

Needs Assessment Survey for Monitoring Data Synthesis

Introduction

This is a voluntary survey.

Welcome! Thank you for participating in this survey on coastal management issues and the use of monitoring data. The purpose of this survey is to understand how long-term estuarine monitoring programs can better address regional and national coastal management needs. NOAA will use these survey results to help guide investments in monitoring data synthesis for research, education, and outreach programs. For more information about research and monitoring conducted at the National Estuarine Research Reserve System, please visit: <https://coast.noaa.gov/nerrs/research/>.

Your responses to this survey will be kept anonymous and any published results of the survey will be summarized in a manner that does not identify individuals. The survey should take about 20 minutes, from beginning to end. Send any comments regarding this estimate of time, or any other suggestions for reducing this burden to: Mary Culver, 2234 South Hobson Ave. Charleston, SC 29405, mary.culver@noaa.gov.

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First, please tell us a little about yourself.

1. Are you an employee of a National Estuarine Research Reserve?

- a. Yes (please indicate which one) [Dropdown]
- b. No

2. Which category best describes the sector in which you work?

- a. Federal government
- b. State/territorial government
- c. Local government (e.g., county/municipality)
- d. Academia
- e. Non-governmental organization
- f. Private sector
- g. Other? Please describe: _____

3. Which category best describes your occupation?

- a. Resource manager
- b. Planner
- c. Policy maker
- d. Researcher/Data analyst/Scientist
- e. Educator (including outreach, communication of information)
- f. Consultant
- g. Other? Please describe: _____

4. Which category best describes the scale at which you work?

- a. National
- b. Regional (multi-jurisdictional)
- c. State
- d. Local
- e. Other? Please describe: _____

5. Select the geographic region in which you do the most work:

- a. Northeast
- b. Mid-Atlantic
- c. Southeast
- d. Gulf of Mexico
- e. West Coast (including Alaska)
- f. Caribbean
- g. National

6. How many years have you been working on coastal-related issues?

- a. Less than 5 years
- b. 5 to 10 years
- c. 11 to 15 years
- d. More than 15 years
- e. Prefer not to answer

Coastal Management Issues

7. What are the top three coastal management issues you face in your work?

- a. Climate change (e.g. climate adaptation, climate mitigation, coastal hazards and disasters, sea-level modeling, risk, or resiliency)
- b. Fisheries management
- c. Visitor use (e.g. ecotourism, recreation)
- d. Habitat management, improvement and/or restoration (e.g. invasive species, wetlands restoration, managing for specific species, biodiversity conservation)
- e. Land use / marine use change (watershed/port development and resultant impacts)
- f. Water quality (e.g. storm water, nutrients, toxics, sediment, temperature, harmful algal blooms)
- g. Watershed and floodplain management (watershed-wide management planning)
- h. Other _____
- i. Other _____
- j. Other _____

8. **[For the Top 3 in #7, ask the following open ended]** What is the primary or most important management question you need to answer in **[INSERT NAME FROM 7]**?

- a. **[Asked in reference to the management question they fill in above - so will be answered 3 times]** Is this coastal management question in response to specific mandate(s) (i.e. a requirement from an agency, government or other entity)?
 - i. Yes (please describe)
 - ii. No
 - iii. I don't know

9. **[For the Top 3 in #7, ask the following open ended]** Where do you find data/information that are important to answer questions about **[INSERT NAME FROM 7]** (check all that apply)?

- a. Local or regional organization (please describe data)_____
- b. State environmental agency (please describe data)_____
- c. Other federal environmental agency (please describe data)_____
- d. Non-governmental organization (please describe data)_____
- e. Academic institution (please describe data)_____
- f. Other (please describe data)_____

10. [For the Top 3 in #7, ask the following open ended] What are the most critical gaps in information you need to answer management questions about [INSERT NAME FROM 7]?

Coastal Monitoring Data Needs and Management Issues

11. The table below lists general categories of coastal monitoring data. Please rate the importance of each category in informing how you use the data to address your coastal resource management needs from “Not at all important” to “Extremely important.”

Categories	Extremely Important This type of data is essential to my work	Very Important	Moderately Important	Slightly Important	Not at all Important I do not need these data
Water quality and nutrient data trends over time (e.g., water temp, pH, turbidity, dissolved oxygen, salinity, orthophosphate, ammonium nitrite, nitrate, chlorophyll)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Real-time water quality data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meteorological data trends over time (e.g., air temp, relative humidity, barometric pressure, wind speed, wind direction, precipitation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Real-time meteorological data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vegetation monitoring data , including submerged aquatic vegetation (such as eelgrass) and emergent vegetation (such as salt marsh and mangrove vegetation) diversity, percent cover, stem density, and canopy height	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Land use/land cover data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Please indicate whether or not the following types of data could help you make management decisions:

Categories	Yes	No	Not Sure
Water temperature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specific conductivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Salinity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dissolved oxygen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pH	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turbidity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Categories	Yes	No	Not Sure
Chlorophyll	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orthophosphate concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ammonium concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrite concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrate concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrite + nitrate concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please indicate whether the following types of meteorological data could help you make management decisions:

Categories	Yes	No	Not Sure
Air temperature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relative humidity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Barometric pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wind speed and direction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Photosynthetically active radiation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Daily precipitation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Please indicate whether the following types of vegetation data could help you make management decisions:

Categories	Yes	No	Not Sure
Percent cover by species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Species density	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canopy height	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. What types of data, if any, do you use in combination with coastal monitoring data to answer management questions (select all that apply)?

- a. Land-use/land-cover data
- b. Impervious surface data
- c. Wastewater or sewer data
- d. Population data
- e. Economic data
- f. Level of human development data
- g. Other (please describe) _____
- h. None or N/A

Overall Data Format and Delivery Needs

16. How important are the following data summaries in helping you make coastal management decisions:

Categories	Extremely Important This type of data is essential to my work	Very Important	Moderately Important	Slightly Important	Not at all Important I do not need these data
National-scale data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regional-scale data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local-scale data (bay, watershed, river, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annual data summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seasonal data summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monthly data summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Daily data summary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Real-time data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. How useful are the following types of data and information products in helping you make management decisions:

Categories	Very Useful	Moderately Useful	Slightly Useful	Not at all Useful
Executive Summaries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical Reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brochures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interactive Websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Please rank the importance of each of the following types of monitoring data synthesis products to your work:

Categories	Extremely Important	Very Important	Moderately Important	Slightly Important	Not at all Important
Current conditions report that provides a snapshot in time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conditions report that includes trends over time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information that links conditions to causes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information that links causes of problems to possible solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information that links conditions to what people care about (e.g., human uses, socio-economic values)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information that links conditions to management goals and performance measures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SWMP Data Feedback

19. What best describes your familiarity with System-Wide Monitoring Program (SWMP) data from the National Estuarine Research Reserves?

- a. I have previously used or currently use the data. [Skip to #21]
- b. I am familiar with the data but have not used the data. [Continue to #20]
- c. I am unfamiliar with the data. [Skip to #23]

20. What are the reason(s) you have not used System-Wide Monitoring Program (SWMP) data (check all that apply)? [Skip to #23 regardless of answer]

- a. I have not needed water/nutrient monitoring or meteorological data in my work.
- b. The locations of the monitoring sites do not align with my needs.
- c. I use water/nutrient monitoring data from other sources (please note source_____)
- d. I do not know enough about the data to understand if they could be useful to me.
- e. The data are not available in a format that is useful to my work.
- f. The data are difficult to access.
- g. Other (please describe)_____

21. Please select how you are applying or using SWMP data in your decision-making. (check all that apply)

- a. General habitat management
- b. Fisheries habitat
- c. Wildlife habitat
- d. Vegetation management
- e. General water quality management
- f. Nutrient control
- g. Sediment management
- h. General climate trends
- i. Sea level rise
- j. Temperature
- k. Other (please describe)_____

22. Please select any limitations or gaps you have noted when using SWMP data. (check all that apply)

- a. Temporal issues (please describe)_____
- b. Spatial issues (please describe)_____
- c. Parameters missing (please describe)_____
- d. Difficulty accessing (please describe)_____
- e. Difficulty using data (please describe)_____
- f. Data comparability issues (please describe)_____
- g. QA/QC issues (please describe)_____
- h. Other (please describe)_____

Additional Comments

23. Please let us know if you have any additional comments about the use and synthesis of monitoring data to address coastal management issues. [Open Ended]

Thank you for participating in this survey on coastal management issues and monitoring data needs. We appreciate your time and feedback!