



UK Offshore Energy Strategic Environmental Assessment (UK OESEA3)

Synthesis of Responses to OESEA Scoping

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1 Introduction

This report is a compilation summarising the responses received following a scoping exercise undertaken by the Department of Energy and Climate Change (DECC) for the Strategic Environmental Assessment (SEA) of a draft plan/programme for further licensing/leasing rounds for offshore oil and gas, offshore gas importation and storage, offshore carbon dioxide transport and storage, offshore wind, wave and tidal technologies in relevant UK waters.

The aim of the scoping exercise was both to inform the Consultation Bodies/Authorities and other stakeholders of the draft plan and associated SEA process and to request feedback.

The scoping consultation was undertaken by direct emailing to the statutorily defined Consultation Bodies and Authorities. Input from other stakeholders was also welcomed and during this period the scoping document was placed on the [DECC SEA webpage](#). The scoping consultation took place over 5 weeks from 31 July 2015 until 4 September 2015.

The following consultation questions were asked:

Consultation Questions

- 1. Consultees are invited to highlight additional initiatives which they consider are relevant to the draft plan/programme.**
- 2. Consultees are invited to draw attention to and provide (where relevant/possible) additional information and data sets which they consider of potential relevance to this SEA.**
- 3. Do you agree with the choice of Regional Seas used to help describe the environmental baseline?**
- 4. Are there any additional environmental problems you consider to be relevant to the SEA?**
- 5. Are there any additional influences, and supporting data sources, on the likely evolution of the environmental baseline?**
- 6. Are there any objectives that you feel should be included or removed?**
- 7. Are the indicators for each objective suitable? If not please suggest alternatives.**
- 8. Do you have any comments on the sources of potentially significant effect for each of the activities covered by the draft plan/programme, including whether they should be scoped in or out of assessment in the Environmental Report?**
- 9. Are there any additional information sources or existing monitoring arrangements which could be used to inform monitoring of the offshore energy draft plan/programme?**
- 10. Do you have any comments on the proposed approach to consultation?**

Responses were received from 19 organisations listed below:

- Cadw
- Department of the Environment Northern Ireland (DOENI)
- The Crown Estate (TCE)
- Natural Resources Wales (NRW)
- RenewableUK (RUK)
- Royal Society for the Protection of Birds (RSPB)
- Scottish Natural Heritage (SNH)
- Joint Nature Conservation Committee (JNCC)
- Historic England (HE)
- Natural England (NE)
- Scottish Environment Protection Agency (SEPA)
- Historic Scotland (HS)
- Response on behalf of: Humane Society International UK, Marine Conservation Society and Whale and Dolphin Conservation (WDC *et al.*)
- Marine Management Organisation (MMO)
- Environment Agency (EA)
- Tidal Lagoon Power (TLP)
- Carbon Capture and Storage Association (CCSA)
- EDF Energy (EDF)
- The Wildlife Trusts (TWT)

Stakeholder responses are summarised in this report and full copies of the responses are available on the SEA webpage. A number of respondents made similar comments and in the interests of brevity these have been combined below for each of the consultation questions asked, with the various organisations indicated by their abbreviations listed above.

A number of additional initiatives, along with legislative, planning and policy clarifications were received, particularly with regards to those for devolved matters. Additional emphasis of marine spatial planning across topics (and in relation to the choice of Regional Seas to describe the baseline), the status of the MCZ process in Welsh waters, proposals for new SACs and SPAs, and cumulative effects, particularly in relation to potential new tidal range developments and interactions with the Water Framework Directive, featured in many of the responses. Similarly, lists of additional information sources, environmental problems and data sources relating to the evolution of the baseline (particularly of research in preparation or soon to be published), will assist definition of the OESEA3 baseline. These, along with the approach to assessment, will be expanded to include those additional areas identified by stakeholders where appropriate. Suggestions to amend the SEA objectives and indicators similarly reflect devolved matters and the evolving nature of marine management.

Comments were also received which were not in answer to specific consultation questions. These were primarily in relation to the nature of the plan (e.g. its technical and geographic scope), and these and other general comments are also summarised at the end of this document.

The stakeholder scoping input to the SEA process and information base is welcomed and the SEA Team would like to thank stakeholders for their responses. Input will be taken forward into the SEA process where appropriate and be discussed with the SEA Steering Group.

1.1 Responses to Question 1: additional initiatives

#	Comments	
	General	
1	Cadw	<ul style="list-style-type: none"> Developments consented by the Planning Inspectorate require a marine licence from NRW.
2	DOENI	<ul style="list-style-type: none"> The Strategic Planning Policy for Northern Ireland (2015) is in the draft stage. The Environment (Northern Ireland) Order 2002 and Wildlife and Natural Environment Act (Northern Ireland) 2012. Planning Policy Statement 2: Natural Heritage. Planning Policy Statement 15: Planning and Flood Risk (updated 2014). There will be a Northern Ireland Regional Landscape Character Assessment produced this year, which is in addition to Landscape Character Areas. Further consideration of marine litter, including reference to the OSPAR Regional Action Programme. Take account of the Environmental Liability (Prevention and Remediation) (Amendment) Regulations (Northern Ireland) 2015/Environmental Damage (Prevention and Remediation) (England) Regulations etc.
3	MMO	<ul style="list-style-type: none"> The South Marine Plans public consultation will not be until 2016.
4	NE	<ul style="list-style-type: none"> MMO review of monitoring should be cited; it is a useful collation of knowledge of significance of impacts on environmental features.
5	NRW	<ul style="list-style-type: none"> The SEA should be cross-checked for onshore/offshore consistency with the HRA for the onshore licensing rounds (published August 2015). The conclusions of the Silk Review should be recognised within the scoping document. NRW advise seeking further information from WG on their marine Fisheries Legislative Review and the forthcoming Assessing Welsh Fishing Activities programme.
6	SNH	<ul style="list-style-type: none"> The Sustainability Appraisal (inc. SEA) of the Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters. The draft Pentland Firth and Orkney Waters Marine Spatial Plan (currently out for consultation). Shetland's Marine Spatial Plan. This has been adopted as supplementary guidance to the Local Development Plan and is therefore statutory. Note The Crown Estate's intention to progress a further round of leasing for wave and tidal test and demonstration sites, across the UK, in the near future. The Scottish Government Oil and Gas Strategy 2012-2020.
7	TCE	<ul style="list-style-type: none"> It would be helpful if legislation, policy and initiatives are written in chronological order and some consideration should be given to the value of documents/initiatives that have been superseded by other documents/initiatives referenced in the same section (e.g. EC Roadmap on Maritime Spatial Planning, Environment Bill White Paper (2013-2014) – Wales).
8	JNCC	<ul style="list-style-type: none"> Meeting to be arranged with SEA Team to discuss information sources, as well as anticipated JNCC input through the process leading to the OESEA3 Environmental Report.
9	CCSA	<ul style="list-style-type: none"> No comments at this time but wish to be kept informed of progress and stakeholder meeting dates.

#	Comments	
10	TLP	<ul style="list-style-type: none"> Plans and programmes are tabulated by topic areas. Some plans and programmes have relevance across topics and therefore it would be helpful to indicate where there is a cross-over. It would also be helpful to make available a single amalgamated table. Water Framework Directive is of particular relevance to tidal lagoons and other tidal range projects, and cuts across many topic areas. The implications are important and should be understood, and the TLP response to the consultation on updating the River Basin Management Plans, and the WFD compliance assessment for Tidal Lagoon Swansea Bay could help inform OESEA3.
Biodiversity, Habitats, Flora & Fauna		
11	DOENI	<ul style="list-style-type: none"> The agreed Strategy for MPAs was published in November 2014.
12	EA	<ul style="list-style-type: none"> Marine Spatial Planning Directive; Environmental Quality Standards Directive/Priority Substances Directive The Common Fisheries Policy Local plans referenced should include River Basin Management Plans. The Invasive Non Native Species Strategy referred to has now been published. European Directive No 1100/2007 establishing measures for the recovery of the stock of European eel.
13	MMO	<ul style="list-style-type: none"> The Planning Act 2008 should be in the list of relevant statutes given its importance/relevance for the licensing of projects classed as national significant infrastructure projects
14	NRW, EA	<ul style="list-style-type: none"> EU Regulation 1143/2014 on Invasive Alien Species on the prevention and management of the introduction and spread of invasive alien species.
15	NRW	<ul style="list-style-type: none"> Note UK policy extends the same protection to listed Ramsar sites in respect of new development as that afforded to sites designated under the EC Birds and Habitats Directives.
16	NRW, SNH, NE, TCE	<ul style="list-style-type: none"> Proposals for new SACs and new/extended SPAs should be included within the SEA. Once consultation on new areas opens, the possible sites should be treated as designated in terms of assessments until the relevant Minister has decided whether or not to designate them.
17	TCE	<ul style="list-style-type: none"> Make clear that socio-economic assessments were made as part of the MCZ designation process.
18	TCE, NRW	<ul style="list-style-type: none"> The status of Marine Conservation Zones in Wales should be checked with the Welsh Government. Make clear that the MCZ process for Welsh inshore waters was distinct from that for English inshore and other offshore waters.
19	TLP	<ul style="list-style-type: none"> EU Maritime Spatial Planning Directive 2014 (2014/89/EU). Environment (Wales) Bill. Wales Statutory Instruments for marine management. Welsh Government's Marine and Fisheries Action Plan (2013). European Marine Site management schemes e.g. Tamar Estuaries Management Plan (2012). Coastal Habitat Management Plans (CHaMPs) e.g. Severn Estuary CHaMP (2009). Management strategies associated with UNESCO Biosphere Reserves e.g. North Devon. Biosphere Reserve Management Strategy (2014).
20	TWT	<ul style="list-style-type: none"> Directive 2014/89/EU Establishing a Framework for Maritime Spatial Planning
Geology, Substrates & Coastal Processes		
21	EA	<ul style="list-style-type: none"> Relevant European legislation should include the Marine Spatial Planning Directive. Local plans should include River Basin Management Plans and Flood Risk Management Plans.
22	NRW	<p>Under the local category:</p> <ul style="list-style-type: none"> National Strategy for Flood and Coastal Erosion Risk Management in Wales (2011). National Habitat Creation Programme (Wales) – ongoing (NRW on behalf of WG). For England and Wales, there are reports under Section 18 of the Flood and Water Management Act which report on progress of delivery of the National Strategy. Climate Change Strategy for Wales (2010), including the Adaptation Delivery Plan (2010).

#		Comments
		<p>Under the UK category:</p> <ul style="list-style-type: none"> • UK Climate Change Risk Assessment (2012) and adaptation Strategy (2013). • Intergovernmental Panel on Climate Change 5th Assessment Report 2014. • MCIPP report cards.
23	SEPA	<ul style="list-style-type: none"> • Flood Risk Management (Scotland) Act 2009. • The Flood Risk Management Strategies consultation (now closed). Strategies to be published in December 2015. • The Scotland River Basin Management Plan and Solway Tweed River Basin Management Plan which include waters up to 3nm from the coast.
24	TLP	<ul style="list-style-type: none"> • Shoreline Management Plans (identifying those that have been signed off by government and the statutory bodies). • Welsh Government's Minerals Planning Policy Wales, Minerals Planning Guidance Notes, Interim Sand and Gravel Statement and Interim Marine Aggregates Dredging Policy (Bristol Channel and Severn Estuary).
Landscape & Seascapes		
25	DOENI	<ul style="list-style-type: none"> • There should be a broad consideration at the strategic level of the proposals within this plan and cumulatively with other plans for structures in adjacent inshore areas to assess whether there could be a significant effect [on seascape], particularly in more enclosed waters.
26	HE	<ul style="list-style-type: none"> • The Historic England Historic Landscape and Seascapes Characterisation for all inshore and offshore areas off England is now complete and available. • References to the National Heritage Protection Plan 2011-2015 (2011) should be replaced by Heritage 2020 (2015) • The Historic England Action Plan (2015) • Under "Key Objectives and Targets" the Historic England (formerly English Heritage) setting guidance "The Setting of Heritage Assets" has been updated and published in July 2015
27	MMO	<ul style="list-style-type: none"> • It is not clear if trans-boundary landscape and seascapes effects have been considered (such as projects located in the English Channel).
28	NRW	<p>Under the local category:</p> <ul style="list-style-type: none"> • Seascapes Assessment for Wales (2009) should read, Regional Seascapes Assessment (2009). • Landscape Character Map for Wales (2009) should be replaced by National Landscape Character Areas (2015) – Wales. • Local Seascapes Character Assessment (2013 onwards, various locations) – Wales. <p>Under key objectives and targets:</p> <ul style="list-style-type: none"> • NRW consider that the position set out on working with landscapes and seascapes is not representative and should be amended – suggested wording provided. • Recognition should be made that character also includes historic features and activities that affect character, not just what can be seen. • There is a need for distinction between visual and character issues and that references to "visual character" should be avoided. For clarity, the distinction can be found in the Guidelines for Landscape and Visual Impact Assessment 3rd edition (2014).
29	NRW, Cadw	<ul style="list-style-type: none"> • National Marine Character Areas (2015) – Wales.
30	NRW, TCE	<ul style="list-style-type: none"> • An approach to seascapes character assessment – Natural England Report NECR105 (2012).
31	TCE	<ul style="list-style-type: none"> • Directive 2014/89/EU establishing a framework for maritime spatial planning is relevant in the context of managing the interface between landscape and seascapes issues.
32	TLP	<ul style="list-style-type: none"> • Areas of Outstanding Natural Beauty (AONB) plans for coastal areas e.g. Gower AONB Management Plan (2014). • It is noted that geographic scale is not considered, yet it has implications for the SEA as it is key to characterising both landscape and seascapes, and potential impacts.

#	Comments	
Water Environment		
33	EA	<ul style="list-style-type: none"> • Environment Damage Regulations 2015 (not 2009). • River Basin Management Plans. • It is important that the Water Framework Directive and associated River Basin Management Plans are taken into account for any developments within estuarine or coastal water bodies out to 1 nautical mile. • Good ecological status is not the only objective of the WFD and the document should reflect this. • Recommend that the document recognises that, whilst impacts of developments may be direct in marine waters, these waters are linked hydrologically and geomorphologically by coastal and estuarine processes. • Recommend the report makes clear that the SEA is likely to span Cycle 2 and Cycle 3 River Basin Management plans and thus Water Body Objectives for 2021 and 2027
34	SEPA	<ul style="list-style-type: none"> • Controlled Activities Regulations should be updated to the Water Environment (Controlled Activities) (Scotland) Regulations 2011.
35	TLP	<ul style="list-style-type: none"> • European Maritime Spatial Planning Directive 2014 (2014/89/EU). • River Basin Management Plans (updated plans due end of 2015). • Scottish Marine Regions Order 2015. • European Shellfish Waters Directive (2006/113/EC). • Note earlier comments on WFD and MSFD as they relate to implications for SEA.
Climate & Meteorology		
36	NRW	<ul style="list-style-type: none"> • NRW consider that, to maximise any net-GHG benefits from geological storage, DECC must ensure that EU ETS captures as many emissions as possible and that the cost of carbon emissions allowances properly reflects the environmental impact of burning fossil fuels. • NRW request clarity on how recently announced termination/scaling-back of a number of UK wide policies aimed at promoting renewables may influence the level of development of renewables outlined in the OESEA3, and what policies are anticipated to support the installation of renewables in a transition to a low carbon economy. • The Welsh Government has Wales-specific GHG reduction targets (e.g. 3% per year from 2011 in devolved areas and 2020 Target Net CO₂e emissions reduced by at least 40% compared to 1990 levels). • The Large Combustion Plant Directive is revoked from 1 January 2016 with provisions replaced by Chapter III of the Industrial Emissions Directive. There are also provisions regarding carbon dioxide emissions from fossil fuelled power stations embodied through the emissions performance standard (The Emissions Performance Standard Regulations 2015, SI No. 933), which emerges from the Energy Act 2013. • Welsh Government Energy Policy Statements and Low Carbon Transition Plans should also be considered. Written statement by Welsh First Minister Carwyn Jones which highlighted and prioritised marine energy and a Welsh Marine Energy Strategy which may be produced in the coming months.
37	TCE	<ul style="list-style-type: none"> • Committee on Climate Change report, "Reducing emissions and preparing for climate change: 2015 progress report to Parliament" (2015).
Population & Human Health		
38	EA	<ul style="list-style-type: none"> • World Health Organisation guidelines on Health Impact Assessments (HIA).
39	SEPA	<ul style="list-style-type: none"> • Guidance to accompany the Statutory Nuisance Provisions of the Public health etc (Scotland) Act 2008 – to be read in conjunction with the Environmental Protection Act 1990 and Part 9 of the Public health etc (Scotland) Act 2008.
Other Users & Material Assets		
40	EA	<ul style="list-style-type: none"> • Harbours Act 1964. • Flood Risk Management Plans (including Flood Defence Consents).

#		Comments
41	TLP	<ul style="list-style-type: none"> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Blue Growth Opportunities for marine and maritime sustainable growth. COM (2012) 494 Final. European Commission's Trans-European transport network (TEN-T) policy and associated action plans. Wellbeing of Future Generations (Wales) Act 2015. People, Places, Futures: The Wales Spatial Plan 2008 Update. Planning (Wales) Act 2015. Wales Transport Strategy 2008. Plans, policies and programmes relevant to the aggregates industry, ministry of defence uses, navigation, and recreation such as sailing. Shoreline Management Plans (identifying those that have been signed off by government and the statutory bodies), and other plans, policies, programmes relating to coastal protection assets.
Cultural Heritage		
42	Cadw	<ul style="list-style-type: none"> A best practice guidance note on historic environment and wave and tidal energy, was published jointly by English Heritage, Historic Scotland, Cadw and DoENI. The inclusion of the preservation of scheduled monuments and their settings could also be considered (refer to the developing guidance on setting of monuments in a Welsh context) along with characterisation studies of coastal towns, conservation areas and listed buildings. Refer to underwater scheduling – note the Historic Environment (Wales) Bill, Royal Assent anticipated early in 2016, proposes to extend the definition of what can be scheduled to any site which evidences previous human activity (applicable to territorial waters).
43	HE	<ul style="list-style-type: none"> All references to English Heritage should be replaced with Historic England. Refer to Heritage 2020, as above. Reference to "Conserving and enhancing the historic environment (2014) – England" could perhaps be made clearer as this appears to relate to the Government's "Planning Practice Guidance". Although the UK is not a signatory on the Convention on the Protection of Underwater Cultural Heritage (2001), the UK Government has repeatedly stated that it views the Rules annexed to the Convention as representing best practice for underwater cultural heritage. The North Sea Prehistory and Research Management Framework (2009) The European Marine Board Continental Shelf Prehistoric Research Position and Policy Brief (2014). Managing Significance and Decision-Taking in the Historic Environment (2015).
44	HS	<ul style="list-style-type: none"> As the report notes, Section 1 of the Protection of Wrecks Act 1973 has been repealed in Scotland. Sections 2-4 of the Act remain in force. Historic shipwreck sites previously designated under this legislation have now been designated as Historic MPAs under the Marine (Scotland) Act 2010.
45	TLP	<ul style="list-style-type: none"> Historic Environment (Wales) Bill

1.2 Responses to Question 2: additional information and data sets

#		Comments
1	Cadw	<ul style="list-style-type: none"> Coflein, the (Royal Commission on Ancient and Historical Monuments in Wales (RCAHMW) database, is the most comprehensive dataset for Wales' marine sites.
2	DOENI	<ul style="list-style-type: none"> The Department of Trade, Enterprise and Investment is undertaking an SEA for Oil and Gas Licensing in the internal waters of Northern Ireland (Belfast and Larne Loughs). Cumulative effects should be considered. Furness R (2015). Non-breeding season populations of seabirds in UK waters: population sizes for biologically defined minimum population scales. Natural England Commissioned Report NECR164.

#		Comments
3	EA	<p>Recommend:</p> <ul style="list-style-type: none"> • Expanding the topic on migratory fish and eels. • Use of data collected for the Marine Conservation Zone (MCZ) Projects. • Environmental baseline section, “biodiversity, habitats flora and fauna” has no description of habitats, though this information is available as much of it is described in “regional seas” section. • There is no specific information in the table which relates to studies which have looked into the possible flood risk effects of offshore energy. EA are aware of some larger studies, such as the Severn Tidal Power Feasibility Study, which could provide useful sources. EA would like to see the emphasis increased on the potential flood risk to populations. • Additional sources of information include MMO, Inshore and Offshore marine plans; Channel Coastal Observatory baseline data, topographic surveys and baseline beach surveys. • Suggest that a more explicit link be made between the baseline information and its use in assessment. • Data on coastal and estuarine processes is limited over all, although data at specific locations may be available from individual studies undertaken for research or in conjunction with specific developments, such as Severn Barrage.
4	HE	<ul style="list-style-type: none"> • Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (COWRIE Group, 2011) • Historic Environment Guidance for Wave and Tidal Energy, English Heritage, Historic Scotland & Cadw (2013). • We note the proposal to prepare an underpinning report providing an overview of archaeology, in particular focussing on any changes in perspectives since previous SEA reports, and would gladly help with this.
5	HS	<ul style="list-style-type: none"> • Historic Scotland can provide GIS datasets under licence for scheduled monuments, listed buildings and gardens and designed landscapes. • RCAHMS and Historic Scotland recently published a new map showing the density of 1,200 years of shipwrecks in Scottish waters. • Historic Environment Guidance for Wave and Tidal Energy.
6	MMO	<ul style="list-style-type: none"> • A national visual resource dataset (land with sea views), which is an update to the data layers supplied as part of MMO1037. • MMO1077 Impacts of climate change report (unpublished) is being used to inform the development of plan policy in the South Marine Plan Areas. • MMO1075 Exploring the potential of using office of national statistics for marine planning. • MMO1097 Modelled mapping of underwater noise generated by continuous activities (unpublished).
7	NE	<ul style="list-style-type: none"> • The marine data exchange hosted by the Crown Estate http://www.marinedataexchange.co.uk/ • The marine aggregate industry as part of their regional monitoring programme have undertaken a benthic data collation exercise, standardising and storing data from approximately 24,000 grab samples from a variety of industries and organisations around England and Wales into a single database.

#	Comments	
8	NRW	<ul style="list-style-type: none"> The “Tethys” resource (http://tethys.pnnl.gov/) Technical Advice Note 14 Coastal Planning – also refer to under the landscape, biodiversity and other users topics. Environmental effects in inshore and coastal areas are of significance given the inshore nature of some of the energy generation activities. In general, this has not been adequately reflected by the scoping document but will need to be considered by the Environmental Report. From a nature conservation perspective there should be greater consideration of the implications of the draft plan/programme for the following: <ul style="list-style-type: none"> Sites of Special Scientific Interest (SSSI) and Nationally Protected Species that receive statutory protection under the Wildlife and Countryside Act 1981 (as amended) Regulation 35 documents and management schemes for marine Natura 2000 sites and Management Plans for intertidal SSSIs Biodiversity protected by the Natural Environment & Rural Communities Act 2006 and in particular the list of species of principal importance designated under Section 42 of the Act. Recommend that greater consideration is made regarding the additional information required (i.e. R&D) to provide sufficient strategic consideration of tidal range developments. Advise careful consideration of the Severn Tidal Power Feasibility Study. Outputs from the Marine Pathways Project The Bangor University EFF study into sustainable fishing in Wales (http://fisheries-conservation.bangor.ac.uk/) The EU Flood Directive.
9	RUK	<ul style="list-style-type: none"> The renewables industry has accumulated a wealth of data on the marine environment. Whilst some of this information is held by developers and may be difficult to obtain, relevant information is held by a number of organisations and data centres – TCE, COWRIE and the Marine Data Information Network (MEDIN). DECC “Coping Strategy Steering Group” outputs. Joint Cetacean Protocol (JCP) database held by JNCC. This database incorporates data provided by the renewables industry with existing data sets such as SCANS. For ornithology, the recent Natural England Commissioned Report NECR164 on Non-breeding season populations of seabirds in UK waters Population sizes for Biologically Defined Minimum Population Scales (BDMPS). The Crown Estate (2013) UK Wave and Tidal Key Resource Areas Project – Technical Methodology Report, February 2013. Centre for Economic and Business Research (2014). The Economic Case for a Tidal Lagoon Industry in the UK: a scenario-based assessment of the macroeconomic impacts of tidal lagoons for power generation on the UK economy. Poyry (2014) Levelised Costs of Power from Tidal Lagoons; Marine Energy Pembrokeshire (MEP) have a useful list of plans, policies, programmes (see http://www.marineenergypembrokeshire.co.uk/publications-resources/). MEP also host a useful spreadsheet that captures research (see http://www.marineenergypembrokeshire.co.uk/mep-research-evaluation/). Marine research institutes such as SEACAMS may also host data that could usefully contribute to the evidence base. ORJIP Research synthesis and gap analysis. Planning (Wales) Act (which will bring in the National Development Framework). Wellbeing of Future Generations (Wales) Act. Planning Policy Wales. Updated River Basin Management Plans (due end of 2015). Welsh Government Green Growth Strategy. The Trans-European Networks e.g. energy and transport. EU Blue Growth policies/strategies (http://ec.europa.eu/maritimeaffairs/policy/blue_growth/).

#	Comments	
10	SNH	<ul style="list-style-type: none"> Latest listings of proposed or designated UK marine and coastal sites. Datasets relevant to Scotland's National Marine Plan, accessible via National Marine Plan Interactive (NMPi). Marine Scotland Interactive (MSi). The National Biodiversity Network (NBN) Gateway. Cetacean data available through the Joint Cetacean Protocol (JCP). Bradbury <i>et al.</i> (2014). Mapping Seabird Sensitivity to Offshore Wind Farms. Natural England (2015). Non-breeding season populations of seabirds in UK waters. Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Turrell <i>et al.</i> (2014). The Science of Deepwater Oil Spills – Results from the 2013 Marine Scotland Science Modelling Workshop. Scott <i>et al.</i> (2005). An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore wind farms. Scottish Natural Heritage Commissioned Report No.103. Reports on marine renewable energy and potential interactions with wildlife accessible via the Marine Scotland Marine Energy Research webpages. Similarly, there are numerous reports on the SNH Commissioned Research webpages.
11	TCE	<ul style="list-style-type: none"> The CO₂ Stored Database (http://www.co2stored.co.uk/home/index/). In June 2015 The Crown Estate published a new modelled dataset for the UK's offshore wind resource. Suggest this would be a useful replacement for the data from the UK Renewable Energy Atlas. Crown Estate has published a number of research reports looking at coastal processes and erosion in Suffolk, Norfolk and the Humber: http://www.thecrownestate.co.uk/energy-and-infrastructure/research/seabed-and-coastal-research/reports/. The NERC iCOASST project (http://www.icoasst.net/) The Crown Estate will shortly publish a report entitled "Understanding the impacts of offshore wind farms on well-being". Collation and analysis of offshore wind farm piling records 2007-2012 (http://www.thecrownestate.co.uk/media/5649/updated-collation-of-offshore-wind-farm-piling-records.pdf). Feasibility study – Potential locations for macro-algae farming off the East Anglian Coast (http://www.thecrownestate.co.uk/media/389748/ei-potential-locations-for-macro-algae-farming-off-the-coast-of-east-anglia.pdf). Hydrodynamic models to understand salmon migration in Scotland (http://www.thecrownestate.co.uk/media/5534/published-eri-salmon-migration-report.pdf) National Physical Laboratory Good Practice Guide No. 133, "Underwater Noise Measurement" (http://www.npl.co.uk/upload/pdf/gpg133-underwater-noise-measurement.pdf) <p>A number of reports in development/to be published shortly:</p> <ul style="list-style-type: none"> Changes in fishing practices around the UK as a result of the development of offshore wind farms - Phase 1, 2015, The Crown Estate, ISBN: 978-1-906410-64-3. Changes in fishing practices around the UK as a result of the development of offshore wind farms - Phase 2, 2016, The Crown Estate, in progress. Investigation of turbid wakes around offshore wind farms, 2015, The Crown Estate, ISBN: 978-1-906410-67-4.
12	TLP	<ul style="list-style-type: none"> Recommend inclusion of developer information for all topic areas (for example, marine mammal information from the Hinkley Point C and the Atlantic Array projects). TLP are undertaking work, including strategic studies, to inform project feasibility and development which includes work on a geomorphological conceptual model and environmental surveys.

#	Comments	
13	TLP	<p>The following relevant information should be included:</p> <ul style="list-style-type: none"> • Data and evidence held within the marine planning portals in England and Wales (Marine Management Organisation and Welsh Government). • Welsh Government Marine Renewable Energy Strategic Framework datasets: http://mresf.rpsgroup.com/ • Marine Energy Pembrokeshire (MEP) list of plans, policies, programmes: http://www.marineenergypembrokeshire.co.uk/publications-resources/ • The Crown Estate (2013) UK Wave and Tidal Key Resource Areas Project – Technical Methodology Report, February 2013. • Centre for Economic and Business Research (2014), The Economic Case for a Tidal Lagoon. • Industry in the UK: a scenario-based assessment of the macroeconomic impacts of tidal lagoons for power generation on the UK economy. • Tidal Lagoon Swansea Bay – Planning and environmental information (part of DCO application): http://www.tidallagoonswanseabay.com/document-library/application-fordevelopment-consent/88/, http://www.tidallagoonswanseabay.com/document-library/consultation-oninformation-previously-submitted-to-the-examination/118/ • Tidal Lagoon Cardiff (2015) Proposed Tidal Lagoon Development, Cardiff, South Wales - Environmental Impact Assessment Scoping Report, March 2015. • 3rd UK Habitats Directive Reporting 2013: http://jncc.defra.gov.uk/page-6387 • Morphological Characterisation of the Severn Estuary and Solway Firth (commissioned by Natural England), PB2693, 12 May 2015. • Coastal processes information held within the Regional Strategic Monitoring Programmes, e.g. Channel Coast Observatory. • ORJIP Ocean Energy outputs, including research synthesis and gap analysis. • Data on marine aggregates: http://www.severnestuary.net/sep/estuary/aggregates.html • Dorset C-SCOPE Marine Plan: http://www.cscope.eu/en/results/marine-mgmt-plan/dorset • Welsh Government (2015) Green Growth Wales: Investing in the Future: http://gov.wales/topics/environmentcountryside/consmanagement/green-growthwales/?lang=en • Severn Tidal Power Feasibility Study (2010) Findings and associated outputs: https://www.gov.uk/government/collections/severn-tidal-power-feasibility-studyconclusions • Information on cultural heritage from the Severn Estuary Levels Research Committee: http://www.selrc.org.uk/ • Information on the offshore defence training estate: https://www.gov.uk/guidance/defenceinfrastructure-organisation-and-the-defence-training-estate • Information on recreation and marine/coastal tourism activities, such as sailing, kayaking, charter boats and sea angling, Armstrong et al., 2013): http://webarchive.nationalarchives.gov.uk/20140108121958/http://www.marinemanagement.org.uk/seaangling/index.htm
Biodiversity, Habitats, Flora and Fauna		
14	MMO	<ul style="list-style-type: none"> • Sea horses, both spiny and short-snouted sea horses are European Protected Species and are very sensitive to disturbance. Their inclusion in the document is recommended.

#	Comments	
15	NRW	<ul style="list-style-type: none"> • Marine Mammal Atlas v2. • Heinänen S & Skov H (2015). The identification of discrete and persistent areas of relatively high harbour porpoise density in the wider UK marine area, JNCC Report No.544 JNCC, Peterborough, 108pp. • There are several journal papers available on leatherback turtle distribution/abundance in Irish Sea. • Article 12 information has not been proposed for informing trends of bird populations in SPAs. • ESAS European seabird at sea database, as well as combined data sets held by respective sister agencies which often hold more up to date data. • Reference to the JNCC-led MPA Stocktake and Combined Habitats Map should be included. • EUSeaMap should be listed alongside UKSeaMap (EUSeaMap will supersede UKSeaMap). • The HABMAP project. • Habitats Directive Article 17 reporting outputs could be included for status of Annex 1 habitats at a UK level. • Other relevant datasets could include SNCB maps of important habitats and species. • MSFD/OSPAR (BH3) workstream and R&D project (being led by JNCC) on measuring the extent of physical damage to benthic habitats which should also be included in the list of baseline information sources.
16	RSPB	<ul style="list-style-type: none"> • There are no proposed technical reports to inform the environmental baseline in relation to seabirds. RSPB do not agree that "sufficient information is available from the national statutory conservation bodies to inform the OESEA3 baseline." In particular, the RSPB would like to draw attention to the urgent need for an updated national seabird census of breeding seabird colonies. Welcome additions from wind developer survey, but these are for discrete areas of sea. • Updated site conservation objectives for SACs and SPAs in England, produced in 2014, and any supplementary advice for those sites where available. • Data arising from tracking studies are available on request from RSPB. Ongoing analysis of these datasets may produce new information of value to OESEA3 in identifying important marine areas used by breeding seabirds, including those associated with protected breeding colonies on land. • Suggest that a key ongoing priority for DECC's OESEA programme is the development of a greater understanding of the environmental impacts of tethered turbine technology, for example in terms of collision risk for seabirds and noise disturbance for marine mammals.
17	TWT	<ul style="list-style-type: none"> • Future designation of harbour porpoise SACs in UK waters, as it may have consequences for the spatial distribution of piling and seismic activities. • Current projects to better understand the population consequences of disturbance of marine mammals from offshore wind construction noise should be monitored and incorporated when appropriate. This includes the strategic use of the Interim PCoD (Population Consequences of Disturbance) model and the DEPONS study (Disturbance Effects on the harbour porpoise Population of the North Sea). • It is anticipated that JNCC will review and update their guidelines on piling and seismic activities within the currency of this OESEA, which could have material consequences for offshore wind and oil & gas sectors.
Climate & Meteorology		
18	NRW	<ul style="list-style-type: none"> • Ocean acidification. • The Section does not cover historical 20th century climate change, and could be included by reference and summary information from the UKCP09 historical climate report. • Climate Change Strategy for Wales (2010), including the Adaptation Delivery Plan (2010)
Geology, Substrates & Coastal Processes		
19	NRW	<ul style="list-style-type: none"> • Recommend additional consideration, in particular, of the cumulative effect of coastal structures on coastal sediment transport, taking account of climate change commensurate with the anticipated lifetime of the potential structures. Impacts on coastal processes could affect substrate distribution, morphology of the coast and seabed, and release of contaminants, which has not been discussed.

#	Comments	
Landscape & Seascapes		
20	NRW	<ul style="list-style-type: none"> The Environmental Report should make reference to the differences in scale in the way devolved administrations recognise landscape character. For example, in Wales there is some coverage of Local Seascapes Character Areas. The National Seascapes Character Assessment for Wales is now complete and has been presented as national marine Character Areas and the Regional Seascapes Assessment (Wales) 2009 should be included. National Landscape Character Areas (Wales) should be included. Reference to the 2011 Welsh tidal stream sensitivity study should be replaced with "Natural Heritage Evidence to support planning for marine renewable energy – CCW Policy research Report 11/3".
Population & Human Health		
21	SEPA	<ul style="list-style-type: none"> The Scottish Index of Multiple Deprivation (SIMD) incorporates several different aspects of deprivation and combines them into a single index to provide a relative ranking for 6,505 data zones covering the whole of Scotland. The SIMD can be used as a means to identify "vulnerable populations" and help to locate these populations within the plan area in order to assess effects of the plan on them. ScotPHO Online Profiles Tool contains profiles for all Scottish local authority areas using a range of measures. The health and wellbeing profile shows the variation in health between areas and helps identify priorities for health improvement. This can be used to identify vulnerable populations within the plan area in order to assess effects of the plan on them.
Other Users		
22	SEPA	<ul style="list-style-type: none"> Marine Scotland recreation survey www.marinerecreationandtourism.scot/

1.3 Responses to Question 3: choice of Regional Seas

#	Comments	
1	DOENI	<ul style="list-style-type: none"> DOENI have no preference as to how the sea areas are divided, however it will be important to ensure features at boundaries and cumulative effects between areas are considered.
2	EA	<ul style="list-style-type: none"> Although Regional Seas do not directly align with River Basin Districts we agree that they are fit for purpose to help describe the environmental baseline for this SEA.
3	HE, EA, TLP	<ul style="list-style-type: none"> Further consideration/explanation should be provided about the Regional Seas links/compatibility with marine spatial planning.
4	HS	<ul style="list-style-type: none"> Content with the approach outlined.
5	NE	<ul style="list-style-type: none"> The Regional Sea areas are very large and there will be considerable heterogeneity within these, specifically with regard to near shore and offshore sensitivities. It may be helpful to divide the regional sea area into sub regions to ensure clarity and help interpretation of the assessment where the plan proposes different activities in different geographical areas which have different environmental characteristics within the same Regional Sea.
6		<ul style="list-style-type: none"> Regional Sea descriptions are not consistent e.g. Regional Sea 3 does not mention conservation importance/ highlight key protected areas.
7	NRW	<ul style="list-style-type: none"> NRW considers the Regional Sea characterisation useful but note the ongoing work to align regional sea boundaries at a UK level.
8		<ul style="list-style-type: none"> NRW believe that consideration should be made as to how to integrate the Marine Planning boundaries into the spatial elements of the SEA.
9		<ul style="list-style-type: none"> Regional Sea 4 (western English Channel and Celtic Sea): the following developments/activities should also be described/recognised for Welsh waters: ISLES II Project (cabling), consented/planned wave and tidal stream developments/demonstration projects, a consented commercial scale tidal range development (Tidal Lagoon Swansea Bay) and two tidal range projects in planning (Tidal Lagoon Cardiff and Tidal Lagoon Newport).
10		<ul style="list-style-type: none"> Regional Sea 5 (Irish Sea), the following developments/activities should also be described/recognised for Welsh waters: ISLES II Project (cabling), Wylfa Newydd (new nuclear), consented/planned wave and tidal stream developments/demonstration projects.

#	Comments	
11	RSPB	<ul style="list-style-type: none"> • No objection to this general approach. Care must be taken in the impact assessment phase when dealing with impacts on protected areas where the regional sea approach is inappropriate.
12	RUK	<ul style="list-style-type: none"> • Generally RUK do not have any comments, however a query was raised as to whether the OSPAR divisions would be more appropriate.
13	SEPA	<ul style="list-style-type: none"> • Consider this to be appropriate.
14	SNH	<ul style="list-style-type: none"> • There is limited consistency between the defined Regional Seas and those employed in Scotland's National Marine Plan which, from a planning perspective, is unfortunate. However, the boundaries selected are consistent with those used previously to describe and characterise Scotland's seas in the Scottish Marine Atlas, and so in terms of describing the environmental baseline, this seems appropriate.
15	TCE	<ul style="list-style-type: none"> • We have no objection to the use of the Charting Progress 2 regions in principle. According to the colour based delineations of the regions a number of inshore areas are not considered to be part of any region. We believe that the inshore areas need to be scoped into the plan and associated assessment, and would suggest that they are subsumed into the adjacent Regional Sea areas.
16	TLP	<ul style="list-style-type: none"> • Note that the Regional Seas do not include inshore area which are relevant to the OESEA3 programme, for example the Bristol Channel and the Severn Estuary. • It is not clear whether the scale of the Regional Seas would enable appropriate characterisation of the environmental baseline to inform the OESEA3 process, given the diversity of character within those areas, and type of data available to inform the baseline. • It is not clear how the environmental baseline as it relates to interaction with land is able to be described using Regional Seas. • Seem to be limitations to using MSFD sub-regions, as they do not appear to align with other marine management activities such as marine planning.

1.4 Responses to Question 4: additional environmental problems

#	Comments	
1	DOENI	<ul style="list-style-type: none"> • There is the potential for bats to be migrating and foraging at sea and these should be considered. There is the potential for significant effects for offshore wind if bats are present.
2		<p>The following reports should be considered:</p> <ul style="list-style-type: none"> • Busch M, Buisson R, Barrett Z, Davies S & Rehfisch M (2015). Developing a Habitat Loss Method for Assessing Displacement Impacts from Offshore Wind Farms. JNCC Report 551. • Cook ASCP & Robinson RA (2015). Testing sensitivity of metrics of seabird population response to offshore wind farm effects. JNCC Report 553.
3	EA	<p>Note that the following themes have not been included – would welcome their inclusion or a short justification of why they are outside of the scope:</p> <ul style="list-style-type: none"> • Invasive Non Native Species • Water quality and Bathing Waters • Coastal Squeeze • Eels and Migratory Fish

#		Comments
4	HE	<ul style="list-style-type: none"> • HE acknowledge the potential problem that so much remains unknown about cultural heritage in the marine environment (especially offshore) and could be discovered within the UK Continental Shelf, and look forward to working with DECC to address the matter. • For, Changes to Landscape and Seascape: the SEA must address the cumulative impact of offshore wind farm developments given the clusters that now occur off the Wash embayment, within the Thames estuary and off Morecombe Bay. • For, Possible Disturbance of Submerged Cultural Heritage: Offshore Renewables Protocol for Archaeological Discoveries Palaeoenvironmental Assessment of Peat Samples' (Russell JW & Stevens CJ 2014) is an example of archaeological data interpretations forthcoming from offshore wind farm projects. • Advice regarding marine geophysical survey which will help seabed development projects capture data that supports archaeological interpretation and analysis, Marine Geophysics Data Acquisition, Processing and Interpretation – Guidance Notes (2013) • The Rules annexed to the UNESCO 2001 Convention on the Protection of Underwater Cultural Heritage represent best practice, the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Towards an integrated approach to cultural heritage for Europe" (Brussels, 22.7.2014 COM(2014) 477 final).
5	HS	<ul style="list-style-type: none"> • The recognition of the gaps in detailed knowledge regarding submerged historic environment resources is welcomed.
6	NE	<ul style="list-style-type: none"> • Large scale deployment of artificial structures on the seabed from offshore wind and oil and gas development are changing the composition of extensive areas of seabed in the North Sea. Whilst considered temporary (i.e. 25 years) and acceptable at current levels these changes to seabed composition should be considered in the SEA's cumulative impact assessment with regard to "changes in seabed habitat". • Declines in Bird Numbers: the SEA should also consider the implications of current/proposed multiple tidal lagoon schemes within Regional Sea areas, particularly for coastal SPAs. The SEA should consider the overarching issue of cumulative and in-combination effects at a strategic level, especially for the Severn Estuary/Bristol Channel. • Challenges which relate to the potential (or lack of) opportunities for habitat creation as possible mitigation or compensation for significant or adverse effects resulting in impacts on or destruction of coastal habitats. • The potential lack of space for cable corridors and/or pipelines in some regions and the challenges associated with grid connectivity.
7	NRW	<ul style="list-style-type: none"> • Potential to act in-combination with developments under the plan/programme from: hydraulic fracturing (fracking), cabling (not associated with developments considered by the plan), and new nuclear (e.g. Wylfa Newydd). • NRW advises the SEA should consider mechanisms to better facilitate strategic coordination of transmission infrastructure (electric cables, pipelines) to minimise impacts and reduce consenting risk (e.g. ISLES, Ten-T). • The following should fall under the scope of this assessment: wind kite technologies and [tidal] barrage, lagoon and fence technologies. • The assessment of pipelines should consider impacts up to mean high water springs. • The impacts from associated terrestrial development or terrestrial development with the potential to act in-combination with the plan/programme should be considered. • Damage to seabed habitats: The potential impact of fisheries displacement is not included here though note it is mentioned in the Fisheries section. The Environmental Report would benefit from a dedicated section on the potential environmental effects of displacement from marine developments on marine fisheries activities. • The Environmental Report would benefit from much clearer and focussed cross-referencing with impacts of other activities and vice versa.

#	Comments	
8	RSPB	<ul style="list-style-type: none"> Consider that a strategic Appropriate Assessment should be carried out alongside OESEA3 to maximise the opportunity to identify potential conflicts and take steps to avoid or reduce them at this early stage. In this way, it should be possible to avoid the risk of adverse effects on the integrity of SPAs. The draft plan is not sufficiently specific in terms of target capacities, and alternative technological and spatial options, to be informed effectively by a strategic HRA, nor by SEA. Recommend that marine aggregate extraction be included as one of the activities that can contribute to damage to seabed habitats, and should also be included in the section "Problems associated with the conservation of species and habitats".
9	SEPA	<ul style="list-style-type: none"> Impacts of air quality on human health and the environment should also specifically consider vulnerable populations. Effects on human health should be included, especially in relation to the wider definition of health and wellbeing i.e. impact of proposals on mental health and general wellbeing in relation to development which is in nearshore waters and may create nuisance in terms of being visible or audible (during construction and/or operation). This is also relevant to any associated onshore elements.
10	SNH	<ul style="list-style-type: none"> The widespread and significant decline in abundance of harbour seals in northern and eastern Scotland, for reasons as yet unclear, but which could be exacerbated by inappropriate development or activity in areas of importance to the species. See: Duck CD & Morris CD (2015). Surveys of harbour and grey seals on the west coast of Scotland (Ullapool to Scarba), in the Moray Firth and in the Firth of Tay, in August 2014. Scottish Natural Heritage Commissioned Report No. 869. Potentially, cumulative effects of underwater noise on marine mammals as a consequence of a diverse range of activity already consented, exacerbated through activities brought about as a result of this Plan. Given the diversity of the corresponding licensing regimes, there is value in these cumulative effects being considered at the Plan level.
11	TCE	<ul style="list-style-type: none"> For tidal range: potential impacts on migratory fish species, implications of developments for the status of water bodies (Water Framework Directive), and the level of coastal change associated with projects. It is important that the compliance of the plan with the Habitats Regulations is fully tested. The cumulative effects of several tidal range schemes developed around the UK would benefit from coverage within the SEA.
12	TLP	<ul style="list-style-type: none"> The impact of climate change is particularly relevant. The analysis in the Scoping Report is high level and therefore does not adequately identify the predicted impacts and the relevance to offshore energy. The significance of existing issues (e.g. loss of intertidal habitat), particularly as they relate to tidal lagoons, does not appear to be appreciated (e.g. it is predicted that in 60 years incremental sea level rise will reduce the amount of intertidal habitat in the Severn Estuary by three quarters). Existing declines to specific migratory species, such as salmon, trout and lamprey are relevant to "problems associated with the conservation of species and habitats". Existing marine noise impacts are also relevant, though not noted, such as from shipping and aggregates industries. Note that marine noise is a descriptor relevant to the MSFD. In relation to "damage to seabed habitats", there should be consideration of existing activities closer to shore, such as disturbance from aggregate extraction operations that can affect sediment structures, and navigational (maintenance) and capital dredging associated with existing harbours, ports and marinas.
13	TWT	<ul style="list-style-type: none"> Accept at a strategic level it will be necessary to consider impacts on marine mammal species at a population rather than individual level. It should be recognised that there is still very limited knowledge on the distribution and abundance of most marine mammal species in all UK waters. For example, there was a significant change in distribution of harbour porpoise in the North Sea (OSPAR Region II) between the two SCANS surveys, and the second was carried out 10 years ago. There is also ongoing debate as to possible sub-populations or stock structure within this management unit. There is further uncertainty as to the population consequences of disturbance from offshore wind construction noise there are projects currently underway to try to address this. However, at present, given the high levels of uncertainty, we would urge a precautionary approach to be taken when assessing the marine mammal population level impact of the plan/programme.

1.5

Responses to Question 5: additional influences and supporting data sources on the likely evolution of the baseline

#		Comments
1	DOENI	<ul style="list-style-type: none"> There is a significant data gap on migration of bats from the Continent to Britain and Britain to Ireland. The EUROBATS manual (Rodrigues <i>et al.</i> 2008) indicates offshore turbine surveys for bats should be undertaken as per land-based turbines and provides a recommended approach for bat survey. Climate change may be affecting bat distribution (Nathusius' pipistrelle bat first found in Ireland in 1996 and now moving into southern Ireland, greater horseshoe bat first recorded in 2013) but there has been no surveying to establish whether this is the case.
2	HE	<ul style="list-style-type: none"> Historic Landscape and Seascape Characterisation for all inshore and offshore areas off England and the Rapid Coastal Zone Assessment Programme. Practice Advice Notes on "The Setting of Heritage Assets" (2015) and "Managing Significance and Decision-Taking in the Historic Environment" (2015).
3	NE	<ul style="list-style-type: none"> The Marine Aggregate industry Regional Environmental Assessments (MAREAs) and Regional Environmental Characterisation (RECs). Marine Aggregate Levy Sustainability Forum data sets and reports.
4	NRW	<ul style="list-style-type: none"> Geology, Substrates and Coastal Processes: the baseline can be expected to change in response to coastal management (in response to predicted sea-level rise) in particular, as SMP2 policies are implemented. The UKMMAS secretariat have drafted a paper on "Prevailing Conditions" which looks at shifting baselines. The ICES working group on biodiversity have also undertaken a review of how climate change scenarios may influence MSFD assessments and targets. Invasive Non-Native Species (INNS) should also be considered in the section on benthos. Supporting data sources can be found in the UK MSFD Initial Assessment for descriptor 2. Guidance to inform marine mammal site characterisation requirements at wave and tidal stream energy sites in Wales. NRW consider that there is better systematic recording of bottlenose dolphins in Cardigan Bay and advise consideration of the annual capture-mark-recapture monitoring of the population. Note there is also monitoring of the Moray Firth bottlenose dolphin population. Disease should be considered for marine mammals. There will be gradual environmental consequences from the new Common Fisheries Policy landings obligation being phased in from 2015-2019. More selective fishing types will have to be developed. Without the ability to fish selectively there is a potential for certain choke species to restrict fishing for a number of other species and for fisheries to close early before quota is exhausted.
5	RSPB	<ul style="list-style-type: none"> Environmental Statements and supporting documents for Dogger Bank Creyke Beck, Dogger Bank Teesside, Hornsea Projects One and Two, and East Anglia One and Three. Bradbury <i>et al.</i> (2014). Mapping Seabird Sensitivity to Offshore Wind Farms. The section on the likely evolution of the environmental baseline for birds is inconsistent with the equivalent text in section 3.5 (Environmental Problems), which includes reference to the effects of fishing and climate change. Reference should be made to the cumulative effects of Rounds 1-3 offshore wind farms which form part of ongoing environmental impacts on the breeding, passage and wintering seabird and waterbird populations of the UK.
6	SNH	<ul style="list-style-type: none"> The Sustainability Appraisal (inc. SEA and HRA) of the Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters. The Sustainability Appraisal of the National Marine Plan for Scotland.
7	SNH, SEPA	<ul style="list-style-type: none"> Scotland's Marine Atlas.
8	TCE	<ul style="list-style-type: none"> The Environmental Report should make links to the evidence base for landscape and visual considerations and note that the impacts relating to this issue vary at the project level. The SEA should take into consideration, TCE (2015). Offshore wind farm impacts on individual well-being. The Crown Estate, ISBN: 978-1-906410-66-7.

#		Comments
9	TLP	<ul style="list-style-type: none"> Research initiatives relating to ocean energy, for example, ORJIP Ocean Energy, Catapult and NERC, will fill evidence gaps over time. Biodiversity, habitats, flora and fauna: more detail on the impacts of climate change would help characterise the issue given its influence, and how it is likely to evolve in the longer term. Marine invasive species are referred to in other parts of the Scoping Report though have not been included under this heading as it relates to the evolving baseline. Conservation of Sites and Species: There is reference to an increase in the number of protected sites, however this does not necessarily correspond with the conservation of sites and species. The 3rd UK Habitats Directive Reporting (2013) to the European Commission shows a considerable amount of marine and coastal habitats and species in both declining and deteriorating status; continuing the trend reported in the UK's 2nd report in 2007. Aquaculture and marine biotechnology – is recognised as a priority growth area within the EC's Blue Growth Strategy. As a growing industry, aquaculture is predicted to expand in the UK, this has both spatial and environmental implications that should be considered within the environmental baseline. Aggregates and dredging – licensed activity may increase in response to demand for housing supply and associated construction. Pipelines and cables – include consideration of the possible increase in telecommunication and data transmission cables, marine energy cables, interconnectors, and pipelines. Ports and marinas – The expansion of ports, new marina developments and associated infrastructure should be considered. Onshore: Increases to population and settlement growth is not acknowledged. This could be relevant in a number of ways including energy demands, and coastal communities growth.
10	TWT	<ul style="list-style-type: none"> Charting Progress 2 and its feeder reports, Northern Ireland's State of our Seas and Scotland's Marine Atlas demonstrate a worrying decline in a number of species and habitats across the UK's seas despite measures, some in place for over twenty years, to protect them. It is crucial that the evolution of the baseline is considered as declining, rather than static. Therefore any further pressures on the environment, for example from activities relating to this plan, must be considered on this basis.

1.6 Responses to Question 6: SEA objectives

#		Comments
1	DOENI	<ul style="list-style-type: none"> Agree with the objectives for biodiversity, habitats, flora and fauna.
2	EA	<p>It would be beneficial to developers and regulators if the SEA objectives and indicators could be aligned with legislation and policy such as the WFD and River Basin Management Plan objectives. Broadly these are that developments must not:</p> <ul style="list-style-type: none"> cause deterioration of Water Body Status, jeopardise the attainment of good surface water status or of good ecological potential and good surface water chemical status, impede the attainment of WFD protected area objectives. <p>Suggest inclusion of the following additional objective:</p> <ul style="list-style-type: none"> Avoid significant impact on flood and coastal risk management activities
3	HS	<ul style="list-style-type: none"> Consider the inclusion of an objective that recognises the opportunities that may arise through survey and discovery. This would cover the guide phrase and indicators that have been provided that relate to potential discovery and recording of previously unknown features.

#		Comments
4	NRW	<ul style="list-style-type: none"> Reference should be made to the UK High Level Marine Objectives. The SEA objectives for biodiversity habitats, flora and fauna do not specifically include anything about connectivity. It is important to ensure that any activities do not have an adverse impact on connectivity of marine habitats and species. Whilst the need to avoid significant impacts on sites and species protected under European legislation is broadly captured, the need to consider the wide range of sites, species and habitats protected under domestic legislation is not fully described. A review of the list of objectives identified for the strategic assessment of the Severn Tidal Power feasibility study would be beneficial to the OESEA3. The use of "Avoids significant impact" as an objective is inconsistent with the requirements of the Habitats Regulations, which states there should be "no significant effect (alone or in combination)". Promoting Good Environmental Status under the MSFD should be included in the "Guide Phrases" where appropriate. <p>Advise the following are considered as additional objectives:</p> <ul style="list-style-type: none"> To avoid adverse effects on valuable marine ecosystems/valued ecosystem components (defined by reference to nature conservation and functional ecosystem importance) To conserve and enhance designated marine site features. Has no adverse effect on flood risk management infrastructure.
5	RSPB	<ul style="list-style-type: none"> The objectives identified in this topic area appear appropriate. Request assurance that impacts will be considered against the individual protected areas and their conservation objectives, as well as at species or population level.
6	SEPA	<ul style="list-style-type: none"> Climatic factors: recommended at previous OESEA consultations that the climatic factors objective would be improved by replacing it with "reduces greenhouse gas emissions" rather than "minimises" as this provides greater clarity and is more consistent with the reduction targets set in the Climate Change (Scotland) Act 2009. Population and Human Health: extend the objective to read "health and wellbeing".
7	SNH	<ul style="list-style-type: none"> No additional objectives suggested. Note that the second objective relating to biodiversity, groups different interests or designations together, whereas in practice, the tests for considering impacts on each are slightly different. Objective: <i>Avoids significant impact to, or disturbance of, protected species</i>. A corresponding guide phrase is lacking. Note that EPS tests for marine mammals in Scotland differ slightly from those elsewhere in the UK, so the list of statutes relating to Protected Species disturbance should include, The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007. Objective: <i>Contributes to conservation of the biodiversity and ecosystems of the United Kingdom and its seas</i>. Implies that the Plan will make a positive contribution to marine biodiversity conservation, yet the corresponding guide phrases are neutral or refer to avoidance of damage or harm. It would be helpful if a corresponding guide phrase could be added indicating the positive contribution envisioned.
8	TLP	<ul style="list-style-type: none"> Recommend consideration of an objective on contributing to climate change resilience and/or adaptation.

1.7

Responses to Question 7: SEA indicators

#	Comments	
1	DOENI	The indicators for biodiversity, habitats, flora and fauna appear to be suitable.
2	EA	<p>Suggest inclusion of the following additional Indicators:</p> <ul style="list-style-type: none"> • No adverse impact identified in flood risk assessments. • No net loss of UK BAP habitat (Natural Environment and Rural Communities Act 2006). • Consideration needs to be given to the on-shore reception of waste materials being returned from off-shore operations. Due to the limited scope that there may be for segregation on wastes offshore, it is necessary that adequate provision is made for the reception, handling and treatment of landed wastes. Provision for the reception and segregation of potentially hazardous wastes should also be considered. • “No adverse change in quality of surface water” is not the same as no deterioration of Water Body Status (both ecological and chemical). • Indicator: No adverse change in quality of seabed sediments and seabed sediment transport, at a series of regional monitoring stations. Will need to ensure no deterioration and does not jeopardise achievement of Good Ecological Status/Potential. • Suggest adding a Flood and Coastal Risk Management Objective to “Human Health” or “Other users of the sea, material assets” and that this could focus on tidal barrages/lagoons. A relevant indicator could be: “no increase in flood level/ flood risk as a result of tidal barrage/lagoon schemes”. • The Objective “Contributes to conservation of the biodiversity and ecosystems of the United Kingdom and its seas” requires an indicator. It does not adequately address non-designated habitats and would therefore not fulfil biodiversity 2020 obligations. • The guide phrase “The plan recognises the ecosystem importance of land-sea coupling, for instance its role in species migration” requires an indicator. It does not address the issues that would arise in coastal and estuarine zones. Any activity with the potential to disturb or damage non-designated priority habitat follows the objectives of Biodiversity 2020 should recognise estuarine ecosystems and the potential for negative impact on migratory, coastal and estuarine species. • Objective “plan activities do not lead to introduction of non native species” requires an indicator. Suggest this could be based on “Alert” species identified from relevant strategies and Directives. Recommend that consideration is given to the need for actions taken to reduce introductions of invasive non native species.
3	HE	<ul style="list-style-type: none"> • Landscape/Seascape: when using the term “trajectory” attention should also be given to identifying how any perceived character might accommodate change (or not), for example, change from one marine industry such as oil/gas infrastructure to the establishment of offshore wind farms. • Cultural Heritage: suggest, “The completion and deposit with national curatorial bodies of archaeological studies produced by offshore energy projects”.

#		Comments
4	NE	<ul style="list-style-type: none"> Guide Phrase: “Plan activities do not lead to the introduction of non-native species at levels which adversely alter marine ecosystems” could be subjective, instead state, “Plan activities do not lead to the introduction of NNIS into the ecosystem”. Indicator: For <i>selected “valued ecosystem components”</i> <i>no loss of diversity or decline in population (measured as % of relevant biogeographic population) attributable to plan related marine activities and promotion of recovery wherever possible</i>. Need to clarify what qualifies as a valued ecosystem component, NE feel it should be any habitat or species identified as being of importance or scarcity. Indicator should also make reference to the potential of the plan to result in the spatial loss of habitat extent. Indicator: <i>Activities subsequent to licensing/leasing which are on, or potentially affecting a Natura site are compliant with the requirements of the Conservation (Natural Habitats, &c.).</i> Agree with this statement but it is important that any residual or ongoing effect caused by activities previously consented (even if they are not deemed to be causing an adverse impact) need to be considered in combination with those of the current plan. Indicator: <i>Every activity with the potential to impact upon or disturb a protected species is compliant with the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).</i> It is not clear what is meant by this statement – assume it means every activity that has already been consented or is already occurring is considered compliant. Indicator: <i>No adverse change in quality of seabed sediments, and seabed sediment transport, at a series of regional monitoring stations.</i> It is not clear what comprises sediment “quality” in the above indicator.
5	NRW	<p>The following indicators should be considered for inclusion:</p> <ul style="list-style-type: none"> No deterioration in Good Ecological Status and Good Environmental Status as result of draft plan/programme activities No deterioration in Favourable Conservation Status of sites designated for the protection of biodiversity as result of draft plan/programme activities No disruption to the coherence of the marine protected area network as result of draft plan/programme activities <p>Request further quantification (or guidance on how the figure will be determined):</p> <ul style="list-style-type: none"> of the “number of oil and chemical spills and quantity of material spilled” which will be used as an indicator for the SEA, of the indicators for balancing other UK resources and activities. <ul style="list-style-type: none"> Advise further clarity is required on the objectives for landscape/seascape, including reference to the need for sensitivity criteria to inform the SEA indicators. The list of indicators is incomplete and a more comprehensive set of indicators should be provided. NRW advise that the SEA should follow good methodological practice as advocated in Guidelines for Landscape and Visual Impact Assessment and note the sensitivity criteria table given in the Regional Seascape Assessment (Wales) 2009. Consider that the recognition that all parts of the UK (not only England) have a similar scaled set of landscape character areas (for Wales we recommend using the National Landscape Character Areas) and that respective regional or National Marine or Seascape Character Areas would be relevant to represent marine areas. Further indicators could be utilised for “reduces waste” (under “Population and human health”) drawn from the MSFD Programme of Measures for Descriptor 10 (Marine Litter).
6	RSPB, NE	<ul style="list-style-type: none"> Need clarification on how “valued ecosystem components” are selected.

#	Comments	
7	RSPB	<p>Suggest the following amendments:</p> <ul style="list-style-type: none"> Activities subsequent to licensing/leasing which are on, or potentially affecting, a Natura site are compliant with the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), Conservation of Habitats and Species Regulations 2010 (as amended), the Conservation (Natural Habitats, etc.) (Northern Ireland) Regulations 1995 (as amended), the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended), and the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (as amended). Every activity with the potential to impact upon or disturb a protected species is compliant with the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), Conservation of Habitats and Species Regulations 2010 (as amended), the Conservation (Natural Habitats, etc.) (Northern Ireland) Regulations 1995 (as amended), the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended), and the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (as amended).
8	SNH	<ul style="list-style-type: none"> Some additional consideration needs to be given to a few of the corresponding "Guide Phrases" and "Indicators", as follows: Objective: <i>Contributes to conservation of the biodiversity and ecosystems of the United Kingdom and its seas.</i> Corresponding indicators refer to project level EIA and HRA to ensure compliance. It is also stated that, For selected "valued ecosystem components" no loss of diversity or decline in population (measured as % of relevant biogeographic population) attributable to plan related marine activities and promotion of recovery wherever possible. It is unclear how any causal relationship between a loss of diversity or decline in population (or, indeed a positive impact on biodiversity conservation as aspired to), and Plan related marine activities, will be established. Indicators are presented which refer to activities affecting Natura sites and also to those with potential to impact upon or disturb a protected species. Recommend that a corresponding indicator such as, Activities, subsequent to licensing/leasing, which are capable of affecting, other than insignificantly, the protected features of a Nature Conservation MPA in Scotland, are compliant with the requirements of the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009.
9	TLP	<ul style="list-style-type: none"> Indicators should align with relevant plans, policies, programmes and initiatives, and relevant information or datasets. Our view is that a review of indicators should be undertaken following an exercise to update relevant initiatives, information, issues and objectives, as informed by the consultation and other consultation exercises.
10	TWT	<ul style="list-style-type: none"> Agree with the strength of the 'Biodiversity' indicators, that activities must be compliant with the Habitats Regulations, both in terms of sites and species. We would query what is meant by 'valued ecosystem components' and how these will be selected. Under the 'Other users of the sea' section, whilst balancing the needs of multiple users is a good objective, we question whether spatial planning is currently capable of addressing this and therefore if it will be a useful indicator. It is not clear that [marine plans] will achieve this, especially the 'prioritisation of site selection' aspect of the proposed indicator. Suggest that the 'Water environment' objectives need further reference to WFD and MSFD and indicators which reflect this.

1.8 Responses to Question 8: sources of potentially significant effect

#	Comments	
1	DOENI	Collision risk to marine mammals should be extended to wind due to the risk to bats.
2	EA	<p>Suggest the following should be included as sources of potentially significant effect:</p> <ul style="list-style-type: none"> Impact on Water Framework Directive Objectives in estuarine and coastal water bodies. Introduction or spreading of Invasive Non Native Species. Interactions with Flood and Coastal Risk Management activities. Add Biodiversity 2020 objectives. Table 4.2: Suggest a question mark in barriers to movement of fish and marine mammals in column "offshore wind". There is nothing in the objectives or sources of significant effects relating to flood risk impacts.

#		Comments
		Flood risk implications of developments such as tidal lagoons/barrages need particular consideration.
3	HS	<ul style="list-style-type: none"> The discourse here regarding the types of significant effect on the historic environment adequately covers both direct impact and indirect impact such as those on setting and access. The potential beneficial effects of the discovery and recording of previously unknown features should also be borne in mind.
4	MMO	<ul style="list-style-type: none"> <i>In situ</i> cabling should be considered under post decommissioning legacy effects, geology and soils, for offshore wind farms. Current decommissioning plans for OWF developments have all cables proposed to remain in the seabed. Offshore disposal of seabed dredged material should be considered for offshore wind farms, tidal stream and tidal range projects. It is becoming increasingly common for sea bed preparatory works prior to the installation of such developments.
5	NE	<ul style="list-style-type: none"> “Changes/loss of habitats from major alteration of hydrography or sedimentation”: there should be a question mark entered into the table to suggest this pressure may be applicable to offshore wind. Conversely, suggest this could be scoped out for wave and tidal stream projects since the expectation is that those which may come to fruition within the time period of this SEA are unlikely to be of a scale which could result in major alterations. Collision mortality is not considered a risk for oil and gas. Is the increasing use of installation designs which employed “no regular flaring” the justification for not including this impact? Whilst there is a lack of evidence to support operational noise as a concern from current offshore wind operations, recommend that operation noise remains scoped in to take account of areas which do not currently have offshore wind developments and which may differ in character to those which currently do. Accidental events/spillages – clarity on what this might entail in reality for renewables projects would be helpful. Due to the longevity of projects within the plan being many years to decades, suggest that the environmental report defines what it regards as being a temporary impact. This can have significant consequences on the outcome of the significance assessment and any habitats regulations assessment.
6	NRW	<ul style="list-style-type: none"> Advise where there is uncertainty of “potentially significant effect” (e.g. with tidal range developments), these effects are screened into the Environmental Report. More overt reference to what is within scope for the OESEA3 would be beneficial. For example, “associated infrastructure” is included in section 4.1 which is not previously mentioned in the document. In addition to physical damage, the risk of loss and permanent alteration of seabed habitats. A wide range of hydrographic and geomorphological effects (e.g. changes to current) that may be caused (e.g. by wave and tidal devices) should also be included. It should be noted that for a European site (e.g. SAC), impacts are measured against the site’s conservation objectives which may specify a site population rather than the wider population level. NRW would advise that, to provide further clarity, advice should be sought from the EPS licensing authority. <p>Advise the following for Table 4.2:</p> <ul style="list-style-type: none"> Seismic impacts on mammals, birds and fish should be acknowledged for offshore wind. Changes/loss of habitats from major alterations of hydrography or sedimentation should be checked for offshore wind. Platforms and rigs associated with Oil & Gas developments have the potential to present collision risks to birds. The “nature and use of anti-fouling materials” should be considered for all activities in the plan/programme. Advise removing the words “in ballast water discharges” – to clarify, Marine Invasive Non-Native Species (INNS) can be introduced and spread via several vectors, including hull fouling of slow moving vessels and rigs, rock armour/aggregate/dredge spoil transfer, and ballast water. Advise mitigation measures associated with the structural design and material types used in marine developments which would minimise the risk of ingress and onward spread of marine INNS should be considered. Recommend recognition of interactions between people (and their activities) and places (and the natural and cultural processes that shape them), in relation to landscapes/seascapes, under interactions with “other users of the sea”.

#		Comments
		<ul style="list-style-type: none"> NRW advise the consideration of “other chemical and microbiological parameters” under “Water environment”.
7	RSPB	<ul style="list-style-type: none"> Construction and sourcing of materials, for example rock armour. Tidal stream should be noted as a potential source of barrier effects for birds, offshore wind as a potential source of changes/loss of habitats, and tidal range as a potential collision risk to birds for example grebes and divers.
8	RUK	Recommend that the findings of the MMO (2014) strategic review of post-construction monitoring programmes are reviewed to determine whether a case can be made to scope out some sources of potentially significant effects.
9	SEPA	<ul style="list-style-type: none"> Agree with the proposed scope of the assessment.
10	SNH	<ul style="list-style-type: none"> Recommend modifying, “Ecological effects of presence of structures”, to, “Ecological effects of presence and operation of structures”. Worth acknowledging that assessment of Cumulative Effects (i.e. over and aside from the specific issues listed) will be a necessary and important aspect of the SEA.
11	TLP	<ul style="list-style-type: none"> “Barriers to movement of birds” (i.e. foraging and migration), and “accidental events” are unlikely sources of potentially significant effect for tidal range.
12	TWT	<ul style="list-style-type: none"> ‘barrier to movement for fish and marine mammals’ should also be scoped in for offshore wind. This may become significant when considering the cumulative impact of multiple developments.

1.9 Responses to Question 9: additional information sources or monitoring arrangements

#		Comments
1	DOENI	<ul style="list-style-type: none"> In addition to the proposed use of convictions relating to European protected species, the use of derogation licences should be considered. Add link to Marine Plan for Northern Ireland webpage to Table 4.3.
2	EA	<ul style="list-style-type: none"> Recommend that the following are considered: WFD Monitoring, RBMP Economic Appraisal and Impact Assessment, Flood Risk Management and Shoreline Management Plans, Defra One Evidence Programme.
3	HE	<ul style="list-style-type: none"> Cultural Heritage: amend indicator as follows, “No adverse impact upon the condition of designated sites and features (including impact on their setting) and minimal impact on all other recorded or discovered sites and features.” Under, High Level Monitoring Outcomes and Relevant Links, reference to “National Monuments Records” should be replaced with “records maintained by national curatorial bodies in the UK”.
4	NE	<ul style="list-style-type: none"> Include reference to the SNCB Article 17 (implementation of the Habitats Directive) report.
5	NRW	<ul style="list-style-type: none"> OSPAR assessment and reporting should also be included alongside MSFD. The Bangor University EFF study into sustainable fishing in Wales includes monitoring.
6	RSPB	<ul style="list-style-type: none"> Environmental Statements and post-construction monitoring reports from large infrastructure projects such as offshore wind could be used to inform monitoring of the OESEA3 draft plan/programme.
7	SEPA	<ul style="list-style-type: none"> It will be important to consider (and detail in the Environmental Report) any technical and financial issues/barriers which may be encountered with monitoring offshore effects.

#	Comments	
8	SNH	<ul style="list-style-type: none"> Marine Scotland's 2012 Marine Monitoring Network Review which, like the Scoping Report, considered the utility of broader marine monitoring programmes in monitoring of offshore energy development plans. There would be sense in maximising collaboration, where practical and efficient, with any monitoring programmes established for other related Plans, such as the Sectoral Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters, and the National Marine Plan for Scotland. SNH are doubtful that monitoring which is wholly reliant on delivery and assessment of other, wider, monitoring initiatives, undertaken for other purposes, will be able to demonstrate fulfilment of the SEA objectives. An element of bespoke monitoring, focused on the most significant potential impacts identified within the SEA is necessary for demonstrating effectiveness or otherwise of mitigation and achievement of objectives.
9	TLP	<ul style="list-style-type: none"> See response to question 2. Adaptive environmental monitoring regimes for development projects could be used to inform monitoring. TLP could provide further information in relation to the Tidal Lagoon Swansea Bay project should it assist.
10	TWT	<ul style="list-style-type: none"> Direct reference to the MSFD monitoring programme should be made for the first 'Biodiversity' indicator. Monitoring of the granting of EPS licences would also be relevant for the third 'Biodiversity' indicator.

1.10 Responses to Question 10: proposed approach to consultation

#	Comments	
1	EA	<ul style="list-style-type: none"> Welcome ongoing involvement in this work.
2	HE	<ul style="list-style-type: none"> Prepared to attend workshops and contribute to the proposed underpinning report on archaeology.
3	HS	<ul style="list-style-type: none"> Content with the proposed 8 week consultation on the environmental report.
4	RUK	<ul style="list-style-type: none"> Welcome the opportunity to attend SEA workshops. RUK would ask that as much notice is provided as possible to ensure that we can organise appropriate and proportional representation. RUK would be happy to act as a first point of contact in this matter.
5	SEPA	<ul style="list-style-type: none"> Generally content with the proposed approach although we would prefer a 12 week consultation period.
6	TLP	<ul style="list-style-type: none"> Would be grateful for an opportunity to be involved with any stakeholder workshops, including those relevant to research priorities and would also be happy to provide further information, or meet to discuss, should it assist with the OSEA3 process.
7	TWT	<ul style="list-style-type: none"> We would welcome the opportunity to feed into this process further and wish to be kept informed as it progresses, including notification of relevant workshops.

1.11 General Comments

#		Comments
1	DOENI	<ul style="list-style-type: none"> • A marine licence application has been received for a tidal energy array in waters offshore from Torr Head by Tidal Ventures Ltd. An EIA is presently being worked on by Fair Head Tidal Ltd for a marine licence application to deploy a tidal array in water offshore of Fair Head. • There are references to NIEA as the regulator for marine planning – this is the Department of Environment, Marine Division.
2	EA	<ul style="list-style-type: none"> • Recognise the strategic nature of the SEA, but suggest the approach could include greater clarity on how cumulative and secondary effects will be assessed and how the SEA will inform subsequent planning stages.
3	EDF	<ul style="list-style-type: none"> • The report provides a comprehensive summary of potential environmental impacts from the key offshore energy activities, though are concerned that some of the detail is overly prescriptive on some environmental issues. This increases the risk of unnecessary delays and time consuming detailed assessments when project developers begin to design a project. • In contrast to the 2007 SEA Offshore Wind Energy Generation: Phase 1 Proposals, the OESEA3 report does not present conclusions in the form of spatial mapping...and it is unfortunate that this current SEA does not draw such conclusions. Recommend that spatial mapping is added to the final version of OESEA3 if possible. • Understand the need for designation and support the process for designation of offshore European Conservation sites and some coastal and marine sites that are in the process of being extended, and the MCZ process, however, are concerned that some detailed assessments for designations are disproportionately precautionary. • EDF believes there remains a delicate balance between socio-economic issues and MSFD; these will require careful consideration in relation to development of offshore energy to avoid compromising good environmental status. • For Round 4, EDF strongly advocate the identification of potentially smaller development sites closer to shore. • Welcome the recognition of climate change on the evolution of aspects of the current state of the environment and believe this is a positive step in recognising that some aspects of environmental change are not likely to be the result of local activities.
4	MMO	<ul style="list-style-type: none"> • The MMO Planning Team are keen to work with DECC and The Crown Estate (TCE) to refine resource areas identified through modelling work undertaken by TCE to define future plan policy, which will be informed by the UK OESEA. • Within the scoping report it identifies that the UK OESEA process will identify appropriate areas for both oil and gas activity and CCS sites by assessing conditions in the UK offshore area. The MMO planning team would like to work with DECC to identify these resource areas to include them in the marine planning process for all marine plan areas in England. • The threshold for Section 36 consent under the Electricity Act 1989 (as amended) in the REZ is 50MW to 100MW. • It is suggested that one of the stages of development on page 16-20 should be consenting, given it is a key step in the development of any project.
5	NE	<ul style="list-style-type: none"> • Consider that greater acknowledgement and assessment of current and existing proposed tidal range schemes is needed, including what is known of early and outline proposals. Adequate consideration and incorporation of cumulative impacts of multiple tidal range schemes (particularly in the Severn) will be beneficial. Identification of data gaps in this area is needed, including consideration of those already identified by the Severn Tidal Power Feasibility Study (2010). • It would help to be explicit about the types of technologies which are included in each sector (e.g. wind kites, tidal fences, barrages, lagoons, tidal kites). • It is not explicit which types of infrastructure onshore and offshore are being considered. Strongly recommend cable corridors for renewables are included and similarly, access for tidal range schemes (e.g. construction and operation, transportation of construction materials).

#	Comments	
6	NRW	<ul style="list-style-type: none"> The SEA should identify potential development in a way that is as spatially well-defined as possible, with an emphasis on establishing the right technology in the right place. There is a lack of spatial definition of future tidal range development in the plan and the characterisation of projects currently in the planning process. The SEA needs to more clearly distinguish assessment of wave/tidal stream and tidal range technologies and the need to consider tidal range-specific effects more comprehensively. For example, the effects on flood risk management/mitigation and any associated impacts to coastal communities and/or human health have not been adequately considered. The use of MSFD (and in some cases WFD) as the primary guiding indicator for the SEA is insufficient. Key legislation (e.g. Habitats and Birds Directives) should be more clearly reflected to establish the full range of statutory requirements. There are a number of inaccuracies and omissions in relation to the management of the marine environment in Wales. NRW would also request greater clarity around the role of Wales within the plan/programme.
7	RSPB	<ul style="list-style-type: none"> There is no Appropriate Assessment of the draft plan. The SEA process is being applied to a poorly specified draft plan and alternatives. The draft plan does not attempt to describe what the Government is trying to achieve in terms of energy delivery. The SEA process will not be able to gauge how best to impose spatial or temporal restrictions to minimise environmental impacts while enabling the need to be met. This approach repeats those of former SEAs, misses the opportunity to develop a plan that can deliver energy with low environmental impact, and has led to unnecessary conflict at the project stage due to poor siting of, for example, offshore wind zones with associated uncertainty and risk for developers. A more useful approach would be to investigate reasonable alternatives to achieve outputs in line with Government climate and energy targets, with each specified in terms of technologies and broad locations suitable for deployment, also using strategic level Appropriate Assessment.
8	RUK	<ul style="list-style-type: none"> Welcome the statement that scenarios for the likely scale of renewables aspects of the plan will be generated with consultation with industry and other sources. RUK believes this is fundamental to a realistic and robust assessment and would be delighted to act as first point of contact when organising industry-specific workshops. RUK would also be able to provide an industry view on the likely scale of development over the next 5 years (for instance a number of our members have noted turbine nameplate capacities of up to 50MW are unlikely in the next five years). It is not clear how OESEA3 will consider the part of Round 3 that is still in development – there is some concern that the approach may pose a risk to projects in development and taken forward on the basis of conclusions of OESEA2. Note reference to the MMO (2014) post-consent review of offshore wind farm monitoring data and urge wider consideration of the data within it and conclusions drawn. Note the scoping report seems to underplay many important land connections (cables, grid connections, use of ports). Recommend this needs to be characterised and informed by relevant plans, policies and programmes that deal with land/marine interaction.
9	SEPA	<ul style="list-style-type: none"> Highlight underground coal gasification which does not appear to be referenced in the report. There is increased planned activity around the UK coast and some licences have been granted by the coal authority – some in estuaries but others out with these areas – therefore they should be considered in the wider context of offshore energy. Although there is currently no offshore underground coal gasification which could be used to understand potential effects, regulatory controls, mitigation; SEPA are of the opinion it is an issue which should be referenced in OESEA3.

#	Comments	
10	SNH	<ul style="list-style-type: none"> • There is a good opportunity for DECC to define a clear path to a low-carbon economy and though limited to a 5-year period, the SEA should consider its longer term impacts. SNH consider the SEA should: assess climate impacts in terms of UK carbon resource contributions to global emissions, consider the extent to which the plan can/should explicitly leave a portion of the available resource in the ground – the SEA should seek to avoid a contradiction between economic targets and global climate change mitigation commitments. • Consider one of the most significant impacts arising from the plan to be underwater noise, and accordingly, would urge DECC to pay special attention in the Environmental Report to how best to mitigate against the generation of excessive underwater noise by plan activities, and how to best monitor the effectiveness of mitigation. While the issue is raised primarily in relation to mammals, effects on other receptors (e.g. diving birds and fish) are not clear but should not be discounted. • Should significant effects be identified during preparation of the SEA, SNH urge DECC to consider plan level mitigation rather than devolution of issues to the project level. • Welcome DECC's commitment to fund extensive research programme linked to the SEAs, and would urge DECC to pursue dialogue with the ORJIP Secretariat and the Scottish Offshore Renewables Research Framework (SpORRan) to maximise efficiencies and avoid duplication.

#	Comments	
11	TCE	<ul style="list-style-type: none"> Would welcome the inclusion in the Environmental Report of an overarching section summarising the wider rights TCE has in relation to all sectors and how they are exercised. Recommend the use of the latest GIS data available from TCE. Reference should be made to Welsh Government, rather than Welsh Assembly Government. Suggest it would be appropriate to address wave and tidal current technologies and tidal range schemes separately within the Environmental Report – at present they fall under the same heading throughout the document. Note that within the lifetime of the SEA there may be a requirement to change existing wind farms (e.g. through re-powering) and would promote the inclusion of this type of activity within the plan definition. A reference to “further offshore wind farm development – in the form of new leasing or associated with existing wind farm leases” might appropriately cover this. Assume reference to 50MW wind turbine capacities has been made in error – a capacity of up to 15MW would be appropriate. The current status of offshore wind farm capacity is provided – TCE would be happy to further update these figures for inclusion in the final Environmental Report. There is an ongoing process to conclude the zone characterisation work for Round 3: agreements are being reached between TCE and developers to replace previous zone agreements and to have back seabed rights for the remaining parts of zones no longer required – information provided on the West Isle of Wight Zone, Dogger Bank Zone and East Anglia Zone and there are likely to be further announcements from the this process during completion of the Environmental Report. Rewording provided for Section 1.7, Offshore Wind. Wording of tidal range plan is such that it is assumed schemes in the Severn are included in the plan. Suggest it would be useful for the Environmental Report to make reference to the existing SEA (feasibility study), and confirm the Severn is included in the OESEA3 plan. Wording provided in relation to current tidal range leasing round. An update can be provided to reflect the situation at the time of writing the Environmental Report. Additional information is provided on TCE's role in tidal range activities and could be included in the Environmental Report. Suggest the spatial focus of the assessment be guided by current technical feasibility of particular resource areas for tidal range projects. Consider that areas with a mean spring tidal range >5m could be used to provide a soft buffer within which to focus assessment efforts. The Swansea Bay project is consented but not leased and therefore suggest changing the heading of Figure 1.9, and also removing reference to tidal current projects from this or any similar maps. Rewording provided for Section 1.6, Wave and Tidal Devices. Believe there may be interest in progressing wave and tidal projects outside of specific resource areas...and consider the scope of the assessment should not be limited too tightly to indicative resource areas. Recommend consultation with the wave and tidal current industries to ensure the plan reflects their requirements. Some rewording for Section 1.7 is provided. Suggest that CO₂ transportation as well as its storage is more explicitly included in the plan definition. Consider reference to salt caverns for CO₂ storage is unnecessary as they are unlikely to be used for CO₂ storage within the lifetime of the SEA. Suggest those estuarine areas shown as excluded from the plan for CO₂ and natural gas storage (Figure 1.3) be scoped in as some may be important pipeline landing sites. Leased storage sites are not shown in Figure 1.5. Recommend that for clarity, the Environmental Report should have separate sections for the description of CO₂ and hydrocarbon gas storage. Recommend “commercialisation projects” is more appropriate than “demonstrator projects” in relation to CCS. Recommend inclusion of the Don Valley and Caledonia projects in the Environmental Report. References are missing for Holloway <i>et al.</i> (2006), Smith <i>et al.</i> (2010), Heinemann <i>et al.</i> (2012) and Smith <i>et al.</i> (2005). Suggest the Environmental Report describes more thoroughly the potential benefits of CCS, including the potential to decarbonise industrial processes as well as offering a flexible baseload capacity for the power sector.

#		Comments
12	TLP	<ul style="list-style-type: none"> The Severn Estuary appears to be included within the geographic scope of OESEA3 – seek clarification that this is the case. The differences between tidal range and tidal stream projects needs to be more clearly articulated. TLP would be happy to provide more information to inform the characterisation of tidal lagoon developments on matters such as site selection, development, construction, operation and decommissioning. It would be helpful to clarify the purpose of Figures 1.8 and 1.9 and amend them accordingly, and to identify tidal lagoon projects in the development or pre-application stage (e.g. Tidal Lagoon Cardiff and Tidal Lagoon Newport). The scoping report does not characterise the important direct and indirect interactions of offshore energy with land (e.g. cable and grid connections, interactions with ports, jobs, economic development, impacts on coastal communities) – this is particularly important for tidal lagoons and this will need to be characterised and understood as part of the OESEA3 process.
13	WDC <i>et al.</i>	<ul style="list-style-type: none"> The key gap is the systematic consideration of MSFD Descriptors. Main concern is with the final application of the process. There is a presumption for development of all technologies in all areas covered by the SEA and there is an erroneous assumption that unspecified and hence unassessed “mitigation” can address habitat loss, prevent injury and disturbance and meet the requirements of the habitats directive and other legislation. favoured outcome would be “to restrict the licensed/leased areas temporally, or spatially”. Suggest approach based on recommendations of Joint Links Oil and Gas Environmental Consortium...namely that the SEA should identify Sacrosanct areas (highly important or sensitive and should not be developed), Moratoria areas (should not be developed on the grounds of inadequate technology or information) and Potential areas (development may occur under a strict regime). Such an approach would identify areas where further information/research is required. The SEA must assess and consider whether all technologies should proceed. The consideration of alternatives should be undertaken systematically and rigorously, particularly with regards to renewables as there is now a range of technologies...with widely ranging environmental impacts. Concerned about proposed Severn lagoons and believe these would have an adverse impact...which could not be compensated. Development of Dean Quarry in Cornwall would also adversely impact one of the most diverse MCZs in England. The high cost of investing in lagoons could be better spent investing in other renewables. The report identifies the paucity of information on species such as cetaceans, yet makes no proposals for further surveillance beyond the possibility of SCANS III. The report should identify research and survey needs before some areas can be licensed. Concerned that the report does not give enough emphasis to the need for “strict protection” for all cetaceans under the Habitats Directive. Concerned that assessments are proposed at a population level when it has been made clear that there is limited knowledge about populations and trends in many species. The effectiveness of mitigation measures (such as bubble curtains) and cumulative effects of licensing must be included within the SEA before any plan or programme can proceed.
14	TWT	<ul style="list-style-type: none"> In general we agree with the scope of the draft plan, although at this stage we would like to comment on the scenarios for the likely scale of the tidal aspects of the plan. We note that since the previous OESEA, tidal range development plans have progressed significantly. Three of these are in Swansea Bay, Cardiff and Newport, however, the company progressing these have made it public that they are considering a fleet of 6 lagoons in total; Bridgewater Bay, Colwyn Bay and West Cumbria being the other development locations. We believe that all these proposals should be considered in this SEA. These commercial scale tidal range developments are likely to be on a very large scale with significant impacts on the habitats and species in this region, including on protected sites.

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