



PROCUREMENT JUSTIFICATION FORM (PJF)

This form must accompany all contract requests and sole source requisitions (RQS) over \$5,000 submitted to the Division of Procurement Services.

INSTRUCTIONS: Please provide the requested information in the white spaces below. All responses (except signatures) must be typed; no hand-written forms will be accepted. See the guidance document posted with this form on the Division of Procurement Services intranet site (Forms page) for additional instructions.

PART I: OVERVIEW				
Department Office/Division/Program:		Marine Resource/Marine Mammal Research		
Department Contract Administrator or Grant Coordinator:		Erin Summers		
(If applicable) Department Reference #:		N/A		
Amount: (Contract/Amendment/Grant)		\$ 457,270	Advantage <u>CT</u> / RQS #:	13A 20241108000000001213
CONTRACT	Proposed Start Date:	12/1/2024	Proposed End Date:	11/30/2027
AMENDMENT	Original Start Date:		Effective Date:	
	Previous End Date:		New End Date:	
GRANT	Project Start Date:		Grant Start Date:	
	Project End Date:		Grant End Date:	
Vendor/Provider/Grantee Name, City, State:		Duke University Durham, NC		
Brief Description of Goods/Services/Grant:		The project will culminate first in the development of a set of projected right whale density surfaces extending across the continental shelf of eastern North America from the present day until several decades from now (the exact spatial and temporal extents and resolutions will be determined in collaboration with the full project team), as well as a journal manuscript documenting their development. The Duke team will also assist collaborators in integrating the resulting right whale density surface models with fishery and lobster population layers to create a risk analysis tool for right whale entanglement risk.		

PART II: JUSTIFICATION FOR VENDOR SELECTION

Check the box below for the justification(s) that applies to this request. (Check all that apply.)

<input type="checkbox"/>	A. Competitive Process	<input type="checkbox"/>	G. Grant
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<input type="checkbox"/>	B. Amendment	<input type="checkbox"/>	H. State Statute/Agency Directed
<input checked="" type="checkbox"/>	C. Single Source/Unique Vendor	<input type="checkbox"/>	I. Federal Agency Directed
<input type="checkbox"/>	D. Proprietary/Copyright/Patents	<input type="checkbox"/>	J. Willing and Qualified
<input type="checkbox"/>	E. Emergency	<input type="checkbox"/>	K. Client Choice
<input type="checkbox"/>	F. University Cooperative Project	<input type="checkbox"/>	L. Other Authorization

Please respond to ALL of the questions in the following sections.

PART III: SUPPLEMENTAL INFORMATION

1. Provide a more detailed description and explain the need for the goods, services or grant to supplement the response in Part I.

This project proposes to examine the potential overlap between the future distributions of the North Atlantic right whale and lobster fisheries. As experts in cetacean density modeling, the Duke University Marine Geospatial Ecology Lab (MGEL) will lead the development of a right whale model that will project density well into the 21st century. Then, in collaboration with Prof. Yong Chen and colleagues at Stony Brook University’s School of Marine and Atmospheric Sciences, who will develop similar projections of American lobster and the lobster fishery, and colleagues at the Maine Department of Marine Resources, the two models will be brought together to examine the risk of future overlap. Because right whale population impacts can be best understood by modeling the entire population, and the best distribution model obtained by modeling the species throughout its range, the right whale model will cover both U.S. and Canadian waters. To accomplish this, Duke will leverage ongoing collaborations with Canada Department of Fisheries and Oceans (DFO) to bring in both right whale survey data and a zooplankton climate model from DFO, and that the relevant DFO scientists also become collaborators in the project if they are interested.

The right whale modeling work will be led by a postdoctoral researcher based at MGEL, under the supervision of MGEL Director Prof. Patrick N. Halpin and modeling team leader Jason J. Roberts. The work will occur over three years, with the postdoc funded for two years full time during this period. The project will culminate first in the development of a set of projected right whale density surfaces extending across the continental shelf of eastern North America from the present day until several decades from now (the exact spatial and temporal extents and resolutions will be determined in collaboration with the full project team), as well as a journal manuscript documenting their development. During the development of the model, the postdoc and MGEL supervisors will consult regularly with Prof. Chen, Ms. Summers, and other team members to incorporate requirements and ensure the model will meet the needs of the lobster fishery risk analysis. To facilitate widespread uptake of the model outputs, the density surfaces will be released for download by the general public and the manuscript published in an open-access journal, similar to MGEL’s current modeling work, and the postdoc will present the model at a suitable venue such as the North Atlantic Right Whale Consortium’s annual meeting. After the right whale model is complete, the postdoc and MGEL supervisors will work with the lobster and fisheries team to ensure it may be successfully integrated into the risk model and support the completion and publication of that model.

2. Provide a brief justification for the selected vendor to supplement the response in Part II. Reference the RFP number, if applicable.

The selected vendor is the foremost expert in right whale density models, having created Habitat-based Marine Mammal Density Models for the U.S. Atlantic, including right whales, that are used by the US Navy, NOAA Fisheries, and other agencies as the best available science for estimating the

PART III: SUPPLEMENTAL INFORMATION

distribution and density of right whales throughout their range.

<https://seamap.env.duke.edu/models/Duke/EC/>

Because these density models already exist and use the most up to date information, the team created by this contract will only have to modify those models to update them and extend their range to be able to forecast the distribution of right whales into the future, instead of creating new models from scratch. This will significantly decrease the amount of time needed to on the project and will make the results consistent with other accepted models looking at right whales and the associated risk of entanglement to which these outcomes will be compared.

3. Explain how the negotiated costs or rates are fair and reasonable; or how the funding was allocated to grantee.

Duke developed a Scope of Work and related budget based on DMR's needs and timeframes for conducting this work, which includes hiring a Post Doc. The Scope of Work and budget use negotiated indirect rates and benefits packages, etc. for the staff that will be hired.

4. Describe the plan for future competition for the goods or services.

Creating right whale density models that will be accepted by the scientific community and be able to be used by Maine DMR in the regulatory process for the lobster fishery requires collaboration with the existing experts in the field. Duke University has been working on and updating the right whale density models since they were originally published in 2016. There is a timeline associated with this work. Analyses need to be completed within this strict time frame to be included in the Atlantic Large Whale Take Reduction Team and lobster management process, so there may not be sufficient time for a full competitive process.

PART IV: AMERICAN RESCUE PLAN ACT (ARPA) / MAINE JOBS & RECOVERY PLAN (MJRP)

Does this request utilize ARPA/MJRP funds?

Yes, MJRP funds (023) – If Yes, please attach the approved Business Case(s).

Yes, ARPA funds (025) – If Yes, please be aware of the requirements from awarding federal agencies.

No – If No, proceed to Part V.

PART V: CONFLICTS OF INTEREST (COI); CONTRACT WITH THE STATE

Maine law contains Conflict of Interest statutes directed to State Departments, State Officers, and Employees Generally under MRS [Title 5, §18](#) and [§18-A](#), in harmony with MRS [Title 17, §3104](#).

The requesting department signatory understands and acknowledges Maine's Conflict of Interest statutes.

PART VI: APPROVALS

The signatures below indicate approval of this procurement request.

Signature of requesting Department's Commissioner (or designee):	<i>Meredith Mendelson</i> Meredith Mendelson (Dec 14, 2024 13:30 EST)		
Typed Name:	Meredith Mendelson, Deputy Commissioner	Date:	Dec 14, 2024
Signature of DAFS Procurement Official:	DocuSigned by: <i>Martha Verhille</i> 891CE7A1493D45B...		
Typed Name:	Martha Verhille	Date:	1/6/2025






PJF CT 13A 20241108-1213

Final Audit Report

2024-12-14

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