



Guidance for Developing Annual Reserve Management Need Statements for the 2021 Collaborative Research RFP

This document includes:

- I. **[Overview](#)** — an introduction to the purpose and focus areas for annual reserve management need statements
- II. **[Observations from prior RFPs](#)** — that can help inform your strategy for identifying and developing management need statements
- III. **[Developing your priority list](#)** — including guidance for drafting and submitting your annual reserve management need statements

I. Overview

Purpose:

Ahead of each call for collaborative research and catalyst proposals, reserves are asked to provide a list of their top 3- 5 management needs that can be referenced in Science Collaborative RFPs. These management needs are compiled in a single document, which serves two main purposes:

1. **Facilitating matchmaking**, by helping potential partners within and beyond the reserves to connect and identify common interests for a proposal; and
2. **Confirming relevance**, by enabling the Science Collaborative and proposal reviewers to understand how a proposal connects to and addresses a reserve's current management priorities.

Science Collaborative Focus Areas

Reserve management needs must pertain to the focus areas of the NERRS Science Collaborative. These priorities were derived from the reserve strategic plan as well as the reserve's research and monitoring priorities. For 2019 - 2023 these are as follows and are listed in the attached template. Each reserve management need should be listed under the focus area that most closely aligns with that need.

- Research and monitoring related to biophysical, social, economic and behavioral impacts of habitat change resulting from **climate change** and/or coastal development;
- Understanding how an **ecosystem service approach** can be utilized to support the protection and restoration of estuarine systems;
- Understanding the impacts of **land use change, eutrophication, and contamination** in estuarine ecosystems and the options for management and mitigation;
- Investigating options for improving estuarine **habitat resilience**; processes for identifying, prioritizing, and restoring sites; and monitoring and evaluating success; and
- **Syntheses of long-term monitoring data** and information, originating from programs such as the NERRS System-wide Monitoring Program and associated monitoring efforts, to develop regional and national data products that address coastal management priorities for the NERRS and NOAA.

II. Observations from prior RFPs

During our conversations with individual reserves, several managers shared different approaches for preparing their management needs and expressed interest in understanding how other reserves approached the process. We are therefore responding with some analysis that helps to describe what has occurred to date, and also adding our observations about how reviewers interpret and factor in these needs when reviewing proposals.

We compared [reserve management need statements](#) compiled in August/September of 2019 with catalyst and collaborative research proposals submitted in 2020 and detected the following patterns:

- Reserve management needs varied widely in terms of length, specificity, and the degree of management context provided.
- The most competitive proposals referenced management needs that were, on average, more fully explained and included details about the management context, potential application of research, and the role of the reserve (see Figure 1).
- Proposal review panels often look at the reserve management needs to provide additional confirmation about how a particular research project would benefit the reserve and management decisions.

Based on these observations, we have developed some additional guidance and suggestions for reserves.

		Was there a research or catalyst proposal that ranked in the top ten and referenced that reserve's management needs?	
Characteristics of a reserve's management need statements		Yes (count=13)	No (count=16)
Level of detail - long vs short	Short	23%	50%
	Intermediate	15%	19%
	Long	62%	31%
Is management context explained?	No	15%	38%
	Somewhat	38%	44%
	Yes	46%	19%
Is role of reserve explained?	No	62%	94%
	Somewhat	31%	6%
	Yes	8%	0%

Figure 1. Comparison of reserve management need statements and proposals that ranked in the top ten in the 2020 catalyst and collaborative research grant competitions. (Note: Proposals involving 3 or more reserves were not included in this analysis.)

III. Developing your priority list

We encourage reserve managers to work with their staff to identify a short list of current management needs for your reserve. As you decide whether to include a topic in this year's list of management needs, consider whether the timing is right for your reserve and the issue, how the reserve might support and benefit from a collaborative research project related to this issue, and how new research and tools would benefit current decision making.

You may find it helpful to review and build on the [reserve management need statements](#) that were developed for the 2020 RFPs.

A note about multi-reserve projects

At this stage, we encourage reserves to focus on identifying management needs important to their reserve. We realize that needs common to multiple reserves may emerge during the proposal development process that may not align perfectly with the management need statements drafted this summer. We anticipate providing guidance to leads of multi-reserve proposals suggesting other ways proposals can demonstrate relevance to reserve management in addition to referencing the updated summary of reserve management needs.

Key elements for management need statements

Please include the following elements in each of your reserve's management need statements.

- A short title with 2-4 key words
- A brief statement about:
 - The current environmental issue
 - The role of the reserve and its prior involvement in the issue as background for a potential new partner
 - The current management challenge and decision-making context to help explain why new research is needed
 - The type of information/research needed and the type of individuals/organizations that would use it. You might list several related information needs or identify a broader research gap. Resist describing specific project ideas to leave space for partners to help co-develop proposals.

Submitting your management needs

Please use this [word template](#) to compile your top 3-5 current management priorities for your reserve. Each need should be explained in a statement that is less than 600 characters long using language that is suitable for a potential partner from outside the reserve system. Please email your reserve's management needs to Dwight Trueblood by September 1, 2020. If you have any questions or concerns as you draft these, please reach out to Dwight for assistance. Contact: Email: Dwight.Trueblood@noaa.gov, Phone: (603)862-3580.

Suggested format

You may find it helpful to follow the AND, BUT, THEREFORE format. This format was used for the Davidson Fellowship application process, and is suggested but *not* required for the 2021 Science Collaborative RFP. We are piloting this format this year, in part, because we hope to more closely align the processes of gathering management needs/questions for the Science Collaborative and Davidson Fellowship in subsequent years.

[This situation exists] AND [our reserve and/or partners are involved in this way] BUT [we are struggling with this management challenge], THEREFORE [XX type of end users need this type of research/tools].

Examples using And, But, Therefore format

Eutrophication and contaminants of emerging concern – Coastal towns in X region are struggling to understand, reduce and mitigate the impacts of nitrogen loading and pollution from emerging contaminants. AND Our reserve has been supporting research and communication about mitigation strategies such as the use of oyster culturing and buffers, BUT current techniques are not yielding the scale of benefits needed and adoption of these techniques has been slow. THEREFORE, our reserve, municipalities and regional planning commissions need more research on the efficacy of new water quality mitigation strategies as well as social science research about barriers, public acceptance and communication strategies to advance broader adoption of best practices.

Cultural Ecosystem Services – Our reserve has been helping advance the use of ecosystem service models AND our partners are finding that this approach is useful for characterizing benefits and identifying the services that should be protected. BUT we are finding that existing methods do not include cultural ecosystem services that are relevant for indigenous communities. THEREFORE our reserve hopes to partner with researchers to review available approaches, test the use of new approaches to characterize cultural ecosystem services, and advance their use across the diverse communities and landscapes adjacent to XX reserve.