



Collaborative Road Map for Offshore Wind Impact Statement - September 2024

Building an environmental monitoring guidance for floating offshore wind impact

In March 2024, the California Marine Sanctuary Foundation (CMSF) launched the Collaborative Road Map for Offshore Wind. This initiative will create a scientifically robust reference and monitoring guidance for assessing environmental impacts of floating offshore wind development in California. The guidance is intended for state and federal agencies, developers, the scientific community, and other stakeholders. The project is led by CMSF's Offshore Wind Team, with funding from California's Ocean Protection Council (OPC) and strategic support from California ocean management regulatory agencies and Cal Poly San Luis Obispo (CalPoly SLO) and the Ocean Science Trust (OST).



In the past 6 months, the CMSF team and its invaluable collaborators accomplished key milestones in this 2-year project. Some of these milestones are highlighted below.

270

experts and
contributors

Coordinating teams of scientific experts and conducting multi-disciplinary workshops are central to our collaborative approach in developing this environmental monitoring guidance. Key milestones for the first six months include defining working group themes, building expert rosters, and completing the initial cycle of workshops.

38h

of workshops

We engaged with over 270 experts across 5 scientific working groups: Marine Mammals and Sea Turtles, Birds and Bats, Fish Ecology, Habitats and Ecosystems, and Data Integration and Technology. We also engaged with industry, state agencies, and tribal groups. Overall, more than 38 hours of workshops were completed.

120

**institutions
represented**

In this collaborative effort, we have engaged with 120 institutions: state agencies, federal agencies, academic institutions, consulting and private firms, international organizations, NGOs, offshore wind (OSW) developers, and national laboratories. Inter-institutional collaboration is vital for leveraging diverse expertise, ensuring comprehensive environmental monitoring guidance, and fostering innovative solutions.

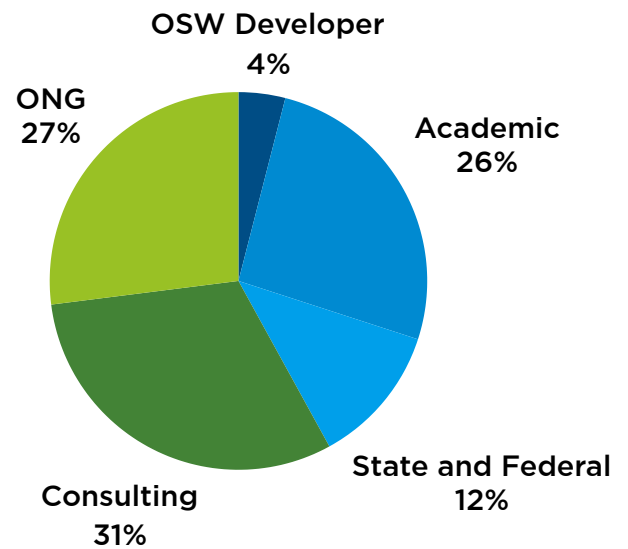
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**graduate
projects**

In the past six months, two master's capstone projects were concluded in partnership with this project; resulting in 1) a database of monitoring efforts in California and 2) a literature database on impacts of floating OSW. These early career scientists have enriched our collective knowledge and resources.

Multi-institutional Effort

- Involvement with state and federal agencies ensures that practices and recommendations are aligned with the current regulatory framework. It also ensures that guidance is used to inform updates in regulatory processes.
- The involvement of developers provides a realistic perspective on implications of monitoring recommendations for industry.
- Private consulting, national labs, and academic institutions allow us to be at the forefront of science and technology.
- Working with NGOs ensures an holistic approach.



Working Groups Progress

Marine Mammals and Sea Turtles



- This working group has developed a framework for data and insight collection to be replicated by other members of the project.
- Key discussion topics included assessing availability of baseline knowledge, considering species vulnerability and occurrence in lease areas to design effective monitoring.

The chair of the Marine Mammals and Sea Turtles Working Group is Dr. Brandon Southall, President and Senior Scientist at Southall Environmental Associates

Birds and Bats



- Key discussion topics included the main differences between East and West Coast datasets and the impact considerations for each segment of the offshore wind farm life cycle.
- Important findings from European developments will complement monitoring recommendations in the US.

The chair of the Birds and Bats Working Group is Cotton Rockwood, USDA Forest Service

Habitat and Ecosystems



- The complexity of impacts and the lack of consistent long-term systematic studies pose challenges for impact monitoring.
- Priority monitoring questions include the impacts of anchors on the benthic ecosystem, species and habitat vulnerability, and impacts on productivity.

The chair of the Habitat and Ecosystems Working Group is Dr Lenaig Hemery, Earth scientist in the Marine and Coastal Research Laboratory at PNNL-Sequim*

**Dr. Katie Morrise will assume the role of Chair in September 2024*

Data Integration and Technology



- Developing guidance that highlights data needs without prescribing specific technology is key to advancing innovative technology in environmental monitoring.
- Key topics for data integration include cybersecurity, data compliance, QA/QC, and repository compatibility.

The chair of the Data Integration and Technology Working Group is Dr Sarah Courbis, Marine Protected Species and Regulatory Specialist at Worley Consulting

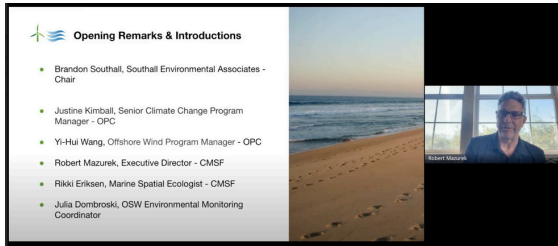
Fish Ecology



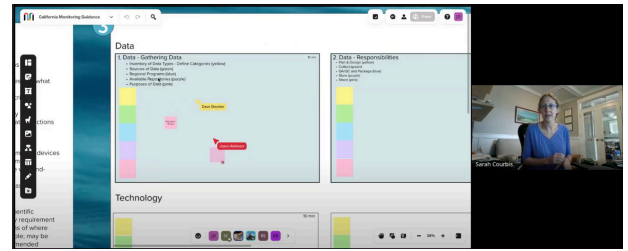
- To avoid duplicate efforts, the fish ecology working group is reviewing current databases and literature on the impacts of offshore wind on fish.
- Anticipated monitoring needs include the distribution, abundance, and species composition of fish in lease areas.

The chair of the Fish Ecology Working Group is Dr Brice Semmens, Director, California Cooperative Oceanic Fisheries Investigations (CalCOFI)

Environmental Monitoring Guidance Virtual Workshops



Marine Mammal and Sea Turtles Workshop
on April 10, 2024



Data, Technology and Innovation Workshop
on July 30, 2024

Next Steps

Our team is working on:

- compiling outcomes of the workshops facilitated to date
- creating a strategy to integrate the work of all working groups
- developing a public version of a literature database and assessing California's monitoring efforts
- preparing an interim report for partners

Stay tuned for more!

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