Duck																							
Black (Common) Scoter																							
Velet Scoter																							
Common Goldeneye																							
Red-breasted Merganser																							
Eurasian Curlew																							
Eurasian Oystercatcher																							
Ringed Plover		Art 4.2					Art 4.2																
European Golden Plover																							
Grey Plover																							
Northern Lapwing																							
Dunlin																							
Sandwich Tern																							
Sanderling		Art 4.2																					
Black-tailed Godwit																							
Goosander																							
Eurasian Teal																							
Gadwall																							
Common Greenshank																							
Black-headed Gull																							
Common Tern																							
Common Gull (Mew)																							
Northern Shoveler																							
Bewick Swan																							
Common Pochard																							
Tufted Duck																							
Lesser Black-back Gull																							
Tundra Swan																							
Taiga Bean Goose																							

Key for interest features that have been screened **into** the plan-level Appropriate Assessment			30,000	No. of seabirds regularly occurring		Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)
	screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site				Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment		

Table MT23 – Screening schedule for the W2 Medium-term

NB This screening schedule table and map show sites within

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Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	Special Area of Conservation														
European/Ramsar Site	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Travbreaga Bay	Lough Swilly	Greers Isle	Inishtrahull	Jura, Scarba and the Garvellachs	Cruic agus Cladach Mhulie	Cuilins	Horn Head to Fanad Head	Inishtrahull	Lough Nagreany Dunes	Tranarossan And Melmore Lough	Sheephaven	Ballyhoorisky Point To Fanad Head	Mulroy Bay	Lough Swilly	North Inishowen Coast	Inishtrahull	Rum	Taynish and Knapdale Woods	South Uist Machair	Loch Eive Woods	Ardmeanach	River Moidart
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001121	UK9003171	UK9001341	004034	004075	004082	004100	10114	UK9003311	UK9001781	004194	000154	000164	000194	001190	001975	002159	002287	2012	154	UK0012594	UK0012682	UK0012713	UK0012750	UK0012958	UK0012994
Mammals																										
Grey Seal																										
Common Seal																										
Bottlenose dolphin																										
Otter																					A2 (P)	A2 (Q)		A2 (Q)		
Fish and other species																										
Salmon																										
Allis shad																										
Twaite shad																										
Sea Lamprey																										
River Lamprey																										
Freshwater Pearl Mussel																										A2 (P)
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time																										
Estuaries																										
Mudflats and sandflats not covered by seawater at low tide																										
Coastal lagoons																							A1 (Q)			
Large shallow inlets and bays																										
Reefs																										
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																										
Annual vegetation of drift lines																							A1 (Q)			
Salicornia and other annuals colonising mud and sand																										
Spartina swards																										
Atlantic salt meadows																										
Mediterranean and thermo-Atlantic halophilous scrubs																									A1 (Q)	
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks																										
Vegetated sea cliffs																					A1 (Q)					
Sand dunes																							A1 (P)/A1 (Q)			
Birds-Breeding Season																										
Breeding Seabird Assemblage	105000	30000	130000																							
Golden Eagle								Art 4.1	Art 4.1	Art 4.1																
Osprey																										
Wood Sandpiper																										
Northern Gannet																										
Lesser Black-backed Gull																										
Herring Gull																										
Black-legged Kittiwake	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								Art 4.1															
Common Guillemot	Art 4.2 sp	Art 4.2 sp	Art 4.2 sp								Art 4.1															
Corn Crake																										
Merlin																										
Black-throated Diver																										
European Storm Petrel																										
Arctic Tern																										
Eurasian Dotterel																										
Northern Fulmar	Art 4.2 sp										Art 4.1															
European Shag	Art 4.2 sp						Art 4.1				Art 4.1															
Red-throated Diver			Art 4.1																							
European Golden Plover																										
Short-Eared owl																										
Dunlin																										
Great Cormorant											Art 4.1															
Great Black-backed Gull							Art 4.1																			
Atlantic Puffin	Art 4.2 sp																									
Razorbill	Art 4.2										Art 4.1															
Sandwich Tern						Art 4.1																				
Common Tern																										
Little Tern																										
Manx Shearwater			Art 4.2																							
Roseate Tern																										
Peregrine Falcon																										
Arctic Skua																										
Whimbrel																										
Red-necked phalarope																										
Great Skua																										
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank																										
Common Snipe																										
Pochard																										
Gadwall																										
Slavonian Grebe																										
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover																										
Goosander																										
Greenshank																										
Eurasian Curlew																										

Table MT23 – Screening schedule for the W2 Medium-term

NB This screening schedule table and map show sites within

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												Special Area of Conservation														
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Mingulay and Berneray	North Colonsay and Western Cliffs	Rum	Travbreaga Bay	Lough Swilly	Greers Isle	Inishtrahull	Jura, Scarba and the Garvellachs	Cnuic agus Cladach Mhulie	Cuilins	Horn Head to Fanad Head	Inishtrahull	Lough Nagreany Dunes	Trarareossan And Melmore Lough	Sheephaven	Ballyhoorisky Point To Fanad Head	Mulroy Bay	Lough Swilly	North Inishowen Coast	Inishtrahull	Rum	Taynish and Knapdale Woods	South Uist Machair	Loch Eive Woods	Ardmeanach	River Moidart
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9001121	UK9003171	UK9001341	004034	004075	004082	004100	10114	UK9003311	UK9001781	004194	000154	000164	000194	001190	001975	002159	002287	2012	154	UK0012594	UK0012682	UK0012713	UK0012750	UK0012958	UK0012994
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot											Art 4.1															
Eurasian Oystercatcher																										
Common (Mew) Gull						Art 4.1	Art 4.1																			
Black-headed Gull						Art 4.1																				
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage																										
Common Redshank																										
Great Crested Grebe																										
Whooper Swan					Art 4.2																					
Barnacle Goose				Art 4.2							Art 4.1															
Greylag Goose					Art 4.2																					
Greenland White-fronted Goose					Art 4.2						Art 4.1															
Pink-footed Goose																										
Light-bellied Brent Goose				Art 4.2																						
Bar-tailed Godwit																										
Eurasian Wigeon																										
Northen Pintail																										
Red Knot																										
Purple Sandpiper																										
Ruddy Turnstone																										
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck																										
Great Cormorant																										
Mallard																										
Greater Scaup																										
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye																										
Red-breasted Merganser																										
Eurasian Curlew																										
Eurasian Oystercatcher																										
Ringed Plover																										
European Golden Plover																										
Grey Plover																										
Northern Lapwing																										
Dunlin																										
Sandwich Tern																										
Sanderling																										
Black-tailed Godwit																										
Goosander																										
Eurasian Teal																										
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Table MT23 – Screening schedule for the W2 Medium-term

NB This screening schedule table and map show sites within

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Coll Machair	Tiree Machair	Magilligan	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	Móine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Barn Estuary	Glen Beasdale	Glen Creran Woods	Eilean agus Sgeiran Lios mór	Loch Creran	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast	Treshnish Isles	Oronsay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0014728	UK0014744	UK0016613	UK0019775	UK0019802	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030154	UK0030155	UK0030182	UK0030190	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219	UK0030224	UK0030287	UK0030289	UK0030341
Mammals																									
Grey Seal																								A2 (P)	
Common Seal										A2 (P)					A2 (P)										
Bottlenose dolphin																									
Otter						A2 (P)	A2 (Q)						A2 (Q)	A2 (Q)			A2 (Q)		A2 (Q)	A2 (Q)	A2 (Q)		A2 (Q)		
Fish and other species																									
Salmon																									
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey															A2 (P)										
Freshwater Pearl Mussel											A2 (P)				A2 (Q)			A2 (P)							
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time					A1 (P)				A1 (P)																
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide							A1 (Q)												A1 (Q)						
Coastal lagoons																									
Large shallow inlets and bays																									
Reefs						A1 (Q)		A1 (P)	A1 (P)							A1 (P)								A1 (Q)	
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves									A1 (P)																
Annual vegetation of drift lines									A1 (P)													A1 (Q)			
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows							A1 (Q)					A1 (Q)										A1 (Q)			
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																									
Perennial vegetation of stony banks																									
Vegetated sea cliffs				A1 (Q)					A1 (P)													A1 (P)			
Sand dunes	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)									A1 (P)/A1 (Q)										A1 (Q)			A1 (P)
Birds-Breeding Season																									
Breeding Seabird Assemblage																									
Golden Eagle																									
Osprey																									
Wood Sandpiper																									
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																									
Black-legged Kittiwake																									
Common Guillemot																									
Corn Crake																									
Merlin																									
Black-throated Diver																									
European Storm Petrel																									
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																									
European Shag																									
Red-throated Diver																									
European Golden Plover																									
Short-Eared owl																									
Dunlin																									
Great Cormorant																									
Great Black-backed Gull																									
Atlantic Puffin																									
Razorbill																									
Sandwich Tern																									
Common Tern																									
Little Tern																									
Manx Shearwater																									
Roseate Tern																									
Peregrine Falcon																									
Arctic Skua																									
Whimbrel																									
Red-necked phalarope																									
Great Skua																									
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank																									
Common Snipe																									
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover																									
Goosander																									
Greenshank																									
Eurasian Curlew																									

Table MT23 – Screening schedule for the W2 Medium-term

NB This screening schedule table and map show sites within

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Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Coll Machair	Tiree Machair	Magilligan	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	Móine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Barn Estuary	Glen Beasdale	Glen Creran Woods	Eileanan agus Sgeiran Lios mór	Loch Creran	Loch Fada	Mingarry Burn	Loch Moidart and Loch Shiel Woods	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast	Treshnish Isles	Oronsay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0014728	UK0014744	UK0016613	UK0019775	UK0019802	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030154	UK0030155	UK0030182	UK0030190	UK0030191	UK0030206	UK0030209	UK0030217	UK0030219	UK0030224	UK0030287	UK0030289	UK0030341
Common Scoter																									
Northern Lapwing																									
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot																									
Eurasian Oystercatcher																									
Common (Mew) Gull																									
Black-headed Gull																									
Spotted Crake																									
Greylag Goose																									
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage																									
Common Redshank																									
Great Crested Grebe																									
Whooper Swan																									
Barnacle Goose																									
Greylag Goose																									
Greenland White-fronted Goose																									
Pink-footed Goose																									
Light-bellied Brent Goose																									
Bar-tailed Godwit																									
Eurasian Wigeon																									
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone																									
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover																									
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling																									
Black-tailed Godwit																									
Goosander																									
Eurasian Teal																									
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Table MT23 – Screening schedule for the W2 Medium-term

NB This screening schedule table and map show sites within

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						Ramsar									
	Designation	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
	European/Ramsar Site	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs	Travbreaga Bay
	Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030360	UK0030361	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	UK13058	
	Mammals														
	Grey Seal														
	Common Seal														
	Bottlenose dolphin														
	Otter	A2 (Q)	A2 (Q)											Cri 2	
	Fish and other species														
	Salmon	A2 (P)	A2 (P)			Cri 2								Cri 2	
	Allis shad					Cri 2									
	Twaite shad					Cri 2									
	Sea Lamprey					Cri 2									
	River Lamprey														
	Freshwater Pearl Mussel														
	Coastal Habitats														
	Sandbanks which are slightly covered by seawater all the time			A1 (P)											
	Estuaries					Cri 1									
	Mudflats and sandflats not covered by seawater at low tide					Cri 1									
	Coastal lagoons														
	Large shallow inlets and bays														
	Reefs				A1 (P)										
	Submarine structures made by leaking gases														
	Submerged or partially submerged sea caves														
	Annual vegetation of drift lines														
	Salicornia and other annuals colonising mud and sand														
	Spartina swards														
	Atlantic salt meadows														
	Mediterranean and thermo-Atlantic halophilous scrubs														
	Saltmarsh (type not specified)					Cri 1									
	Perennial vegetation of stony banks														
	Vegetated sea cliffs														
	Sand dunes												Cri 1		
	Birds-Breeding Season														
	Breeding Seabird Assemblage														
	Golden Eagle														
	Osprey														
	Wood Sandpiper														
	Northern Gannet														
	Lesser Black-backed Gull														
	Herring Gull														
	Black-legged Kittiwake														
	Common Guillemot														
	Corn Crake														
	Merlin														
	Black-throated Diver														
	European Storm Petrel														
	Arctic Tern														
	Eurasian Dotterel														
	Northern Fulmar														
	European Shag														
	Red-throated Diver														
	European Golden Plover														
	Short-Eared owl														
	Dunlin												Cri 6		
	Great Cormorant														
	Great Black-backed Gull														
	Atlantic Puffin														
	Razorbill														
	Sandwich Tern														
	Common Tern														
	Little Tern														
	Manx Shearwater														
	Roseate Tern														
	Peregrine Falcon														
	Arctic Skua														
	Whimbrel														
	Red-necked phalarope														
	Great Skua														
	Great Crested Grebe														
	Leach's Storm Petrel														
	Great Bittern														
	Common Redshank														
	Common Snipe														
	Pochard														
	Gadwall														
	Slavonian Grebe														
	Tufted Duck														
	Shoveler														
	Shelduck														
	Ringed Plover													Cri 6	
	Goosander														
	Greenshank														
	Eurasian Curlew														

Table MT23 – Screening schedule for the W2 Medium-term

NB This screening schedule table and map show sites within

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					Ramsar									
Designation	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	South Uist Machair and Lochs	Travbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030360	UK0030361	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	UK13058	
Common Scoter														
Northern Lapwing														
Eurasian Teal														
Eurasian Wigeon														
Common Goldeneye														
Black Guillemot														
Eurasian Oystercatcher														
Common (Mew) Gull														
Black-headed Gull														
Spotted Crake														
Greylag Goose														
Birds Overwintering/Passage														
Wintering Waterfowl Assemblage														
Common Redshank					Cri 3									
Great Crested Grebe					Cri 3									
Whooper Swan					Cri 3 and Cri 6						Cri 6			
Barnacle Goose						Cri 6					Cri 6	Cri 6		
Greylag Goose					Cri 3				Cri 6					
Greenland White-fronted Goose								Cri 6	Cri 6	Cri 6	Cri 6	Cri 6		
Pink-footed Goose														
Light-bellied Brent Goose					Cri 3 and Cri 6				Cri 6					
Bar-tailed Godwit					Cri 3									
Eurasian Wigeon					Cri 3									
Northen Pintail														
Red Knot					Cri 3									
Purple Sandpiper														
Ruddy Turnstone												Cri 6		
Slavonian Grebe														
Red-throated Diver					Cri 3									
Common Eider					Cri 3									
Common Shelduck					Cri 3									
Great Cormorant														
Mallard					Cri 3									
Greater Scaup														
Long-tailed Duck														
Black (Common) Scoter														
Velet Scoter														
Common Goldeneye														
Red-breasted Merganser					Cri 3									
Eurasian Curlew					Cri 3									
Eurasian Oystercatcher					Cri 3									
Ringed Plover												Cri 6	Cri 6	
European Golden Plover					Cri 3									
Grey Plover					Cri 3									
Northern Lapwing					Cri 3									
Dunlin					Cri 3									
Sandwich Tern														
Sanderling														
Black-tailed Godwit														
Goosander														
Eurasian Teal					Cri 3									
Gadwall														
Common Greenshank					Cri 3									
Black-headed Gull														
Common Tern														
Common Gull (Mew)														
Northern Shoveler														
Bewick Swan					Cri 3									
Common Pochard														
Tufted Duck														
Lesser Black-back Gull														
Tundra Swan														
Taiga Bean Goose														

Table MT24 – Screening schedule for the W3 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Antrim Hills	Loch Shiel	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	North Colonsay and Western Cliffs	Travbreaga Bay	Inishtrahull	Jura, Scarba and the Garvellachs	Cruic agus Cladach Mhulie	Horn Head to Fanad Head
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9001721	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9003171	004034	004100	10114	UK9003311	004194
Mammals																									
Grey Seal																									
Common Seal																									
Bottlenose dolphin																									
Otter																									
Fish and other species																									
Salmon																									
Allis shad																									
Twaite shad																									
Sea Lamprey																									
River Lamprey																									
Freshwater Pearl Mussel																									
Coastal Habitats																									
Sandbanks which are slightly covered by seawater all the time																									
Estuaries																									
Mudflats and sandflats not covered by seawater at low tide																									
Coastal lagoons																									
Large shallow inlets and bays																									
Reefs																									
Submarine structures made by leaking gases																									
Submerged or partially submerged sea caves																									
Annual vegetation of drift lines																									
Salicornia and other annuals colonising mud and sand																									
Spartina swards																									
Atlantic salt meadows																									
Mediterranean and thermo-Atlantic halophilous scrubs																									
Saltmarsh (type not specified)																									
Perennial vegetation of stony banks																									
Vegetated sea cliffs																									
Sand dunes																									
Birds-Breeding Season																									
Breeding Seabird Assemblage																				30000					
Golden Eagle																							Art 4.1	Art 4.1	
Osprey																									
Wood Sandpiper																									
Northern Gannet																									
Lesser Black-backed Gull																									
Herring Gull																									
Black-legged Kittiwake																Art 4.2				Art 4.2 sp					Art 4.1
Common Guillemot																Art 4.2				Art 4.2 sp					Art 4.1
Corn Crake					Art 4.1	Art 4.1						Art 4.1							Art 4.1						
Merlin	Art 4.1																								
Black-throated Diver		Art 4.1													Art 4.1										
European Storm Petrel							Art 4.1																		
Arctic Tern																									
Eurasian Dotterel																									
Northern Fulmar																									Art 4.1
European Shag																						Art 4.1			Art 4.1
Red-throated Diver																									
European Golden Plover																									
Short-Eared owl																									
Dunlin				Art 4.2																					
Great Cormorant																	Art 4.2								Art 4.1
Great Black-backed Gull																						Art 4.1			
Atlantic Puffin																									
Razorbill																Art 4.2									Art 4.1
Sandwich Tern																									
Common Tern														Art 4.1											
Little Tern																									
Manx Shearwater																									
Roseate Tern																									
Peregrine Falcon																Art 4.1									
Arctic Skua																									
Whimbrel																									
Red-necked phalarope																									
Great Skua																									
Great Crested Grebe																									
Leach's Storm Petrel																									
Great Bittern																									
Common Redshank				Art 4.2																					
Common Snipe																									
Pochard																									
Gadwall																									
Slavonian Grebe																									
Tufted Duck																									
Shoveler																									
Shelduck																									
Ringed Plover				Art 4.2																					

Table MT24 – Screening schedule for the W3 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																								
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Antrim Hills	Loch Shiel	Coll	Sleibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	Coll (Corncrake)	Tiree (Corncrake)	Treshnish Isles	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Kintyre Goose Roosts	Glas Eileanan	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Oronsay and South Colonsay	North Colonsay and Western Cliffs	Trawbreaga Bay	Inishtrahull	Jura, Scarba and the Garvellachs	Cruic agus Cladach Mhulie	Horn Head to Fanad Head
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9020301	UK9001721	UK9003031	UK9003032	UK9003033	UK9003034	UK9003041	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003071	UK9003211	UK9003301	UK9020011	UK9020021	UK9020031	UK9020299	UK9003171	004034	004100	10114	UK9003311	004194
Goosander																									
Greenshank																									
Eurasian Curlew																									
Common Scoter												Art 4.2													
Northern Lapwing																									
Eurasian Teal																									
Eurasian Wigeon																									
Common Goldeneye																									
Black Guillemot																									Art 4.1
Eurasian Oystercatcher				Art 4.2																					
Common (Mew) Gull																						Art 4.1			
Black-headed Gull																									
Spotted Crake																									
Greylag Goose																									
Birds Overwintering/Passage																									
Wintering Waterfowl Assemblage																		36,599							
Common Redshank																									
Great Crested Grebe																									
Whooper Swan																		Art 4.1							
Barnacle Goose			Art 4.1	Art 4.1			Art 4.1	Art 4.1	Art 4.1	Art 4.1											Art 4.2				Art 4.1
Greylag Goose																									
Greenland White-fronted Goose			Art 4.1	Art 4.1				Art 4.1		Art 4.1	Art 4.1	Art 4.1	Art 4.1												Art 4.1
Pink-footed Goose																									
Light-bellied Brent Goose								Art 4.2										Art 4.2			Art 4.2				
Bar-tailed Godwit																		Art 4.1							
Eurasian Wigeon																									
Northen Pintail																									
Red Knot																									
Purple Sandpiper																									
Ruddy Turnstone				Art 4.2																					
Slavonian Grebe																									
Red-throated Diver																									
Common Eider																									
Common Shelduck																									
Great Cormorant																									
Mallard																									
Greater Scaup																									
Long-tailed Duck																									
Black (Common) Scoter																									
Velet Scoter																									
Common Goldeneye																									
Red-breasted Merganser																									
Eurasian Curlew																									
Eurasian Oystercatcher																									
Ringed Plover				Art 4.2																					
European Golden Plover																									
Grey Plover																									
Northern Lapwing																									
Dunlin																									
Sandwich Tern																									
Sanderling																									
Black-tailed Godwit																									
Goosander																									
Eurasian Teal																									
Gadwall																									
Common Greenshank																									
Black-headed Gull																									
Common Tern																									
Common Gull (Mew)																									
Northern Shoveler																									
Bewick Swan																									
Common Pochard																									
Tufted Duck																									
Lesser Black-back Gull																									
Tundra Swan																									
Taiga Bean Goose																									

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

30,000	No. of seabirds regularly occurring					Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT24 – Screening schedule for the W3 Medium-ter

NB This screening schedule table and map show sites withi

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	Special Area of Conservation																							
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Inishtrahull	Ballyhoorisky Point To Fanad Head	North Inishowen Coast	Mulroy Bay	Lough Swilly	Taynish and Knapdale Woods	Loch Eitve Woods	Ardmeanach	Coll Machair	Tiree Machair	Magilligan	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	Moine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Barm Estuary	Glen Creran Woods	Eileanan agus Sgeiran Lios mór	Loch Creran	Loch Fada
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	000154	001975	002012	002159	002287	UK0012682	UK0012750	UK0012958	UK0014728	UK0014744	UK0016613	UK0019775	UK0019802	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030155	UK0030182	UK0030190	UK0030191
Mammals																								
Grey Seal																								
Common Seal																		A2 (P)				A2 (P)		
Bottlenose dolphin																								
Otter						A2 (Q)	A2 (Q)							A2 (P)	A2 (Q)						A2 (Q)			A2 (Q)
Fish and other species																								
Salmon																								
Allis shad																								
Twaite shad																								
Sea Lamprey																								
River Lamprey																						A2 (P)		
Freshwater Pearl Mussel																			A2 (P)			A2 (Q)		
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time													A1 (P)				A1 (P)							
Estuaries																								
Mudflats and sandflats not covered by seawater at low tide															A1 (Q)									
Coastal lagoons																								
Large shallow inlets and bays																								
Reefs														A1 (Q)		A1 (P)	A1 (P)						A1 (P)	
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																	A1 (P)							
Annual vegetation of drift lines																	A1 (P)							
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows															A1 (Q)					A1 (Q)				
Mediterranean and thermo-Atlantic halophilous scrubs								A1 (Q)																
Saltmarsh (type not specified)																								
Perennial vegetation of stony banks																								
Vegetated sea cliffs												A1 (Q)					A1 (P)							
Sand dunes									A1 (P)/A1 (Q)	A1 (P)/A1 (Q)	A1 (P)/A1 (Q)									A1 (P)/A1 (Q)				
Birds-Breeding Season																								
Breeding Seabird Assemblage																								
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																								
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake																								
Common Guillemot																								
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																								
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern																								
Common Tern																								
Little Tern																								
Manx Shearwater																								
Roseate Tern																								
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe																								
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank																								
Common Snipe																								
Pochard																								
Gadwall																								
Slavonian Grebe																								
Tufted Duck																								
Shoveler																								
Shelduck																								
Ringed Plover																								

Table MT24 – Screening schedule for the W3 Medium-ter

NB This screening schedule table and map show sites withi

(back to contents page)

	Special Area of Conservation																							
Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Inishtrahull	Ballyhoorisky Point To Fanad Head	North Inishowen Coast	Mulroy Bay	Lough Swilly	Taynish and Knapdale Woods	Loch Eive Woods	Ardmeanach	Coll Machair	Tiree Machair	Magilligan	Glac na Criche	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sunart	Moine Mhór	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Ardnamurchan Burns	Barn Estuary	Glen Creran Woods	Eileanan agus Sgeiran Lios mór	Loch Creran	Loch Fada
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	000154	001975	002012	002159	002287	UK0012682	UK0012750	UK0012958	UK0014728	UK0014744	UK0016613	UK0019775	UK0019802	UK0019803	UK0019839	UK0030041	UK0030055	UK0030067	UK0030079	UK0030084	UK0030155	UK0030182	UK0030190	UK0030191
Goosander																								
Greenshank																								
Eurasian Curlew																								
Common Scoter																								
Northern Lapwing																								
Eurasian Teal																								
Eurasian Wigeon																								
Common Goldeneye																								
Black Guillemot																								
Eurasian Oystercatcher																								
Common (Mew) Gull																								
Black-headed Gull																								
Spotted Crake																								
Greylag Goose																								
Birds Overwintering/Passage																								
Wintering Waterfowl Assemblage																								
Common Redshank																								
Great Crested Grebe																								
Whooper Swan																								
Barnacle Goose																								
Greylag Goose																								
Greenland White-fronted Goose																								
Pink-footed Goose																								
Light-bellied Brent Goose																								
Bar-tailed Godwit																								
Eurasian Wigeon																								
Northen Pintail																								
Red Knot																								
Purple Sandpiper																								
Ruddy Turnstone																								
Slavonian Grebe																								
Red-throated Diver																								
Common Eider																								
Common Shelduck																								
Great Cormorant																								
Mallard																								
Greater Scaup																								
Long-tailed Duck																								
Black (Common) Scoter																								
Velet Scoter																								
Common Goldeneye																								
Red-breasted Merganser																								
Eurasian Curlew																								
Eurasian Oystercatcher																								
Ringed Plover																								
European Golden Plover																								
Grey Plover																								
Northern Lapwing																								
Dunlin																								
Sandwich Tern																								
Sanderling																								
Black-tailed Godwit																								
Goosander																								
Eurasian Teal																								
Gadwall																								
Common Greenshank																								
Black-headed Gull																								
Common Tern																								
Common Gull (Mew)																								
Northern Shoveler																								
Bewick Swan																								
Common Pochard																								
Tufted Duck																								
Lesser Black-back Gull																								
Tundra Swan																								
Taiga Bean Goose																								

Table MT24 – Screening schedule for the W3 Medium-ter

NB This screening schedule table and map show sites withi

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												Ramsar								
	Designation	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
	European/Ramsar Site	Mingarry Burn	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast	Treshnish Isles	Oronsay	River Roe and Tributaries	Red Bay SAC	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	Trawbreaga Bay
	Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030206	UK0030217	UK0030219	UK0030224	UK0030287	UK0030289	UK0030341	UK0030360	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	
	Mammals																			
	Grey Seal						A2 (P)													
	Common Seal																			
	Bottlenose dolphin																			
	Otter		A2 (Q)	A2 (Q)		A2 (Q)			A2 (Q)											
	Fish and other species																			
	Salmon								A2 (P)			Cri 2								
	Allis shad											Cri 2								
	Twaite shad											Cri 2								
	Sea Lamprey											Cri 2								
	River Lamprey																			
	Freshwater Pearl Mussel	A2 (P)																		
	Coastal Habitats																			
	Sandbanks which are slightly covered by seawater all the time									A1 (P)										
	Estuaries											Cri 1								
	Mudflats and sandflats not covered by seawater at low tide											Cri 1								
	Coastal lagoons																			
	Large shallow inlets and bays																			
	Reefs						A1 (Q)				A1 (P)									
	Submarine structures made by leaking gases																			
	Submerged or partially submerged sea caves																			
	Annual vegetation of drift lines				A1 (Q)															
	Salicornia and other annuals colonising mud and sand																			
	Spartina swards																			
	Atlantic salt meadows				A1 (Q)															
	Mediterranean and thermo-Atlantic halophilous scrubs																			
	Saltmarsh (type not specified)											Cri 1								
	Perennial vegetation of stony banks																			
	Vegetated sea cliffs				A1 (P)															
	Sand dunes				A1 (Q)			A1 (P)											Cri 1	
	Birds-Breeding Season																			
	Breeding Seabird Assemblage																			
	Golden Eagle																			
	Osprey																			
	Wood Sandpiper																			
	Northern Gannet																			
	Lesser Black-backed Gull																			
	Herring Gull																			
	Black-legged Kittiwake																			
	Common Guillemot																			
	Corn Crake																			
	Merlin																			
	Black-throated Diver																			
	European Storm Petrel																			
	Arctic Tern																			
	Eurasian Dotterel																			
	Northern Fulmar																			
	European Shag																			
	Red-throated Diver																			
	European Golden Plover																			
	Short-Eared owl																			
	Dunlin																		Cri 6	
	Great Cormorant																			
	Great Black-backed Gull																			
	Atlantic Puffin																			
	Razorbill																			
	Sandwich Tern																			
	Common Tern																			
	Little Tern																			
	Manx Shearwater																			
	Roseate Tern																			
	Peregrine Falcon																			
	Arctic Skua																			
	Whimbrel																			
	Red-necked phalarope																			
	Great Skua																			
	Great Crested Grebe																			
	Leach's Storm Petrel																			
	Great Bittern																			
	Common Redshank																			
	Common Snipe																			
	Pochard																			
	Gadwall																			
	Slavonian Grebe																			
	Tufted Duck																			
	Shoveler																			
	Shelduck																			
	Ringed Plover																			

Table MT24 – Screening schedule for the W3 Medium-ter

NB This screening schedule table and map show sites withi

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												Ramsar								
Designation		SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
	European/Ramsar Site	Mingarry Burn	Morvern Woods	Mull Oakwoods	North Antrim Coast	Tayvallich Juniper and Coast	Treshnish Isles	Oronsay	River Roe and Tributaries	Red Bay SAC	Stanton Banks	Lough Foyle	Bridgend Flats	Coll	Eilean na Muice Duibhe	Gruinart Flats	Kintyre Goose Roosts	Rinns of Islay	Sleibhtean agus Cladach Thiriodh	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code		UK0030206	UK0030217	UK0030219	UK0030224	UK0030287	UK0030289	UK0030341	UK0030360	UK0030365	UK0030359	UK12014	UK13001	UK13008	UK13014	UK13023	UK13027	UK13052	UK13056	
Goosander																				
Greenshank																				
Eurasian Curlew																				
Common Scoter																				
Northern Lapwing																				
Eurasian Teal																				
Eurasian Wigeon																				
Common Goldeneye																				
Black Guillemot																				
Eurasian Oystercatcher																				
Common (Mew) Gull																				
Black-headed Gull																				
Spotted Crake																				
Greylag Goose																				
Birds Overwintering/Passage																				
Wintering Waterfowl Assemblage																				
Common Redshank												Cri 3								
Great Crested Grebe												Cri 3								
Whooper Swan												Cri 3 and Cri 6						Cri 6		
Barnacle Goose													Cri 6					Cri 6	Cri 6	
Greylag Goose												Cri 3				Cri 6				
Greenland White-fronted Goose															Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Pink-footed Goose																				
Light-bellied Brent Goose												Cri 3 and Cri 6				Cri 6				
Bar-tailed Godwit												Cri 3								
Eurasian Wigeon												Cri 3								
Northen Pintail																				
Red Knot												Cri 3								
Purple Sandpiper																				
Ruddy Turnstone																			Cri 6	
Slavonian Grebe																				
Red-throated Diver												Cri 3								
Common Eider												Cri 3								
Common Shelduck												Cri 3								
Great Cormorant																				
Mallard												Cri 3								
Greater Scaup																				
Long-tailed Duck																				
Black (Common) Scoter																				
Velet Scoter																				
Common Goldeneye																				
Red-breasted Merganser												Cri 3								
Eurasian Curlew												Cri 3								
Eurasian Oystercatcher												Cri 3								
Ringed Plover																			Cri 6	
European Golden Plover												Cri 3								
Grey Plover												Cri 3								
Northern Lapwing												Cri 3								
Dunlin												Cri 3								
Sandwich Tern																				
Sanderling																				
Black-tailed Godwit																				
Goosander																				
Eurasian Teal												Cri 3								
Gadwall																				
Common Greenshank												Cri 3								
Black-headed Gull																				
Common Tern																				
Common Gull (Mew)																				
Northern Shoveler																				
Bewick Swan												Cri 3								
Common Pochard																				
Tufted Duck																				
Lesser Black-back Gull																				
Tundra Swan																				
Taiga Bean Goose																				

Table MT25 – Screening schedule for the W4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																						
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Loch Lomond	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Inner Clyde	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Black Cart	Muirkirk and North Lowther	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough	Strangford Lough	Killough Bay	Outer Ards	Oronsay and South Colonsay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003021	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003061	UK9003071	UK9003111	UK9003121	UK9003221	UK9003261	UK9003301	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101	UK9020111	UK9020221	UK9020271	UK9020299
Mammals																							
Grey Seal																							
Common Seal																							
Bottlenose dolphin																							
Otter																							
Fish and other species																							
Salmon																							
Allis shad																							
Twaite shad																							
Sea Lamprey																							
River Lamprey																							
Freshwater Pearl Mussel																							
Coastal Habitats																							
Sandbanks which are slightly covered by seawater all the time																							
Estuaries																							
Mudflats and sandflats not covered by seawater at low tide																							
Coastal lagoons																							
Large shallow inlets and bays																							
Reefs																							
Submarine structures made by leaking gases																							
Submerged or partially submerged sea caves																							
Annual vegetation of drift lines																							
Salicornia and other annuals colonising mud and sand																							
Spartina swards																							
Atlantic salt meadows																							
Mediterranean and thermo-Atlantic halophilous scrubs																							
Saltmarsh (type not specified)																							
Perennial vegetation of stony banks																							
Vegetated sea cliffs																							
Sand dunes																							
Birds-Breeding Season																							
Breeding Seabird Assemblage																							
Golden Eagle																							
Osprey																							
Wood Sandpiper																							
Northern Gannet																							
Lesser Black-backed Gull																							
Herring Gull																							
Black-legged Kittiwake														Art 4.2									
Common Guillemot														Art 4.2									
Corn Crake						Art 4.1																	Art 4.1
Merlin												Art 4.1											
Black-throated Diver													Art 4.1										
European Storm Petrel																							
Arctic Tern																				Art 4.1		Art 4.1	
Eurasian Dotterel																							
Northern Fulmar																							
European Shag																							
Red-throated Diver																							
European Golden Plover												Art 4.1											
Short-Eared owl												Art 4.1											
Dunlin																							
Great Cormorant															Art 4.2								
Great Black-backed Gull																							
Atlantic Puffin																							
Razorbill														Art 4.2									
Sandwich Tern																				Art 4.1			
Common Tern																	Art 4.1	Art 4.1		Art 4.1			
Little Tern																							
Manx Shearwater																							
Roseate Tern																	Art 4.1						
Peregrine Falcon												Art 4.1		Art 4.1									
Arctic Skua																							
Whimbrel																							
Red-necked phalarope																							
Great Skua																							
Great Crested Grebe																							
Leach's Storm Petrel																							
Great Bittern																							
Common Redshank																							
Common Snipe																							
Pochard																							
Gadwall																							
Slavonian Grebe																							

Table MT25 – Screening schedule for the W4 Medium-term Option Area (showing European/Ramsar sites within 100km)

NB This screening schedule table and map show sites within 100km of the option area boundary. See Introductory Notes and Table B1 as well as the full AA Information Report text for details of sites to be considered outside this boundary.

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	Special Protection Area																						
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
European/Ramsar Site	Loch Lomond	Gruinart Flats	Bridgend Flats, Islay	Laggan, Islay	Eilean na Muice Duibhe (Duich Moss), Islay	Rinns of Islay	Inner Clyde	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch of Inch and Torrs Warren	Black Cart	Muirkirk and North Lowther	Knapdale Lochs	Rathlin Island	Sheep Island	Lough Foyle	Larne Lough	Lough Neagh and Lough Beg	Belfast Lough	Strangford Lough	Killough Bay	Outer Ards	Oronsay and South Colonsay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003021	UK9003051	UK9003052	UK9003053	UK9003054	UK9003057	UK9003061	UK9003071	UK9003111	UK9003121	UK9003221	UK9003261	UK9003301	UK9020011	UK9020021	UK9020031	UK9020042	UK9020091	UK9020101	UK9020111	UK9020221	UK9020271	UK9020299
Tufted Duck																							
Shoveler																							
Shelduck																							
Ringed Plover																							
Goosander																							
Greenshank																							
Eurasian Curlew																							
Common Scoter						Art 4.2																	
Northern Lapwing																							
Eurasian Teal																							
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot																							
Eurasian Oystercatcher																							
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose																							
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage																36,599		99,262		70,200			
Common Redshank							Art 4.2												Art 4.2	Art 4.2			
Great Crested Grebe																							
Whooper Swan											Art 4.1					Art 4.1		Art 4.1					
Barnacle Goose		Art 4.1	Art 4.1	Art 4.1																			
Greylag Goose									Art 4.2														
Greenland White-fronted Goose	Art 4.1	Art 4.1		Art 4.1	Art 4.1	Art 4.1		Art 4.1	Art 4.1	Art 4.1													
Pink-footed Goose																							
Light-bellied Brent Goose		Art 4.2														Art 4.2	Art 4.2			Art 4.2	Art 4.2	Art 4.2	
Bar-tailed Godwit																Art 4.1							
Eurasian Wigeon																							
Northen Pintail																							
Red Knot																				Art 4.2			
Purple Sandpiper																							
Ruddy Turnstone																						Art 4.2	
Slavonian Grebe																							
Red-throated Diver																							
Common Eider																							
Common Shelduck																							
Great Cormorant																							
Mallard																							
Greater Scaup																							
Long-tailed Duck																							
Black (Common) Scoter																							
Velet Scoter																							
Common Goldeneye																		Art 4.2					
Red-breasted Merganser																							
Eurasian Curlew																							
Eurasian Oystercatcher																							
Ringed Plover																						Art 4.2	
European Golden Plover																						Art 4.1	
Grey Plover																							
Northern Lapwing																							
Dunlin																							
Sandwich Tern																							
Sanderling																							
Black-tailed Godwit																							
Goosander																							
Eurasian Teal																							
Gadwall																							
Common Greenshank																							
Black-headed Gull																							
Common Tern																							
Common Gull (Mew)																							
Northern Shoveler																							
Bewick Swan																							
Common Pochard																		Art 4.2					
Tufted Duck																		Art 4.2					
Lesser Black-back Gull																							
Tundra Swan																		Art 4.1					
Taiga Bean Goose																							

Key for interest features that have been screened **into** the plan-level Appropriate Assessment

		30,000	No. of seabirds regularly occurring			Art 4.2 sp	Species listed among those regularly occurring
Art 4.1	Article 4.1 of Birds Directive	Art 4.2	Article 4.2 of Birds Directive	Cri 6	Ramsar Criterion No.		Annex/Criterion unknown (Irish sites)
A1 (P)	Annex I Habitat (primary reason)	A2 (P)	Annex II Species (primary reason)	A1 (Q)	Annex I Habitat (qualifying)	A2 (Q)	Annex II Species (qualifying)

screened in' sites where option area and/or tidal excursion zone (cable alignment excluded) extend into a European/Ramsar site

Interest features and European/Ramsar sites that have been screened out of the Appropriate Assessment

Table MT25 – Screening schedule for the W4 Medium-ter

NB This screening schedule table and map show sites withi

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								Special Area of Conservation																		
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Ailsa Craig	North Colonsay and Western Cliffs	Belfast Lough Open Water	Copeland Islands	Trawbreaga Bay	Jura, Scarba and the Garvellachs	Inishtrahull	Inishtrahull	North Inishowen Coast	Taynish and Knapdale Woods	Luce Bay and Sands	Loch Lomond Woods	Murlough	Magilligan	Strangford Lough	Glac na Criche	Móine Mhór	Endrick Water	Merrick Kells	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Bann Estuary	Loch Fada	Mull of Galloway	North Antrim Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003091	UK9003171	UK9020290	UK9020291	004034	10114	004100	000154	002012	UK0012682	UK0013039	UK0013573	UK0016612	UK0016613	UK0016618	UK0019775	UK0019839	UK0019840	UK0019841	UK0030041	UK0030055	UK0030067	UK0030084	UK0030191	UK0030220	UK0030224
Mammals																										
Grey Seal																										
Common Seal													A2 (P)									A2 (P)				
Bottlenose dolphin																										
Otter										A2 (Q)		A2 (Q)					A2 (Q)		A2 (Q)					A2 (Q)		
Fish and other species																										
Salmon																										
Allis shad																										
Twaite shad																										
Sea Lamprey																										
River Lamprey																										
Freshwater Pearl Mussel																										
Coastal Habitats																										
Sandbanks which are slightly covered by seawater all the time											A1 (Q)		A1 (Q)								A1 (P)					
Estuaries																										
Mudflats and sandflats not covered by seawater at low tide											A1 (Q)		A1 (Q)		A1 (P)		A1 (Q)									
Coastal lagoons															A1 (P)											
Large shallow inlets and bays											A1 (P)				A1 (P)											
Reefs											A1 (Q)				A1 (P)					A1 (P)	A1 (P)					
Submarine structures made by leaking gases																										
Submerged or partially submerged sea caves																					A1 (P)					
Annual vegetation of drift lines															A1 (Q)						A1 (P)					A1 (Q)
Salicornia and other annuals colonising mud and sand															A1 (Q)											
Spartina swards																										
Atlantic salt meadows													A1 (Q)		A1 (Q)		A1 (Q)						A1 (Q)			A1 (Q)
Mediterranean and thermo-Atlantic halophilous scrubs																										
Saltmarsh (type not specified)																										
Perennial vegetation of stony banks															A1 (Q)											
Vegetated sea cliffs																A1 (Q)					A1 (P)				A1 (P)	A1 (P)
Sand dunes											A1 (P)		A1 (P)/A1 (Q)	A1 (P)/A1 (Q)									A1 (P)/A1 (Q)			A1 (Q)
Birds-Breeding Season																										
Breeding Seabird Assemblage	65000	30000																								
Golden Eagle						Art 4.1																				
Osprey																										
Wood Sandpiper																										
Northern Gannet	Art 4.2																									
Lesser Black-backed Gull	Art 4.2																									
Herring Gull	Art 4.2 sp																									
Black-legged Kittiwake	Art 4.2 sp	Art 4.2 sp																								
Common Guillemot	Art 4.2 sp	Art 4.2 sp																								
Corn Crake																										
Merlin																										
Black-throated Diver																										
European Storm Petrel																										
Arctic Tern				Art 4.1																						
Eurasian Dotterel																										
Northern Fulmar																										
European Shag							Art 4.1																			
Red-throated Diver																										
European Golden Plover																										
Short-Eared owl																										
Dunlin																										
Great Cormorant																										
Great Black-backed Gull							Art 4.1																			
Atlantic Puffin																										
Razorbill																										
Sandwich Tern																										
Common Tern																										
Little Tern																										
Manx Shearwater				Art 4.2																						
Roseate Tern																										
Peregrine Falcon																										
Arctic Skua																										
Whimbrel																										
Red-necked phalarope																										
Great Skua																										
Great Crested Grebe																										
Leach's Storm Petrel																										
Great Bittern																										
Common Redshank																										
Common Snipe																										
Pochard																										
Gadwall																										
Slavonian Grebe																										

Table MT25 – Screening schedule for the W4 Medium-ter

NB This screening schedule table and map show sites withi

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								Special Area of Conservation																			
Designation	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC	SAC
European/Ramsar Site	Ailsa Craig	North Colonsay and Western Cliffs	Belfast Lough Open Water	Copeland Islands	Trawbreaga Bay	Jura, Scarba and the Garvellachs	Inishtrahull	Inishtrahull	North Inishowen Coast	Taynish and Knapdale Woods	Luce Bay and Sands	Loch Lomond Woods	Murlough	Magilligan	Strangford Lough	Glac na Criche	Móine Mhór	Endrick Water	Merrick Kells	Firth of Lorn	Rathlin Island	South-East Islay Skerries	Bann Estuary	Loch Fada	Mull of Galloway	North Antrim Coast
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK9003091	UK9003171	UK9020290	UK9020291	004034	10114	004100	000154	002012	UK0012682	UK0013039	UK0013573	UK0016612	UK0016613	UK0016618	UK0019775	UK0019839	UK0019840	UK0019841	UK0030041	UK0030055	UK0030067	UK0030084	UK0030191	UK0030220	UK0030224
Tufted Duck																										
Shoveler																										
Shelduck																										
Ringed Plover																										
Goosander																										
Greenshank																										
Eurasian Curlew																										
Common Scoter																										
Northern Lapwing																										
Eurasian Teal																										
Eurasian Wigeon																										
Common Goldeneye																										
Black Guillemot																										
Eurasian Oystercatcher																										
Common (Mew) Gull							Art 4.1																			
Black-headed Gull																										
Spotted Crake																										
Greylag Goose																										
Birds Overwintering/Passage																										
Wintering Waterfowl Assemblage																										
Common Redshank																										
Great Crested Grebe			Art 4.2																							
Whooper Swan																										
Barnacle Goose					Art 4.2																					
Greylag Goose																										
Greenland White-fronted Goose																										
Pink-footed Goose																										
Light-bellied Brent Goose					Art 4.2																					
Bar-tailed Godwit																										
Eurasian Wigeon																										
Northen Pintail																										
Red Knot																										
Purple Sandpiper																										
Ruddy Turnstone																										
Slavonian Grebe																										
Red-throated Diver																										
Common Eider																										
Common Shelduck																										
Great Cormorant																										
Mallard																										
Greater Scaup																										
Long-tailed Duck																										
Black (Common) Scoter																										
Velet Scoter																										
Common Goldeneye																										
Red-breasted Merganser																										
Eurasian Curlew																										
Eurasian Oystercatcher																										
Ringed Plover																										
European Golden Plover																										
Grey Plover																										
Northern Lapwing																										
Dunlin																										
Sandwich Tern																										
Sanderling																										
Black-tailed Godwit																										
Goosander																										
Eurasian Teal																										
Gadwall																										
Common Greenshank																										
Black-headed Gull																										
Common Tern																										
Common Gull (Mew)																										
Northern Shoveler																										
Bewick Swan																										
Common Pochard																										
Tufted Duck																										
Lesser Black-back Gull																										
Tundra Swan																										
Taiga Bean Goose																										

Table MT25 – Screening schedule for the W4 Medium-ter

NB This screening schedule table and map show sites withi

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Designation	SAC	SAC
European/Ramsar Site	Overskillew River	River Bladnoch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030233	UK0030249
Mammals		
Grey Seal		
Common Seal		
Bottlenose dolphin		
Otter	A2 (Q)	
Fish and other species		
Salmon	A2 (Q)	A2 (P)
Allis shad		
Twaite shad		
Sea Lamprey		
River Lamprey		
Freshwater Pearl Mussel	A2 (P)	
Coastal Habitats		
Sandbanks which are slightly covered by seawater all the time		
Estuaries		
Mudflats and sandflats not covered by seawater at low tide		
Coastal lagoons		
Large shallow inlets and bays		
Reefs		
Submarine structures made by leaking gases		
Submerged or partially submerged sea caves		
Annual vegetation of drift lines		
Salicornia and other annuals colonising mud and sand		
Spartina swards		
Atlantic salt meadows		
Mediterranean and thermo-Atlantic halophilous scrubs		
Saltmarsh (type not specified)		
Perennial vegetation of stony banks		
Vegetated sea cliffs		
Sand dunes		
Birds-Breeding Season		
Breeding Seabird Assemblage		
Golden Eagle		
Osprey		
Wood Sandpiper		
Northern Gannet		
Lesser Black-backed Gull		
Herring Gull		
Black-legged Kittiwake		
Common Guillemot		
Corn Crake		
Merlin		
Black-throated Diver		
European Storm Petrel		
Arctic Tern		
Eurasian Dotterel		
Northern Fulmar		
European Shag		
Red-throated Diver		
European Golden Plover		
Short-Eared owl		
Dunlin		
Great Cormorant		
Great Black-backed Gull		
Atlantic Puffin		
Razorbill		
Sandwich Tern		
Common Tern		
Little Tern		
Manx Shearwater		
Roseate Tern		
Peregrine Falcon		
Arctic Skua		
Whimbrel		
Red-necked phalarope		
Great Skua		
Great Crested Grebe		
Leach's Storm Petrel		
Great Bittern		
Common Redshank		
Common Snipe		
Pochard		
Gadwall		
Slavonian Grebe		

Table MT25 – Screening schedule for the W4 Medium-ter

NB This screening schedule table and map show sites withi

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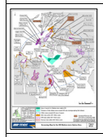
Designation	SAC	SAC
 **European/Ramsar Site**	Oveneklilew River	River Bladnoch
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030233	UK0030249
Tufted Duck		
Shoveler		
Shelduck		
Ringed Plover		
Goosander		
Greenshank		
Eurasian Curlew		
Common Scoter		
Northern Lapwing		
Eurasian Teal		
Eurasian Wigeon		
Common Goldeneye		
Black Guillemot		
Eurasian Oystercatcher		
Common (Mew) Gull		
Black-headed Gull		
Spotted Crake		
Greylag Goose		
Birds Overwintering/Passage		
Wintering Waterfowl Assemblage		
Common Redshank		
Great Crested Grebe		
Whooper Swan		
Barnacle Goose		
Greylag Goose		
Greenland White-fronted Goose		
Pink-footed Goose		
Light-bellied Brent Goose		
Bar-tailed Godwit		
Eurasian Wigeon		
Northen Pintail		
Red Knot		
Purple Sandpiper		
Ruddy Turnstone		
Slavonian Grebe		
Red-throated Diver		
Common Eider		
Common Shelduck		
Great Cormorant		
Mallard		
Greater Scaup		
Long-tailed Duck		
Black (Common) Scoter		
Velet Scoter		
Common Goldeneye		
Red-breasted Merganser		
Eurasian Curlew		
Eurasian Oystercatcher		
Ringed Plover		
European Golden Plover		
Grey Plover		
Northern Lapwing		
Dunlin		
Sandwich Tern		
Sanderling		
Black-tailed Godwit		
Goosander		
Eurasian Teal		
Gadwall		
Common Greenshank		
Black-headed Gull		
Common Tern		
Common Gull (Mew)		
Northern Shoveler		
Bewick Swan		
Common Pochard		
Tufted Duck		
Lesser Black-back Gull		
Tundra Swan		
Taiga Bean Goose		

Table MT25 – Screening schedule for the W4 Medium-ter

NB This screening schedule table and map show sites withi

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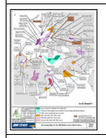
								Ramsar																
Designation		SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
	**European/Ramsar Site**	Tayvallich Juniper and Coast	Upper Ballinderry River	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Belfast Lough	Killough Bay	Larne Lough	Lough Foyle	Lough Neagh and Lough Beg	Outer Ards	Strangford Lough	Bridgend Flats	Eilean na Muice Duibhe	Gruinart Flats	Inner Clyde	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch Lomond	Loch of Inch and Torrs Warren	Rinns of Islay	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code		UK0030287	UK0030296	UK0030341	UK0030360	UK0030361	UK0030365	UK12002	UK12012	UK12013	UK12014	UK12016	UK12018	UK12021	UK13001	UK13014	UK13023	UK13024	UK13027	UK13032	UK13034	UK13037	UK13052	
Mammals																								
Grey Seal																								
Common Seal																								
Bottlenose dolphin																								
Otter		A2 (Q)	A2 (Q)		A2 (Q)	A2 (Q)																		
Fish and other species																								
Salmon					A2 (P)	A2 (P)					Cri 2													
Allis shad											Cri 2													
Twaite shad											Cri 2													
Sea Lamprey											Cri 2													
River Lamprey																								
Freshwater Pearl Mussel			A2 (P)																					
Coastal Habitats																								
Sandbanks which are slightly covered by seawater all the time							A1 (P)																	
Estuaries											Cri 1													
Mudflats and sandflats not covered by seawater at low tide											Cri 1			Cri 2										
Coastal lagoons																								
Large shallow inlets and bays																								
Reefs																								
Submarine structures made by leaking gases																								
Submerged or partially submerged sea caves																								
Annual vegetation of drift lines																								
Salicornia and other annuals colonising mud and sand																								
Spartina swards																								
Atlantic salt meadows																								
Mediterranean and thermo-Atlantic halophilous scrubs																								
Saltmarsh (type not specified)											Cri 1			Cri 1										
Perennial vegetation of stony banks																								
Vegetated sea cliffs																								
Sand dunes			A1 (P)																			Cri 1		
Birds-Breeding Season																								
Breeding Seabird Assemblage																								
Golden Eagle																								
Osprey																								
Wood Sandpiper																								
Northern Gannet																								
Lesser Black-backed Gull																								
Herring Gull																								
Black-legged Kittiwake																								
Common Guillemot																								
Corn Crake																								
Merlin																								
Black-throated Diver																								
European Storm Petrel																								
Arctic Tern																								
Eurasian Dotterel																								
Northern Fulmar																								
European Shag																								
Red-throated Diver																								
European Golden Plover																								
Short-Eared owl																								
Dunlin																								
Great Cormorant																								
Great Black-backed Gull																								
Atlantic Puffin																								
Razorbill																								
Sandwich Tern														Cri 6										
Common Tern										Cri 2				Cri 6										
Little Tern																								
Manx Shearwater																								
Roseate Tern										Cri 2														
Peregrine Falcon																								
Arctic Skua																								
Whimbrel																								
Red-necked phalarope																								
Great Skua																								
Great Crested Grebe												Cri 4												
Leach's Storm Petrel																								
Great Bittern																								
Common Redshank												Cri 4												
Common Snipe												Cri 4												
Pochard												Cri 4												
Gadwall												Cri 4												
Slavonian Grebe																								

Table MT25 – Screening schedule for the W4 Medium-ter

NB This screening schedule table and map show sites withi

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							Ramsar																
Designation	SAC	SAC	SAC	SAC	SAC	SAC	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram	Ram
European/Ramsar Site	Tayvallich Juniper and Coast	Upper Ballinderry River	Oronsay	River Roe and Tributaries	Faughan River and Tributaries	Red Bay	Belfast Lough	Killough Bay	Larne Lough	Lough Foyle	Lough Neagh and Lough Beg	Outer Ards	Strangford Lough	Bridgend Flats	Eilean na Muice Duibhe	Gruinart Flats	Inner Clyde	Kintyre Goose Roosts	Loch Ken - River Dee Marshes	Loch Lomond	Loch of Inch and Torrs Warren	Rinns of Islay	Trawbreaga Bay
Interest Features (NB grouped in some cases e.g. dunes)/Site Code	UK0030287	UK0030296	UK0030341	UK0030360	UK0030361	UK0030365	UK12002	UK12012	UK12013	UK12014	UK12016	UK12018	UK12021	UK13001	UK13014	UK13023	UK13024	UK13027	UK13032	UK13034	UK13037	UK13052	
Tufted Duck											Cri 4												
Shoveler											Cri 4												
Shelduck											Cri 4												
Ringed Plover																							
Goosander																							
Greenshank																							
Eurasian Curlew											Cri 4												
Common Scoter																							
Northern Lapwing											Cri 4												
Eurasian Teal											Cri 4												
Eurasian Wigeon																							
Common Goldeneye																							
Black Guillemot																							
Eurasian Oystercatcher																							
Common (Mew) Gull																							
Black-headed Gull																							
Spotted Crake																							
Greylag Goose																							
Birds Overwintering/Passage																							
Wintering Waterfowl Assemblage											Cri 5 (86,639)												
Common Redshank							Cri 6		Cri 6	Cri 3			Cri 6				Cri 6						
Great Crested Grebe									Cri 6	Cri 3													
Whooper Swan										Cri 3 and Cri 6	Cri 6								Cri 6			Cri 6	
Barnacle Goose														Cri 6								Cri 6	
Greylag Goose										Cri 3						Cri 6			Cri 6				
Greenland White-fronted Goose															Cri 6	Cri 6		Cri 6	Cri 6	Cri 6	Cri 6	Cri 6	
Pink-footed Goose																							
Light-bellied Brent Goose								Cri 6	Cri 6	Cri 3 and Cri 6		Cri 6	Cri 6			Cri 6							
Bar-tailed Godwit										Cri 3													
Eurasian Wigeon										Cri 3													
Northen Pintail																							
Red Knot										Cri 3			Cri 6										
Purple Sandpiper												Cri 6											
Ruddy Turnstone												Cri 6											
Slavonian Grebe																	Cri 6						
Red-throated Diver										Cri 3													
Common Eider									Cri 6	Cri 3							Cri 6						
Common Shelduck									Cri 6	Cri 3													
Great Cormorant									Cri 6								Cri 6						
Mallard										Cri 3													
Greater Scaup																							
Long-tailed Duck																							
Black (Common) Scoter																							
Velet Scoter																							
Common Goldeneye									Cri 6		Cri 6						Cri 6						
Red-breasted Merganser									Cri 6	Cri 3													
Eurasian Curlew										Cri 3													
Eurasian Oystercatcher										Cri 3							Cri 6						
Ringed Plover												Cri 6											
European Golden Plover										Cri 3		Cri 6											
Grey Plover										Cri 3													
Northern Lapwing										Cri 3													
Dunlin										Cri 3													
Sandwich Tern									Cri 6														
Sanderling																							
Black-tailed Godwit							Cri 6																
Goosander																							
Eurasian Teal										Cri 3													
Gadwall																							
Common Greenshank									Cri 6	Cri 3							Cri 6						
Black-headed Gull									Cri 6														
Common Tern									Cri 6														
Common Gull (Mew)									Cri 6														
Northern Shoveler																							
Bewick Swan										Cri 3													
Common Pochard											Cri 6												
Tufted Duck											Cri 6												
Lesser Black-back Gull																							
Tundra Swan																							
Taiga Bean Goose																							

Appendix C
Screening Maps for Each of the 34 Short-term and Medium-term Option Areas

Appendix C. Screening Maps for Each of the 34 Short-term and Medium-term Option Areas

C1. Introduction

This appendix presents the screening maps for each of the short and medium term option areas. These maps focus on the 100km zone surrounding each option that was used the basis for an objective and auditable screening process. As detailed within the report text, designated sites outside the areas shown on these tables will/may also be relevant especially where they support (as qualifying interest features) birds that forage over long distances and/or migrate internationally. Therefore, these maps should not form the sole focus of future project-level HRAs. The maps are presented as follows:

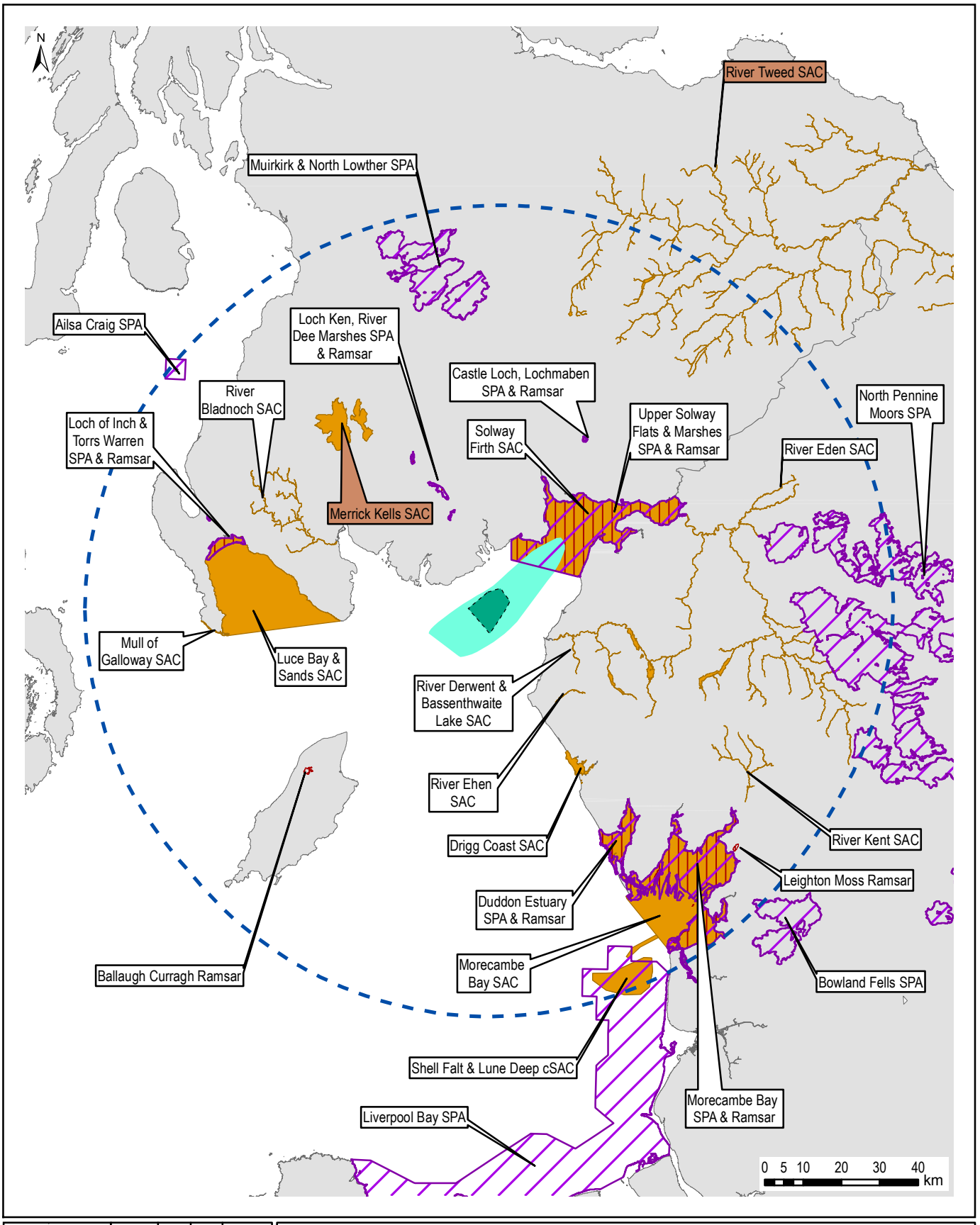
Site Screening Maps for the Short Term Options Areas:

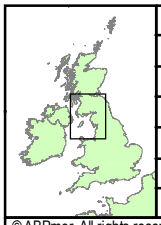
Figure ST1. Screening Map for the Solway Firth Short-term Option Area;
Figure ST2. Screening Map for the Wigtown Bay Short-term Option Area;
Figure ST3. Screening Map for the Kintyre Short-term Option Area;
Figure ST4. Screening Map for the Islay Short-term Option Area;
Figure ST5. Screening Map for the Argyll Array Short-term Option Area;
Figure ST6. Screening Map for the Beatrice Short-term Option Area;
Figure ST7. Screening Map for the Inch Cape Short-term Option Area;
Figure ST8. Screening Map for the Neart na Gaoithe Short-term Option Area;
Figure ST9. Screening Map for the Forth Array Short-term Option Area.

Site Screening Maps for the Medium Term Options Areas:

Figure MT1. Screening Map for the E1 Medium-term Option Area;
Figure MT2. Screening Map for the N1 Medium-term Option Area;
Figure MT3. Screening Map for the N4 Medium-term Option Area;
Figure MT4. Screening Map for the N5 Medium-term Option Area;
Figure MT5. Screening Map for the N6 Medium-term Option Area;
Figure MT6. Screening Map for the N7 Medium-term Option Area;
Figure MT7. Screening Map for the N8 Medium-term Option Area;
Figure MT8. Screening Map for the NE1 Medium-term Option Area;
Figure MT9. Screening Map for the NE2 Medium-term Option Area;
Figure MT10. Screening Map for the NE3 Medium-term Option Area;
Figure MT11. Screening Map for the NW2 Medium-term Option Area;
Figure MT12. Screening Map for the NW4 Medium-term Option Area;
Figure MT13. Screening Map for the NW5 Medium-term Option Area;
Figure MT14. Screening Map for the NW6 Medium-term Option Area;
Figure MT15. Screening Map for the NW7 Medium-term Option Area;
Figure MT16. Screening Map for the NW8 Medium-term Option Area;
Figure MT17. Screening Map for the SW1 Medium-term Option Area;
Figure MT18. Screening Map for the SW3 Medium-term Option Area;
Figure MT19. Screening Map for the SW4 Medium-term Option Area;
Figure MT20. Screening Map for the SW5 Medium-term Option Area;

Figure MT21. Screening Map for the SW6 Medium-term Option Area;
Figure MT22. Screening Map for the W1 Medium-term Option Area;
Figure MT23. Screening Map for the W2 Medium-term Option Area;
Figure MT24. Screening Map for the W3 Medium-term Option Area;
Figure MT25. Screening Map for the W4 Medium-term Option Area.





Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_Solway_firth.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Solway Firth
- Distance of tidal ellipse zone around Solway Firth (one average spring tidal ellipse)
- 100km zone around Solway Firth area of search
- SAC sites within Solway Firth 100km zone
- SPA sites within Solway Firth 100km zone
- Ramsar sites within Solway Firth 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST1)

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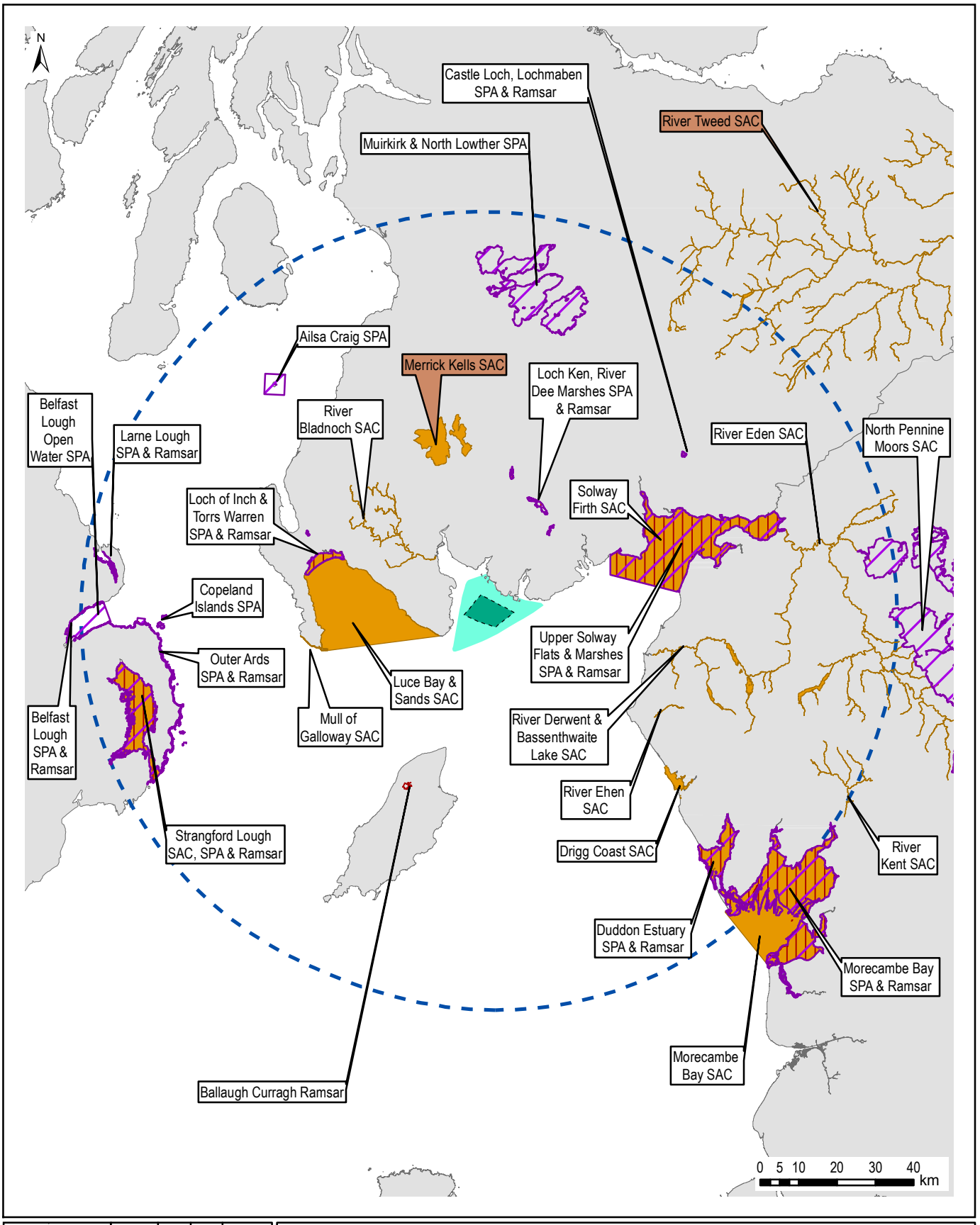
Screening Map for the Solway Firth Short-term Option Area

Figure ST1



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_Wigtown_Bay.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Wigtown Bay
- Distance of tidal ellipse zone around Wigtown Bay (one average spring tidal ellipse)
- 100km zone around Wigtown Bay area of search
- SAC sites within Wigtown Bay 100km zone
- SPA sites within Wigtown Bay 100km zone
- Ramsar sites within Wigtown Bay 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST2)

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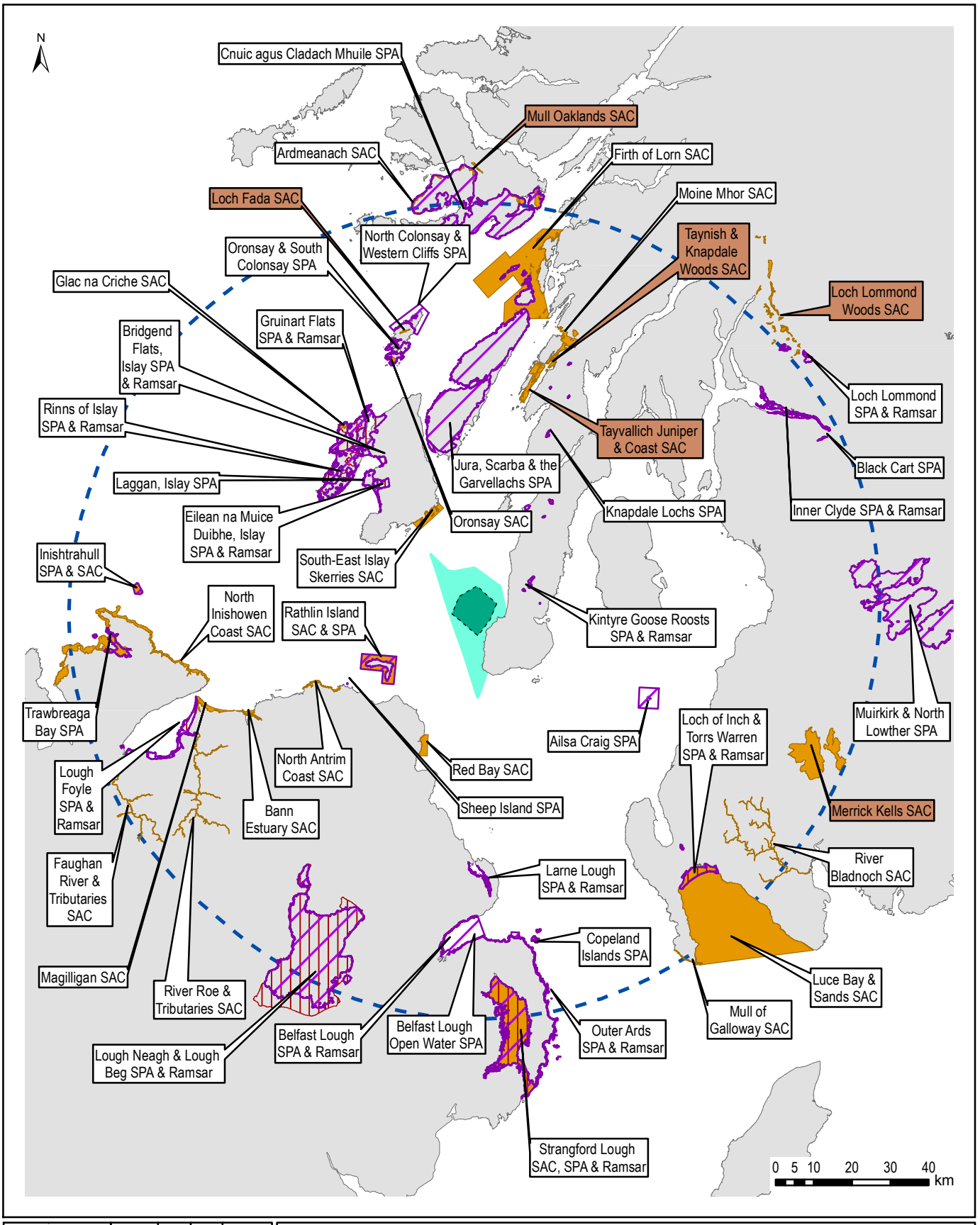
Screening Map for the Wigtown Bay Short-term Option Area

Figure ST2



Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_Kintyre.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Kintyre
- Distance of tidal ellipse zone around Kintyre (one average spring tidal ellipse)
- 100km zone around Kintyre area of search
- SAC sites within Kintyre 100km zone
- SPA sites within Kintyre 100km zone
- Ramsar sites within Kintyre 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST3)

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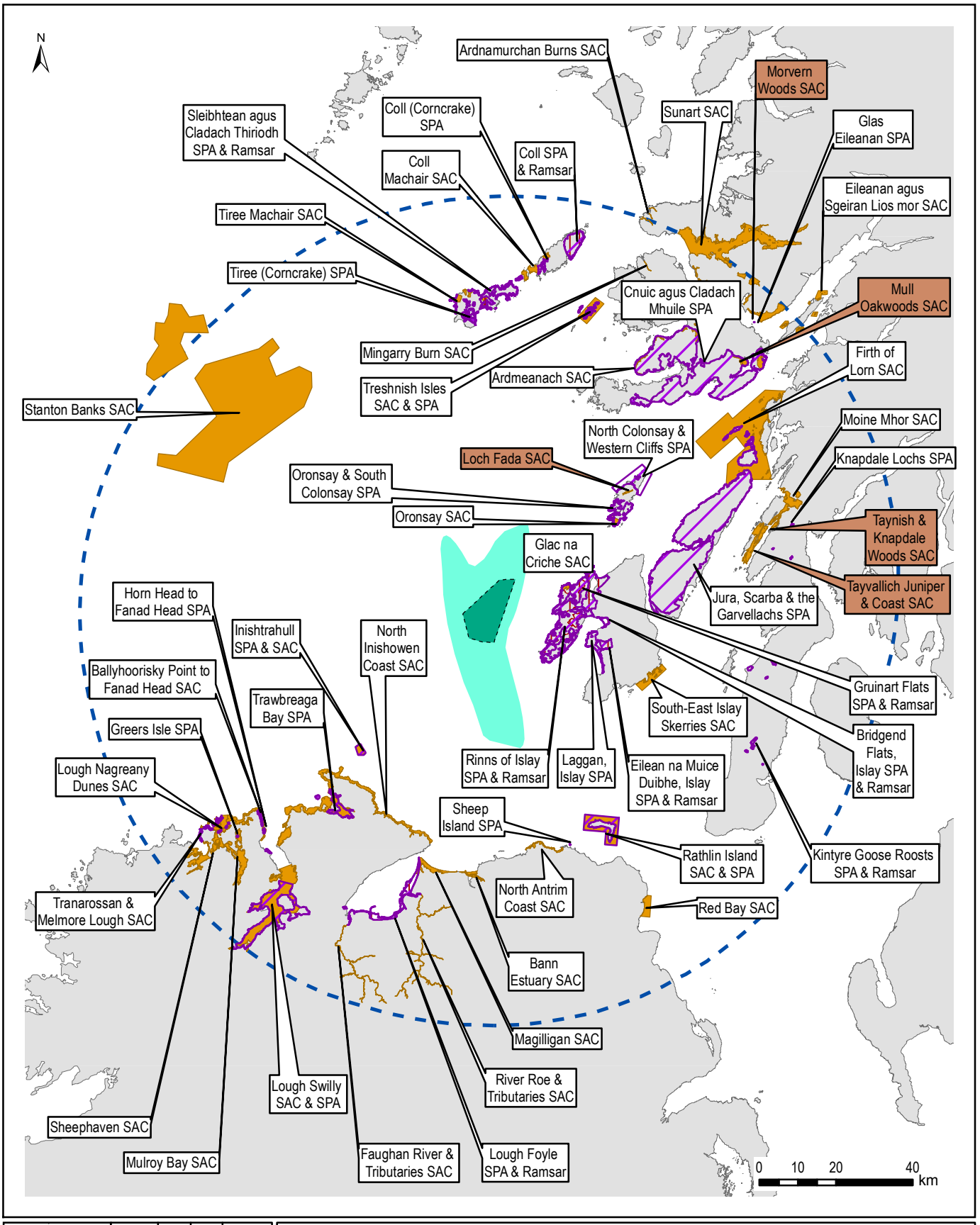
Screening Map for the Kintyre Short-term Option Area

Figure ST3



Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_Islay.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Islay
- Distance of tidal ellipse zone around Islay (one average spring tidal ellipse)
- 100km zone around Islay area of search
- SAC sites within Islay 100km zone
- SPA sites within Islay 100km zone
- Ramsar sites within Islay 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST4)

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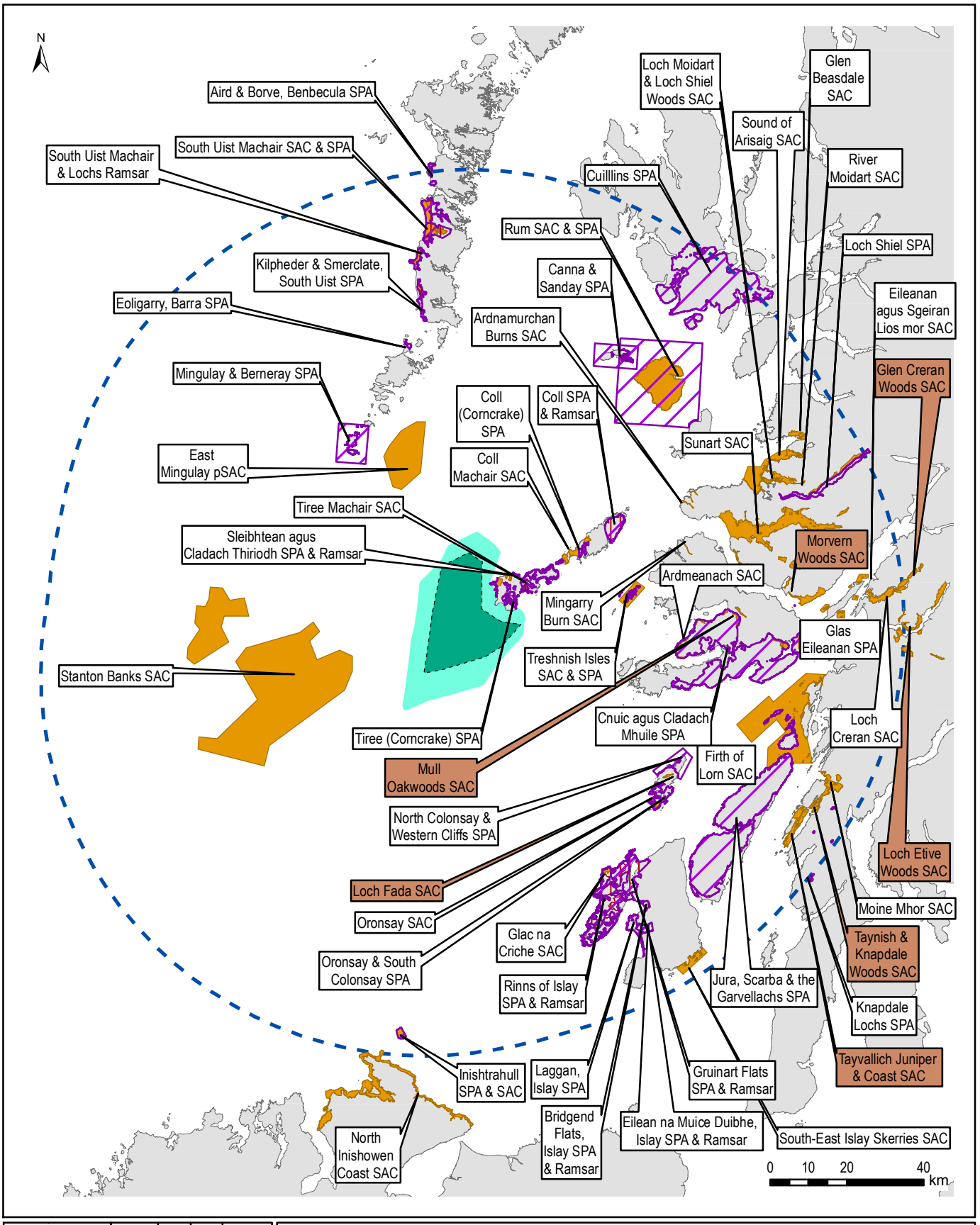
Screening Map for the Islay Short-term Option Area

Figure ST4



Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_Argyll_array.mxd			
Produced by ABPmer Ltd			

© ABPmer, All rights reserved, 2010
Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Argyll array
- Distance of tidal ellipse zone around Argyll Array
- 100km zone around Argyll array area of search
- SAC sites within Argyll array 100km zone
- SPA sites within Argyll Array 100km zone
- Ramsar sites within Argyll Array 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST5)

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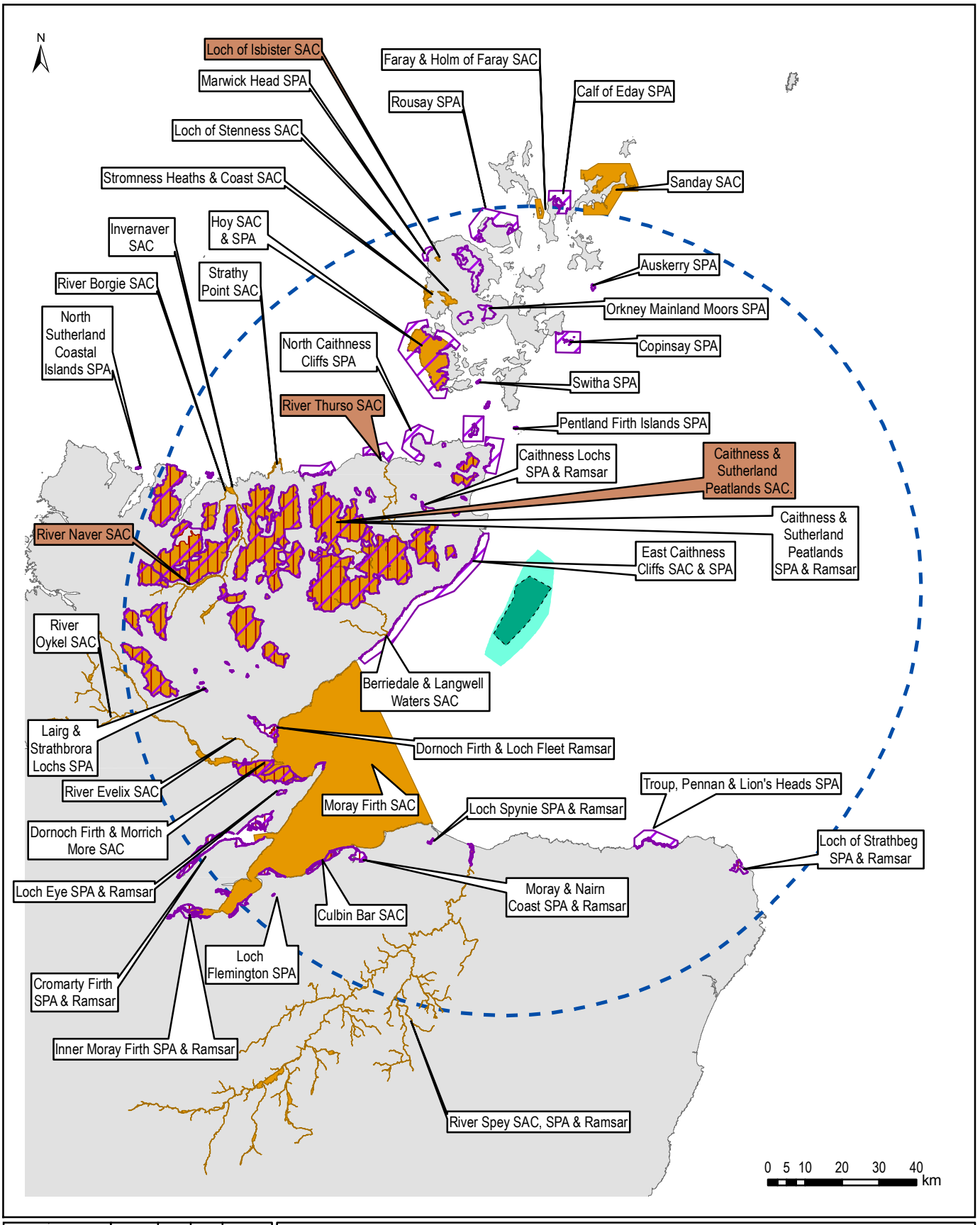
Screening Map for the Argyll Array Short-term Option Area

Figure ST5



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,450,000	
QA		NKD	
3974 - fig_beatrice.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Beatrice
- Distance of tidal ellipse zone around Beatrice (one average spring tidal ellipse)
- 100km zone around Beatrice area of search
- SAC sites within Beatrice 100km zone
- SPA sites within Beatrice 100km zone
- Ramsar sites within Beatrice 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST6)

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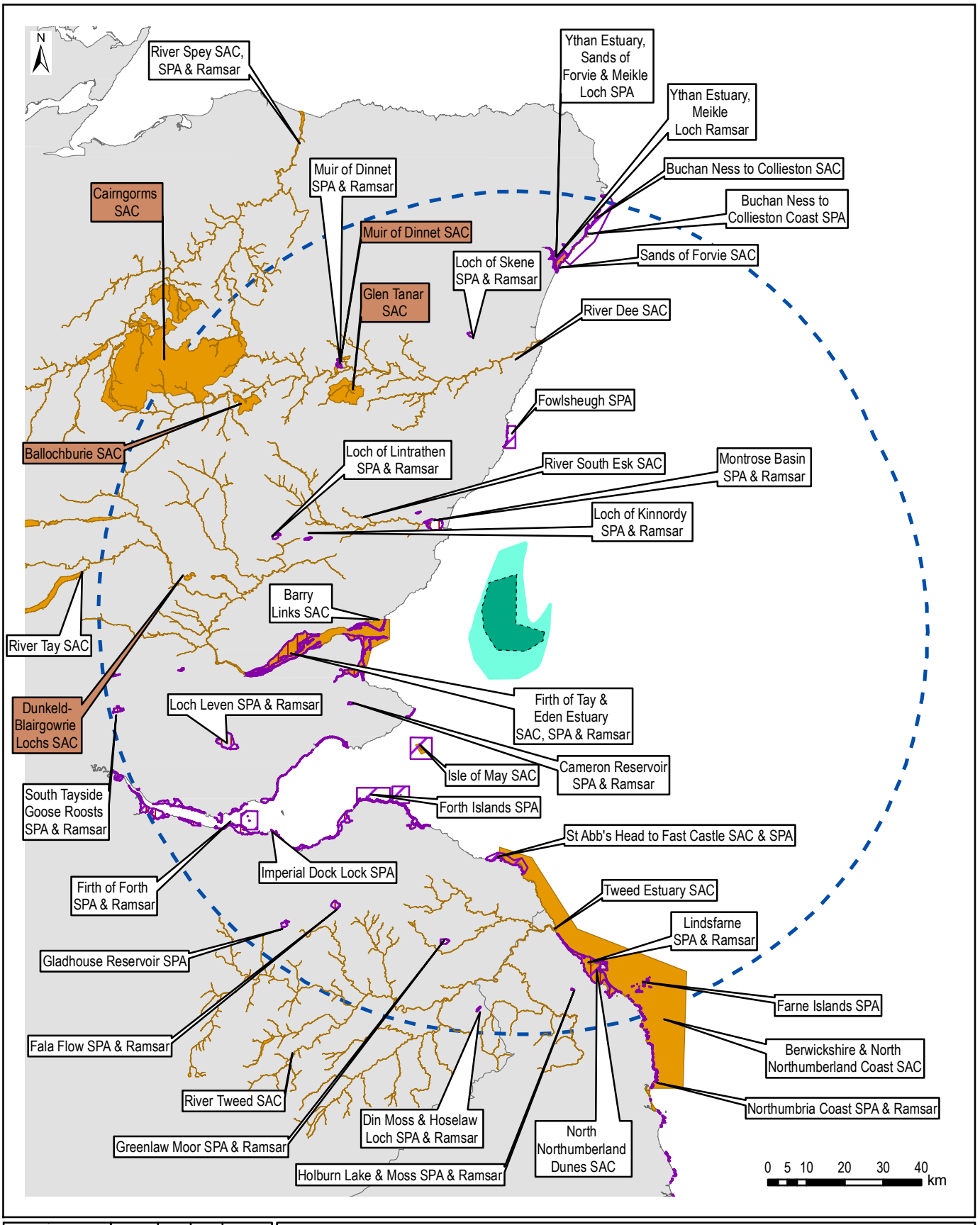
Screening Map for the Beatrice Short-term Option Area

Figure ST6



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_inch_cape.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for short term option Inch Cape
- Distance of tidal ellipse zone around Inch Cape (one average spring tidal ellipse)
- 100km zone around inch cape area of search
- SAC sites within Inch Cape 100km zone
- SPA sites within Inch Cape 100km zone
- Ramsar sites within Inch Cape 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST7)

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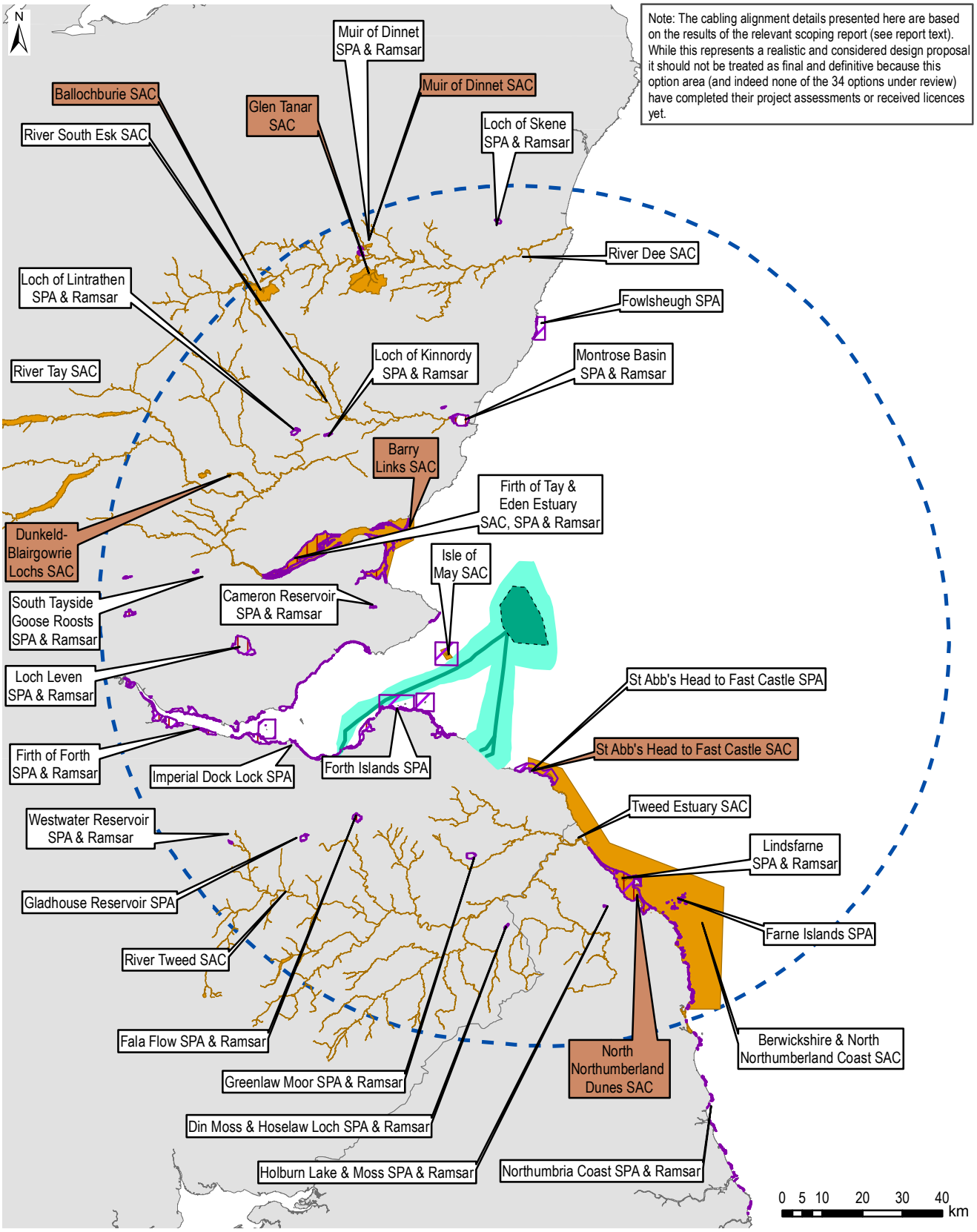
Screening Map for the Inch Cape Short-term Option Area

Figure ST7



Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_Neart.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Short-term option Neart na Gaolithe
- Neart na Gaolithe Cable Routes
- Distance of tidal ellipse zone around Neart na Gaolithe including cable routes (one average spring tidal ellipse)
- 100km zone around Neart na Gaolithe area of search
- SAC sites within Neart na Gaolithe 100km zone
- SPA sites within Neart na Gaolithe 100km zone
- Ramsar sites within Neart na Gaolithe 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST8)

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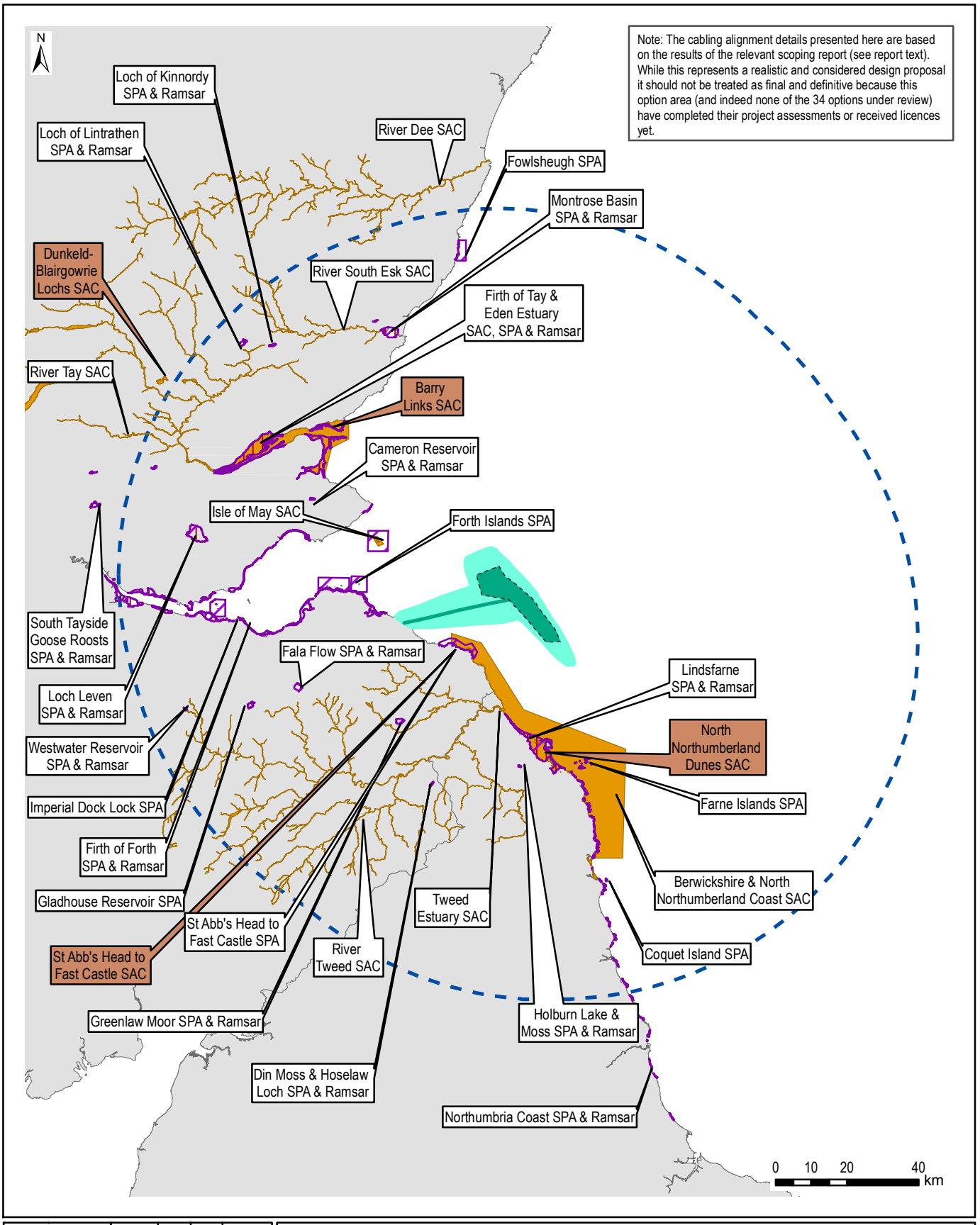
Screening Map for the Neart na Gaolithe Short-term Option Area | **Figure ST8**



Date	By	Size	Version
Jan 11	FMM	A4	2
Projection		OSGB 1936	
Scale		1:1,500,000	
QA		NKD	
3974 - fig_Forth_Array.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

Area of search for short term option Forth Array
Forth Array Cable Route
Distance of tidal ellipse zone around Forth Array including cable route (one average spring tidal ellipse)
100km zone around Forth Array area of search
SAC sites within Forth Array 100km zone
SPA sites within Forth Array 100km zone
Ramsar sites within Forth Array 100km zone
European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table ST9)

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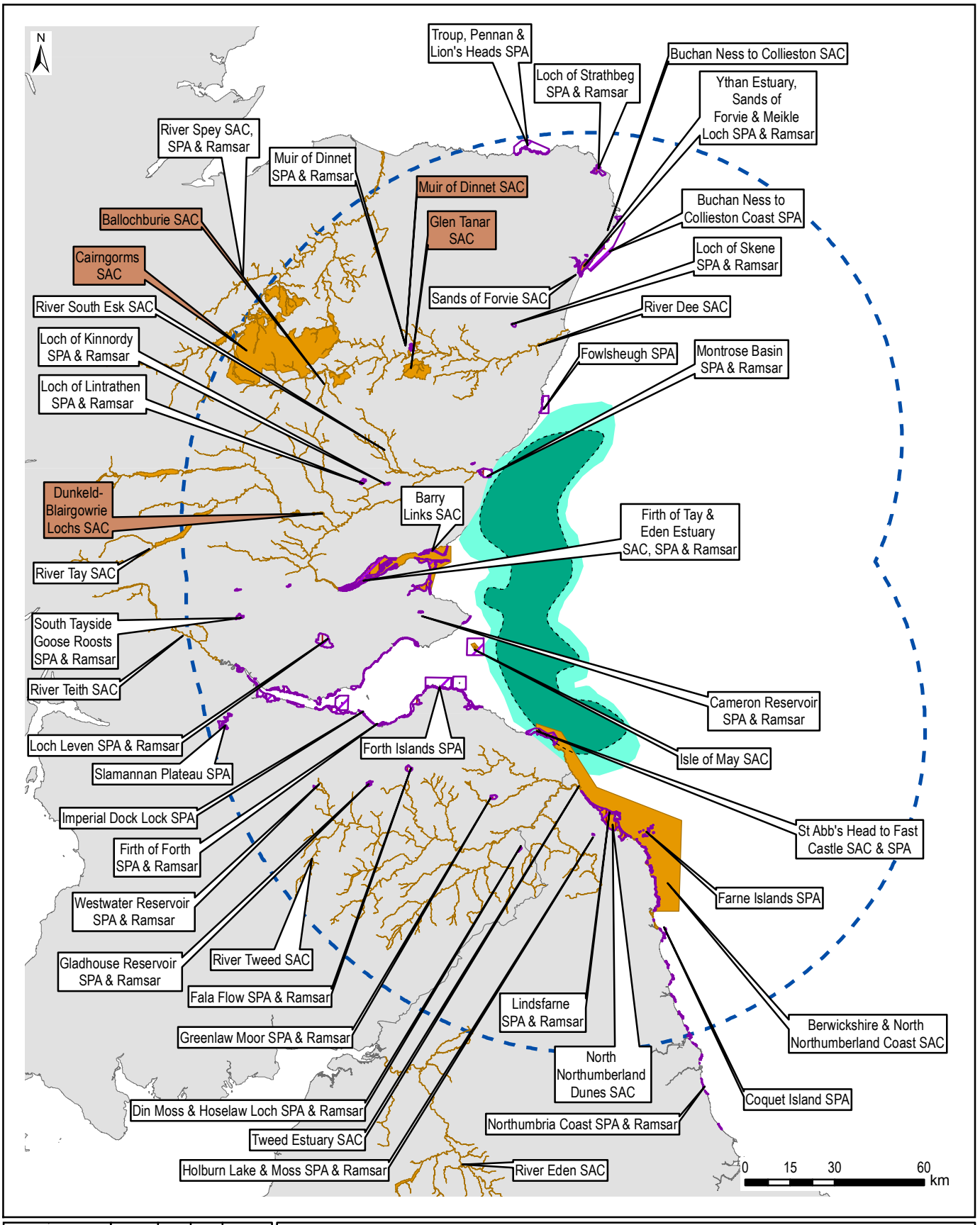
Screening Map for the Forth Array Short-term Option Area

Figure ST9



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,800,000	
QA		NKD	
3974_fig_E1.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option E1
- Distance of tidal ellipse zone around E1 (one average spring tidal ellipse)
- 100km zone around E1 area of search
- SAC sites within E1 100km zone
- SPA sites within E1 100km zone
- Ramsar sites within E1 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT1)

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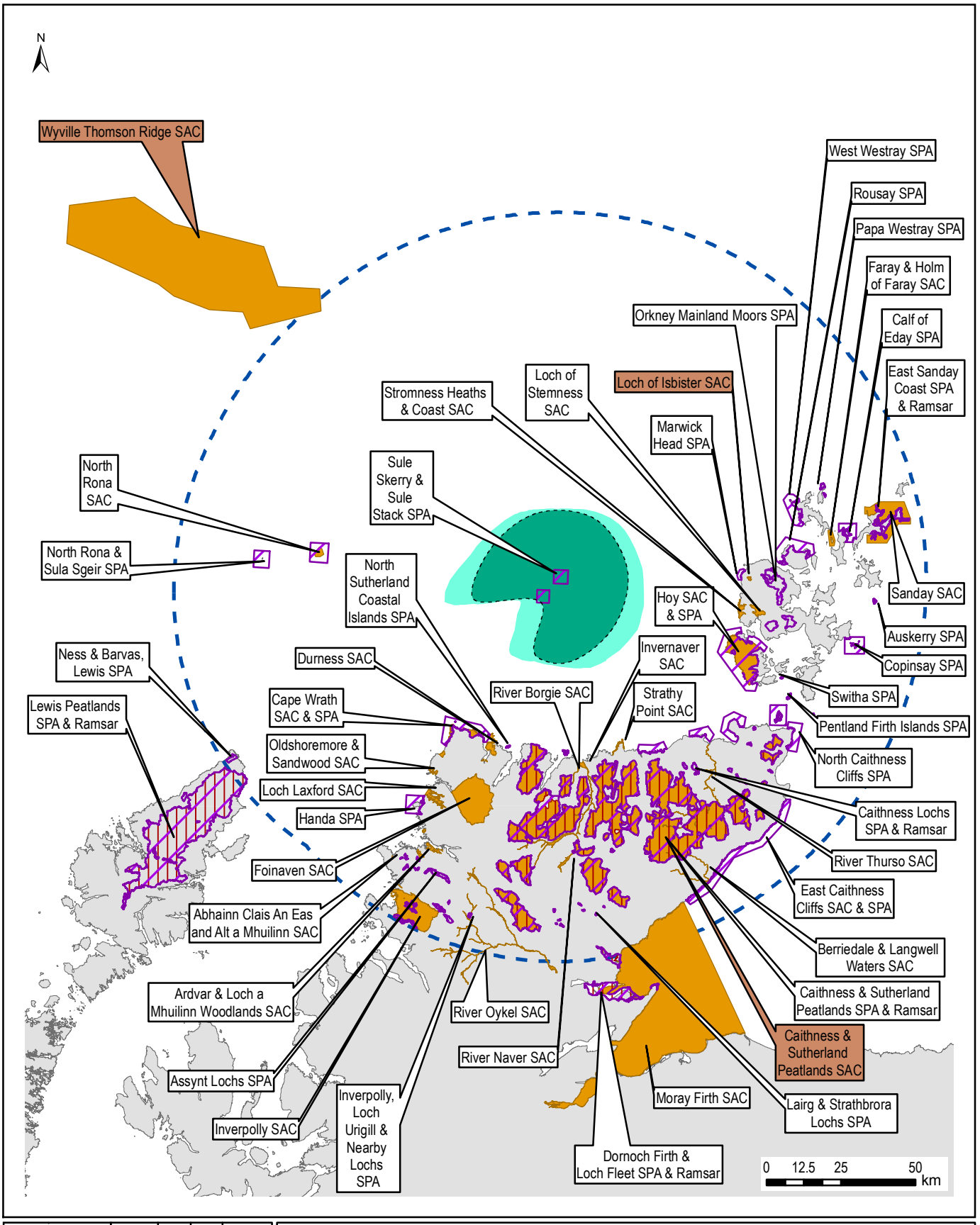
Screening Map for the E1 Medium-term Option Area

Figure MT1



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Projection		OSGB 1936	
Scale		1:1,800,000	
QA		NKD	
3974_fig_N1.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option N1
- Distance of tidal ellipse zone around N1 (one average spring tidal ellipse)
- 100km zone around N1 area of search
- SAC sites within N1 100km zone
- SPA sites within N1 100km zone
- Ramsar sites within N1 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT2)

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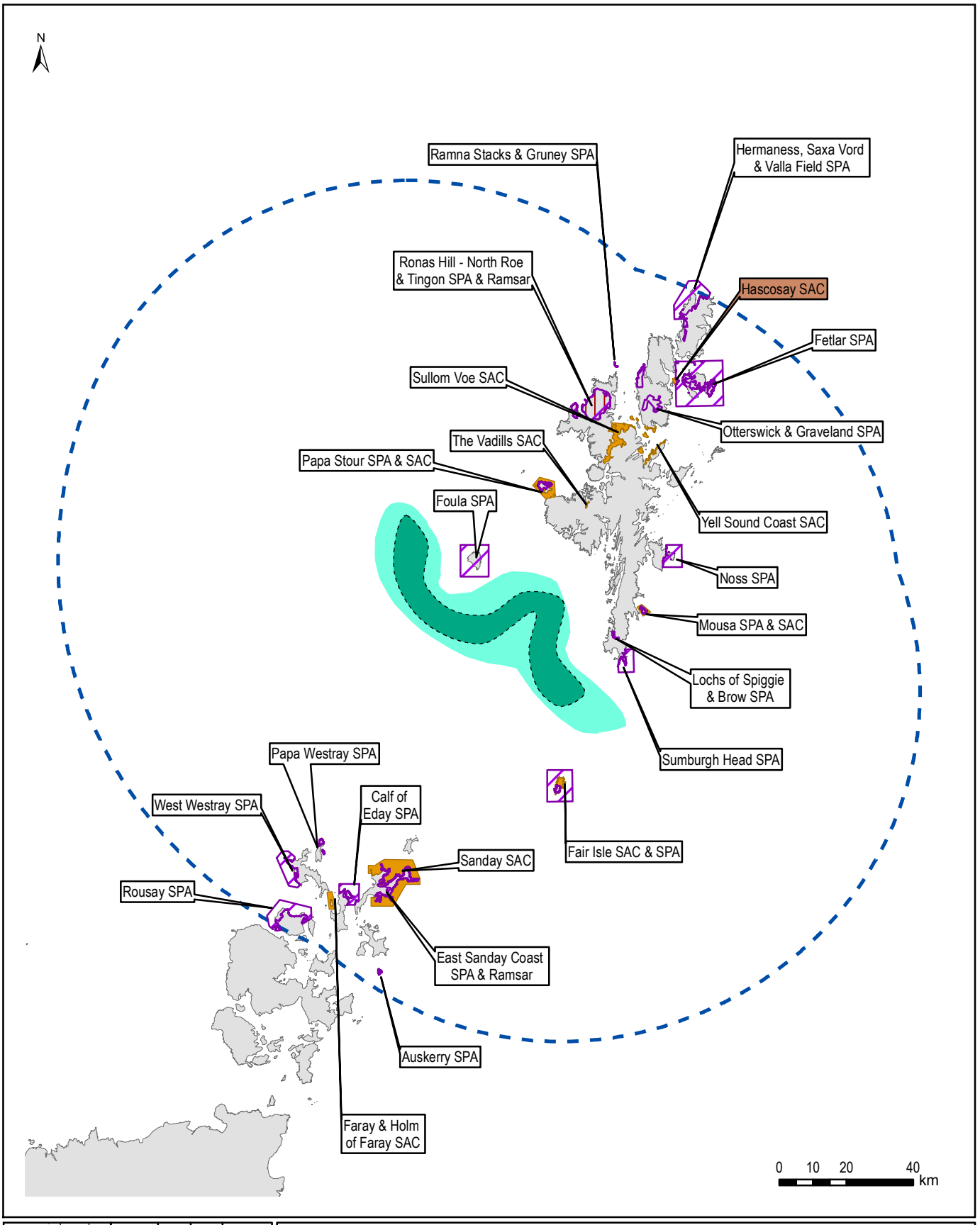
Screening Map for the N1 Medium-term Option Area

Figure MT2



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Scale		1:1,600,000	
QA		NKD	
3974_fig_N4.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option N4
- Distance of tidal ellipse zone around N4 (one average spring tidal ellipse)
- 100km zone around N4 area of search
- SAC sites within N4 100km zone
- SPA sites within N4 100km zone
- Ramsar sites within N4 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT3)

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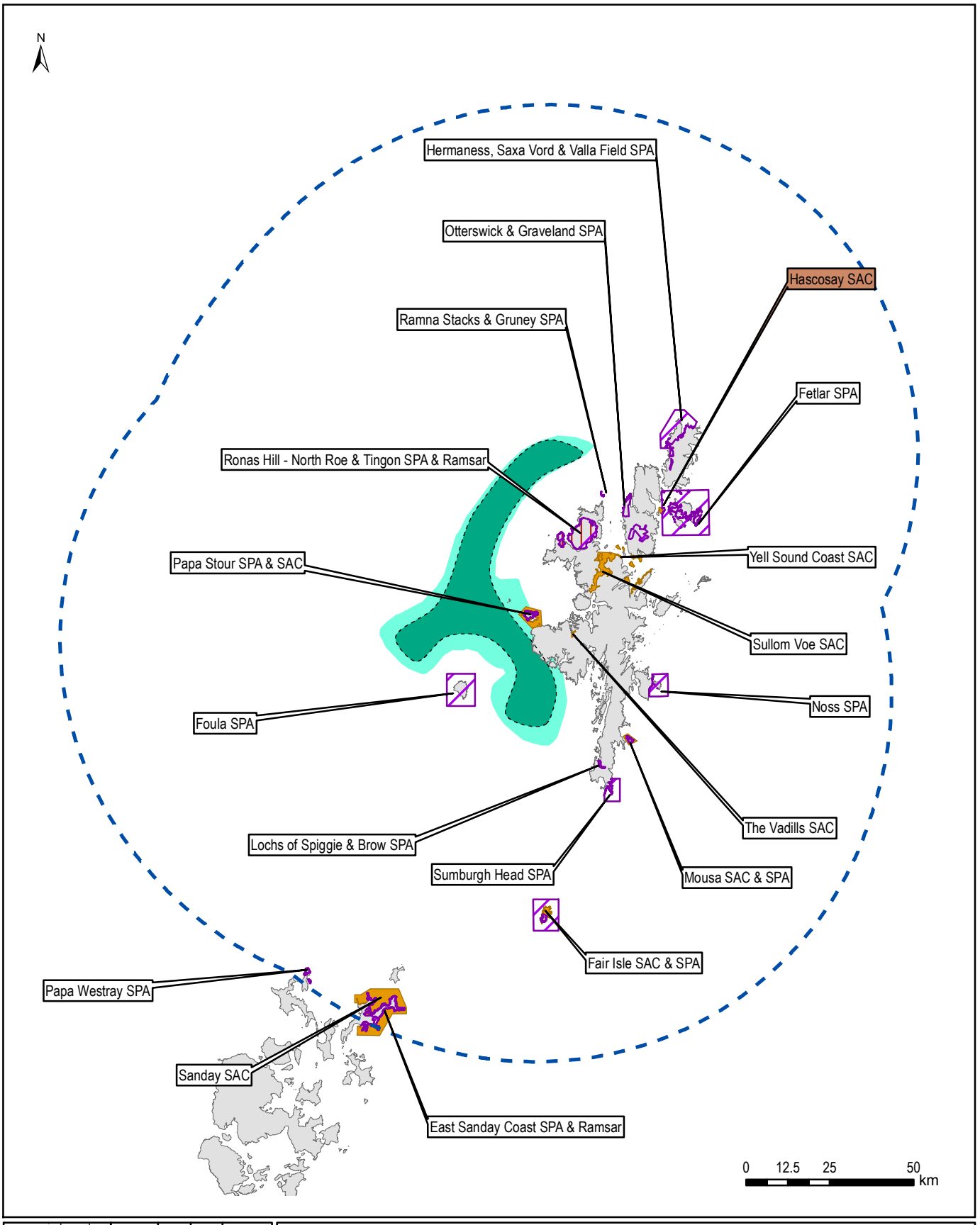
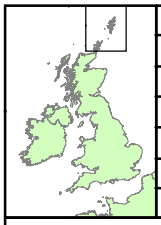
Screening Map for the N4 Medium-term Option Area

Figure MT3





Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,600,000	
QA		NKD	
3974 - fig_N5.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option N5
- Distance of tidal ellipse zone around N5 (one average spring tidal ellipse)
- 100km zone around N5 area of search
- SAC sites within N5 100km zone
- SPA sites within N5 100km zone
- Ramsar sites within N5 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT4)

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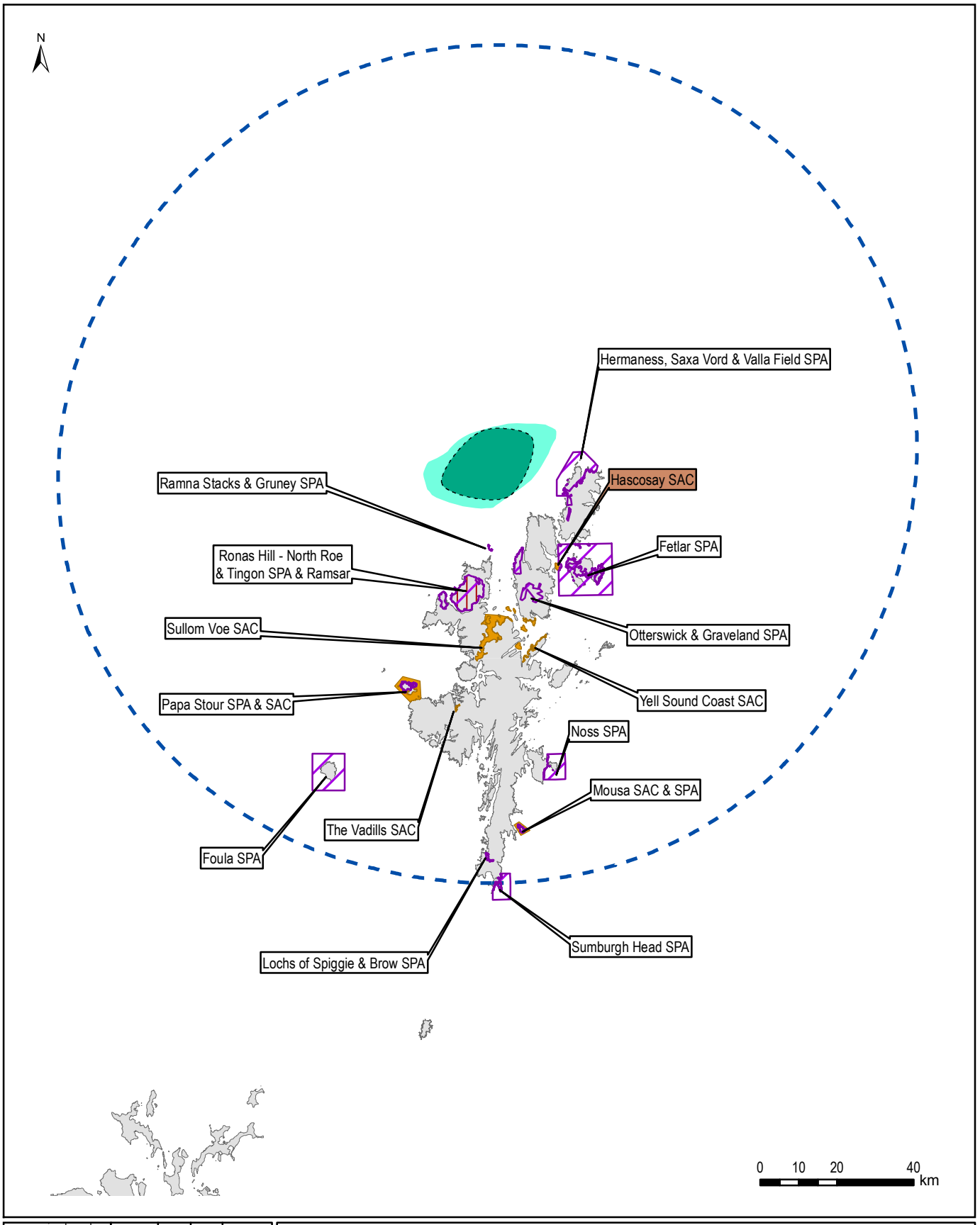
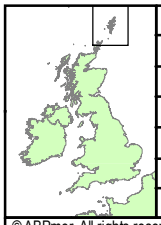
Screening Map for the N5 Medium-term Option Area

Figure MT4





Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974_fig_N6.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option N6
- Distance of tidal ellipse zone around N6 (one average spring tidal ellipse)
- 100km zone around N6 area of search
- SAC sites within N6 100km zone
- SPA sites within N6 100km zone
- Ramsar sites within N6 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT5)

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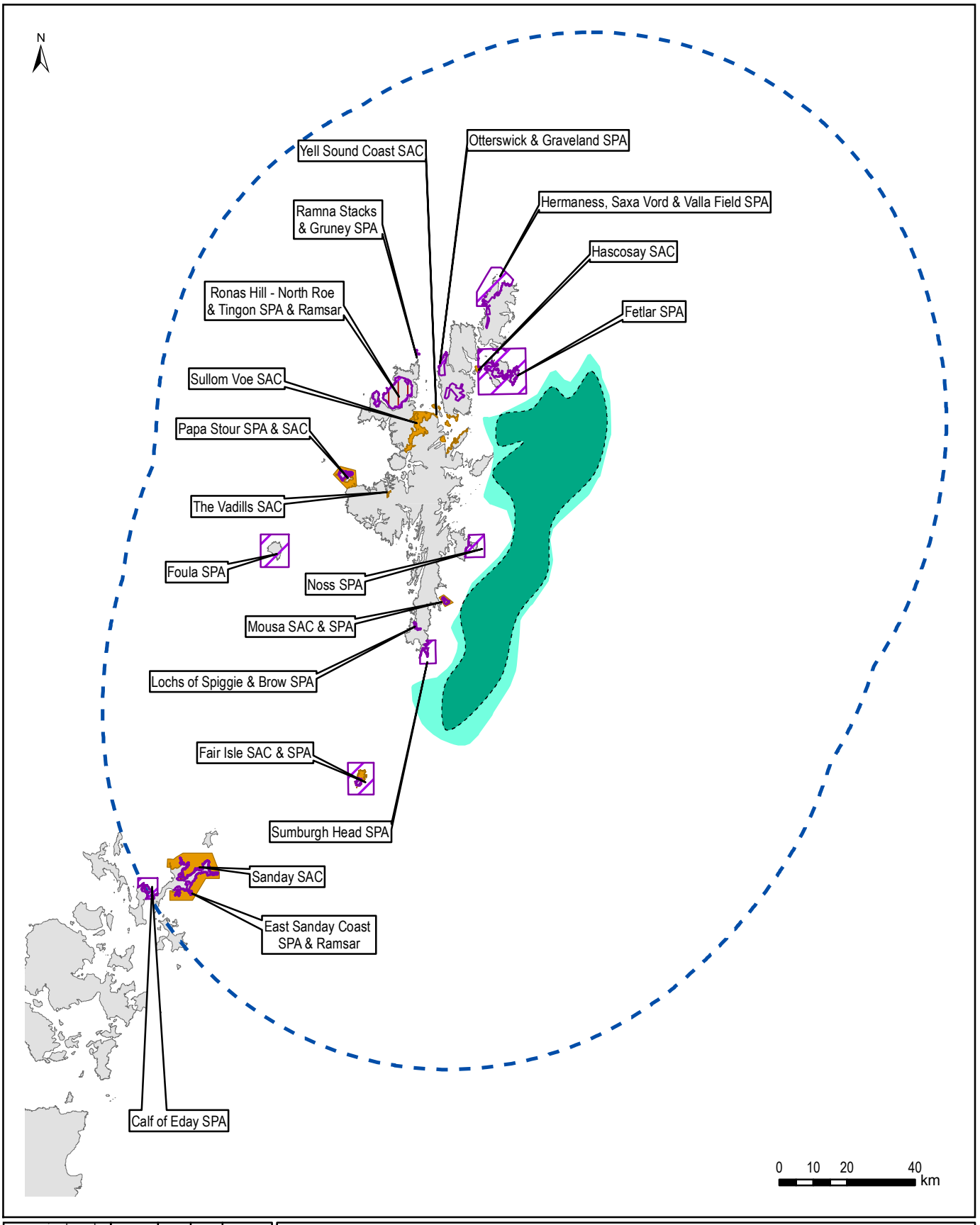
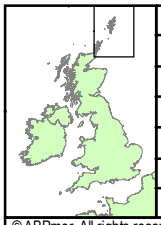
Screening Map for the N6 Medium-term Option Area

Figure MT5





Date	By	Size	Version
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Projection		OSGB 1936	
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QA		NKD	
3974_fig_N7.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option N7
- Distance of tidal ellipse zone around N7 (one average spring tidal ellipse)
- 100km zone around N7 area of search
- SAC sites within N7 100km zone
- SPA sites within N7 100km zone
- Ramsar sites within N7 100km zone

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT6)

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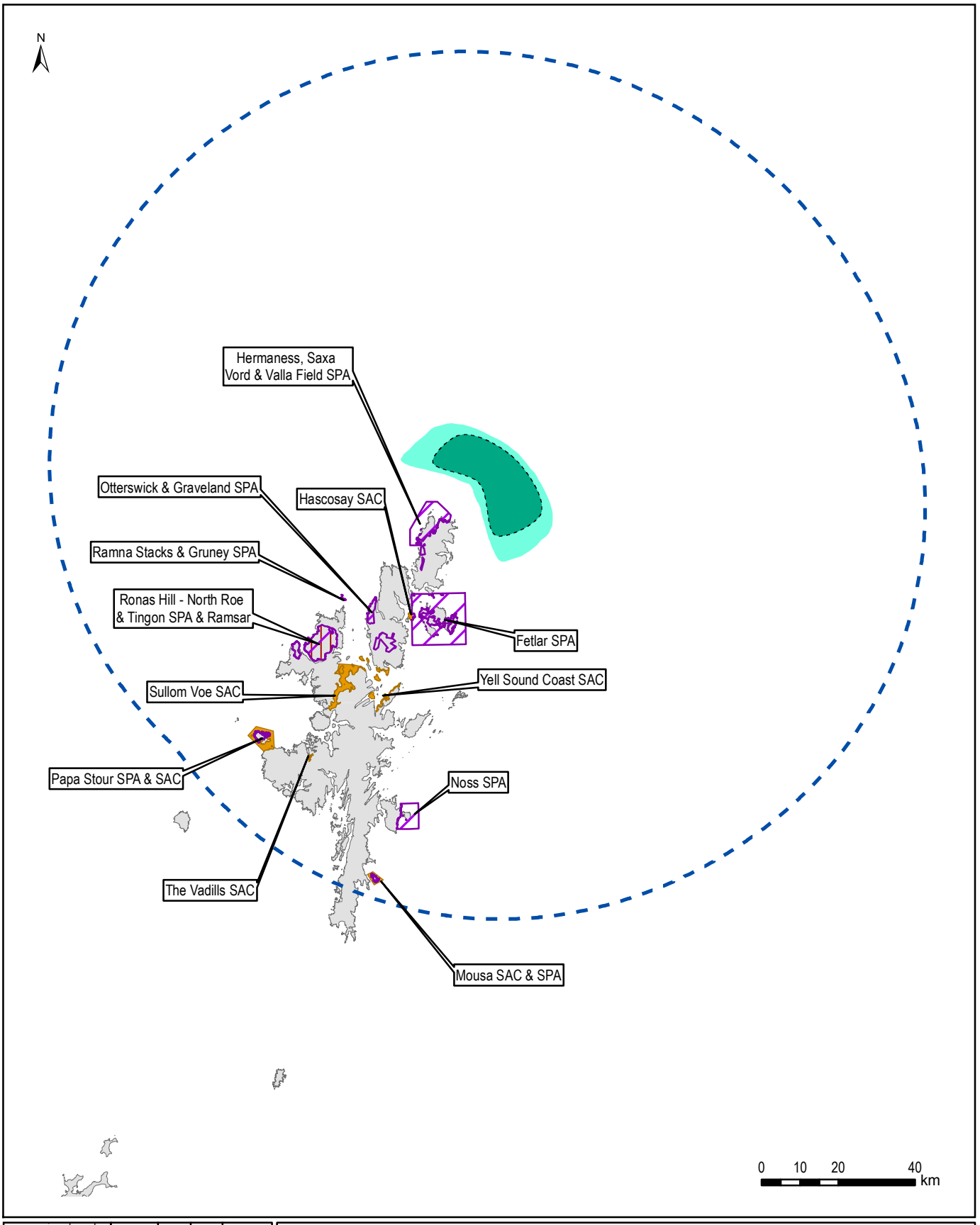
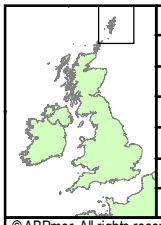
Screening Map for the N7 Medium-term Option Area

Figure MT6





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QA		NKD	
3974_fig_N8.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option N8
- Distance of tidal ellipse zone around N8 (one average spring tidal ellipse)
- 100km zone around N8 area of search
- SAC sites within N8 100km zone
- SPA sites within N8 100km zone
- Ramsar sites within N8 100km zone

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT7)

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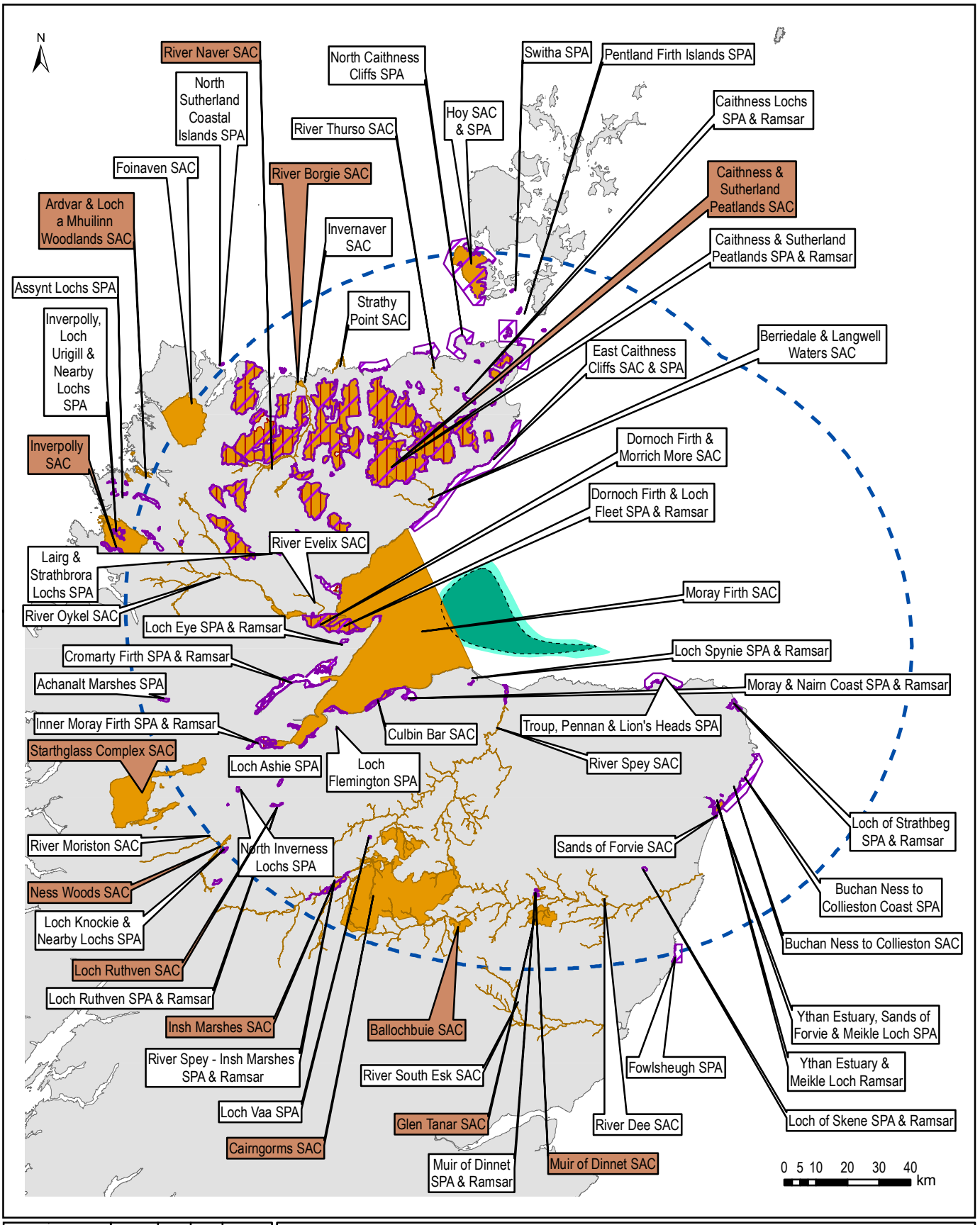
Screening Map for the N8 Medium-term Option Area

Figure MT7



Date	By	Size	Version
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Projection		OSGB 1936	
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QA		NKD	
3974_fig_NE1.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NE1
- Distance of tidal ellipse zone around NE1 (one average spring tidal ellipse)
- 100km zone around NE1 area of search
- SAC sites within NE1 100km zone
- SPA sites within NE1 100km zone
- Ramsar sites within NE1 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT8)

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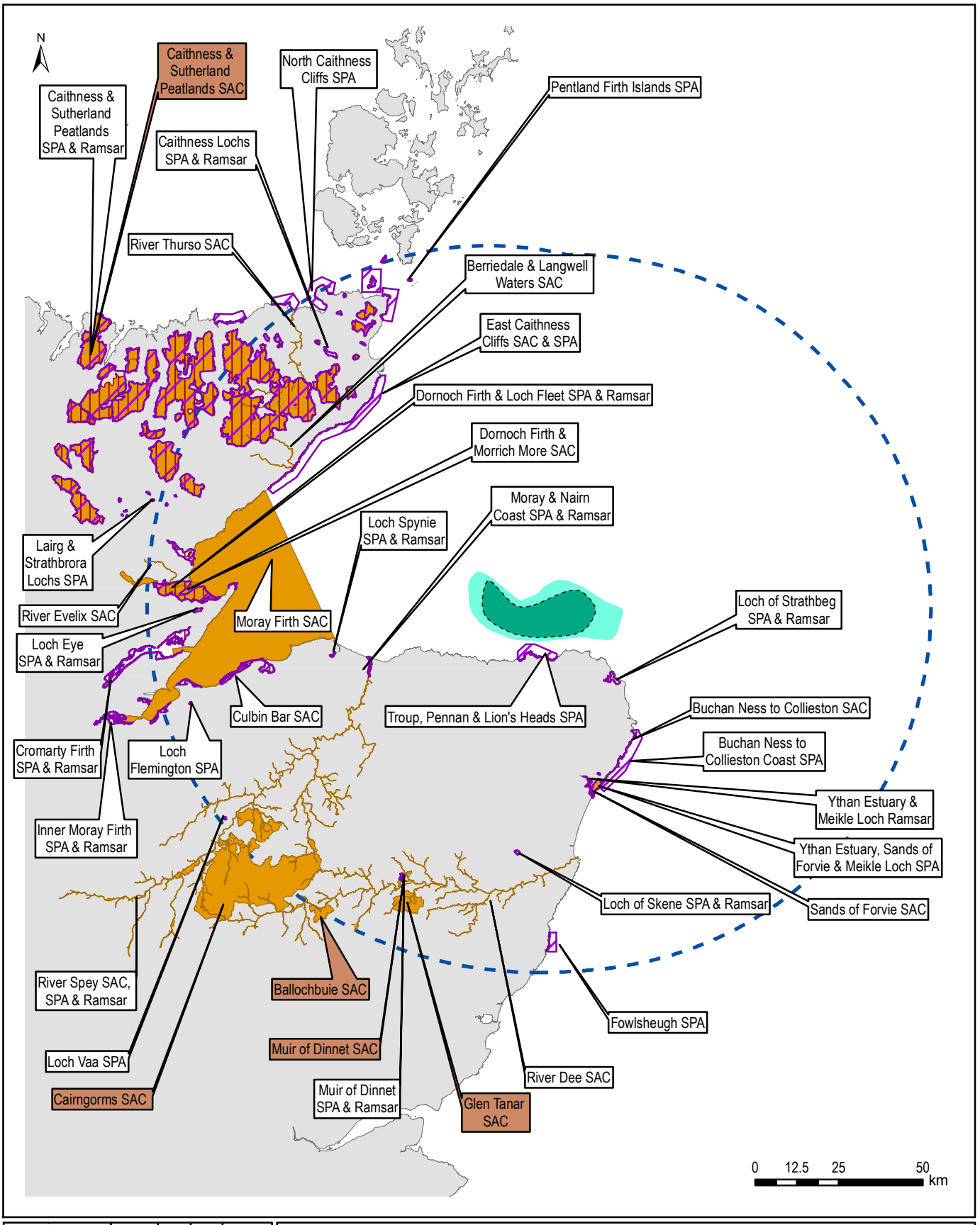
Screening Map for the NE1 Medium-term Option Area

Figure MT8



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,600,000	
QA		NKD	
3974-Fig_NE2.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NE2
- Distance of tidal ellipse zone around NE2 (one average spring ellipse)
- 100km zone around NE area of search
- SPA sites within NE2 100km zone
- SAC sites within NE2 100km zone
- Ramsar sites within NE2 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT9)

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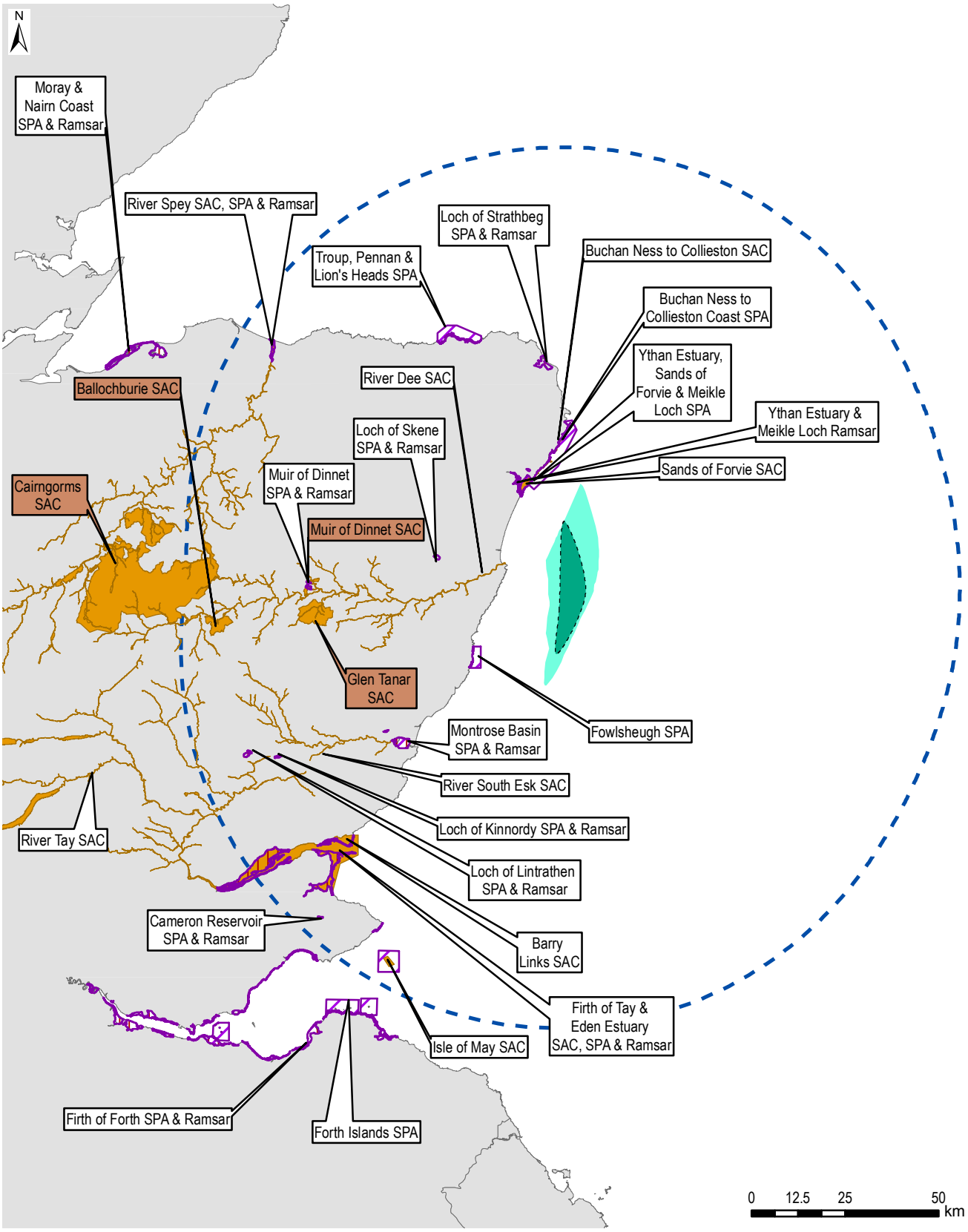
Screening Map for the NE2 Medium-term Option Area

Figure MT9



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,500,000	
QA		NKD	
3974-Fig_NE3.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NE3
- Distance of tidal ellipse zone around NE3 (one average spring tidal ellipse)
- 100km zone around NE3 area of search
- SAC sites within NE3 100km zone
- SPA sites within NE3 100km zone
- Ramsar sites within NE3 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT10)

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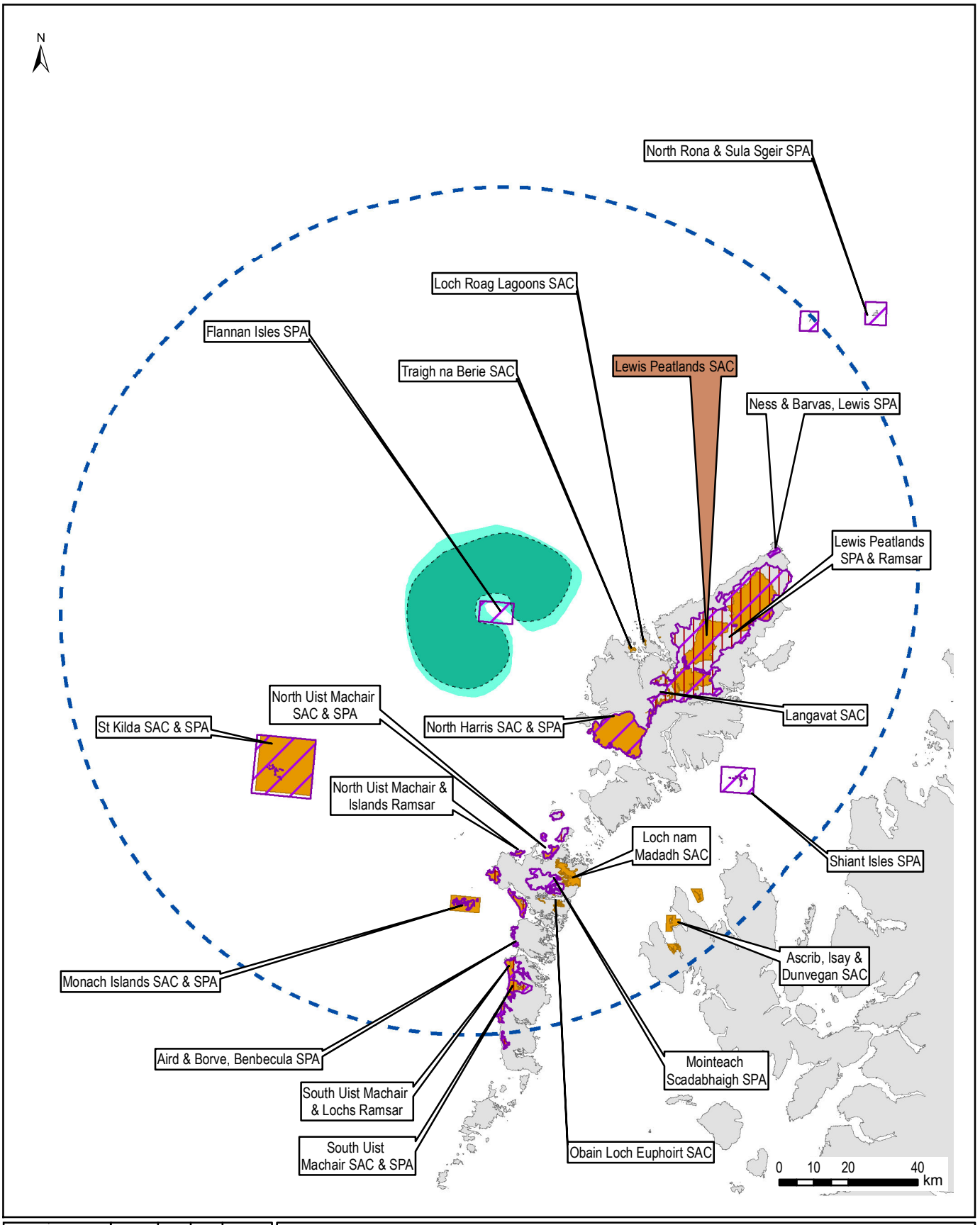
Screening Map for the NE3 Medium-term Option Area

Figure MT10



Date	By	Size	Version
Jan 11	FMM	A4	2
Projection		OSGB 1936	
Scale		1:1,550,000	
QA		NKD	
3974 - fig_NW2.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NW2
- Distance of tidal ellipse zone around NW2 (one average spring tidal ellipse)
- 100km zone around NW2 area of search
- SAC sites within NW2 100km zone
- SPA sites within NW2 100km zone
- Ramsar sites within NW2 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT11)

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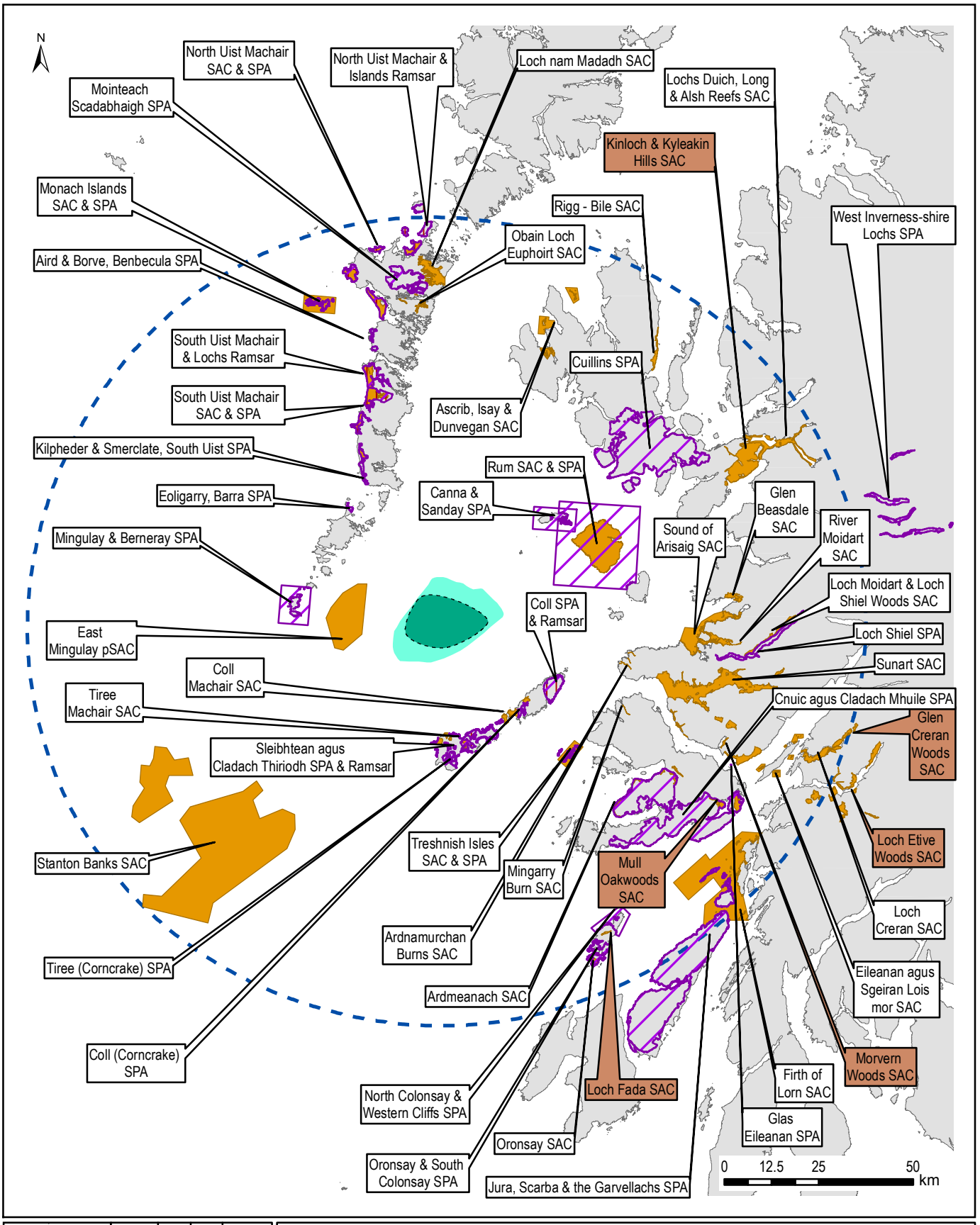
Screening Map for the NW2 Medium-term Option Area

Figure MT11



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3974_fig_NW4.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NW4
- Distance of tidal ellipse zone around NW4 (one average spring tidal ellipse)
- 100km buffer around NW4 area of search
- SAC sites within NW4 100km zone
- SPA sites within NW4 100km zone
- Ramsar sites within NW4 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT12)

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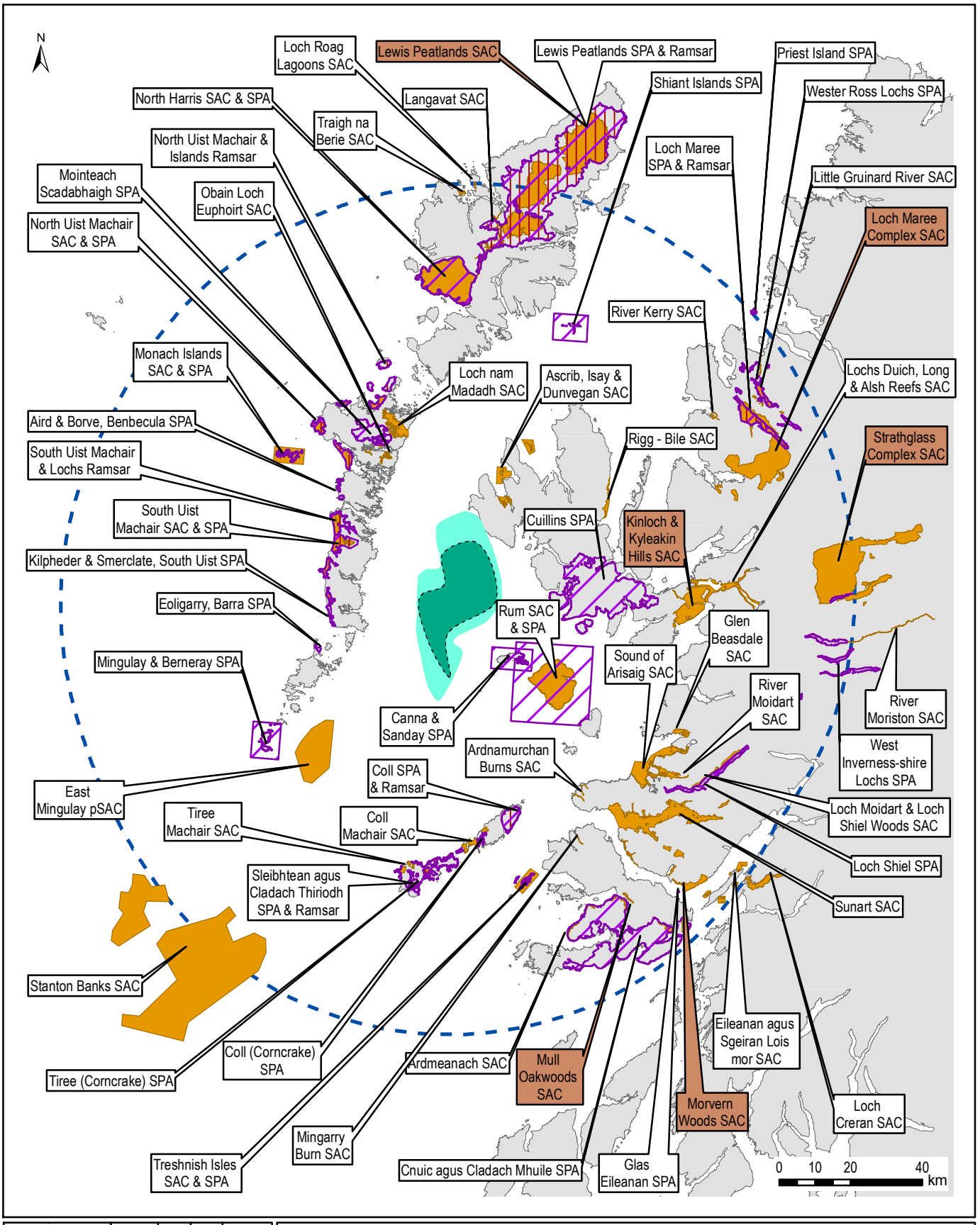
Screening Map for the NW4 Medium-term Option Area

Figure MT12



Date	By	Size	Version
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QA		NKD	
3974_fig_NW5.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NW5
- Distance of tidal ellipse zone around NW5 (one average spring tidal ellipse)
- 100km zone around NW5 area of search
- SAC sites within NW5 100km zone
- SPA sites within NW5 100km zone
- Ramsar sites within NW5 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT13)

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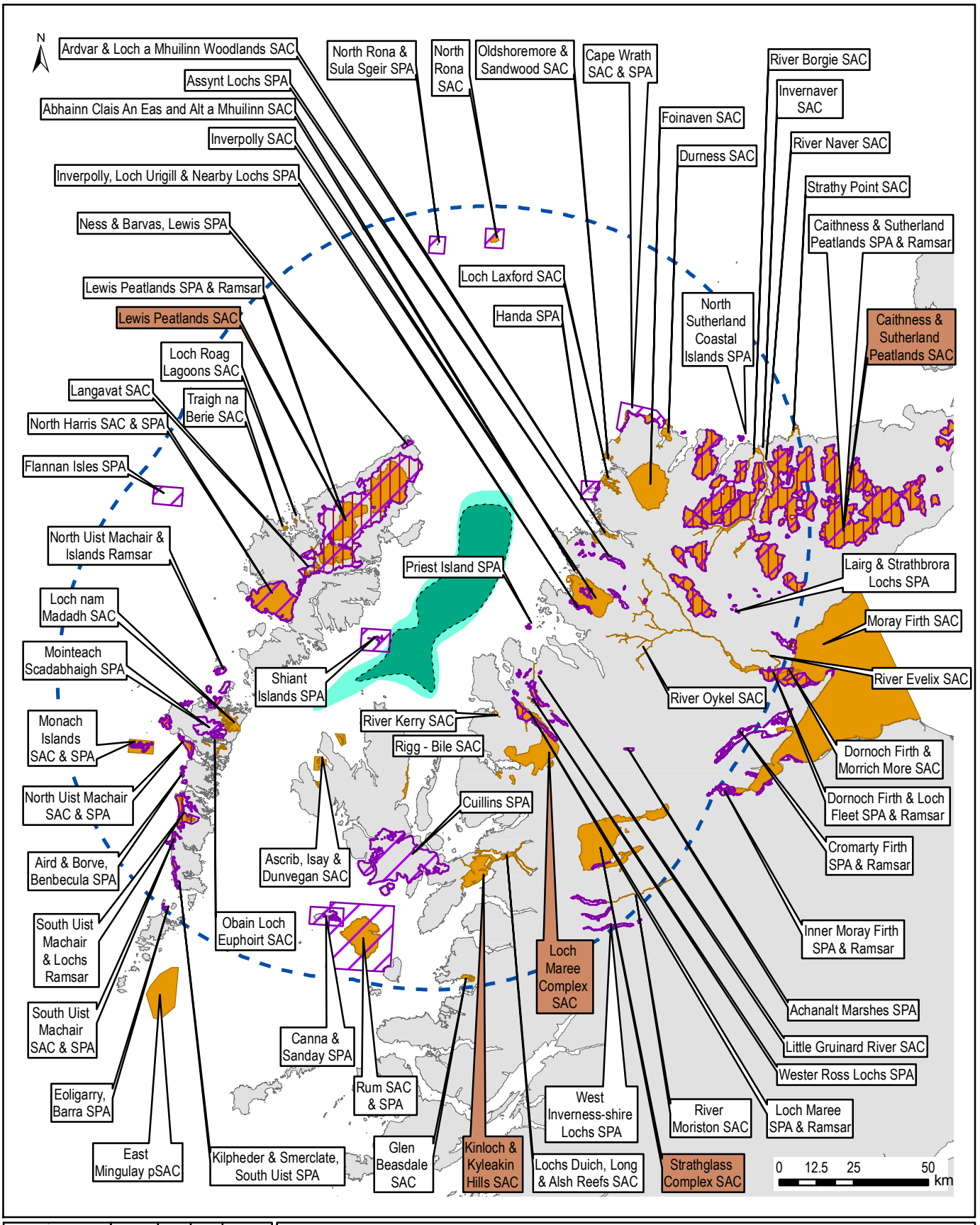
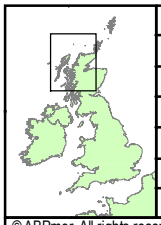
Screening Map for the NW5 Medium-term Option Area

Figure MT13





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3974_fig_NW6.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NW6
- Distance of tidal ellipse zone around NW6 (one average spring tidal ellipse)
- 100km zone around NW6 area of search
- SAC sites within NW6 100km zone
- SPA sites within NW6 100km zone
- Ramsar sites within NW6 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT14)

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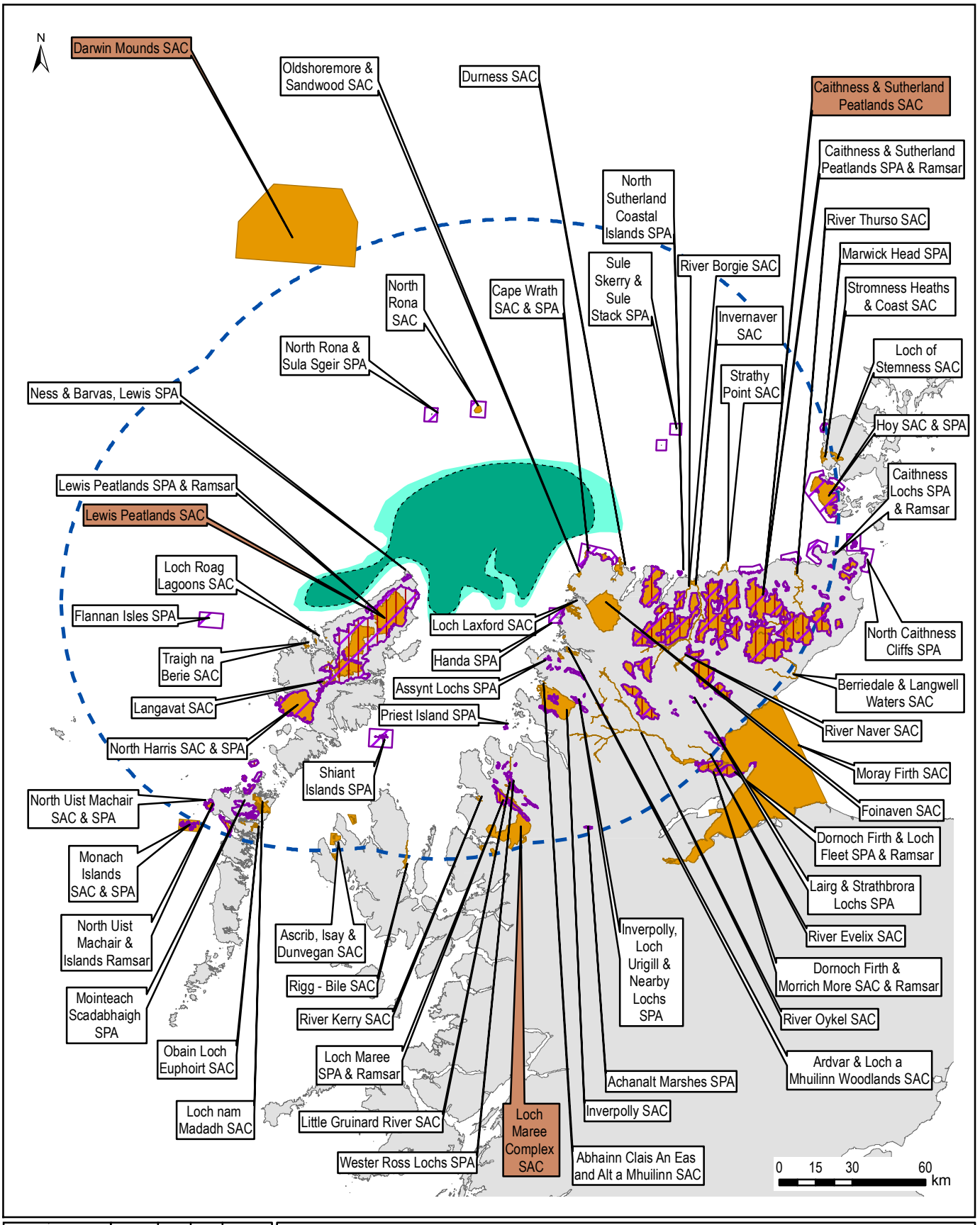
Screening Map for the NW6 Medium-term Option Area

Figure MT14



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QA		NKD	
3974_NW7.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NW7
- Distance of tidal ellipse zone around NW7 (one average spring tidal ellipse)
- 100km zone around NW7 area of search
- SAC sites within NW7 100km zone
- SPA sites within NW7 100km zone
- Ramsar sites within NW7 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT15)

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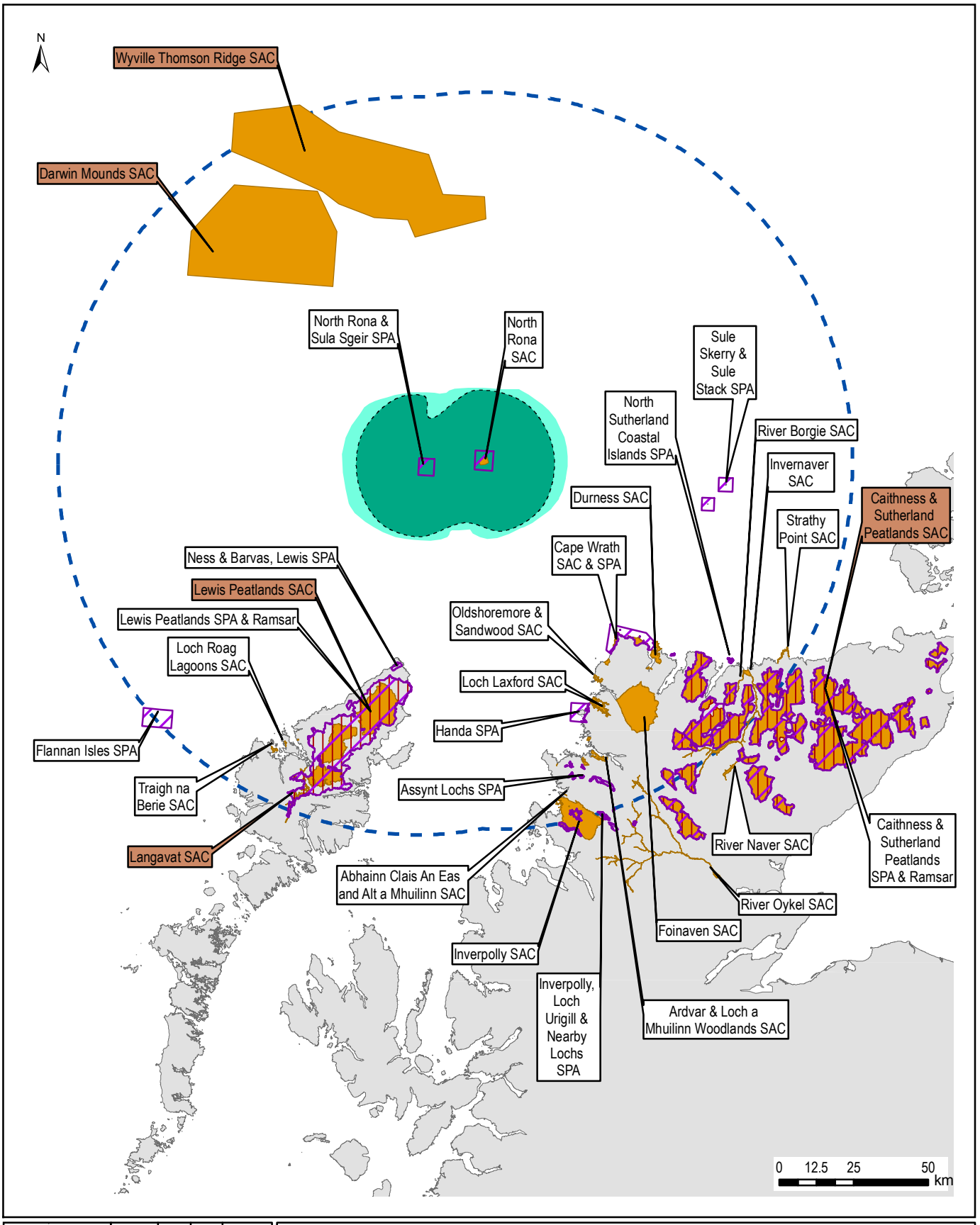
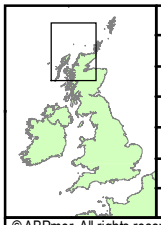
Screening Map for the NW7 Medium-term Option Area

Figure MT15





Date	By	Size	Version
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Scale		1:1,800,000	
QA		NKD	
3974_fig_NW8.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government 2010
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option NW8
- Distance of tidal ellipse zone around NW8 (one average spring tidal ellipse)
- 100km zone around NW8 area of search
- SAC sites within NW8 100km zone
- SPA sites within NW8 100km zone
- Ramsar sites within NW8 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT16)

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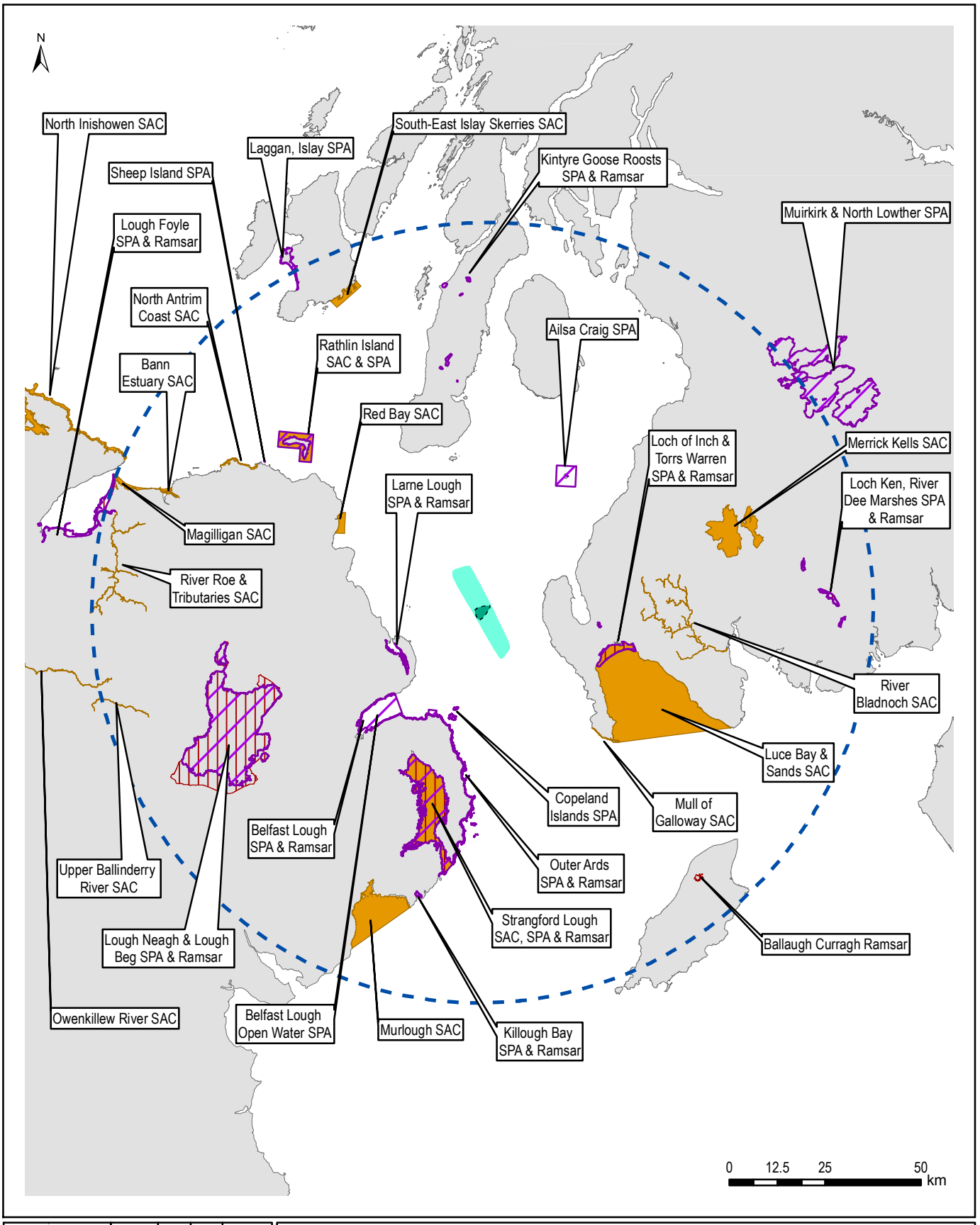
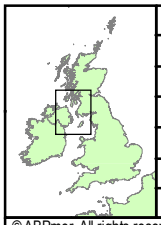
Screening Map for the NW8 Medium-term Option Area

Figure MT16





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Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of Search for Medium-term option SW1
- Distance of tidal ellipse zone around SW1 (one average spring tidal ellipse)
- 100km zone around SW1 area of search
- SAC sites within SW1 100km zone
- SPA sites within SW1 100km zone
- Ramsar sites within SW1 100km zone

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT17)

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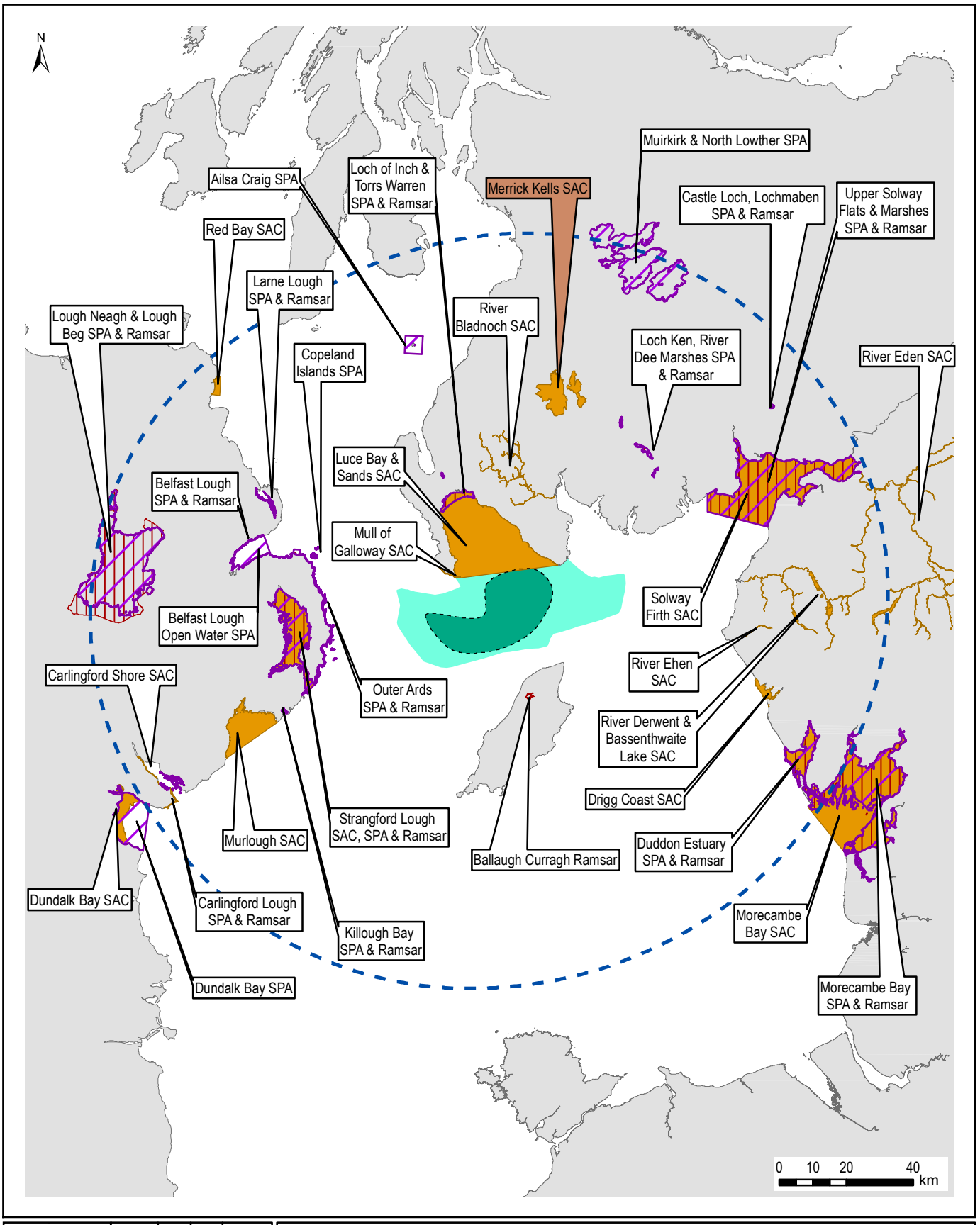
Screening Map for the SW1 Medium-term Option Area

Figure MT17



Date	By	Size	Version
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QA		NKD	
3974 - fig_SW3.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of Search for Medium-term option SW3
- Distance of tidal ellipse zone around SW3 (one average spring tidal ellipse)
- 100km zone around SW3 area of search
- SAC sites within SW3 100km zone
- SPA sites within SW3 100km zone
- Ramsar sites within SW3 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT18)

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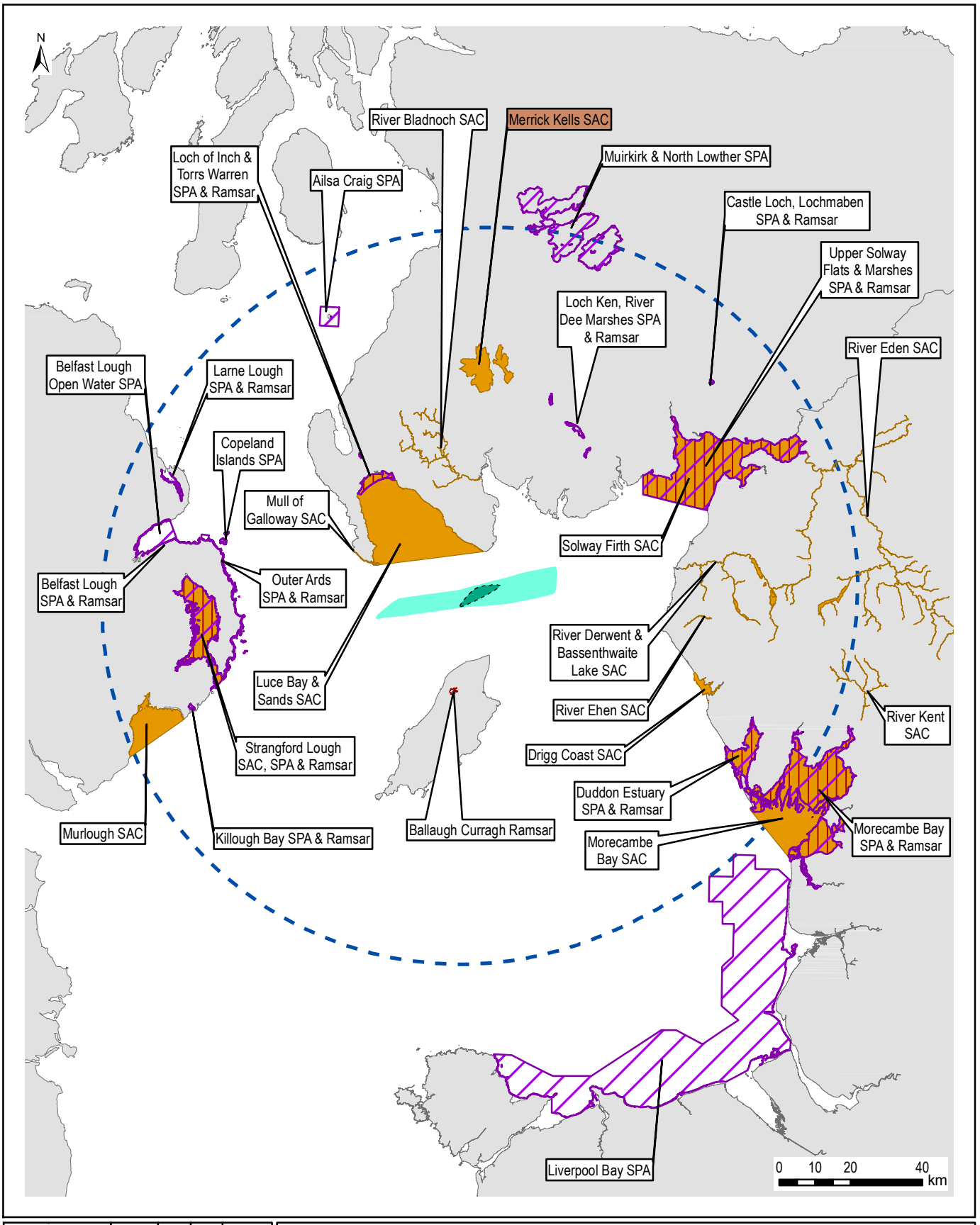
Screening Map for the SW3 Medium-term Option Area

Figure MT18



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,500,000	
QA		NKD	
3974 - fig_SW4.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option SW4
- Distance of tidal ellipse zone around SW4 (one average spring tidal ellipse)
- 100km zone around SW4 area of search
- SAC sites within SW4 100km zone
- SPA sites within SW4 100km zone
- Ramsar sites within SW4 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT19)

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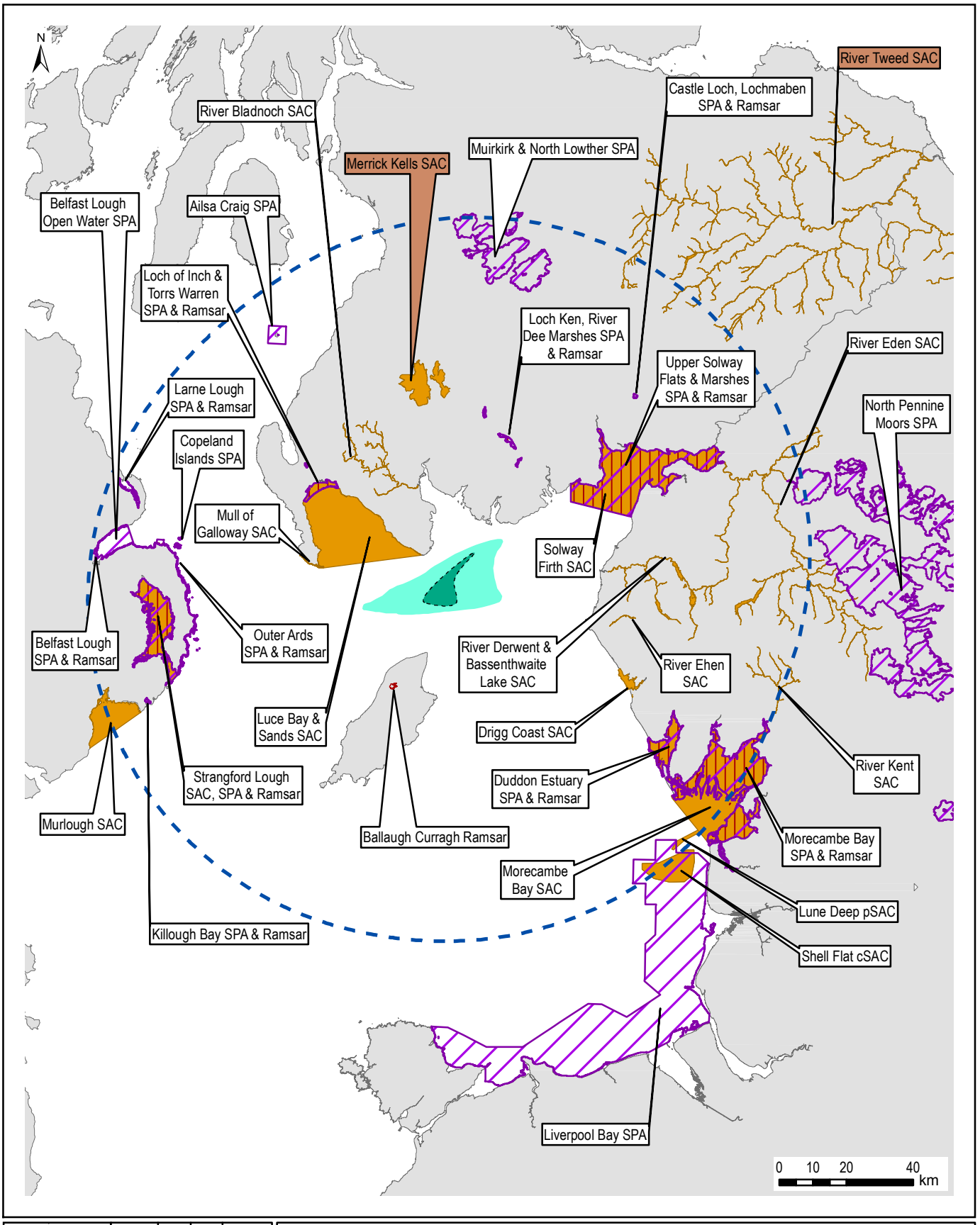
Screening Map for the SW4 Medium-term Option Area

Figure MT19



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,600,000	
QA		NKD	
3974 - fig_SW5.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option SW5
- Distance of tidal ellipse zone around SW5 (one average spring tidal ellipse)
- 100km zone around SW5 area of search
- SAC sites within SW5 100km zone
- SPA sites within SW5 100km zone
- Ramsar sites within SW5 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT20)

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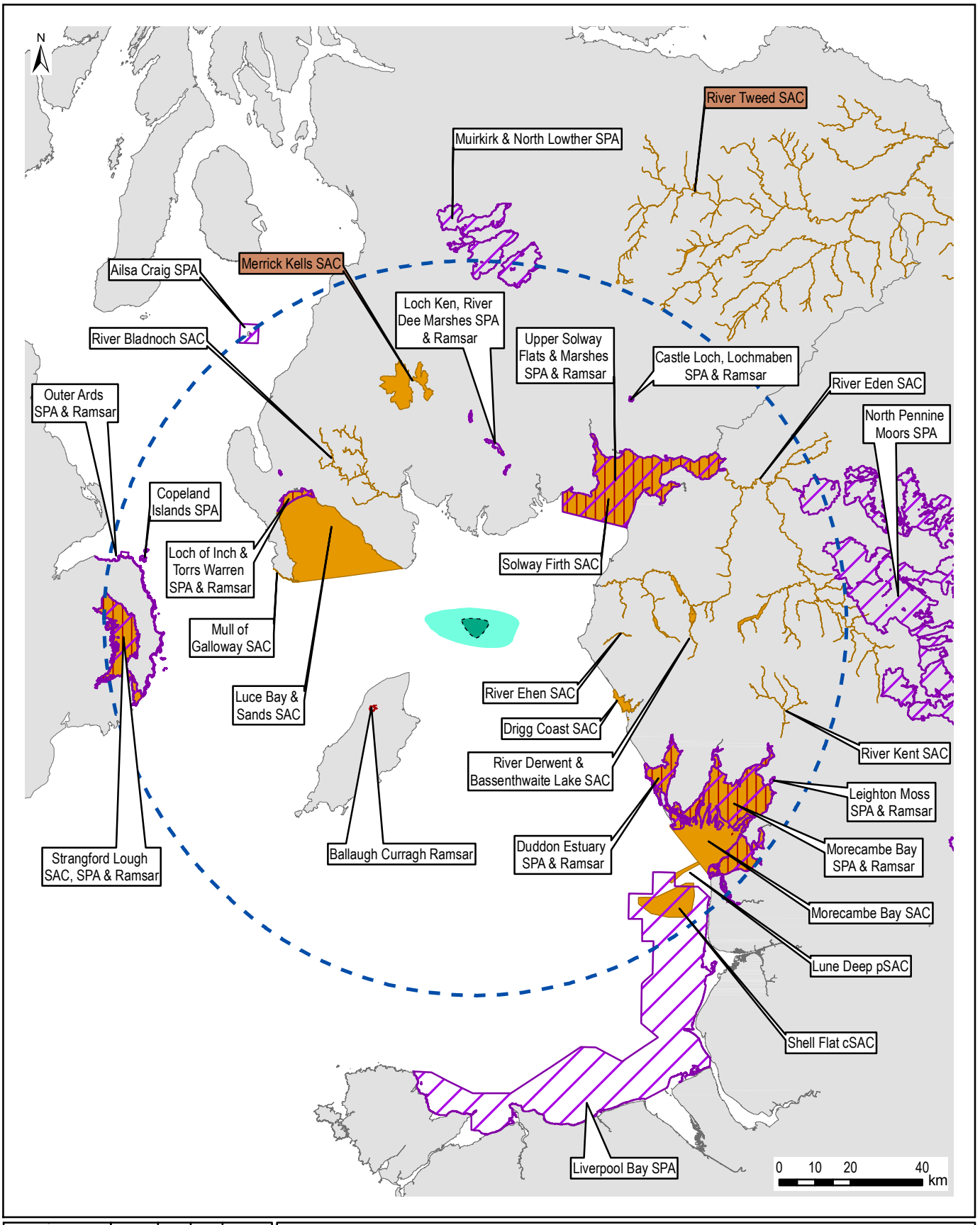
Screening Map for the SW5 Medium-term Option Area

Figure MT20



Date	By	Size	Version
Nov 10	FMM	A4	1
Projection		OSGB 1936	
Scale		1:1,500,000	
QA		NKD	
3974 - fig_SW6.mxd			
Produced by ABPmer Ltd			

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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option SW6
- Distance of tidal ellipse zone around SW6 (one average spring tidal ellipse)
- 100km zone around SW6 area of search
- SAC sites within SW6 100km zone
- SPA sites within SW6 100km zone
- Ramsar sites within SW6 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT21)

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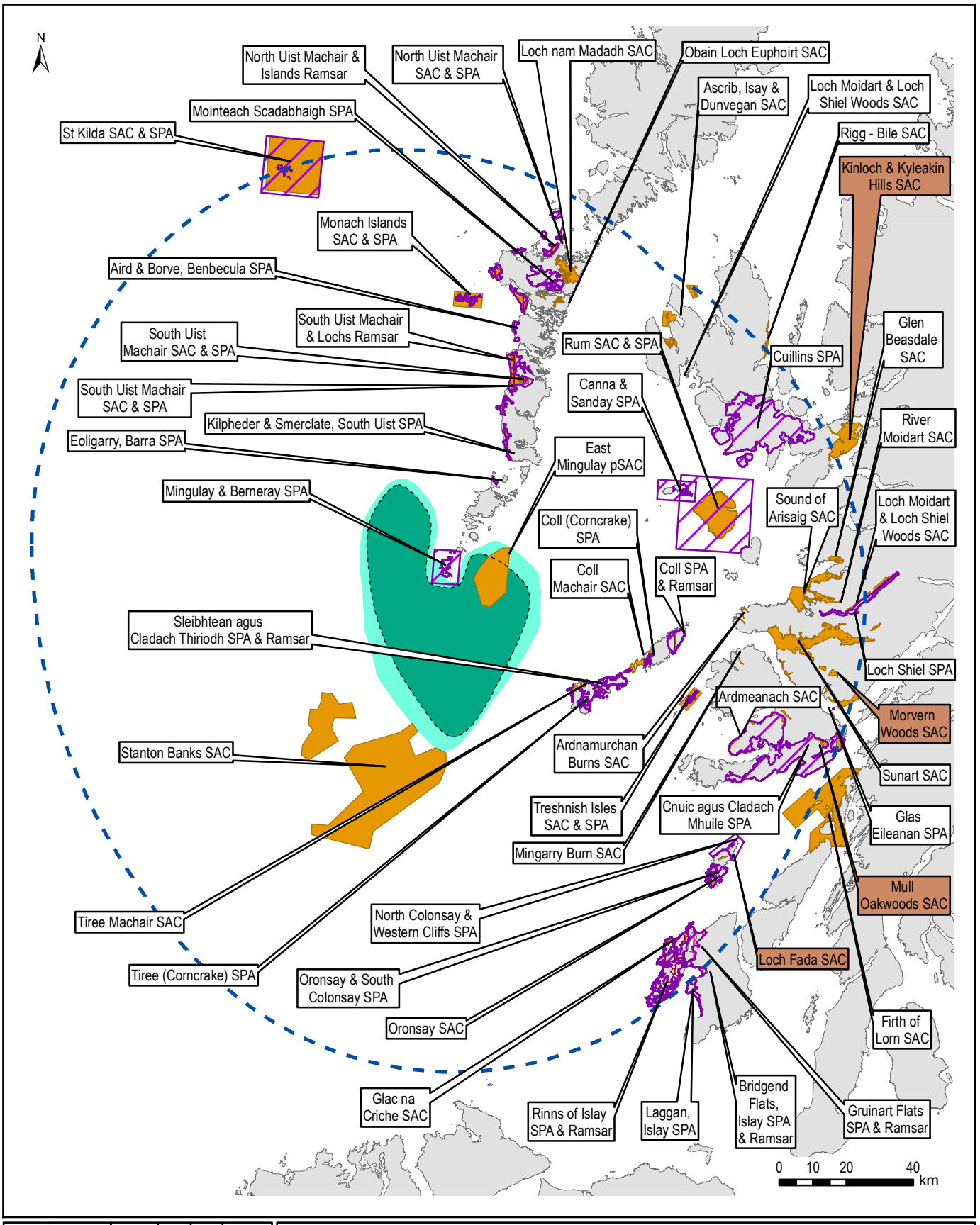
Screening Map for the SW6 Medium-term Option Area

Figure MT21



Date	By	Size	Version
Jan 11	FMM	A4	2
Projection		OSGB 1936	
Scale		1:1,600,000	
QA		NKD	
3974 - fig_W1.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option W1
- Distance of tidal ellipse zone around W1 (one average spring tidal ellipse)
- 100km zone around W1 area of search
- SAC sites within W1 100km zone
- SPA sites within W1 100km zone
- Ramsar sites within W1 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT22)

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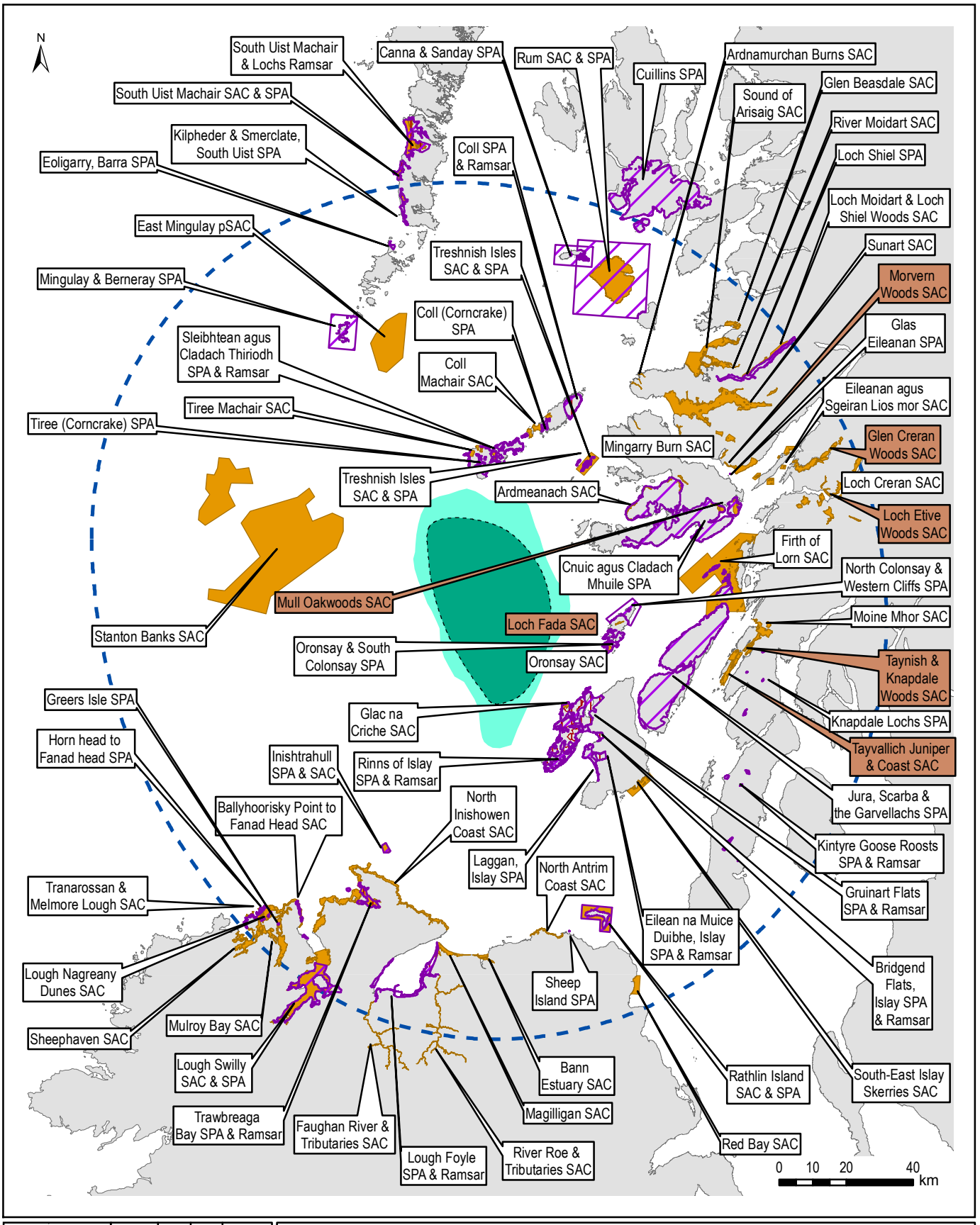
Screening Map for the W1 Medium-term Option Area

Figure MT22



Date	By	Size	Version
Jan 11	FMM	A4	2
Projection		OSGB 1936	
Scale		1:1,600,000	
QA		NKD	
3974 - fig_W2.mxd			
Produced by ABPmer Ltd			

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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option W2
- Distance of tidal ellipse zone around W2 (one average tidal ellipse)
- 100km zone around W2 area of search
- SAC sites within W2 100km zone
- SPA sites within W2 100km zone
- Ramsar sites within W2 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT23)

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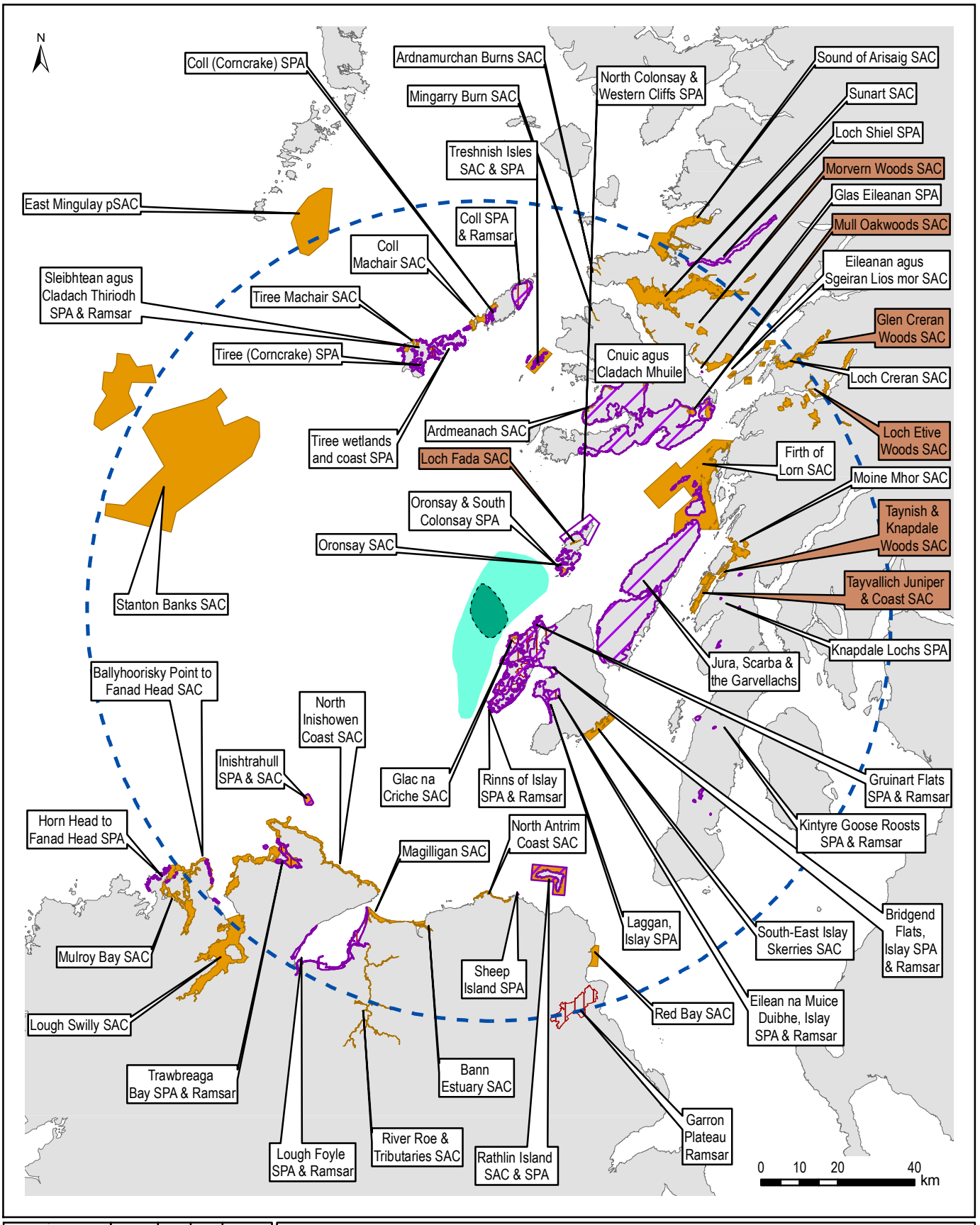
Screening Map for the W2 Medium-term Option Area

Figure MT23



Date	By	Size	Version
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Projection		OSGB 1936	
Scale		1:1,400,000	
QA		NKD	
3974 - fig_W3.mxd			
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NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option W3
- Distance of tidal ellipse zone around W3 (one average spring tidal ellipse)
- 100km zone around W3 area of search
- SAC sites within W3 100km zone
- SPA sites within W3 100km zone
- Ramsar sites within W3 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT24)

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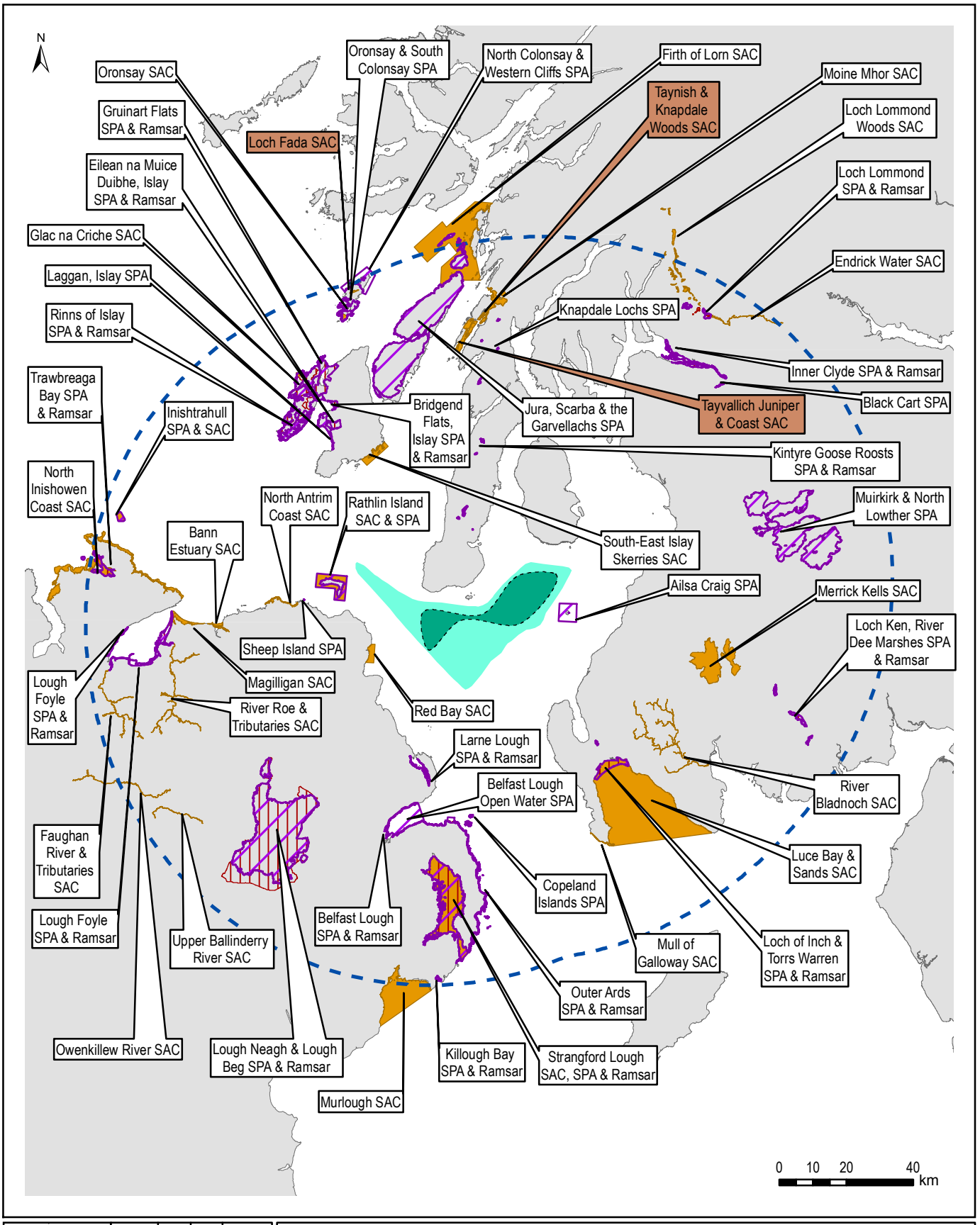
Screening Map for the W3 Medium-term Option Area

Figure MT24



Date	By	Size	Version
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QA		NKD	
3974 - fig_W4.mxd			
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Data Sources: JNCC, 2010 & The Scottish Government, 2010.
NOT TO BE USED FOR NAVIGATION

- Area of search for Medium-term option W4
- Distance of tidal ellipse zone around W4 (one average spring tidal ellipse)
- 100km zone around W4 area of search
- SAC sites within W4 100km zone
- SPA sites within W4 100km zone
- Ramsar sites within W4 100km zone
- European/Ramsar site removed at screening stage

NB European/Ramsar sites outside this 100km will also need to be considered. For these please refer to the report text and the Appendix C tables (as well as Schedule Table MT25)

ABP mer marine environmental research

Screening Map for the W4 Medium-term Option Area

Figure MT25

Appendix D
Seabird Foraging and Migratory Baseline Review for the Draft OWE Plan HRA

Appendix D. Seabird Foraging and Migratory Baseline Review for the Draft OWE Plan HRA

D1. Introduction

To inform the HRA for the Draft OWE Plan HRA, this appendix reviews what is known about the foraging behaviour and migration routes of coastal and offshore bird colonies (overwintering and breeding populations).

D2. Seabird Foraging Behaviour

The distances over which waterbirds forage offshore has been initially reviewed to inform both the screening and assessment phases for the HRA. For this review, information was drawn upon from a range of studies including the review of seabird foraging distances that was undertaken by BTO (Roos *et al* 2009) as part of the PFSA HRA work (ABPmer, 2010), and reports reviewed therein including; Dillon *et al.,* (2009), Furness and Tasker (2000), Hamer *et al.,* (2000, 2001, 2007), Suryan *et al.* (2000), Thaxter *et al.* (2010) and Wanless *et al.* (1990, 1991, 1998). The online BirdLife International (2010) seabird foraging database[21] was also reviewed along with a number of other papers including; BirdLife International (2000), Fenny & Walls (2009) and Ratcliffe *et al.* (2000) and the maximum foraging ranges for each species were identified. The reference section in each of the retrieved papers was also scanned to make sure that no relevant key studies were missed. Where possible the methodology used in each study was identified, as different approaches may have intrinsic problems. The results are presented as a summary table showing maximum foraging ranges for each species along with text summaries for each of the species that forage over the greatest distances offshore.

This summary review is designed to provide guidance of the sites and species that need to be considered during the screening and assessment work for this Plan-level HRA as well as for future project-level HRAs. Focus is on seabirds foraging offshore as opposed to species (especially waders) that forage in intertidal areas. In summary the factors that might affect offshore seabird foraging range distances include:

- Spatial variation in food abundance (including anthropogenic factors such as fishing vessels);
- The risk of predation/kleptoparasitism by other bird species;
- The importance of nest attending to incubate eggs and protect nest from predators; and
- Weather and climatological factors (British Trust for Ornithology (Roos *et al*., 2009).

The distances that are typically covered by seabirds foraging offshore varies greatly between species (see Table D1) and our research and understanding of their foraging behaviour has increased in recent years. As part of this research increasingly novel techniques and technologies are being developed to track birds and to investigate foraging behaviour in particular. Over relatively short distances and timescales transects, ship-based surveys and radio-telemetry have been used (Perrow *et al.,* 2006; Wilson *et al.,* 2009). To track birds over considerably greater distances and over larger time frames GPS data loggers are deployed, however they necessitate recovery of the data logger to extract information, or close approach for remote data download (Guilford *et al.,* 2008). The greatest opportunity to follow birds over potentially huge distances and over extended time periods comes from

[21] http://seabird.wikispaces.com/

satellite tracking, but at present this is only useful for birds of large body size such as northern gannet (Hamer *et al.,* 2000; 2001; 2007). Radar is one of the more powerful tools available to describe the movement of birds in three-dimensional space and its use has been long-established and well described (Desholm *et al.,* 2004). Relationships between foraging trip duration and, respectively, maximum distance from the colony and total trip distance have also been estimated for many bird species to determine foraging behaviour (Hamer *et al.,* 2007).

Table D1. Foraging ranges of breeding seabirds (from breeding colonies) taken from a number of literature sources

Species Common Name	Maximum Foraging Range (km)					
	BirdLife International (2010)	BLI Mean Max	BTO Review (Roos *et al.*, 2009 in ABPmer 2010)	Furness & Tasker (2000)	Ratcliffe et *al.* (2000)	Fenny & Walls (2009)
Arctic Skua	100	40	Unknown	<10		
Arctic Tern	20.6	12	25	<5		20-30
Atlantic Puffin*	200	62	137	<50		40
Black Guillemot	55	12				
Black-headed Gull					<15	
Black-legged Kittiwake*	200	66	83	<50		40
Common Eider	100	38				
Common Guillemot*	200	61	123	<50		40
Common Gull					<15	
Common Scoter*	200	8	Unknown	-		
Common Tern	37	34				20-30
European Shag	20	16	17	<10		15
European Storm Petrel			Unknown	<50	<100	
Great Black-backed Gull			Unknown	<10	<40	40
Great Cormorant	50	32	35	<5		15
Great Skua	100	42	Indirect estimate 31	<10		
Herring Gull			54	<10	<40	40
Leach's Storm Petrel			Unknown	<50	<100	
Lesser Black-backed Gull					<40	40
Little Gull	50					
Little Tern	11	7				20-30
Manx Shearwater*	400	196	330	>50		
Northern Fulmar*	664	311	245	>50		>100
Northern Gannet*	640	308	540	>50		>100
Razorbill*	51	31	150	<20		40
Red-throated diver	50	12	13	<5		
Roseate Tern	30	18				20-30
Sandwich tern	70	42				20-30
Velvet Scoter	20					

* = >100km maximum foraging range;
NB Species highlighted in blue and shaded are reviewed in more detail below

Although foraging distances are relatively well understood, little is known about foraging direction. Hamer *et al.* (2007) produced a study into the foraging behaviour of gannets in the North Sea and found that they tended to forage repeatedly over a narrow range of bearings, despite marked annual variations in foraging ranges and trip durations (Image D1). Hamer *et al.* (2001) also recorded gannets foraging repeatedly over a narrow range of bearings from their breeding location at Bass Rock. This

study also observed gannets switching to a separate range of bearings in a markedly different direction from the breeding colony, providing strong evidence that on subsequent foraging trips individuals remembered the directions to feeding sites (Hamer *et al.,* 2007). However, conversely to this, birds at a much smaller site in the Celtic Sea (Great Saltee) did not show this pattern (Hamer *et al.*, 2001). Hamer *et al.* (2007) concluded that these differences in the consistency of foraging locations were related mainly to difference in the spatial and temporal predictability of prey resources in the North Sea and Celtic Sea.

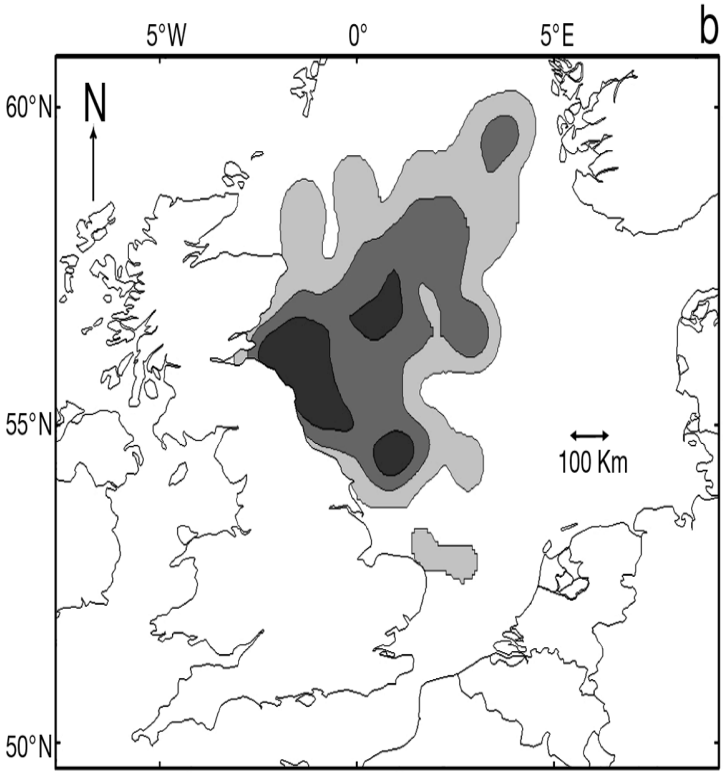


Image D1. Representation of one of the maps produced in Hamer *et al*. (2007) indicating the foraging locations of Northern Gannet from Bass Rock in 2002

The review undertaken by BTO as part of the PFSA HRA work (Roos *et al*., 2009 in ABPmer, 2010) identified the maximum distances seabirds foraged based on a review of studies including RSPB (2000), Furness & Tasker (2000) and Thaxter *et al*. (2010) along with the UK Seabirds at Sea data (JNCC 2009). This study found that most birds typically forage within 100km of breeding site with the exception of the following species (for which the foraging distances are highlighted in brackets): Razorbill (150km); Guillemot (123km); Puffin (137km); Fulmar (245km); Gannet (540km); Manx Shearwater (330km). Following a further review of the available information and, based on advice from SNH, appendix has included relevant information from the BirdLife International (2010) seabird foraging database on maximum foraging distances for key species (see Table D1). Using the information, as set out in Table D1, the species with maximum foraging distances greater than 100km include; (maximum foraging distances are highlighted in brackets)

- Atlantic Puffin (200km);
- Black-legged Kittiwake (200km);
- Common Guillemot (200km);

- Common Scoter (200km);
- Manx Shearwater (400km);
- Northern Fulmar (664km);
- Northern Gannet (640km); and
- Razorbill (150km).

In addition to the above sources of information we note that further details about the maximum foraging distances can be obtained from the Interreg FAME project (Aedán Smith, RSPB Pers. Comm.)[22]. Fieldwork for this project in 2010 recorded the following foraging ranges using high-resolution GPS tags:

- Fulmar 506km
- Kittiwake 231km
- Razorbill 213km

The distances found for Kittiwake and Razorbill are greater than those referenced above. For this review of foraging distances and the HRA screening work ABPmer, with advice from SNH and JNCC, focused on using the data in the Birdlife international foraging database to identify the maximum foraging distances. However, other studies such as this FAME project will need to be re-considered further as part of future project-level HRAs to ensure that proposed developments do not have an adverse effect on forging seabirds.

D2.1 Species Review

Those species listed-above which forage over long distances have been included in more detail in the following review. These species are reviewed particularly because the could forage within the short of medium term option areas even though the designated European/Ramsar sites for which they are a qualifying interest features lies at some distance away. In particular, because they forage over distances of greater than 100km, the designated sites for which they are feature could lie outside the 100km boundary area that was used to inform the screening of the AA. In addition, the Arctic Skua, Common Eider and Great Skua which have relatively lager foraging distances (100km) have also been reviewed (although where these are qualifying features for a designated they would be automatically screened in using the 100km boundary approach adopted). These reviews of foraging distances for individual species draw predominantly upon the information contained within the online BirdLife International (2010) seabird foraging database.

D2.1.1 Arctic Skua *Stercorarius parasiticus*

There is little detailed information on the foraging ranges of Arctic Skuas, but since the majority of breeding birds in the north-east Atlantic and non-breeders in other regions are kleptoparasites (a form of feeding in which one animal takes prey or other food from another), their foraging distributions are largely determined by opportunities for kleptoparasitism, most of which takes place close to host colonies (BirdLife International, 2010).

22 Background to this ongoing project is available here: http://www.rspb.org.uk/ourwork/projects/details/255106-future-of-the-atlantic-marine-environment-fame-

Studies by Furness (1978) and Phillips (1995) observed very few patrolling Arctic Skuas on the island of Foula, Shetland, more than 2km from the coast, and pursuit of hosts appeared to be initiated within 1km of two principal sites, both of which were located within less than 2-3km of all Skua territories on the island. Briggs *et al.,* (1987) however reported Arctic Skuas occasionally as far as 75km off the California coast, although most were found within 15km or in estuaries, often with colonies of terns or small gulls (Stallcup, 1990).

For the purposes of this draft OWE Plan HRA, the maximum quoted foraging range of 100km has been assumed for Arctic Skua (see Table D1) as quoted by BirdLife International (2010).

D2.1.2 Atlantic Puffin

There are few studies containing direct information on the foraging range of Atlantic Puffins. An individual Puffin breeding on Isle of May, Scotland, was studied during the breeding season 1987 using a radio transmitter. Of the trips made 64% were within 2km, 7% between 2-10km and 29% more than 10km (Wanless *et al.,* 1990). Transect surveys around the Isle of May also found that Puffins were most common close to the colony but on some occasions birds occurred at a sandbank, the Wee Bankie, 40km away.

After a crash of herring stocks near to the colony, Puffins at Røst Island, Norway were observed to travel at least 137km to fishing grounds (Anker-Nilssen and Lorentsen, 1990). Another study (Pearson, 1968) also estimated that Puffins breeding on the Farne Islands could forage a maximum distance of 137km from the colony. On the basis of average trip durations at UK colonies (various sources) and flight speeds of 82km/h one study suggested a potential range of over 200km from Great Island, Newfoundland, Canada (Bradstreet & Brown, 1985). Although this method of calculating foraging range has been criticised as being inaccurate and may be an overestimate, the conservative estimate by Bradstreet & Brown (1985) of 200km has been given as a maximum foraging range for Atlantic Puffin. Therefore the purposes of this draft OWE Plan HRA, this maximum quoted foraging range has been assumed for Puffin (see Table D1) as also quoted by BirdLife International (2010).

D2.1.3 Black-legged Kittiwake *Rissa tridactyla*

The foraging range of Kittiwakes has been widely studied using a range of techniques. Radio tracked Kittiwakes were found to forage a maximum of 62km in Prince William Sound, Alaska (Ostrand *et al.,* 1998), and over 40km at Sumburgh Head, Scotland (Hamer *et al.,* 1993). Kittiwakes have also been calculated to forage 55km from a colony at Farne Island based on mean trip duration of 158 min during chick-rearing, and a flight speed of 48km/h (Pearson, 1968). A study at Prince Leopold Island, Canada used aerial surveys of Kittiwake densities. They found that during chick-rearing Kittiwakes were most abundant within 48km of the colony, although some large concentrations were found up to twice that distance away (Nettleship & Gaston, 1978). High concentrations of Kittiwakes have also been observed 20-30km from the nearest colonies at Caithness, Scotland (Mudge & Crooke, 1986) and at 30km from a colony on the Isle of May (Wanless *et al.,* 1998). Both Daunt *et al.,* (2002) and Humphreys *et al.,* (2006) recorded that the maximum foraging range for Kittiwakes on the Isle of May was 83km.

Foraging distances have shown to be dependent on prey availability. Suryan *et al.,* (2000) found that increased foraging distance at two separate colonies at Prince William Sound, Alaska were associated

with low prey abundance. In years where herring dominated diets mean distance to the farthest feeding location was 40km, whereas when Kittiwakes consumed other species foraging distance increased to 60km, with the maximum recorded foraging range being 120km (Suryan *et al.,* 2000).

For the purposes of this draft OWE Plan HRA, the maximum quoted foraging range of 200km has been assumed for Kittiwake (see Table D1) as quoted by BirdLife International (2010).

D2.1.4 Common Eider

Two studies observed Common Eider foraging very close to shore, within 50m, in southwest Greenland (Merkel & Mosbech, 2008) and southeast Newfoundland (Goudie & Ankney, 1988). Durinck *et al.,* (1994) and Petersen *et al.,* (2003) studied Common Eider at Kattegat, Denmark, recording large concentrations 40km and 20km offshore respectively. Common Eider has also been observed much further offshore. Merkel *et al.,* (2006) fitted satellite transmitters to Common Eiders and observed that wintering birds in southwest Greenland had a mean home range size of 68km. Cooch (1965) however suggested the maximum foraging range used by nesting females could be over 80km and Goudie *et al.,* (2000) reported Common Eiders flew 50-100km to feed. Although this maximum foraging range has been observed in North America it has been taken as a precautionary estimate of maximum foraging range for this study. For the purposes of this draft OWE Plan HRA, the maximum quoted foraging range of 100km has been assumed for Common Eider (see Table D1) as also quoted by BirdLife International (2010).

D2.1.5 Common Guillemot *Uria aalge*

The foraging behaviour of auks, including foraging range, has been studied in depth for many years throughout the UK and North America using a variety of different methods. Numerous studies have taken place in Scotland, in particular at the Isle of May (Tasker *et al.,* 1987, Thaxter *et al.,* 2009; 2010, Wanless *et al.,* 1990; 1998). The most recent of these surveys by Thaxter *et al.,* used bird-borne compass loggers to study foraging ranges. Thaxter *et al.,* (2009) found that of 19 Common Guillemots breeding on the Isle of May (28 trips from 11 males plus 29 trips from 8 females), the maximum range for males was 14.4 ± 6.6km and 7.9 ± 5.3km for females. During a similar study Thaxter *et al.,* (2010) observed 61 Guillemots travel an average distance of 34.5km/trip (±29.8), with the maximum observed distance from the colony being 14.1km (±12.2).

A study from North America (Cairns *et al.,* 1987), used data loggers in combination with recorded flight speed, to estimate that the longest foraging range for Guillemots was 123km during incubation and 80km during chick rearing. However, median foraging ranges were much smaller.

For the purposes of this draft OWE HRA Plan, the maximum quoted foraging range of 200km has been assumed for Common Guillemot (see Table D1) as quoted by BirdLife International (2010).

D2.1.6 Common Scoter

A number of studies into the foraging range of Common Scoter have taken place off the Welsh coast. At Llanfairfechan concentrations of birds were found between 1-4km offshore and at Red Wharf Bay the majority of birds were more than 3km offshore (Kaiser, 2004). In Conwy Bay birds were also recorded 3-4km offshore (Kaiser *et al.,* 2006). However, studies over Lithuania and Estonia, using

radar observations, recorded massive summer movements of Scoter with birds travelling 20-30km from the shore over the Baltic Sea (Kumari, 1979; Zalakevicius & Jacoby, 1992).

Based on an estimate by BirdLife International (2010), the maximum foraging range of Common Scoter has been given in Table D1 as 200km and this value has been used for the purposes of this draft OWE Plan HRA.

D2.1.7 Great Skua *Catharacta Skua*

As with the Arctic Skua, there is little detailed information on the foraging ranges of Great Skua. A number of studies (Votier *et al.,* 2004; 2006, Wood, 1989) have found that Great Skuas feeding on seabird prey tend to have small foraging ranges confined to the coastline of their breeding colonies, and seldom move more than 2km from their nest site (Votier *et al.,* 2004).

In contrast Skuas feeding on fish will often travel long distances to find them at sea. The study by Votier *et al.,* (2004) used radio-transmitters to track Great Skuas at Hermaness. Those feeding on discards often flew several tens of km to fishing fleets off Muckle Flugga. Smith & Jones (2006) indirectly estimated a foraging range of 31km for Great Skua following the recovery of a bird ring from a Razorbill chick in a Skua pellet.

During the early-mid 1970s the estimated maximum foraging range of breeding Great Skua on Foula was 14km, based on the mean length of foraging trips of around 35minutes (Furness, 1978). However, probably due to a reflection of changes in diet, foraging trip durations have become far longer in more recent years. Throughout the 1994 and 1995 breeding seasons, feeding trips were taking in excess of one hour, with a median length during chick-rearing of more than 3.5 hrs, and some breeding adults could easily have been ranging much further afield, perhaps 50-100km or more (BirdLife International, 2010). Although larger than other records of foraging range, for the purposes of this draft OWE Plan HRA, the maximum quoted foraging range of 100km has been assumed for Great Skua (see Table D1) as quoted by BirdLife International (2010).

D2.1.8 Manx Shearwater *Puffinus puffinus*

Guilford *et al.,* (2008) made an interesting study of foraging behaviour of Manx Shearwaters from Skomer Island, Wales using GPS tags attached to individuals. These birds were tracked flying north to the Mull of Galloway to feed, travelling a straight-line distance of more than 330km each way. Another study by Brooke (1990) estimated that Manx Shearwater could travel as far as 360km from the colony during chick rearing, based on an absence of two days, a flight speed of 45km/hr and 8hr flying in each direction (although the values chosen for the time spent flying were arbitrary). A conservative estimate of 400km, as set out in Table D1, has been given as maximum foraging range for Manx Shearwater, based on the assessment by BirdLife International (2010). This value has been used for the draft OWE Plan HRA.

D2.1.9 Northern Fulmar *Fulmarus glacialis*

Most of the information on Fulmar foraging ranges is based on trip durations, which given the many assumptions involved in calculating ranges from such data, should be viewed as maxima. Foraging trip durations for Fulmars are variable among sites and years.

Hamer *et al.,* (1997) studied populations of Fulmars on St Kilda, Outer Hebrides and Foula (Shetland). They estimated that the maximum foraging trip distances would be 245km for birds on St Kilda and 122km for Fulmars on Foula (Hamer *et al.,* 1997). A study in Scotland also trapped live one breeding adult 460km from its nest site (Dunnet & Ollason, 1982) and in north east Greenland satellite tracked radio-tagged adults foraged 40-200km during incubation and chick-rearing, with failed breeders travelling more than 300km (Falk & Møller, 1995). Other authorities have given potential maxima of foraging radii of between 140km and 750km, assuming linear flight and negligible time spent on the water. While these will be overestimates of the radii travelled (as Fulmars deviate from straight line flight and spend time on the water feeding and resting, and may make overnight visits to feed chicks, which are often not recorded), they demonstrate that Fulmars have time to travel very long distances during foraging trips and could easily exceed a 100km radius from the colony (BirdLife International, 2010). As set out in Table D1, a maximum foraging range of 664km has been given for Northern Fulmar based on BirdLife International (2010) data. This value has been used for the draft OWE Plan HRA.

D2.1.10 Northern Gannet *Morus bassanus*

Gannets breeding on Bass Rock, Scotland have been studied in detail using GPS transmitters (Hamer *et al.,* 2000; 2001; 2006; 2009). Hamer *et al.,* (2001) recorded a maximum foraging range of 540km from Gannets at Bass Rock, Wanless *et al.,* (1998) recorded feeding at sites 33km (Wee Bankie) and 20km (Fife Ness) away whilst a more recent study (field work undertaken in July and August 2003) by Hamer *et al.,* (2009) found the mean foraging range per trip by Gannets was 155km, with a maximum of 276km recorded.

Northern Gannets at Great Saltee, Ireland were recorded travelling a maximum of 240km (Hamer *et al.,* 2001) and 293km (Hamer *et al.,* 2006) to foraging grounds. At Rouzic, France a breeding colony of Gannets were found to have a mean foraging range of 100km, with a maximum of 176km (Grémillet *et al.,* 2006). Large feeding flocks of gannets were also recorded, using ship-based transects around St Kilda, within only a few km of Boreray whilst several smaller groups were seen 40km away (at the Whale Rock Bank) (Leaper *et al.,* 1988). A study by Tasker *et al.,* (1985) also observed a maximum foraging range of gannets to be 150km from Noss, UK, however the majority were seen within 37km. Nelson (1978) estimated a range of 320 to 480km for breeding gannets from a colony, based on observed trip durations and assuming continuous flight at 65 to 80km/h.

A study by Lewis *et al.,* 2001 suggests that foraging range increases significantly for Northern Gannets with increasing colony size, probably as a result of intra-specific competition causing birds to forage further away from the colony during years with higher numbers of breeding Gannets (Lewis *et al.,* 2001). Based on an estimate by BirdLife International (2010) the maximum foraging range of Northern Gannet has been given in Table D1 as 640km. This value has been used for the draft OWE Plan HRA.

D2.1.11 Razorbill *Alca torda*

A study by Webb *et al.,* (1985) at Flamborough Head found that maximum densities of Razorbill were recorded foraging at 26-28km from colonies, although large numbers were also seen from the coast within 1km from the colony. A more recent study by Thaxter *et al.,* (2010) supports this conclusion. Using bird-borne data loggers to record foraging trips made by 14 Razorbills from the Isle of May breeding colony, they found that of the 76 foraging trips made just under half were within 10km of the

coast, with the remainder of trips to areas 30-40km offshore, with the longest foraging trip being approximately 60km. Gaston and Jones (1998, cited in Thaxter *et al.,* 2010) however, have reported Razorbills carrying prey more than 150km from the nearest breeding colony. Although higher than other estimates of foraging range this precautionary estimate by Gaston and Jones has been given as the maximum foraging range for Razorbill, as set out in Table D1. This value has been used for the draft OWE Plan HRA.

D3. Migration Behaviour and Flyways

The UK lies on some of the major migratory flyways of the east Atlantic, with large numbers of waterbirds attracted each year by the relatively mild winter climate and extensive estuarine and wetland habitats. Every year, large numbers of birds traverse the North Sea and Irish Sea during the spring and autumn migrations on their way between breeding and wintering grounds. There appear to be no fixed corridors preferred by migratory birds and instead migration usually takes the form of broad-front. There can be high intensity migration (i.e. a few days with extremely high numbers) and flight heights can vary depending on the species and weather conditions (DECC, 2009). Heights can range from just above the water surface to several thousand metres and as migration is costly in terms of energy expenditure, birds will generally try and fly at altitudes where effort is least (Köller *et al*. 2006).

The issue of potential impacts to migratory birds is key one for this Draft OWE Plan HRA and it is understood that there is a limited amount of robust data on this aspect. This is recognised within the SEA for the Draft OWE Plan (Marine Scotland, 2010) which records that there is a lack of accurate data showing migratory routes and this has also been confirmed via correspondence with the RSPB and SNH as part of consultations with H. It is noted however, that the Wildfowl and Wetlands Trust (WWT) are researching migration routes of several bird species in relation to proposed UK wind farm sites. The WWT work included mapping routes of Greenland Barnacle Geese, Greenland White-fronted Geese and Whooper Swans (Griffin *et al*., 2010) from or along the west coast of Scotland to Iceland and Svalbard Barnacle Geese routes from South-West Scotland to Norway and Svalbard (WWT, 2010). Geese and swans were the focus for this research as they tend to fly at less than 100m above sea level and could be at risk of collision with wind turbines. This study was commissioned by COWRIE and involved a tracking study of Whooper Swans to analyse flight heights and migration routes between their breeding grounds in Iceland and the UK in relation to offshore wind farms. The project entailed fitting satellite transmitters to forty known Whooper Swans in winter 2008/2009 at various wintering locations in mainland Britain. These included WWT sites at Caerlaverock (SW Scotland), Welney (SE England) Martin Mere (NW England). Of the 40 individuals tagged, 35 were tracked to Iceland during spring migration 2009. These included 5 birds from Caerlaverock, 13 from Welney and 17 from Martin Mere. In addition 10 transmitters were fitted in August 2009 in Iceland to provide information during autumn migration of the swan's southbound tracks.

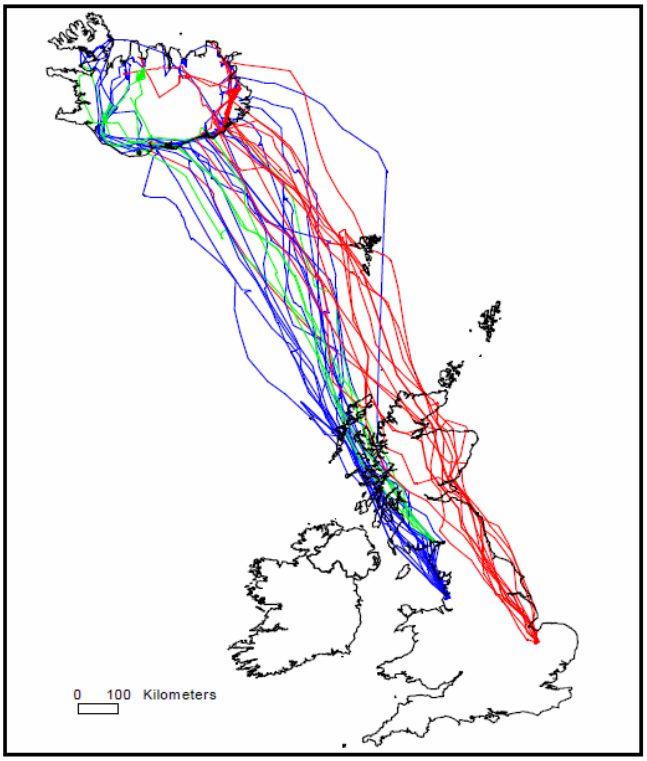
As part of this summary review, key scientific literature relating to migratory pathways has been further reviewed to provide additional information on the routes that are taken. In particular, the above study by Griffin *et al.* (2010) into migration routes and flight heights of Whooper Swans has been reviewed here. In addition the review by Cramp (2000) and the literature that was been compiled as part of this review was summarised to identify the locations of migrant, resident and winter distributions for a range of bird qualifying features. This review is presented in tabular for at the end of this appendix and includes maps of bird distributions that are provided within the Cramp (2000) review.

D3.1 Flight Heights

Griffin *et al.* (2010) concluded that on average, the flight heights for swans were lower for birds migrating over water along the British coast (9m) compared to when crossing from Britain to Iceland (32m), thus flights occurred below or within the rotor swept area and so potentially at risk of collision. Two records however may provide evidence of avoidance of offshore windfarms. At 8.9km north of Barrow (operational) and 3.8km north of Robin Rigg[23] (near operational) swans were recorded flying at altitudes of 172 metres and 160 metres respectively, where one hour previously their flight heights had been recorded at approximately 50 metres above land (Griffin *et al.,* 2010).

D3.2 Migration Routes

Griffin *et al.* (2010) found that swans migrating from southeast England (Welney) generally migrated north along the east coast of Britain whereas those from northwest England and southwest Scotland (Martin Mere and Caerlaverock) followed the western coastline (see Image D2).



(Griffin *et al*., 2010)

Image D2 Migration routes of 35 Whooper Swans tracked from the UK to Iceland from WWT Wetland Centres at Welney (red lines), Martin Mere (blue lines) and Caerlaverock (green lines)

23 The Robin Rigg site in the Solway is also subject to ongoing ornithological monitoring which will cover the pre-construction, construction and post-construction phases of its development. This will be a valuable source of information of the interactions with migratory birds but the results are not expected to be released until 2011 (Erica Knott SNH & PSG Pers Comm) NB more than 60 bird species have been recorded as part of this monitoring programme Fiona Thompson Marine Renewables Licensing Manager Marine Scotland Pers Comm.

The swans' satellite tracks were inspected in relation to the distribution of the potential and actual footprint areas of individual windfarms in six key overlapping areas: the East Irish Sea, the Solway Firth, the North Channel/Inner Hebrides, the Greater Wash/North Sea, the Firth of Forth and the Moray Firth. A total of 48 Round 1 (R1), Round 2 (R2), Round 3 (R3) and Scottish Territorial Water (STW) offshore sites were considered in the analysis.

Of the 19 Whooper Swans tagged at Martin Mere seven flight lines (37%) across the East Irish Sea passed across or immediately adjacent to existing or proposed R1 and R2 windfarm sites with an additional eight tracks (42%) passing within 5km of these sites. Whilst up to ten flight lines (50%) crossing the Solway Firth passed across or immediately adjacent to the existing or proposed R1 or STW windfarm sites with another two (10%) passing within 5 km of these sites. Of these birds crossing the North Channel/Inner Hebrides area no birds were likely to have flown across or adjacent to (within 5km) of STW sites. Of the 15 swans tagged at Welney only one bird stopped and flew across a proposed STW site (Neart na Gaoithe) and one bird flew within 4km of the site proposed at Westermost Rough (R2).

Of the eight birds producing reasonably detailed tracks during the return autumn migration from Iceland, five birds passed across or immediately adjacent to planned offshore windfarm sites with six birds passing within 10km of the planned sites.

Griffin *et al.* (2010) concluded that swans migrating along the east coast of Britain tended not to pass within or near the footprints of existing or proposed offshore windfarms, preferring to stick close to the coast or overland. However, swans migrating along the west coast more frequently flew into or close to the footprints of several offshore windfarms, preferring to fly over coastal waters. Although this tracking study is not representative of the migration pathways taken by Whooper Swans every year, it is a useful study to add to understanding and risk evaluation to birds arising from windfarms.

Information and knowledge on specific migration routes is also expanding rapidly with recent technological advances and through the application of useful tools (e.g. Burger & Shaffer, 2008). However it is recognised that identifying distinct flyway routes is difficult both because of the nature and limitations of available information on this subject and because these movements are likely to occur across broad fronts rather than along clearly definable routes. Although little information is known about actual routes taken between breeding and non-breeding areas, a relatively large amount of information is known about the origins and destinations for many bird species, through data from the UK ringing scheme (Langston, 2010 - Wernham *et al.,* 2002, BTO Migration Mapping Tool http://blx1.bto.org/ai-eu/). The destinations outside of the UK where tagged birds migrate to and from Scotland has been reproduced in Table D2. This table is derived from information within the BTO Migration Atlas Project report (Wernham *et al*., 2002) and is presented within the SEA Environmental Report (Marine Scotland, 2010). As recognised within the SEA document, this information does not specifically describe the migration routes but presents a useful collection of ringing recovery information 'for birds that fly to and from Scotland (not necessarily from other parts of the UK)'.

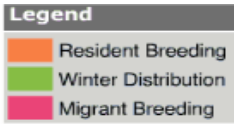
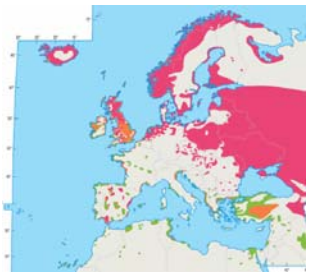
Further details and maps describing the origins and destinations for many bird species are also presented in Table D3 which provides general information on migrant, resident and winter distributions around the UK and the rest of Europe for a number of bird species (Cramp *et al.,* 2000). The birds listed in this table have been included as they have been identified as qualifying features within SPA designated sites within 100km of the proposed OWE sites.

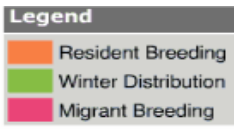
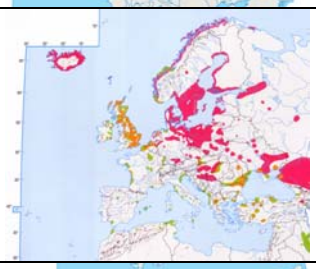
Table D2. Principal recovery locations for likely focal bird species

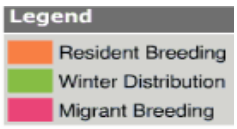
Species	Principal Recovery Locations of Ringed Birds Outside of Mainland UK
Arctic Skua	Concentrated around Orkney and Shetland Isles
Arctic Tern	Concentrated around Orkney and Shetland Isles, Scandinavia, W Africa
Barnacle Goose (Nearctic)	Iceland, Greenland, Svalbard
Black-legged Kittiwake	USA, Greenland, Faroes, Continental Europe
Brent Goose (light bellied, E. Canada)	Svalbard
Common Tern	Continental Europe , Ireland, W Africa
Common Guillemot	Continental Europe, Scandinavia, Ireland, Orkney and Shetland Isles, Iceland
Corncrake	Unrecorded in Bird Atlas
European Storm Petrel	Ireland, Iceland, Faroe Islands, Scandinavia, Portugal, S Africa
European Shag	Ireland, Faroe Islands, Continental Europe, Scandinavia
Great Northern Diver	Unrecorded in Bird Atlas
Greenland White fronted Goose	Iceland, Greenland, Orkney
Herring Gull	Ireland, Orkney, Shetland Isles
Manx Shearwater	Ireland, Continental Europe
Migrating waterbirds	Various destinations
Northern Gannet	Ireland, Iceland, Continental Europe, Orkney, Shetland Isles, northern Scandinavia, NW Africa
Pink-footed Goose	Iceland, Greenland
Razorbill	Continental Europe, Scandinavia, Ireland, Orkney and Shetland Isles
Whooper Swan	Ireland, Western Isles, Orkney

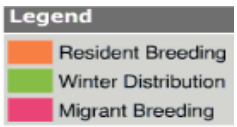
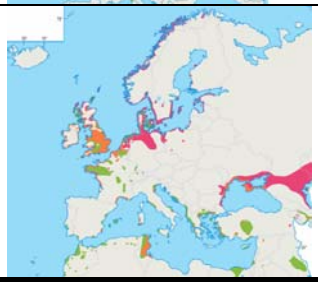
(Marine Scotland, 2010)

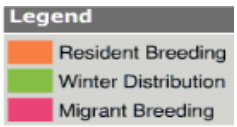
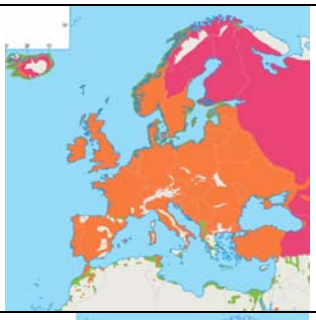
Table D3. Migrant, resident and winter distributions, as well as general flight heights, for a number of bird species (Cramp *et al.,* 2000 and references therein)

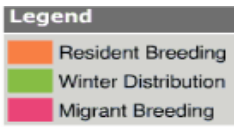
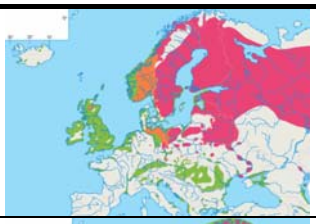
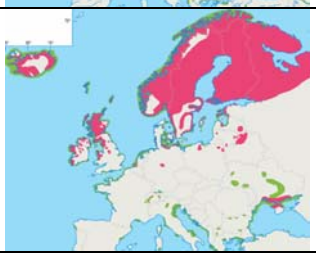
Species	Summary Information	Map 
Common Redshank	Migrate between Iceland and Britain (Orkney to Hampshire) (Ogilvie 1963; Hale 1973; Folkstad 1975; Minton 1975; Boere 1976; Holden & Cleeves, 2002). Some birds from Scotland and northern England winter in Ireland, but southward movement within Britain more usual, and others continue south to continental coasts (Netherlands to Portugal, especially western France). Flies freely in lower airspace.	
Great Crested Grebe	As few ringed, little known of migration routes, though apparently broad-front overland as well as coastal. Some autumn and winter immigration into British waters from Denmark and Netherlands. Often active aerially on moonlight nights, visiting neighbouring waters in search of mate or territory. Uses airspace somewhat sparingly, although strong flier once airborne, not often at much height.	

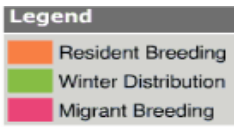
Species	Summary Information	Map 
Whooper Swan	Migrate between Iceland and Britain (Pennycuick *et al.,* 1996; Holden & Cleeves, 2002). Once thought to fly at high altitudes between Iceland and the UK; more recent evidence shows that the birds also migrate at just above sea level, and land on the sea in adverse weather or poor visibility (Pennycuick *et al.,* 1996).	
Barnacle Goose	East Greenland population migrates via Iceland to winter in west Scotland and Ireland (Salomonsen 1967; Holden & Cleeves, 2002). The Svalbard population moves down the west coast of Norway and across the North Sea, crossing overland in north England and South Scotland to winter in Solway Firth (Holden & Cleeves, 2002).	
Greylag Goose	Migrates between Iceland and Scotland and Ireland (Mitchell 1996; Hearn 2000; Swann and Brockway 2002; Swann 2000; Mitchell and Sigfússon 1999; Cranswick *et al.,* 1997; Holden & Cleeves, 2002)	
Greenland White-fronted Goose	Geese collared in Scotland, Iceland, and Greenland as part of continuing international marking programme.	
Pink-footed Goose	Migrates between Iceland and Britain (Fisher 1951, Thom 1983, Newton *et al.,* 1990, Dix 1991, 1992; Fox *et al.,* 1992; Holden & Cleeves, 2002)	
Light-bellied Brent Goose	Migrates between Spitsbergen and Franz Josef Island to Britain and Denmark (Løvenskiold 1964) Although strong flier, takes wing with some reluctance, and flies no higher than essential.	

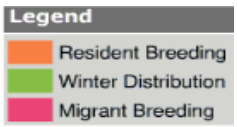
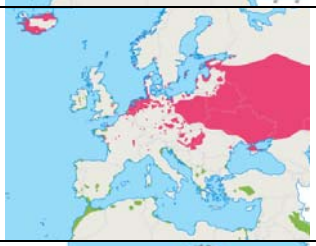
Species	Summary Information	Map 
Bar-tailed Godwit	Winters North Sea and Atlantic coasts of Europe. Major passages in spring and autumn are through Baltic and North Seas and thence along western seaboard. Exceptional flight capability used at relatively low height except on migration.	
Eurasian Wigeon	Migrates between Iceland and Britain Fenno-Scandia and USSR east populations migrate to winter quarters in west and south-west Europe, especially Britain and Ireland. Usually fly at no great height.	
Northern Pintail	Migrates between Iceland to Britain and Ireland (Bruun 1971; Holden & Cleeves, 2002). Breeding populations of north Russia east to north-west Siberia (Omsk), Fenno-Scandia, and Baltic migrate south-west to winter Netherlands and British Isles. Use of airspace even freer than for other Anas and often at considerable heights.	
Red Knot	Migration occurs from Canada and Greenland to western Europe, including Britain and southern north sea (Andreasson and Råd 1977; Netterstrøm 1970; Holden & Cleeves, 2002) Winter range of Spitsbergen birds unknown.	
Purple Sandpiper	Migrates between Iceland and Norway to Britain (Atkinson *et al.,* 1981; Holden & Cleeves, 2002) Not known to fly regularly in upper airspace.	

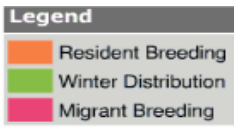
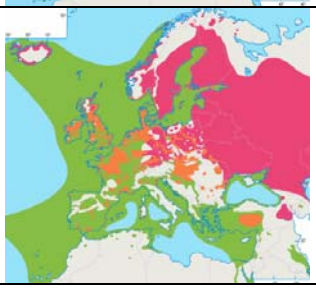
Species	Summary Information	Map 
Ruddy Turnstone	Migration occurs between Northern Europe, Greenland and Canada to Britain and Ireland (Holden & Cleeves, 2002; Morrison 1975; Clapham 1979; Wilson 1981; Branson *et al.,* 1978) Also a strong flier, most often within lowest airspace.	
Slavonian Grebe	Breeding populations in Iceland, Norway and Scotland winter around Scotland and Atlantic coast of Ireland. Flies readily, visiting neighbouring waters but observations of high flight lacking	
Red-throated Diver	Migration routes not well known. Migration occurs between Spitsbergen, Lapland and USSR to Atlantic and North Sea coasts around Britain and Ireland. 2 chicks from Scotland (Shetland) also found French coast (Finistère, Vendée). Migrants from Europe and Iceland winter around British and Irish coasts (Holden & Cleeves, 2002) Entirely aquatic and aerial, normally on land only for nesting. Inadequacy of food on small breeding pools requires frequent flighting to better fishing lakes or sea, involving dual aquatic habitat and much use of airspace up to at least 1000 m. Mobility aided by ability to rise readily from small water surfaces, and exceptionally from land.	
Common Eider	Partially migratory. Small movement within British and Irish breeders, rarely over 200km (Milne 1965a). Recoveries of Dutch birds in Fife. British and Irish birds do not generally move far from their breeding grounds (Holden & Cleeves, 2002). Although flying freely, normally keeps to lowest few metres of airspace, mostly over water.	
Common Shelduck	Breeders and immatures leave nesting grounds in Britain, Ireland, Belgium, Netherlands, Denmark, Scandinavia, north Germany, north Poland, and Baltic States, for annual moult in German Waddenzee area (Goethe 1961a). Birds from Germany and farther east arrive in Britain in winter (Holden & Cleeves, 2002). Flies strongly, rising on passage to 1000 m or more above ground.	

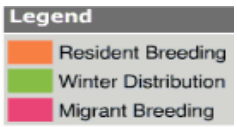
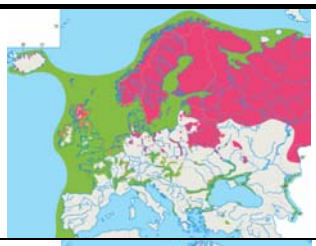
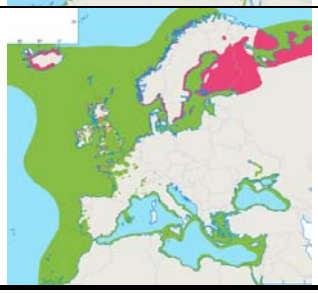
Species	Summary Information	Map 
Great Cormorant	British and Irish populations non-migratory but show extensive dispersal with small proportion crossing English Channel; mainly coastwise, but also inland usually within 60 km of coast (Mills 1965). Recoveries in France and Iberia (mainly Brittany to north Portugal) continuance of southward dispersal in Britain and Ireland, and originate mainly from Irish Sea and Galloway. North Sea effective barrier to eastward movement from Britain, recoveries Norway to north France being quite exceptional. Circles or soars up to considerable heights and flies overland, often for long distances, occasionally or regularly.	
Mallard	Many Icelandic birds winter Britain and Ireland. Those from north-west Russia, Fenno-Scandia, Baltic states, north Poland, north Germany, and Denmark winter from Denmark to north France and in Britain, with slight onward passage as far as north Spain. Many birds that breed in Iceland and northern Europe spend the winter in Britain and Ireland (Holden & Cleeves, 2002). Can rise steeply up and away even in awkwardly confined spaces; much given to circling around, usually at heights below c. 500 m.	
Greater Scaup	In Iceland, ringing of young showed migration chiefly to Ireland, Britain, and Netherlands (Boyd 1959), with smaller numbers reaching north France, Denmark, and north Germany. Important winter concentrations in Firth of Forth (Scotland). Take-off somewhat laboured, and use of airspace relatively infrequent.	
Long-tailed Duck	No evidence of Icelandic birds reaching continental Europe; yet ones ringed west Greenland moved south-east to Iceland and Denmark, and to Atlantic seaboard of North America, while others wintered in Greenland seas. Origins of British winterers unknown. Makes maximum use of airspace, readily flying between coast and inland sites at up to 200-1200 m over land, although usually low over water.	
Black (Common) Scoter	Icelandic breeders winter around Ireland, Britain, and Atlantic coasts France, Spain, and Portugal Movement by small British and Irish population largely unknown, but breeding lakes deserted. Breeders from Arctic USSR, Sweden and Finland migrate WSW to winter on both sides of North Sea (west coasts of Britain). Uses airspace often in long formations, and normally at low altitude, but flies fairly high overland; generally flies only when need pressing.	
Velet Scoter	Small numbers winter around Britain (mainly east coast) Has difficulty in becoming airborne and commonly flies low, especially over water.	

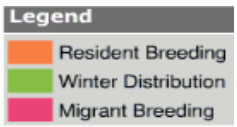
Species	Summary Information	Map 
Common Goldeneye	Breeding populations of Fenno-Scandia, north Germany, Poland, Baltic States and north-west Russia mostly winter Baltic States, Denmark, Netherlands, Britain and Ireland. Airspace over water and land freely used at wide range of altitudes.	
Red-breasted Merganser	Breeding population of Iceland partially migratory; some resident, others migrate to Britain and Ireland. Movements of British breeders not fully known, but at least disperse from inland breeding waters. Migrants from Finland, Poland and north-west USSR winter in Britain. Spends much time in aerial excursions, usually at fairly low altitude.	
Eurasian Curlew	Large resident population in Ireland, with local movements to coast, though many also winter inland; movements unconfirmed in absence of ringing. Some British birds winter near breeding site, though most move south-west. Thus birds from Scotland and northern England move to British west coast and Ireland; those from southern England to south-west England, some to France and Iberia (Bainbridge and Minton 1978). Scandinavian population moves south-west: Norwegian birds to northern Britain, Ireland, and western France; main wintering area for Swedish birds is Britain and Ireland, though also some on Continental coasts from Denmark to western France (Nørrevang 1959). Some USSR, German and Dutch populations also reach Britain and Ireland (Holden & Cleeves, 2002). Except on migration flies mainly in lower airspace.	
Eurasian Oystercatcher	Birds reared Iceland, Faeroes, and northern Britain moult and winter mainly around Irish Sea and on other western coasts of Britain and Ireland; few reach North Sea coast (Dare 1970; Dare and Mercer 1974b; Anderson and Minton 1978). Some British birds, especially in southern England, remain near breeding areas, but the general trend for these to move south to moult and winter takes some to France and Iberia and exceptionally to Morocco (Buxton 1957; Andrew 1959; Dare 1970; Pienkowski 1972). Migration also noted frequently across southern Scotland, between Firth of Forth and Solway Firth (e.g. Andrew 1959), and west of south from north-east England (Evans 1966); by no means certain, however, that Continental immigrants predominate in such movements. 3 recoveries of birds moving between eastern England (all autumn dates) and USSR (Murmansk, Arkhangel'sk), but clearly these atypical. Considerable movement may occur within a linked estuarine complex, such as Wash-Humber system (England), though apparently little movement between sites within Firth of Forth (Scotland) (e.g. Minton 1975; M W Pienkowski). Although a strong flier, shows marked reluctance to venture out of sight of land, and usually travels within lower airspace.	

Species	Summary Information	Map 
Ringed Plover	Largely migratory but some British birds resident. North-western populations of Canada and Greenland, majority pass through Britain and Ireland European populations - Birds from coasts of Scandinavia and Baltic and from East and West Germany south-westwards move widely to wintering areas extending from Britain and Ireland to West Africa.	
European Golden Plover	Partially migratory in Britain and Ireland; wholly migratory elsewhere. 23 recoveries of birds ringed Britain as chicks, 21 recovered within Britain, so only minority emigrate. British internal recoveries showed mean movement of 115 km (0-500). Icelandic population (115 ringing recoveries) wholly migratory, with western route to and through Ireland, western Britain, western France, and Iberia. Norway to Western Siberian birds, many found in Britain between November to April Use of airspace (especially above the lowest) normally confined to migration, advertising flights over territory, etc. Wading also infrequent.	
Grey Plover	Those occurring in west Palearctic come from breeding population of northern USSR. In Britain, arrives July onward through autumn and winter (Mason 1969, Mason 1972; Branson and Minton 1976). Wariness leads to frequent use of outstanding powers of flight, mostly in low airspace but migrating flocks fly high in massed formations (Bent 1929).	
Northern Lapwing	Britain and Ireland constitute northernmost regular wintering areas. In contrast to continental birds, British breeders mainly make short summer dispersals (within 100 km), though some indication of adult movement west to south-west into Ireland. Birds from Hungary, Czechoslovakia, Switzerland, and southern West Germany move to Britain. British Isles especially important as winter quarters for Scandinavian birds; south-westerly movements by those from south and east Baltic countries largely bypass Britain. In flight, lower airspace usually preferred except on movements, when altitudes of 250-400 m are common and up to 2000 m or more recorded (Meinertzhagen 1920).	

Species	Summary Information	Map 
Dunlin	Holarctic breeding distribution, wintering on most ice-free coasts of northern hemisphere Iceland to Britain and western France (Rosenberg *et al.,* 1970; Meltofte 1975; Pienkowski and Dick 1975; Green 1978; Hardy and Minton 1980). Baltic region to Britain (Minton 1966, Minton 1975; Pienkowski and Dick 1975). Flies much in lowest airspace, infrequently higher.	
Sandwich Tern	Some birds from Britain and Ireland disperse to Netherlands, and vice versa (Møller 1981a). Recoveries of British and Irish birds extend from France to Angola, with 30% of recoveries in Sénégal (Langham 1971; A P Møller). In some circumstances, as in display, rises into upper airspace, and normally flies somewhat higher over water than most seabirds.	
Sanderling	With Holarctic breeding range, winter distribution very large: both sides of Americas and Africa, western and southern Europe, and across southern Asia to Micronesia and Australia (rare in New Zealand). Although readily taking wing, tends to stay in lowest airspace and not to indulge much in unnecessary flights.	
Black-tailed Godwit	Icelandic population winter in large numbers in Ireland and Britain and in western France (Williamson and Ruttledge 1957; Vernon 1963; Fournier and D'Elbée 1974; Prater 1975a). Although primarily a ground and wading species (up to belly-depth), flies readily at all seasons, rising freely above lower airspace.	
Goosander	Migratory and partially migratory. No evidence yet that any Icelandic breeders emigrate. Similarly, British breeders almost entirely resident, moving short distances (mainly within 150 km) from breeding waters to lakes and sheltered estuaries	
Eurasian Teal	All but a few Icelandic breeders migrate to Britain (chiefly Scotland) and Ireland. Most or all breeders from north Russia, Baltic states, Fenno-Scandia, north Poland, north Germany, and Denmark fly south-west in autumn to North Sea wintering grounds, chiefly Netherlands and Britain. Winter distribution between Netherlands, England, Wales, and Ireland greatly dependent on weather. Breeders of Britain largely resident, moving only in severe weather.	

Species	Summary Information	Map 
	Makes full use of flight, mainly at medium and low heights, for reconnoitring secure places and for daily movements between feeding and resting areas.	
Gadwall	Icelandic breeders winter Ireland and Britain. Breeders from Scotland move to Ireland (chiefly) and England. Those breeding north Germany, Poland, south Sweden, and west-central Russia winter North Sea, chiefly Netherlands and Britain, with some as far as Mediterranean. Mobile on ground as well as swimming and flying. Takes off less often in steep ascent from confined spaces than A. platyrhynchos or Teal A. crecca, but equally prone to make circling reconnaissance flights at low or medium heights, and frequent local movements between resting, foraging, and breeding haunts.	
Common Greenshank	Scottish population - passage occurs through Britain and Ireland Those to and from Fenno-Scandia and Denmark show movement through Poland, West Germany, eastern Britain, Low Countries, France, Italy, Iberia, and Morocco. Flight normally in lower airspace except during display and migration when upper airspace up to some hundreds of metres used.	
Black-headed Gull	European winter range extends from southern Iceland, Faeroes, southern Norway, western Baltic, Balkans, and southern Russia southwards; common winter visitor in Iberia and around Mediterranean. Icelandic population recovered in Scotland and Ireland Fenno-Scandian and Baltic Populations - many migrate to western seaboard countries (North Sea and British Isles to north-west Africa) Norwegian birds winter mainly around North Sea, with those from western Norway especially in Britain.	
Common Tern	Migratory Behaviour - Radar-tracked terns (both Arctic and Common) crossing south Sweden in late July took off in small flocks during evening, ascended at rates of c. 1.2 m/s to heights of 1000-3000 m flying 12-15 m/s (40-55 km/h) in level flight, suggesting that terns start migratory flights in evening and fly at high altitudes at night (Alerstam 1985). In north Germany, >50% of visible terns migrate <20m or >80% <100 m, and only c. 10% higher than 250 m, single birds >500m (3985 migrating terns observed). North and east European populations migrate westwards to Great Britain (Norman 2002). Main wintering areas of British and Irish birds are Ghana and Senegal.	

Species	Summary Information	Map 
Common Gull (Mew)	Many of the Common Gulls that winter in Britain are birds that nested in Scandinavia (Holden & Cleeves, 2002).	
Northern Shoveler	Mostly migratory. Breeders of Iceland all migrate, probably to Ireland or Britain. Most British breeders move southwards to south France, south Spain, north and central Italy, a few to north Africa. Breeders from south Fenno-Scandia and USSR east migrate west and south-west to western seaboard, chiefly Netherlands, Britain, and Ireland. Circles like other Anas and usually flies below 100 m; shares generic capacity for quick and ready movement between sites.	
Bewick's (Tundra) Swan	Wintering sites in Denmark, northwest Germany (few), Netherlands, Britain, and Ireland Bewick's swan leave Siberia and migrate to Britain, the Netherlands or Germany (Holden & Cleeves, 2002).	
Common Pochard	Mainly migratory, but some resident or partially migratory. Many of the birds that winter in Britain migrate here from northern and eastern Europe and central Russia (Holden & Cleeves, 2002). Freely uses excellent powers of flight, and will rise on occasion to considerable altitudes.	
Tufted Duck	Predominantly migratory though largely resident in a few areas. Some Icelandic breeders winter on coast and other ice-free waters there, but most move to Ireland (chiefly) and Britain. Breeders of northern Britain mainly move south-west to Ireland, though Scottish juveniles recovered exceptionally north to Norway and south to Portugal; those of south Britain believed largely resident. Vigorous flier making full use of surrounding airspace over fairly wide radius and to considerable heights.	
Lesser Black-back Gull	Total winter range now extends from Britain, Mediterranean, Black and Caspian Seas (uncommon), Turkmeniya, and Persian Gulf to Arabian Sea and West and East Africa (sparingly further south). Main wintering region for British birds comprises Portugal, south-west Spain, and north-west Africa. Flies readily and strongly, at low and medium altitudes, and less frequently in upper airspace.	

Species	Summary Information	Map 
Taiga Bean Goose	In west Europe, winters in Britain (few), Denmark, south Sweden, East and West Germany, Netherlands, Belgium, France and Spain. Birds from Scandinavia migrate to Britain (Holden & Cleeves, 2002). As forest breeder, can rise steeply from confined spaces, but frequency and patterns of aerial activity otherwise resemble other geese.	

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Appendix E
Marine Mammal and Otter Baseline Review for the Draft OWE Plan HRA

Appendix E. Marine Mammal and Otter Baseline Review for the Draft OWE Plan HRA

E1. Marine Mammal and Otter Baseline Characterisation

E1.1 Scope of Review

This appendix presents a general review of the marine mammal populations found in Scottish waters. It is designed to provide a context for the HRA of the OWE options in Scottish Territorial Waters and includes information on the background ecology, population, distribution, abundance and foraging behaviour of the following marine mammal species:

- Grey seal (*Halichoerus grypus*);
- Common seal (*Phoca vitulina*);
- Bottlenose dolphin (*Tursiops truncatus*); and
- Harbour porpoise (*Phocoena phocoena*).

The European otter (*Lutra lutra*) has also been included in the scope of this review as it is recorded living near the coast around Scotland and travelling/foraging within the marine environment.

It should be emphasised that this is a broad-scale characterisation only. It seeks to draw upon available information to understand the value of the area in general terms. It does not specifically focus on the interest features of the designated sites but provides a context for that assessment in recognition of the importance of mammals in this area.

E1.2 Major Information Sources

Detailed reviews of marine mammal distribution and ecology in UK waters have been carried out by the Sea Mammal Research Unit (SMRU), University of St. Andrews, in contribution to the UK Department of Energy and Climate Change (DECC) Offshore Energy Strategic Environmental Assessment (SEA) (DECC, 2009) and previous oil and gas SEAs (Hammond *et al*., 2003; Hammond *et al*., 2004 and Hammond *et al*., 2005).

Information on the status of seals around the UK coast is also reported annually by the SMRU-advised Special Committee on Seals (SCOS) (SCOS, 2009). Studies on the movements of seals fitted with satellite tags have been undertaken by (Matthiopoulos *et al*., 2004; Sharples *et al*., 2008; Cunningham *et al*., 2009; McConnell *et al*., 1999; Tollit *et al* 1998 and Thompson *et al.* 1996) to investigate their distributions in UK waters. Research on seal site population structure fidelity and philopatry (i.e. behaviour of remaining in, or returning to, an individual's birthplace) was reviewed by SCOS (2009) with specific research undertaken by Allen *et al.* (1996), Goodman (1998), Pomeroy *et al.* (2000), Pomeroy *et al.* (1994) and Härkönen and Harding (2001).

The 'Small Cetacean Abundance in the European Atlantic and North Sea' programmes (SCANS and SCANS-II) undertook widespread ship based and aerial surveys of cetaceans in the North Sea and adjacent waters in the summers of 1994 and 2005 (SCANS-II, 2008). The programme provides the most comprehensive wide-scale survey data on cetacean abundance, distribution and density available in northwest European waters. Comprehensive information on cetacean distribution in northwest

European waters is also presented in Reid *et al*. (2003). This report provides a compilation of cetacean sighting records from a variety of systematic surveys and opportunistic sightings amounting to over 2,500 days of observation carried out since 1973. Survey data for cetaceans recorded along the shelf edge (and offshore waters beyond this) of the UK, Ireland, France and Spain is provided by the Cetacean Offshore Distribution and Abundance (CODA) survey (CODA, 2009). Current understanding of cetacean population structure was reviewed in the ASCOBANS/HELCOM small cetacean population structure workshop (Evans and Teilmann, 2009).

The WDCS (Whale and Dolphin Conservation Society) additionally undertook a review identifying critical habitat for cetaceans to help highlight potential Marine Protected Areas (MPA's) for cetacean species (Clark *et al.* 2010). Evans and Wang (2008) highlighted potential areas for MPA's, specifically for harbour porpoise by identifying hotspot areas that had greater than average numbers of porpoises based on a variety of data sources.

The results of a number of research studies to determine the distribution, abundance and population structure of bottlenose dolphins around the Scottish coast is presented in Thompson *et al*. (2009). The collaborative project was carried out by the University of St Andrews' Sea Mammal Research Unit (SMRU), the Scottish Association for Marine Science (SAMS), the Hebridean Whale and Dolphin Trust (HWDT) and the University of Aberdeen's Lighthouse Field Station (AULFS), with additional support from a wide range of different individuals and bodies. Studies and surveys at a more local scale on the bottlenose dolphins have been undertaken by a range of organisations including the University of Aberdeen/SMRU (Hastie *et al*., 2003, Bailey 2006,SMRU, 2007), Talisman Energy (UK) Limited (2006), WDCS, 2009) and the Hebridean Whale and Dolphin Trust (Mandleberg, 2006).

Surveys on harbour porpoise abundance and distribution at a regional scale and have been undertaken by a range of authors including Bailey and Thompson (2009), Goodwin and Speedie (2008), Robinson *et al.* (2007) and Marubini *et al.* (2009).

Detailed research on otter ecology in coastal and marine environments has been undertaken around Shetland by members of the Institute of Terrestrial Ecology and University of Groningen (Kruuk *et al.* 1991; Kruuk and Moorhouse, 1991; Kruuk *et al..* 1993; Kruuk, 1995; Kruuk *et al.* 1998 and Nolet *et al.*1993). In addition reviews of otter ecology have been produced as part of the Life in UK Rivers project, a project which aimed to develop methods for conserving the wildlife and habitats of rivers within the Natura 2000 network of protected European sites (Chanin, 2003) and by Mason and Macdonald (2008).

A number of other surveys and studies on marine mammals and otters have also been included where appropriate.

E2. Pinnipeds

E2.1 Grey Seal (*Halichoerus grypus*)

E2.1.1 Ecology

The grey seal is the larger of the two seal species found in British waters, with males reaching a length of 2.45m. In Scotland, grey seals predominantly inhabit remote islands and coastlines, giving birth to

their pups from September to early November. About 45% of the world population of grey seals is found in Britain and over 90% of British grey seals breed in Scotland (Tables E1 and E2), the majority in the Hebrides and in Orkney. There are also breeding colonies in Shetland, on the north and east coasts of mainland Britain and in SW England and Wales (SCOS, 2009). The Monarch Islands off the Outer Hebrides holds the largest breeding colony in the UK, contributing over 20% of annual UK pup production) with Faray and Holm of Faray (uninhabited islands in the northern part of Orkney) supporting the second-largest breeding colony in the UK, contributing around 9% of annual UK pup production.

Hammond *et al.* (1994) investigated the diet of grey seals around Orkney and other island and mainland sites in North-Eastern Scotland and found that sandeels accounted for almost half the fish consumed, by weight. The rest of the diet was composed mostly of gadoids (particularly cod), flatfish (particularly plaice) and sculpins. Tracking of individual seals has shown that they can feed up to several hundred kilometres offshore although most foraging probably occurs within 100km of a haulout site (SCOS, 2009).

E2.1.2 Population structure, philopatry and site fidelity

A range of studies suggest that site fidelity and philopatry is common in grey seals. Allen *et al.* (1996) examined the genetic variability and differentiation of grey seals two widely spaced British breeding colonies. Samples were collected from adults and pups on the island of North Rona, off the north-west coast of Scotland, and on the Isle of May, situated at the mouth of the Firth of Forth on the east coast. Highly significant differences in allele frequencies between these two sites were indicating considerable genetic differentiation. The authors suggested that although grey seals are known to range over very large areas outside the breeding season, site fidelity of adults and philopatry of pups for these breeding colonies must be sufficiently common to have effects, through genetic drift, at the sub-population level.

Little movement of breeding animals between sites in the Inner Hebrides, Outer Hebrides, Orkney and North Sea has been indicated by a spatially-explicit model has been used to estimate the British grey seal population from geographically structured pup production estimates (SCOS, 2009). This finding is further supported by recent results from other grey seal population models that indicate an absence of large scale redistribution of breeding females between regions again implying a high degree of philopatry (SCOS, 2009). The lack of large scale redistribution is also supported by Pomeroy *et al.* (2000). The study showed that grey seals born and marked by tagging and cohort brands at colonies on North Rona, Outer Hebrides since 1960 and at the Isle of May, Firth of Forth since 1981 have shown philopatry (particularly for females) and that females born at N. Rona pupped closer to their natal sites than would be expected by chance providing evidence of fine scale natal site fidelity. Pomeroy *et al* (1994) also found evidence of philopatry with 93% of marked females in 1985 returning to N. Rona to breed in at least one season up to 1989 with 27% were present in all five years.

E2.1.3 Population trends

Given the uncertainty in overall population estimates for grey seals, pup production estimates are typically used to compare the relative sizes of grey seal populations (SCOS, 2009). The total number of pups born in 2008 at all annually surveyed UK colonies was estimated to be 46,820. Regional estimates were 3,400 in the Inner Hebrides, 12,700 in the Outer Hebrides, 18,800 in Orkney, and 6, 600 at North Sea colonies (including Isle of May, Fast Castle, Donna Nook and Farne Islands). A

further 5,300 pups were estimated to have been born at other scattered colonies. Overall, there has been a continual increase in pup production since regular surveys began in the 1960s. Grey seal pup production in 2008 can be seen in Table E1 and the major breeding colonies are highlighted in Image E1.

(Source: SCOS, 2009)

Image E1. Grey seal breeding colonies in the UK

Table E1. Grey seal pup production estimates for the main colonies surveyed in 2008

Region	Location	2008 Pup Production	Change in Pup Production From 2007-2008	Average Annual Change in Pup Production From 2003-2008
Scotland	Inner Hebrides	3,356	+9.3%	-0.2%
	Outer Hebrides	12,712	+13.6%	0.0%
	Orkney	18,765	-1.0%	+0.12%
	Isle of May + Fast Castle	3,346	+21.4%	+5.1%
	All other colonies incl Shetland & mainland	3,441 **		
	Total	41,600	+5.4%*	+1.0%*
England and Wales	Donna Nook +East Anglia	1,950	+19.1%	+17.4%
	Farne Islands	1,320	+13.2%	+0.8%
	SW England (last surveyed 1994)	200		
	Wales ***	1,650		
	Total	5,120	+16.7%*	+8.8%*
Northern Ireland		100		
Total (UK)		46,820	+6.9%*	+1.0%*

* Average annual change in pup production calculated from annually monitored sites only
** Estimate from several surveys in Shetland to provide most up-to-date estimate
*** Estimate from indicator sites in 2004-05, multiplier derived from 1994 synoptic surveys

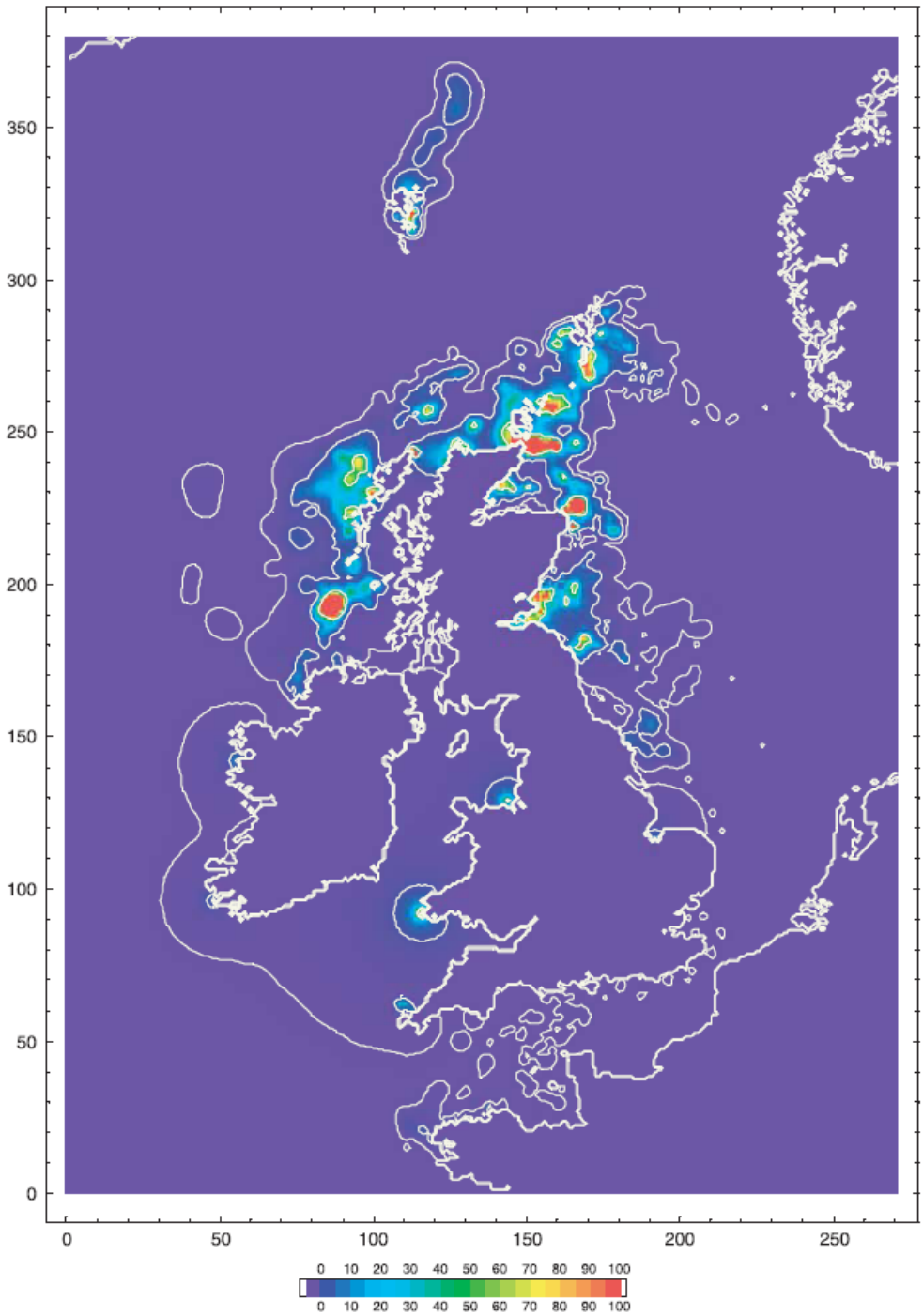
(Source: SMRU, 2009)

E2.1.4 Grey seal movement at sea

A range of studies have shown that grey seals can undertake long distant travel between different haul-out sites but foraging trips are generally much smaller. For example, Thompson *et al.* (1996) found that four seals tracked from the Moray Firth moved to haul-out sites 125-365km away, and provided evidence of interchange between the Moray Firth and other grey seal breeding areas in Orkney, the Firth of Forth and the Farne Islands. Those grey seals which foraged within Moray Firth travelled up to 145km from haul-out sites.

McConnell *et al*., (1999) investigated the movements of grey seals in the North Sea using satellite tagging. Seal movements were broadly split into two geographical scales: long and distant travel (up to 2100 km away) and local, repeated trips from haul-out sites to discrete offshore areas for foraging. For example, four Farnes-caught seals travelled significant distances to haul-out sites away from the Farnes and these excursions were variable in direction, extent and duration. Male F3±92 visited Orkney (400km from the Farnes) twice. On the first excursion it visited haul-out sites in the Pentland Firth and then in the northern part of Orkney. In general, however most tagged seals stay close to the coast (mean maximum extent of 39.8km for a foraging trip) with an average of 43% of a seal's time spent within 10km of a haul-out site. In 88% of trips to sea, individual seals returned to the same haul-out site from which they departed. The durations of these trips were short (mean 2.33 days) and their destinations at sea were often localized areas characterized by a gravel/sand seabed sediment.

Mattiopoulos *et al.* (2004) used satellite telemetry and aerial counts to estimate space use by grey seals at sea around the British Isles (see Image E2). Particularly high usage was recorded offshore from the inner Hebrides, around Orkney, Shetland and the Firth of Forth.



(Source: Matthiopoulos *et al*, 2004)

Image E2. The estimated usage of the marine environment by the grey seal population

E2.2 Common Seal (*Phoca vitulina)*

E2.2.1 Ecology

The common seal (also known as harbour seal) is the smaller of the two native UK seals measuring up to approximately 1.85m in length. Britain is home to approximately 30% of the population of the European sub-species of common seal (having declined from approximately 40% in 2002). Scotland holds approximately 85% of the UK harbour seal population. Harbour seals are widespread around the west coast of Scotland and throughout the Hebrides and Northern Isles (SCOS, 2009) .On the east coast, their distribution is more restricted with concentrations in the major estuaries of the Thames, The Wash, Firth of Tay and the Moray Firth. In Scotland, common seals are typically found in a wide variety of coastal habitats including on sandbanks, in estuaries and along rocky areas (particularly on the west and north coasts). Adult common seals can remain very faithful to particular haul-out areas, moving around the same group of favoured locations on a seasonal basis and over a number of years (SNH, 2006c). Tollit *et al.* (1998) found that the diet of common seals in north eastern Scotland primarily consisted of sandeel with octopus, gadoids and clupeids also consumed.

E2.2.2 Population structure, philopatry and site fidelity

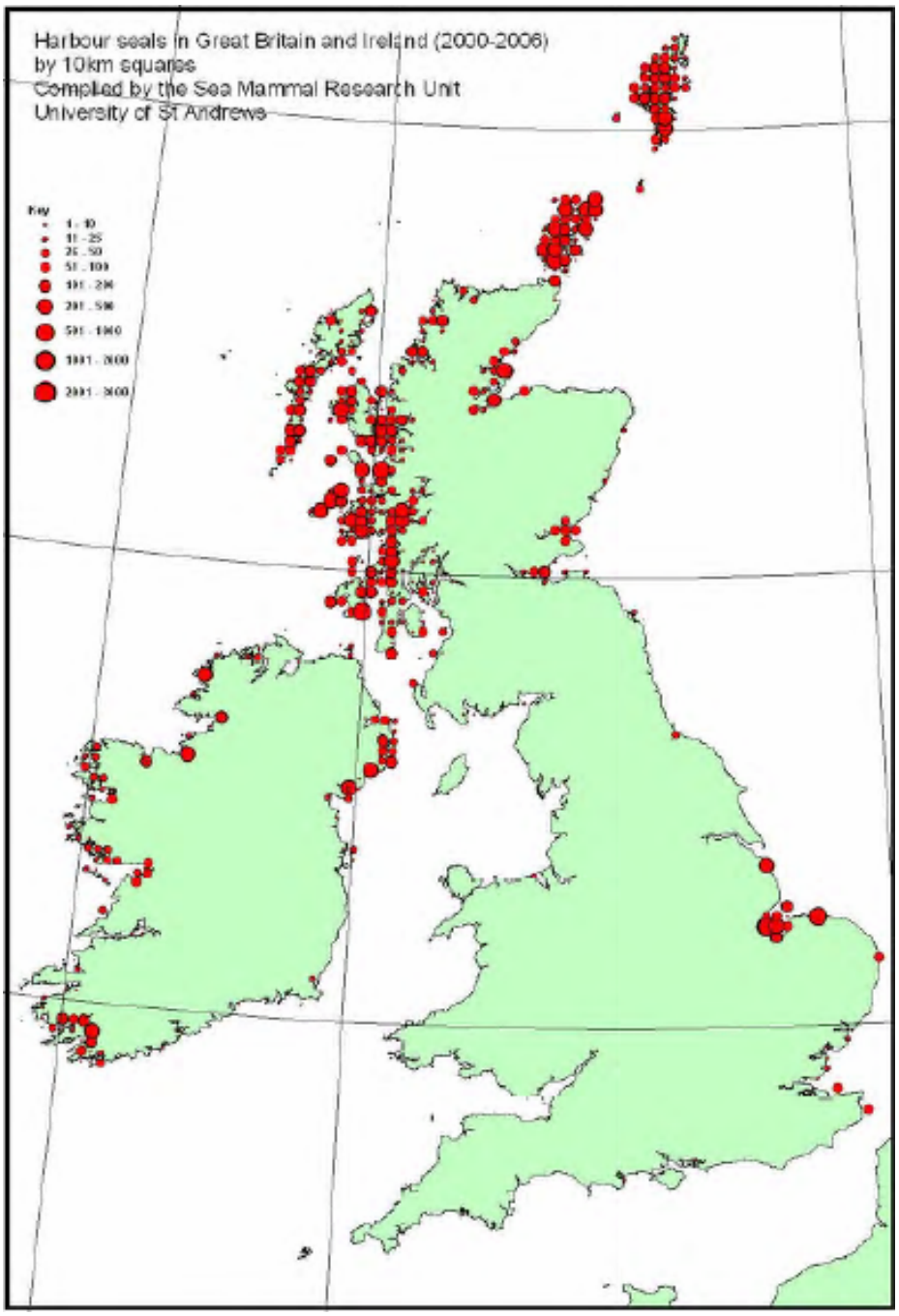
Genetic analysis on common seals in European waters has found evidence of significant genetic differentiation between different areas. Goodman (1998) identified six distinct population units: Ireland-Scotland, English east coast, Wadden Sea, western Scandinavia (Norway-Kattegat-Skagerrak-west Baltic), east Baltic and Iceland. Within the Ireland-Scotland population there is currently no evidence from satellite telemetry of any long-range movements (for example, between the east and west coasts of Scotland) comparable to those observed in grey seals. Satellite telemetry has revealed some interchange between the Wadden Sea and the English east coast populations outside the breeding season (SCOS, 2009).

In the Moray Firth, repeat sightings of adult branded seals have shown that at least some individuals remain faithful to a single haul out site, or small group of sites both during the breeding season and in successive years (H Corpe and PM Thompson unpublished data, cited by Corpe, 1996). On the west coast of Sweden, Härkönen and Harding's (2001) study showed all of the branded adult females returned to within 7 km of their natal site. Males, in contrast, showed an increased rate of dispersal from their natal site from the age of two, yet appeared to remain within approximately 50 km of their natal site.

E2.2.3 Population trends

The common seal population is currently showing a decline in population along many parts of its range in the UK. The Orkney common seal population has declined by 42% since the 1990's and has been falling at an average rate >13% p.a. since 2001. Counts in the Outer Hebrides in 2008 were 35% lower than the peak count in 1996. Counts of the Strathclyde region in 2007 were 25% lower than in 2000, but were similar to counts in the mid 1990s. Surveys of the east coast populations in 2008 also showed a continued lack of recovery in the Firth of Tay, Moray Firth. The combined count for the English east coast population (Donna Nook to Scroby Sands) in 2008 was 4.5% lower than the 2007. In contrast, the west coast of Highland Region has not showed any decline and the North coast of Highland Region has

only shown a slight decline from earlier years. Interestingly, the nearest European population in the Wadden Sea has shown a rapid growth in populations which increased by 15% between 2007 and 2008 and has grown by approximately 13% pa since the 2002 PDV epidemic (SCOS, 2009). The distribution of harbour seals 2000-2006 in Great Britain and Ireland, by 10km squares can be seen in Image E3. A summary of counts of harbour seals in 2006 and 2007 can be seen in Table E2.



(Source: SCOS, 2009)

Image E3. The August distribution of harbour seals in Great Britain and Ireland, by 10km Squares 2000-2006

Table E2. Counts of harbour seals by region (2006-2008)

Region	Location	2006-2008 Pup Production
Scotland	Shetland	3,057
	Orkney	2,867
	Outer Hebrides	1,815
	Highland (Nairn to Cape Wrath)	884
	Highland (Cape Wrath to Appin & Loch Linnhe)	5,043
	Strathclyde (Appin to Mull of Kintyre)	4,732
	Strathclyde, Firth of Clyde (Mull of Kintyre to LochRyan)	811
	Dumfries & Galloway (Loch Ryan to English Border at Carlisle)	23
	Grampian (Montrose to Nairn)	102
	Tayside (Newburgh to Montrose)	166
	Fife (Kincardine Bridge to Newburgh)	215
	Lothian (Torness Power Station to Kincardine Bridge)	55
	Borders (Berwick upon Tweed to Torness Power Station)	0
	Central	1
England	Blakeney Point	581
	The Wash	2,010
	Donna Nook	191
	Scroby Sands	81
	Other east coast sites	347
	South and west England (estimated)	20
	Total	3,230
	Total Britain	23,001

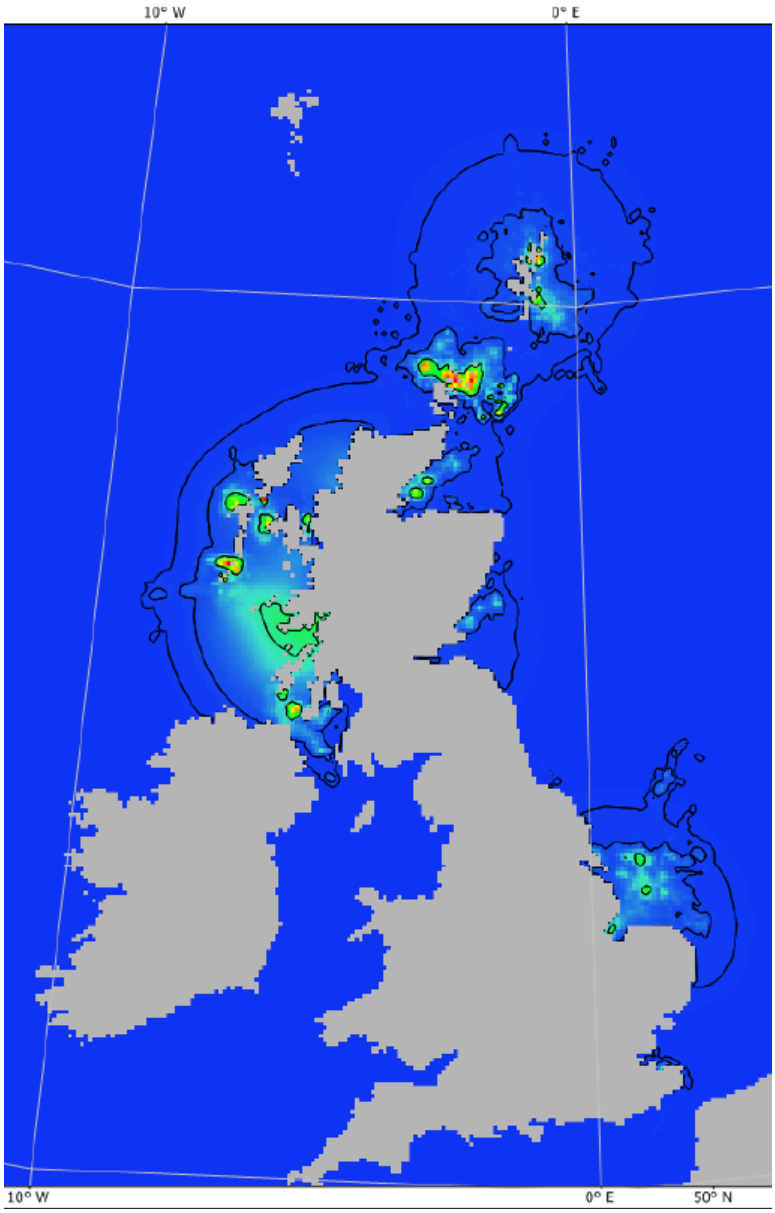
E2.2.4 Common seal movement at sea

Common seals have not been observed undertaking such long distant travels as grey seals, usually staying closer to haul out sites. Thompson *et al* (1996) investigated the distribution, movements and foraging activity of harbour seals around North East Scotland. The terrestrial abundance of harbour seals was found to be highest during summer. Harbour seals showed local seasonal changes in distribution, but all 21 radio-tagged seals moved only to alternative haul-out sites within a range of 75km. All harbour seals foraged within 60km of their haul-out sites, but showed seasonal variation in their foraging areas which was related to changes in their terrestrial distribution. Thompson and Miller (1990) found that seals in the Moray Firth travelled up to 45km from their haul-out sited on feeding trips of up to six days.

Cunningham *et al*. (2009) used satellite transmitters deployed on 24 harbour seals in western Scotland to examine movements and haul-out patterns. Patterns of movement were observed at two geographical scales; while some seals travelled over 100 km, 50% of trips were within 25 km of a haul-out site. These patterns are important for the identification of a marine component to designated protected areas for the species. On average seals returned to the haul-out sites they last used during 40% of trips, indicating a degree of site fidelity, though there was wide variation between different haul-out sites (range 0% to >75%).

Tollit *et al*. (1998) investigated the 'at-sea' distribution of radio-tagged seals to identify the summer foraging areas used by 31 harbour seals from two different haul-out sites in the Moray Firth, N.E. Scotland. The majority of seals foraged within 30km of their haul-out site, consequently there was broad overlap between the foraging areas used by animals from the same site, but little overlap in the areas used by seals from different sites.

Models of marine usage by common seals show foraging areas off much of the east and west coast of Scotland, with hotspots of activity north of St Andrews, in the Moray Firth, northeast of Orkney, the east of Shetland and the Hebrides (DECC, 2009; Sharples *et al*., 2008); marine usage in these areas is among the highest in UK waters (see Image E4).



(Source: DECC, 2009; Sharples *et al*, 2008)

Image E4. The estimated usage of the marine environment by the common seal population

E3. Cetaceans

E3.1 Bottlenose Dolphin (*Tursiops truncatus*)

E3.1.1 Ecology

The bottlenose dolphin has a worldwide distribution in tropical and temperate seas of both hemispheres in both shelf and coastal waters. In coastal waters, bottlenose dolphins favour river estuaries, headlands and sandbanks, mainly where there is uneven bottom relief and/or strong tidal currents (DECC, 2009). Bottlenose dolphins are a social dolphin, commonly forming groups of 2-25 individuals with larger schools occurring in offshore areas (Reid *et al*. 2003). Bottlenose dolphins in Scotland have been found to feed primarily on gadoids such as cod, saithe and whiting as well as Atlantic salmon and cephalopods (Santos *et al*., 2001).

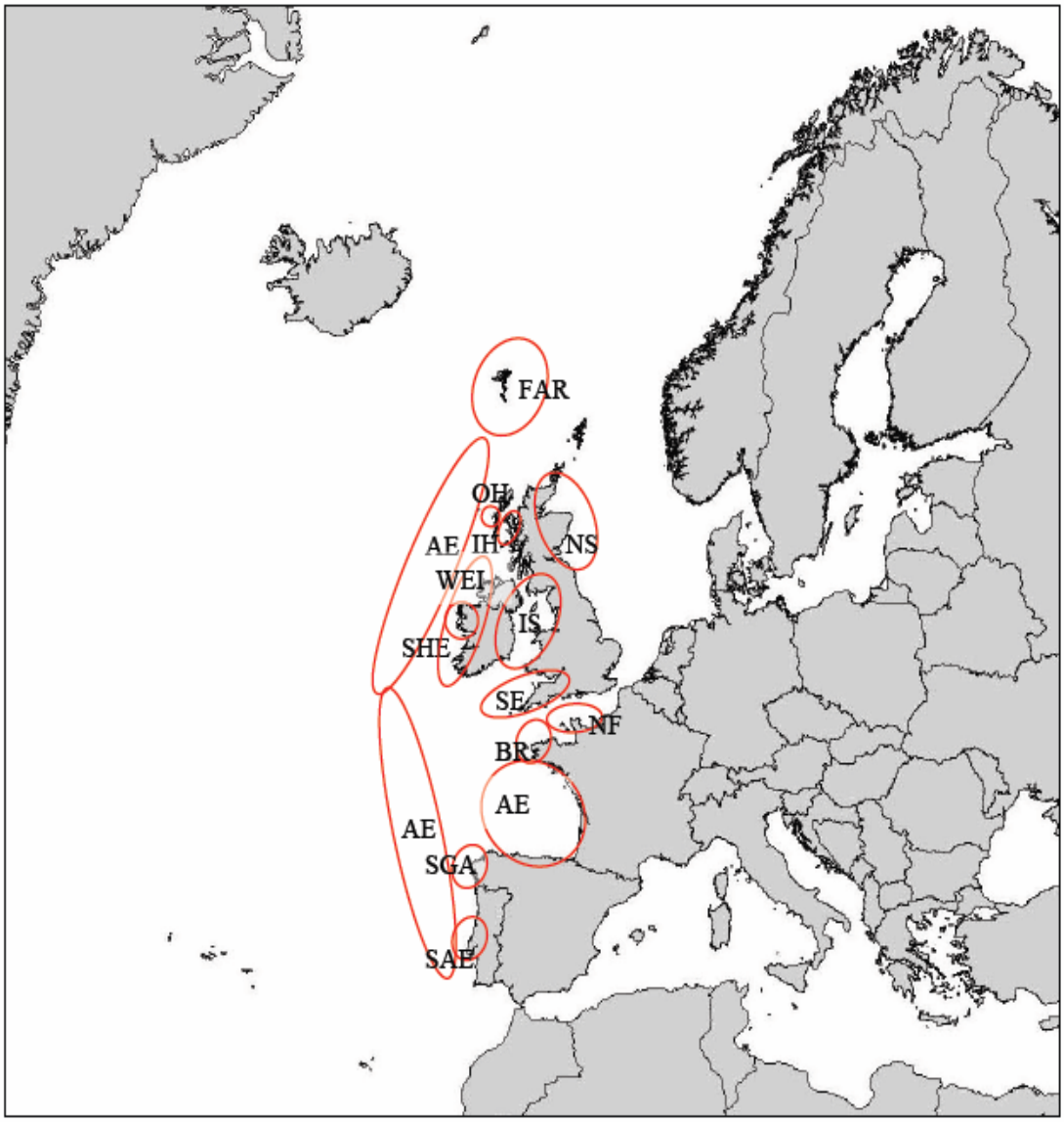
EF3.1.2 Population structure

Bottlenose dolphins in the North Atlantic appear to consist of two forms, a coastal and an offshore form. The better known coastal form is locally common in the Irish Sea (particularly Cardigan Bay) and off north east Scotland (particularly the inner Moray Firth), and in smaller numbers in the Hebrides (west Scotland), and off south west England. Little is known about the offshore form of bottlenose dolphins, including the relationship between the offshore and coastal forms (Clark *et al* 2010). More detailed studies in the North West Atlantic suggest that inshore and offshore populations are ecologically and genetically discrete (Hoelzel *et al*. 1998).

Based on the current understanding of near-shore bottlenose dolphin population and community structure the ASCOBANS/HELCOM small cetacean population structure workshop advised that the following populations are each proposed as separate management units (although it is quite possible that some areas have overlapping communities with different movement patterns) (Evans and Teilmann, 2009):

1) NS-North Sea (Eastern Scotland from Caithness to the borders with England);
2) OH-Outer Hebrides (Island of Barra);
3) IH-Inner Hebrides;
4) IS-Irish Sea;
5) SHE-Shannon Estuary;
6) WEI-Western Ireland;
7) SE-Southern England;
8) NF- North France (Channel Islands and Normandy coast);
9) BR-Brittany coast and islands (West France);
10) SGA-Southern Galicia; and
11) SAE-Sado Estuary (Portugal).

The location of these areas can be seen in Image E5.



(Source: Evans and Teilmann, 2009)

Image E5. Map showing recommended management units for Bottlenose Dolphin in the ASCOBANS Agreement Area

E3.1.3 Abundance and distribution of different populations

Photo-identification studies indicate that around 200-300 individual dolphins occur regularly in Scottish coastal waters with an estimated 45 occurring on the west coast and 193 on the east coast (Thompson *et al*. 2009). Estimates an order of magnitude higher have been estimated for offshore bottlenose dolphins from wide-scale surveys such as SCANS-II and CODA.

As discussed in Section E3.1.2, four distinct populations are currently considered to occur around Scotland, these are the North Sea, Outer Hebrides, Inner Hebrides and an offshore form. Information on the abundance and distributions of these populations is shown in Table E3.

Table E3. Abundance and distribution of different Scottish bottlenose dolphin populations

Population	Background Information
North Sea (Eastern Scotland from Caithness to the borders with England)	The population of bottlenose dolphins on the north east coast of Scotland is estimated at around 193 animals (Thompson *et al*. 2009). The core range of the north east Scottish population is the Moray Firth (with dolphins most frequently sighted within the inner Moray Firth). Bottlenose dolphin is listed in Annex II of the Habitats Directive, and the importance of this population, and the inner Moray Firth, is reflected in the designation of part of this area as a Special Area of Conservation (SAC). In the 1980s, the population's known range was focused in the inner Moray Firth but since the early 1990s, the population's range has expanded and they now inhabit the coastal waters of eastern Scotland from north of the Moray Firth to the Firth of Forth. Surveys along the southern coast of the Moray Firth from 2001-2005 encountered bottlenose dolphins along the majority of the coastline, primarily in waters <25m depth (Robinson *et al*., 2007). Observations are also occasionally made in northern England (Thompson *et al*. 2009; Evans and Teilmann, 2009). Occasional visual and acoustic surveys in offshore waters of the Moray Firth have encountered very few bottlenose dolphins (Hastie *et al*., 2003, Bailey 2006, Talisman Energy (UK) Limited, 2006, SCANS-II 2008). The Whale and Dolphin Conservation Society conducted surveys of the outer Moray Firth in 2008 and recorded no bottlenose dolphin sightings, with the main cetaceans recorded consisting of harbour porpoise and minke whale (WDCS, 2009).
Outer Hebrides (Island of Barra)	In total a maximum of 15 dolphins were identified from surveys in and around the Sound of Barra in 2007. The dolphins appeared to have a very small range and they were encountered during every visit to the area (Thompson *et al*. 2009).
Inner Hebrides	In the Inner Hebrides a maximum of 25 dolphins were identified in 2007. In contrast to the dolphins using the Sound of Barra this community ranged widely with identifications from Kintyre to the north coast of the Isle of Skye and Gairloch (Thompson *et al*. 2009). Systematic data from HWDT shows greater relative densities in certain parts of the Inner Hebrides. During the monthly surveys carried out by HWDT in the summer months between 2003-2005, the southern coast of Islay (at the entrance to Loch Indaal), Mull, Tiree and Skye were found to be of particular relevance for Bottlenose dolphin sightings (Mandleberg, 2006).
Offshore	High densities of bottlenose dolphins have been recorded in the deep waters of the North Atlantic, often in association with long-finned pilot whales and Atlantic white-sided dolphins such as in the vicinity of Rockall Bank and over the Wyville Thompson Ridge and Ymir Ridge. (Reid *et al* .2003). In European offshore waters, the CODA survey (in waters deeper than 200m) estimated bottlenose dolphin abundance in the summer of 2007 as 19,295 with an abundance of 5,700 in waters north of 53ºN, including offshore Scottish waters (CODA 2009).

Analyses of photo-identification data and genetic studies indicate that coastal bottlenose dolphins can make long-distance movements between the east and west coast of Scotland, although this appears extremely rare with relatively few reports of bottlenose dolphins on the north coast of mainland Scotland or around Orkney and Shetland suggesting that the north coast and Northern Isles are not significant bottlenose dolphin habitat (Thompson *et al*. 2009). Comparisons of images of recognisable individuals have shown no evidence for interchange between bottlenose dolphins in the Irish Sea with Western Scotland or the North Sea, just one between Western Ireland and the Irish Sea and none between Barra in the Outer Hebrides and the Inner Hebrides (Evans and Teilmann, 2009). Recently, however Robinson *et al*. (2009) recorded the first evidence for translocational movements of animals between the Moray Firth and the Inner Hebrides of the west coast of Scotland.

Confirmation of matches between the two geographically-separate communities was made for 7 "marked" animals first recorded along the southern coastline of the outer Moray Firth in 2001. Subsequent sightings of the marked animals were made in 2002, 2004 and 2005 around the Inner Hebridean islands of Mull and Skye (approximately 520 kilometres away by the most direct coastal route). Overall however the East coast population appears to be largely isolated, with individuals ranging from Caithness as far south as the Firth of Forth and Northumberland, and no other matches as yet with the West coast or Irish Sea (Evans and Teilmann, 2009).

Research has also indicated a level of population genetic structure among the resident populations of dolphins from East Scotland and West Scotland, and those in adjacent waters in Wales and Ireland. However, there appears to be insufficient genetic divergence to suggest that these are demographically isolated populations. At the same time, the analyses indicated that animals from these four areas do not form a single randomly mating population (Thompson *et al*. 2009).

E3.2 Harbour Porpoise *(Phocoena phocoena)*

E3.2.1 Ecology

Harbour porpoise distribution is restricted to temperate and sub-arctic (primarily 5-14ºC) seas of the Northern Hemisphere. The harbour porpoise is the most commonly recorded cetacean in UK waters, primarily occurring on the continental shelf (Hammond *et al,* 2005; and DECC 2009). In coastal waters, they are often encountered close to islands and headlands with strong tidal currents (Pierpoint, 2008; Marubini *et al*, 2009 and DECC, 2009).

Harbour porpoises around the coasts Scotland forage on a range of species including sandeels (*Ammodytidae*), gadoids such as whiting *(Merlangius merlangus)* and clupeids (Herring and sprats) (Santos *et al.,* 2004; MacLeod *et al.,* 2007).

E3.2.2 Population structure

In the last three decades, photo-ID has become a standard tool in cetacean monitoring, being used for the estimation of various population parameters such as abundance, home range size and use, movements and for the better understanding of social structure. It relies upon natural markings (such as nicks in the dorsal fin or tail flukes, pigmentation patterns or chevrons). However for harbour porpoise it would be unrealistic to use photo-ID for distinguishing populations (Evans and Teilmann, 2009). Instead satellite tagging and genetic studies have been used to investigate population structure in harbour porpoise.

Johnston *et al.,* (2005) investigated the fine-scale distribution of harbour porpoises, using satellite telemetry and found that harbour porpoises can range over large areas (up to 11289 km^2) but generally concentrated their movements in small focal regions often proximate to islands, headlands, or restricted channels. Recent satellite-tracking data from Denmark have shown animals moving from northern Denmark to the northern North Sea and Shetland (Hammond *et al*., 2003).

The identification of different stocks or subpopulations for harbour porpoise were undertaken by ASCOBANS Population Structure Workshop based on genetic studies and the combining of information from other approaches (e.g. telemetry). The workshop identified 14 distinct stocks for the North Atlantic. The stocks relevant to UK waters are the North Eastern North Sea & Skagerrak (NENS), Southwestern North Sea & Eastern Channel (SWNS), Celtic Sea (plus South-west Ireland, Irish Sea & Western Channel) (CES) and North-west Ireland & West Scotland (NWIS) (Evans and Teilmann, 2009).

E3.2.3 Abundance and distribution

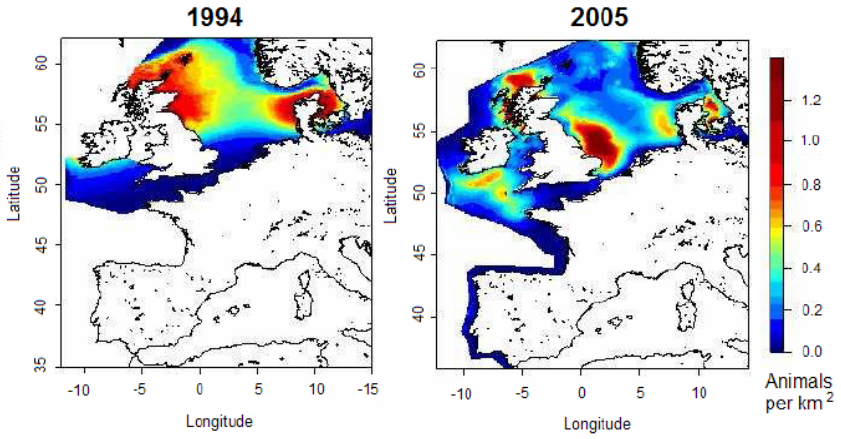
The harbour porpoise in the most abundant cetacean in UK waters (Clark *et al.* 2010; DECC, 2009). The estimated abundance of harbour porpoise in different areas of the UK from the SCANS-II survey is presented in Table E4. While sighted throughout the year, peak numbers are generally recorded in summer months from June to October.

Table E4. Estimated abundance and density of harbour porpoise in UK waters

Area	Abundance	Density
Northern Isles and Moray Firth	10,254	0.274
Northern North Sea	23,766	0.177
Central North Sea (north)	47,131	0.294
Central North Sea (south)	88,143	0.562
Southern North Sea and Channel	40,972	0.331
Celtic Shelf	80,163	0.408
Irish Sea	15,230	0.335
Minches and western Scotland	12,076	0.394
Shelf waters west of Scotland and Ireland	10,002	0.067
Total (strata overlapping UK waters)	328,142	0.317

(Source: SCANS-II)

Density surface modelling of harbour porpoise from the SCANS project in 1994 suggested high densities of animals north of Scotland and in the western central and northern North Sea. The highest density of porpoises in UK waters in the SCANS survey was recorded off the Northern Isles and the Inner Moray Firth at 0.783km animals/km2 and an abundance of 24,355 animals. Repeat surveys for SCANS-II in 2005 showed considerable differences in distribution (DECC, 2009). While areas of high density remained north of Scotland, density around Orkney and Shetland appeared considerably lower than that in 1994 (see Image E5). In addition a more southerly distribution in the North Sea was observed in 2005 with elevated densities in the southern North Sea and only moderately low densities for the northern North Sea and Moray Firth. The reason for the change is unknown but changes in prey abundance and distribution have been suggested. The Minches and western Scotland (Hebrides) which were not surveyed in the original 1994 SCANS survey but high densities was recorded in SCANS-II. Various studies that have investigated harbour porpoise distribution at a more local level are summarised in Table E5.



(Source: DECC, 2009)

Image E5. Modelled density of harbour porpoise in 1994 SCANS and 2005 SCANS II surveys

Table E5. Regional studies into harbour porpoise abundance and distribution

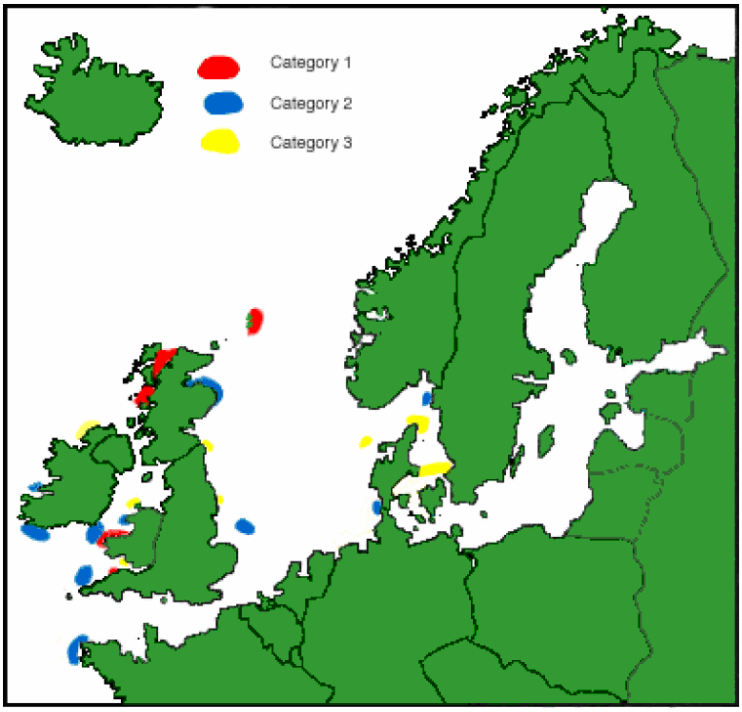
Area	Summary	Data Source
Hebrides	Sightings collected by the Sea Watch Foundation during vessel surveys in West Scotland were critically analysed and used to construct a predictive habitat model for harbour porpoises in the Greater Minch. Four 'Hotspot' areas with high relative abundance were identified in (1) the region between Ardnamurchan, Coll and the Small Isles, (2) southeast of Barra, (3) northeast of Skye to Gairloch, and (4) west of Pairc Peninsula (Isle of Lewis) to Shiant Islands.	Marubini *et al*. 2009
Moray Firth	An examination of the animals using the southern coastal waters of the outer Moray Firth was carried out between May and October 2001 to 2005 inclusive. The most commonly sighted cetaceans were harbour porpoises (comprising 60% of all encounters).	Robinson *et al.* 2007
West Coast	During May-August, 2002-2004 a boat-based visual survey, employing effort-related line transect methodology was conducted for specified areas of the west coast of the UK. Harbour porpoise density showed a significant decrease in the South West, with an increase for West Scotland over the study period, whilst the highest numbers for both Northern Ireland and the Firth of Clyde were recorded in 2003. The porpoise population in the south-west of England was estimated at 1645 (823_{LCI}-3289_{UCI}) individuals around the Firth of Clyde in July and 3105 (2032_{LCI}-4745_{UCI}) off West Scotland during August and September.	Goodwin and Speedie, 2008.
Moray Firth	Used broad-scale surveys in the Moray Firth SAC to model habitat preferences of different marine mammals. The predictions from the model indicated highest relative densities occurring within the centre of the area from the outer SAC boundary towards the Inverness Firth and also off Helmsdale.	Bailey and Thompson, 2009.

Evans and Wang (2008) used spatial modelling and a range of data sources to identify possible hotspots for Marine Protected Areas and SACs in Europe. Areas were highlighted that had greater than average numbers of porpoises regularly present during April-September and organised into three categories in descending order of priority (Table E6). A map showing the different areas can be seen in Image E6

Table E6. Hotspots for Harbour Porpoise the UK

Category	Criteria	Areas
1	Locations where porpoises have been recorded over several years, with a presence in every month of the year, and concentrations (mean standardized sightings rates >50/hour) in at least four months during the important period April-September.	Shetland Isles (particularly east coastal waters),
		Coastal waters of western Scotland including the eastern sectors of the Minch and Sea of Hebrides (and incorporating waters around the Isle of Skye, Small Isles - Rum, Eigg, Muck and Canna and the Isle of Mull)
		Southern Cardigan Bay/North Pembrokeshire coast
		North Devon coast
2	Locations where porpoises have been recorded over several years, with a presence generally recorded in most months of the year, and concentrations (mean standardized sightings rates >50/hour) in at least two months during the important period April-September.	The Moray Firth eastwards to the Aberdeen coast
		The Lleyn Peninsula in North Wales
		South-east of Wexford and the St. George's Channel
		The mouth of the Shannon Estuary
		South-west Cork coast
		Outer Bristol Channel south to North-west Cornwall
		East of the Wash
		West of Brittany (France)
		West of Sylt and Amrun (Northern Germany)
3	Locations where porpoises have been recorded over several years, with a presence in at least three months of the year, and concentrations (mean standardized sightings rates >50/hour) in at least two months, though not necessarily between April and September.	The coast of Northumberland
		Yorkshire coast
		North Anglesey in North Wales
		Gower Peninsula in South Wales
		Co. Donegal (N.W. Ireland);
		North-west Denmark
		Southern Skagerrak & North-west Kattegat

(Source: Evans and Wang,2008)



(Source: Evans and Wang, 2008)

Image E6. Map showing Primary Harbour Porpoise areas

E4. European Otter (*Lutra lutra*)

E4.1 Ecology

The Eurasian or European otter (*Lutra lutra*) is native to the UK. It belongs to the Mustelid family that includes weasels, stoats, badgers, polecats, pine martins and mink. The otter has a broad geographical distribution that extends west-to-east from Ireland to Japan and north-to-south between the Arctic Circle and Southeast Asia (Chanin, 2003).

Populations of otters in England and Wales are confined mainly to fresh water but coastal habitats in Scotland are also readily exploited. Coastal holts are typically found within 100 m of the shore but can be further inland (Chanin, 2003; Kruuk, 1995). The diet of otters in coastal areas of Scotland is dominated by fish such as eelpout (*Zoarces viviparous*) and rocklings (*Ciliata mustela)*, sea-scorpions (*Taurulus bubalis),* butterfish (*Pholis gunnellus*) as well as consuming some crabs (Kruuk *et al.* 1991; Chanin, 2003).
Otters have large ranges with average linear territories along rivers of 40-50km recorded for dog (male) otters and about half this distance for females (Strachan, 2007; Kruuk *et al.,* 1993; Birkeland, 2003; Chanin, 2003; Mason and Macdonald, 2008). The range of otters utilising coastal areas in less well understood. In Shetland resident females have been recorded living in ranges of 5-14 km of coast, males had larger ranges of up to 19 km. Transient dog otters have been recorded moving 40km along the coast (Kruuk, 1995).

E4.2 Use of Marine Environment by Otters

Otters make use of shallow, sheltered, inshore marine areas. Feeding is usually within 100m of the shore (Kruuk *et al.,* 1998). Kruuk and Moorhouse (1991) found that on 500 otter dives, 84% occurred within 50m of the coast. Otters also typically dive to less than the 10m depth contour with deeper water generally avoided (Scottish Executive, 2007). A detailed study in Shetland during 1983 to 1985 found that although otters were recorded diving as deep as 14 m, the vast majority of dives occurred at shallower depths (54% of 3558 dives were in water less than 2 m deep and 98% were in less than 8m) (Nolet *et al.* 1993; Kruuk (1995). Evidence from accidental captures of otters in lobster pots has shown that they are capable of diving to depths of 15 m (Twelves 1983).

The preference for foraging in shallow water is thought to be related to energetic coasts (with deep dives more demanding and allowing less time for foraging along the bottom (Nolet *et al.* 1993). This energetic need for shallow water could possible explain the low densities observed along steep coasts (Kruuk *et al.,* 1998),

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Appendix F
Anadromous Fish Baseline Review for the Draft OWE Plan HRA

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F1. Migratory Fish Baseline Characterisation

F1.1 Scope of Review

This appendix presents a review of the ecology of migratory fish populations found in Scottish waters and is designed to provide a context for the HRA of the OWE options in Scottish Territorial Waters (STW). The review focuses specifically on the migratory behaviour and distribution at sea of the following species as qualifying interest species identified during the HRA for the draft OWE Pan.:

- Atlantic salmon *(Salmo salar)*;
- Sea lamprey (*Petromyzon marinus* L);
- River lamprey (*Lampetra fluviatilis*);
- Allis shad (*Alosa alosa*); and
- Twaite shad (*Alosa fallax*).

This is a broad-scale characterisation only which seeks to draw upon available information to understand the value of the area in general terms. It does not specifically focus on the interest features of the designated sites but provides a context for that assessment in recognition of the importance of migratory fish in this area.

F1.2 Major Information Sources

Generic reviews of migratory fish ecology have been produced as part of the Life in UK Rivers project, a project which aimed to develop methods for conserving the wildlife and habitats of rivers within the Natura 2000 network of protected European sites (Hendry and Cragg-Hine, 2003). Background reviews for Atlantic salmon, allis shad and the sea lamprey have also been produced by OSPAR following the inclusion of the species on the OSPAR List of threatened and/or declining species and habitats (OSPAR, 2008 and OSPAR, 2009). A number of other studies on migratory fish have also been included where appropriate. One key study investigating Atlantic Salmon, sea trout and European eel migration (Malcolm *et al.* 2010) has also recently been made available (draft only at the time that this HRA was being produced). This report presents a detailed review of the migratory routes and behaviour of Atlantic salmon in Scotland's coastal environment in the context of potential implications for marine renewable development. It has been used to inform the screening and assessment stages for this HRA and the findings from it are drawn up within the review below.

F2. Atlantic Salmon *(Salmo salar)*

F2.1 Ecology

The Atlantic salmon is anadromous, its life cycle involving both a freshwater and seawater phase. Salmon utilize rivers for reproductive and nursery phases and the marine environment for adult development and rapid growth (Hendry and Cragg-Hine, 2003). In late autumn and early winter adult salmon spawn in clean gravel in the river or stream of their origin. Eggs are deposited in spawning redds, depressions in the gravel bed excavated by the female salmon (Birkeland, 2003).

Juvenile salmon usually remain in fresh water for between two and four years, before migrating to sea. Migration takes place between April and June, when the parr begin to turn silver and become smolts. During the smoltification process salmon undergo a number of behavioural, morphological and physiological changes, which prepare them for a life in the sea. Upon reaching the sea, salmon grow rapidly, feeding on a variety of small fish including capelin, herring, sand eels and sprats. After one winter at sea a salmon is called a grilse or 1 sea-winter (1SW), and fish that have spent more than one winter at sea are called a multi-sea-winter (MSW) salmon. The length of time salmon spend in the sea before returning to their river of origin to spawn varies from one winter to five winters (Birkeland, 2003; Hendry & Cragg-Hine, 2003; Malcom *et al*. 2010).

The UK Atlantic salmon population comprises a significant proportion of the total European stock. Scottish rivers in particular are a European stronghold for the species (JNCC, 2007).

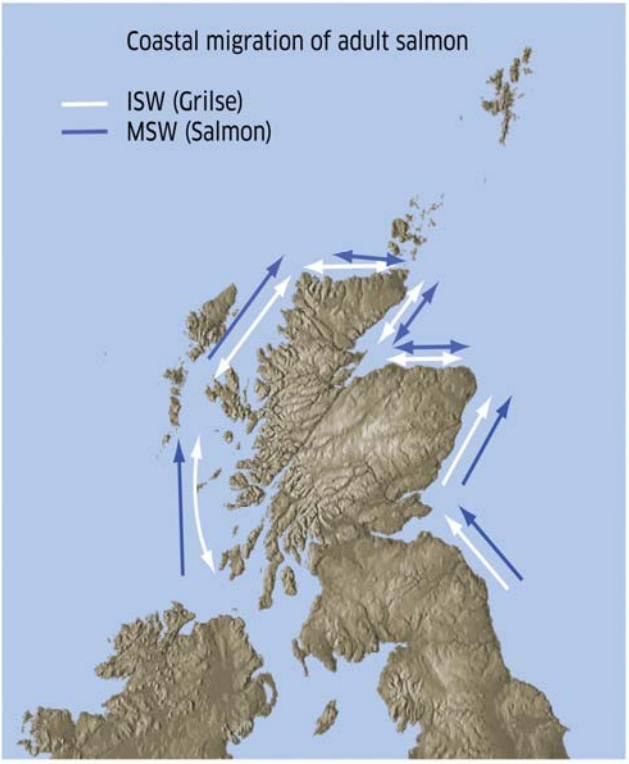
F2.2 Distribution and Migration Routes at Sea

Adult and sub-adult salmon have been observed using the marine environment at locations extending from Labrador in the west to Faroe and the Norwegian Sea in the east. No tagged Scottish Atlantic salmon have been observed on the Norwegian coast. Holm *et al.,* (2000) investigated the spatial and temporal distribution of post-smolts of Atlantic salmon in the Norwegian Sea and adjacent areas. The highest incidences of post-smolts were in the slope current west of the British Isles, where the highest catch per unit of effort (cpue) value was recorded between northern Scotland and the Faroes in June 1997. The post-smolts appear to follow the main surface currents northwards into the Norwegian Sea where they spread in a fan-like distribution over an area covering most of the international waters between the exclusive economic zone (EEZ) of Norway, the Faroes and Iceland up to about latitude 73-75 N. Hansen and Jacobsen (2003) investigated the origin and migration of wild and escaped farmed Atlantic salmon in oceanic areas north of the Faroe Islands. The tagging experiment found relatively large numbers of returns were observed in Scotland.

Greenland and Faroe seas are considered to be particularly important as a feeding area for Scottish salmon based on data from the fisheries in these areas. However the exact spatial distribution is currently unknown as most data has only come from Greenland and Faroese fisheries, representing only two sampling points for the much larger area of the ocean in which salmon are potentially represented. The concept that salmon tend towards broader, less clearly defined marine habitat use making use of oceans currents has been suggested by some research but data is currently not considered sufficiently detailed to infer specific migration corridors (Malcolm *et al.* 2010).

Patterns of migration indicated by tagging studies around the Scottish coast suggest that Atlantic salmon make landfalls at many different parts of the coast and then redistribute themselves (Dunkley, 1985). Malcom *et al.* (2010) concluded that 1SW and MSW sea-age classes may return towards the Scottish coasts across a broad front with the marine origins of the fish are likely to be highly biased towards a range of locations to the north and west of the British Isles. Malcom *et al.* (2010) also suggested a conceptual model on how Scottish salmon reaching the coast subsequently migrate towards their natal river based on a review of available evidence. The model proposed that salmon and grilse return both to the north and west coasts of Scotland, and may even reach the north east coast directly having passed Orkney and Shetland. In general this wide geographic distribution of potential arrival locations gives variable and apparent random directions of migration. However several broad trends in migration patterns are evident;

- Given that MSW salmon rivers dominate the north and east coasts, the dominant direction of movement for MSW fish caught on the west will be north and east. However, for grilse, the pattern of movement would depend on where they reach the shoreline and where their native river was located.
- For east coast rivers south of south of Aberdeenshire fish generally moving in a northward direction from the Northumberland coast



(Source: Malcom *et al.* 2010
)

Image F1. Dominant directions of travel for Atlantic salmon (1SW and MSW) in Scottish coastal waters based on tagging studies

F3. Sea Lamprey (*Petromyzon marinus* L)

F3.1 Ecology

The sea lamprey is the largest of the British lampreys. This anadromous species occurs over much of the Atlantic coastal area of western and northern Europe, from northern Norway to the western Mediterranean, and eastern North America (Maitland, 2003). Metamorphosis to the adult form takes place between July and September and the process usually takes a few weeks. The time of the main migration downstream seems to vary from river to river and relatively little is known about them after they reach the sea, where they have been found in both shallow coastal and deep offshore waters. The spawning migration in Europe usually takes place in April and May when the adults start to migrate back into fresh water (Maitland, 2003; Harvey & Cox, 2003).

F3.2 Distribution and Migratory Routes at Sea

Sea lampreys adult (growth) phase is short and lasts around 2 years. In this time the species is parasitic feeding on a variety of marine and anadromous fishes, including shad, herring, pollock, salmon, mullets, cod, haddock, greenland sharks and basking sharks (OSPAR, 2008; Gallant *et al.* 2006).

The rarity of capture in coastal and estuarine waters suggests that marine lampreys are solitary hunters and widely dispersed at sea. Sea lamprey have been caught at considerable depth (up to 4099m) suggesting that they can feed in deeper offshore waters (Haedrich, 1977). However, owning to the parasitic nature of the adult phase their distribution is largely dictated by their host. Homing behaviour is not apparent in this species. However they are selective in their choice of spawning streams and are thought to favour sites where ammocoete larvae are present due to olfactory cues (OSPAR, 2008).

F4. River Lamprey (*Lampetra fluviatilis*)

F4.1 Ecology

The river lamprey (*Lampetra fluviatilis*) is intermediate in size between the large sea lamprey and the small brook lamprey. The average adult length is around 30cm with a corresponding weight of about 60 g, but specimens over 40cm can be found, and the unusual race in Loch Lomond is often less than 20 cm. River Lamprey are anadromous migratory species, which grows to maturity in estuaries around Britain and then moves into fresh water to spawn in clean rivers and streams (Maitland, 2003).

F4.2 Distribution and Migratory Routes at Sea

Unlike sea lamprey the growth phase of river lamprey is primarily restricted to estuaries. In the estuary the river lamprey feeds on a variety of fish, but particularly herring (*Clupea harengus)*, sprat (*Sprattus sprattus*) and flounder (*Platichthys flesus)*. After one to two years in estuaries, river lamprey stop feeding in the autumn and move upstream into medium to large rivers, usually migrating into fresh water from October to December (Maitland, 2003).

F5. Shad Species

F5.1 Ecology

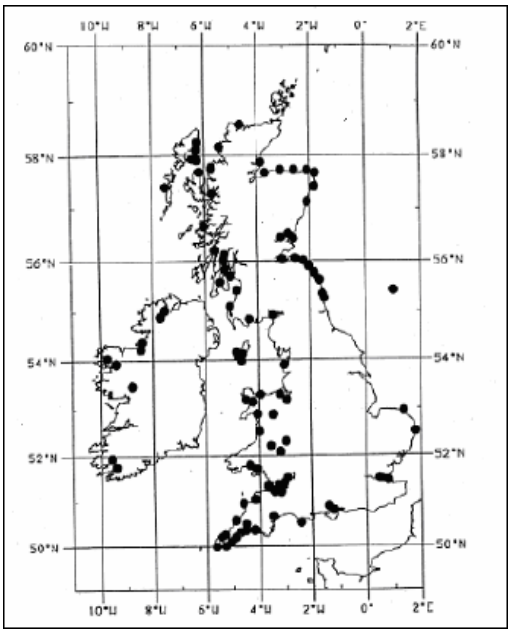
The allis and twaite shad (*Alosa alosa* and *Alosa fallax* respectively) are both members of the herring family (Clupeidae). The species are anadromous, and have a pelagic-sea life mainly inshore along the coast migrating to the higher, middle watercourse of rivers to spawn (Maitland and Hatton-Ellis, 2003). Mature fish that have spent most of their lives in the sea stop feeding and move into the estuaries of large rivers, migrating into fresh water during late spring (April to June). Males migrate upstream first, followed by females one or two weeks later. At maturity both species stop feeding and gather in the estuaries of suitable rivers in early summer (April and May), moving upstream to spawn from mid-May to mid-July. The males usually move upstream first, but they are soon joined by the females. Allis shad are almost exclusively planktivorous, whereas twaite shad also feed on small fish such as sprats, and this is likely to be reflected in their habitat selection.

No subspecies of allis shad are recognised, but there is some evidence that they return to the natal river, suggesting that there may be some genetic integrity within populations. Several subspecies of twaite shad have been recognised by various authors but only one of these, *Alosa fallax fallax*, occurs in Britain (Maitland and Hatton-Ellis, 2003).

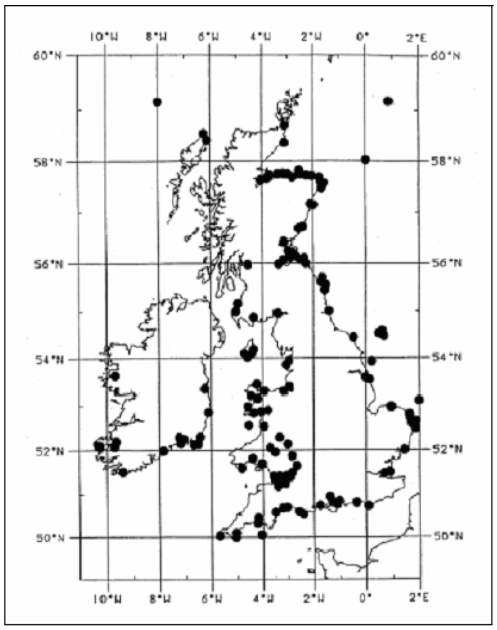
F5.2 Distribution and Migratory Routes at Sea

The requirements of shads at sea are very poorly understood, but they appear to be mainly coastal and pelagic in habit, but have both been occasionally recorded over 100km offshore (Image F2). Allis shad have been reported from depths of 10-150 m, and twaite from depths of 10-110 m, with a preference for water 10-20 m deep. A suitable estuarine habitat is likely to be very important for shad, both for passage of adults and as a nursery ground for juveniles (Maitland and Hatton-Ellis, 2003; OSPAR, 2009).

Allis shad



Twaite shad



(Source: JNCC, 2007)

Image F2. Presence/absence data for Allis and Twaite shad

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