



ROSA
Responsible Offshore
Science Alliance

FishFORWRD Gaps Analysis 2024

Explored Research Needs & Gaps Remaining

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September 5, 2024 1-3PM EST

Agenda



- 1:00 **FishFORWRD, Gaps Analysis Methods, & ROSA Regional RFP**
- 1:20 **Presentation of Gaps Analysis Results and Ranking Survey**
- 2:30 **Questions & Discussion**

Strategic Plan – 3 Key Objectives

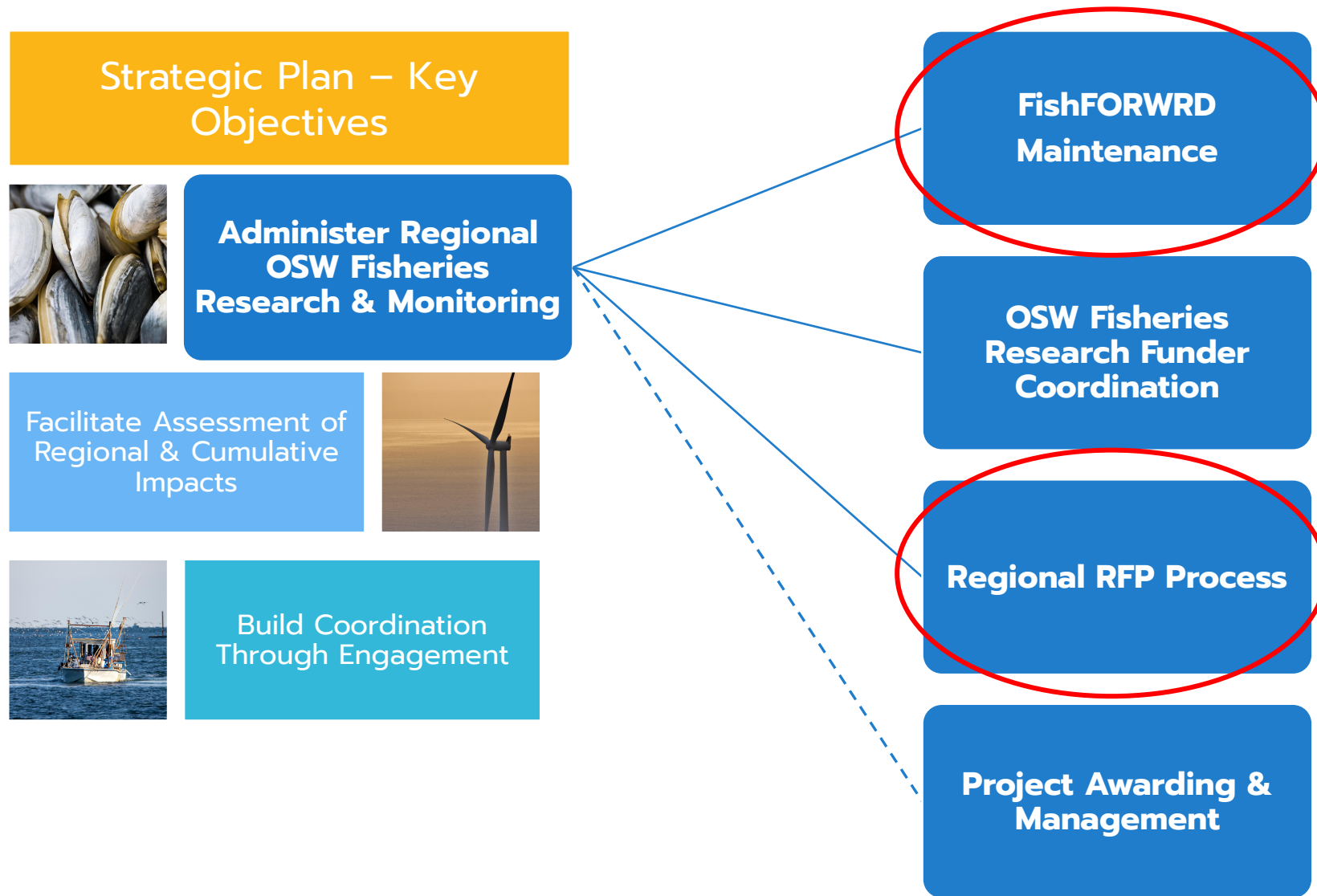


Administer Regional
OSW Fisheries
Research & Monitoring

Facilitate Assessment
of Regional &
Cumulative Impacts



Build Coordination
Through Engagement



FishFORWRD Phase 1



FishFORWRD



rosascience.org/fishforwrld

Objective

- increase awareness of ongoing work
- avoid duplication of efforts
- create a common understanding of research needs

Contents

Projects

- Research projects funded by federal agencies, state agencies, non-profits, etc.
- Implemented Developer Fisheries Monitoring Plans

Research Needs

- Individual research needs from 17 different published documents by federal agencies, states agencies, and public-private partnerships

FishFORWRD Phase 1



FishFORWRD



rosascience.org/fishforwrdr

Research Categories



Habitat Fragmentation/Modification



Socioeconomic Impact



Cumulative Impacts



Sound/Vibration Impacts



Species/Distribution/Composition



EMF



Fisheries Access & Gear Modification



Fisheries Engagement & Capacity Building



Survey Adaptation



Data Management



Resource Monitoring

Other Attributes

Developer Fisheries Monitoring Plan (Y/N)

Fixed or Floating

Wind Farm Development Phase

Spatial Scale

Location

Project Title

Lead Entity

Partner Entities

PI Name

Project Objectives

Methodology

Receptor

Project Start

Est. Project End

Funder

Funding Partners

Project Website

FishFORWRD Phase 1

FishFORWRD Database

Welcome Page

Current Projects

Database Center

Submit Project



FishFORWRD



rosascience.org/fishforwrdr



Submit Information to the FishFORWRD Database

Use the following links to send project information, research needs, or corrections. Your submission will be QA/QC'ed and added to the database during our next biannual update.

[Submit a Project](#)

[Submit Research Needs](#)

[Provide a Correction](#)

Additional Resources

See the links provided below for additional resources.

[RWSC Offshore Wind and Wildlife Research Database](#)

This database holds research projects and data collection activities on wildlife. Specifically marine mammals, birds & bats, sea turtles, habitat & ecosystem, protected fish species.

[Tethys Knowledge Base for Fish](#)

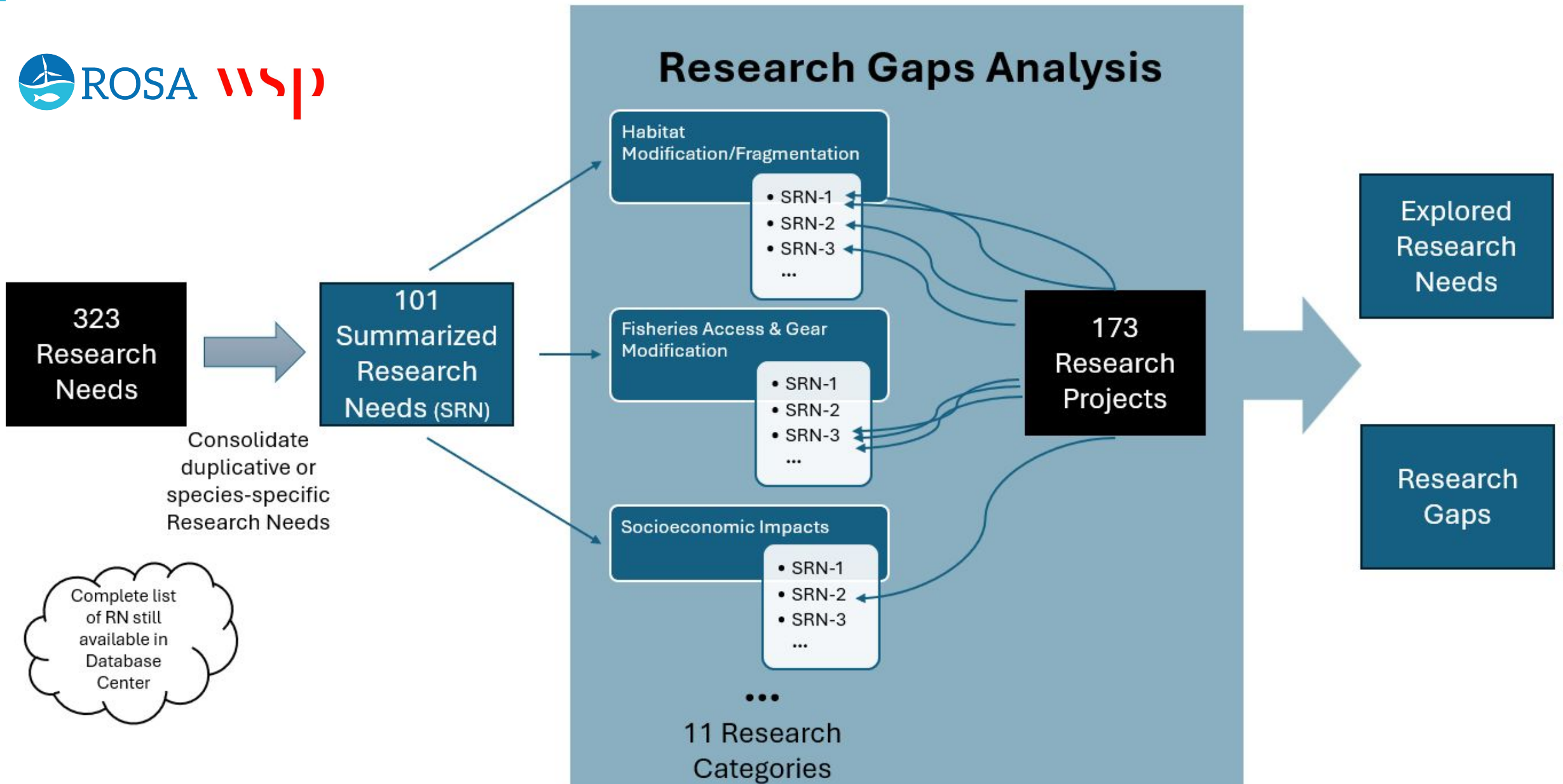
This knowledge base provides access to documents and information from around the world about the environmental effects of wind energy. This link filters these results to "Fish."



[NYSERDA Mitigation Practices Database Tool](#)

This tool is a searchable database of potential mitigation practices that may be relevant

FishFORWRD Phase 2



ROSA Regional RFP



Regional fisheries and offshore wind research is needed to improve our understanding of offshore wind effects on wildlife populations, marine ecosystems, and coastal economies.

Regional-scale research is needed to complement these project levels and site-specific surveys, create cohesive baseline data, and inform our understanding of potential impacts at the fisheries population, ecosystem, and fishing communities level.

ROSA Regional RFP



The objectives of ROSA Regional RFPs are to:

- identify and fund hypothesis-driven science that follows a research plan
- leverage ongoing research and coordination activities
- deliver timely results to inform offshore wind planning, management, and assessment

Overall, ROSA aims to **advance understanding of regional and cumulative effects** of offshore wind on fish and fisheries through regional-scale research and **publicly-available data and data products** .

What is “Regional Research”

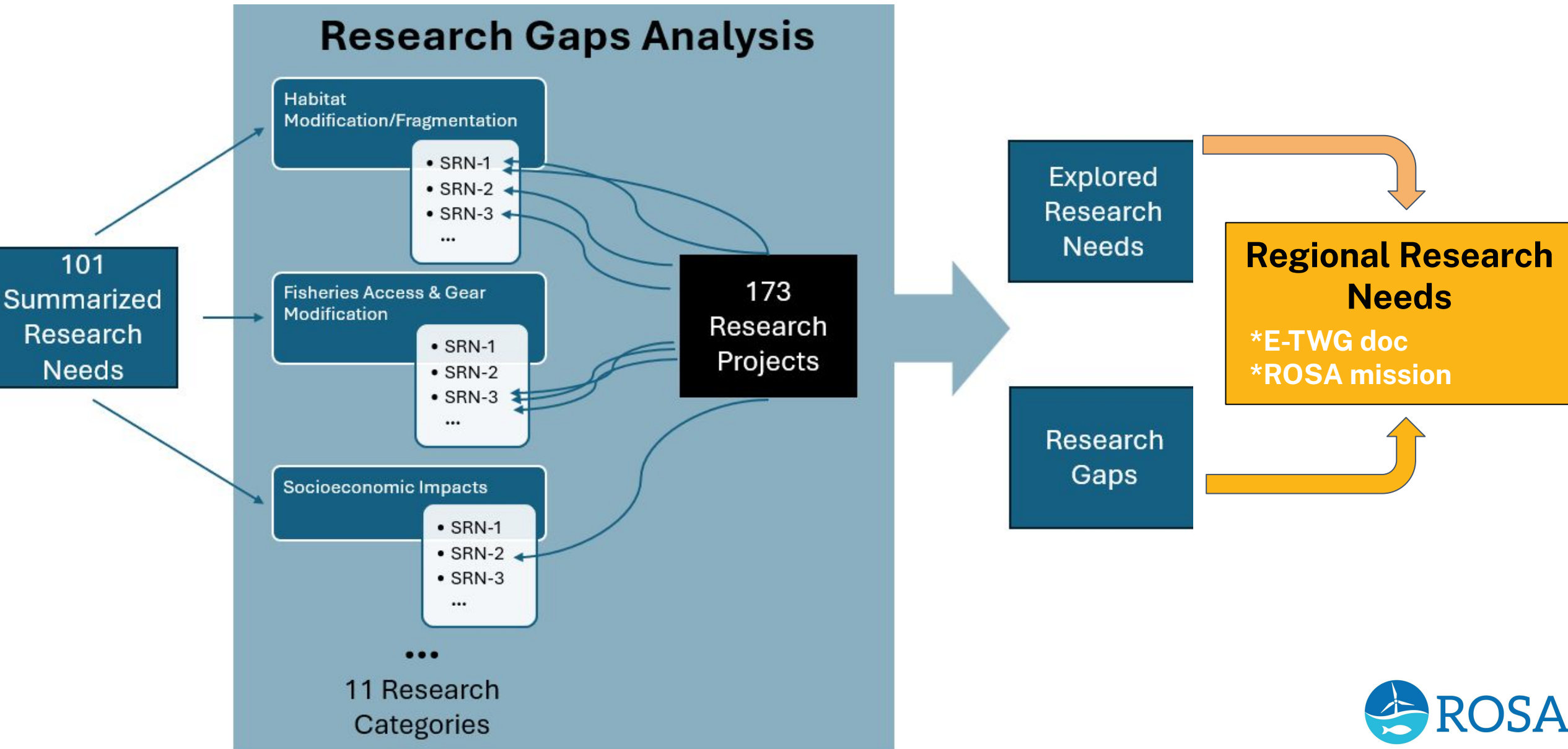
Responsible Practices for Regional Wildlife
Monitoring and Research in Relation to Offshore
Wind Energy Development, Regional Synthesis
Working Group of E-TWG, 2023



- 1. Data are required beyond a single wind farm site to answer the research question.**
 - a. Examining variation in conditions or effects across a range of spatial scales, wind farm site characteristics (e.g., turbine size, distance to shore), habitats, species, or ecosystems, such that data collection would be required across these gradients for comparison, likely at multiple project sites or regions.
 - b. Understanding phenomena such as migratory patterns and population demographics that require data collection at large spatial scales.
 - c. Examining cumulative effects, which are regional by definition as they require data at spatial and temporal scales beyond that of individual wind farms.
 - d. Understanding long-term temporal trends.
- 2. Study focuses on methodological needs and/or implementation of mitigation to inform environmental research, risk assessments, and/or adaptive management decisions.**
 - a. Technology development, such as improved transmitters or collision-detection technologies. While technologies may be tested as individual OSW sites, the overall development and validation of a new technology would be considered regional in scope.
 - b. Species vulnerability and sensitivity assessments and other guidance for conducting assessments.
 - c. Development of approaches for data standardization, management, analysis, and sharing.
 - d. Studies focused on the development and validation of mitigation approaches. Mitigation, in this context, includes all aspects of the mitigation hierarchy (IFC 2012) including avoidance, minimization, and compensation. For example, this could include a study testing the effectiveness of technology for noise reduction during pile-driving (i.e., minimization) or efficacy of offsite population management measures (i.e., compensation).
- 3. Study contributes to a mechanistic understanding of ecosystem processes.**

This includes topics related to broader ecosystem and environmental variables as well as those focused on understanding mechanistic causes of organisms' responses to stimuli to inform our understanding at the regional level.

Filtered to Regional Needs for ROSA



Your Feedback is Requested on Regional Needs

Ranking Form is open and available NOW

2 Sections

Form open until September 20 @ 7PM

- High Level Ranking of All Research Categories
- Ranking and Feedback for each research category
 - respond to as little or as many categories as you want

Consider 3 Prioritization Aspects

- Importance/Urgency of Need
- Achievable
- Efficiency & Innovation

Materials Provided

- These slides
- Viewing ability of miro board presentation
- FishFORWRD

Office Hours for Questions or Further Discussion

September 10th @ 12-1 PM

September 12 @ 2-3 PM

Find me at AFS in Hawaii



2024 Gaps ROSA Reg Topic Area

Provide rankings and opinions

OPPORTUNITY TO PROVIDE FEEDBACK
1. Section 1 - High Level Ranking of
2. Section 2 - Ranking within Research

Start now

1

Rank High Level Topic Areas - FISH BIOLOGY

drag a topic or use the arrows to order

Species Distribution/Composition

Sound/Vibration Impacts

EMF

Habitat Fragmentation/Modification

Resource Monitoring

Survey Adaptation

Cumulative Impacts & Fisheries Management Impacts

Data Management

2

Rank High Level Topic Areas - FISHERIES

drag a topic or use the arrows to order

Socioeconomic Impacts

Fisheries Engagement & Capacity Building

Fisheries Access & Gear Modification

Cumulative Impacts & Fisheries Management Impacts

Data Management

16

EMF

You may provide a ranking of research needs below and/or provide written feedback on research needs in this topic area

drag a topic or use the arrows to order



Laboratory measurements of energized HVCs are needed to generate spatiotemporal models of EMF emissions.

A better understanding of the temporal variations in power levels and the resulting spatio-temporal variations in the emitted EMF are required.

Expected and in-situ OSW EMF exposure intensities

How do fisheries species respond to EMF-emitting cables? Responses include behavior, movement, navigation, physiology, foraging, egg development, hatching success, and larval fitness. Are EMF-sensitive species aggregating or avoiding energized cables?

While research should continue to study how individuals respond to EMFs at different stages of their life cycle, the overarching concern is whether specific observed behavioral responses to EMFs are likely to result in population-level impacts

17

EMF

- Are the gaps in this research category: important, urgent, achievable today?
- Are there research needs missing from this list?
- What types of projects would produce the outcome to these research questions?
- What types of data and final products would advance our knowledge of these research questions?
- Provide any additional detail or feedback you'd like

Enter your answer



ROSA
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Science Alliance

Gaps Analysis Presentation using miro

A large, powerful ocean wave is captured in mid-break, with a massive wall of water curling over and sending a spray of white foam into the air. The water is a deep, vibrant blue-green. The sky above is a pale, clear blue. A semi-transparent teal banner spans the bottom third of the image, providing a background for the white text.

Walk through Ranking Survey

Tool to Help You Rank

Responsible Practices for Regional Wildlife Monitoring and Research in Relation to Offshore Wind Energy Development, Regional Synthesis Working Group of E-TWG, 2023

Importance/Urgency of Need : contribute to understanding of key regional- and population-level effects of OSW, including disentangling OSW effects from other sources of change

- Contribute to fundamental understanding of key regional effects and impacts to species, habitats, communities, or ecosystems
 - Vulnerability to OSW effects or impacts
 - Economic or societal value
 - Importance to ecosystem stability and function
 - Current state of knowledge (information lacking and high level of uncertainty)
- Help to understand changes in ecosystem structure and function
- Improve understanding of the drivers of change and potential interactive effects
- Inform and reduce uncertainty in decision making beyond a single OSW project or site
- Develop monitoring techniques, technologies, methodologies, protocols, or long-term datasets to better address regional research questions
- Fulfill immediate information needs.

Achievability : ability to fully accomplish objectives

- Produce results that are broadly applicable
- Help to assess or reduce uncertainty
- Be conducted on the necessary timeline and within the boundaries of logistical constraints

Efficiency & Innovation :

- Be conducted on the necessary timeline and within the boundaries of logistical constraints
- Consider, leverage, or improve existing data
- Are innovative or work to build new partnerships and collaborations

Organizational Considerations

Importance/ Urgency of need

Achievability

Efficiency and Innovation

Initial Narrowing of
Long List of Research
Topics

**Goal: Narrow down
large list of research
needs**



Prioritization for
inclusion in Request
for Proposals

**Goal: Narrow to
priority needs/focal
areas for inclusion in
RFP**



Selecting Research
Projects

**Goal: Narrow to a few
funded projects**

Next Steps



FishFORWRD v2.2.0 Release

- routine biannual updates for new projects
- peer review
- update webtool
- publication

ROSA Regional RFP

- Consider ranking results, insights from OSW Funder Coordination meeting, funding level, and mission to choose topic areas
- Expect RFP this fall/winter
- Will be looking for reviewers

Looking for Fisheries representative on Oversight Panel for RFP

Thank You

To ensure success in FishFORWRD, the Gaps Analysis, and ROSA we need you!

- share information with ROSA
- participate in ROSA committees and programs
- adopt consistent standards and requirements
- allocate funds and capacity toward regional coordination and information/data management

2024 Gaps Analysis Ranking

Submissions to FishFORWRD

OSW Fisheries Funder Coordination Meeting

Data Governance Program

ROSA OSW Monitoring Guidelines

ROSA Regional RFPs

Thank You

2024 Gaps Analysis ROSA Regional
RFP Topic Area Feedback



Ranking Survey open until September 20

Office Hours

September 10th @ 12-1 PM

September 12 @ 2-3 PM

AFS in Hawaii

Preliminary Results provided at next ROSA Advisory
Council Meeting - September 26 @ 9AM

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