



PROCUREMENT JUSTIFICATION FORM (PJF)

This form must accompany all contract requests and sole source requisitions (RQS) over \$5,000 submitted to the Office of State 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 Procurement Services intranet site (Forms page) for additional instructions.

PART I: OVERVIEW			
Department Office/Division/Program:	Marine Resources/Marine Mammal Research		
Department Contract Administrator or Grant Coordinator:	Erin Summers		
(If applicable) Department Reference #:	N/A		
Amount: (Contract/Amendment/Grant)	\$ 279,698	Advantage <u>CT</u> / RQS #:	13A 20250103000000001682
CONTRACT	Proposed Start Date:	2/1/2025	Proposed End Date: 9/30/2026
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:	Stony Brook University Stony Brook, NY		
Brief Description of Goods/Services/Grant:	Development of population models for the assessment and management of the North Atlantic right whale population.		

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
<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.

The Provider will put in place a team to develop a matrix population model and an agent-based model for the assessment and management of NARW population. The NARW matrix population model will include key life history parameters including growth, maturation, reproduction, and survival) to simulate population growth. Matrices will be used to predict how many NARW of each age or stage class will be present in the population in different time steps (e.g., year) as a result of age- or stage-specific growth, birth and survival rates, given the abundance in the previous time steps. Observational models will be developed to link the predicted age- or stage-specific abundance with the data observed in various surveys. Statistical assumptions will be made for the observational models to estimate key population model parameters and their uncertainties. Once the population parameters are estimated, the matrix population model can be used to predict the population dynamics and evaluate possible impacts of alternative management strategies or possible changes in environment and health conditions on the NARW population dynamics.

The Provider will also develop a spatially explicit agent-based model to simulate individual NARW movements, life history process and energy balance over discrete time steps (e.g., week, month or quarter). The movement, life history and energy balance of each individual will depend on the conditions they have when moving around in their environment, their internal state and health conditions, and what they have experienced in the past (e.g., possible vessel strike and gear entanglement). The population dynamics and spatial distributions of NARW will emerge as a result of the simulation of all the individuals. Statistical observational models will be developed to link the IBM-simulated distributions with the observed data. They will be used to fine-tune the parameters used in the IBM model to minimize the observed differences between the IBM-predicted and observed data. The estimated IBM model will then be used to predict the population dynamics and evaluate possible impacts of changing environment and health condition for each individual and alternative management strategies on the NARW population dynamics and distribution. Sub-lethal impacts of individual NARW resulting from anthropogenic activities such as fishing gear entanglement and vessel strike can also be explicitly evaluated with the estimated agent-based 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 an established expert in the field of modeling, specifically in regard to population and biological assessments, fishery characterization and management, and climate change projections. Dr. Yong Chen and his students and post docs have many scientific publications directly applicable to the work that DMR needs to be done through this contract. Additionally, DMR and Stony Brook already have other related collaborative projects that this contract will build from, including the development of risk assessment tools for the lobster fishery relative to right whales. No other entity has this direct expertise. Additionally, Dr. Yong Chen, has a unique and extensive knowledge of the management and scientific needs that the science projects proposed here will inform. Dr. Chen is a member of the Atlantic Scientific Review Group, reviewing all marine mammal stock assessments, serves to peer-review many related models and assessment tools, and has a rich history building lobster stock assessment models and contributing to other scientific needs for the management of this fishery.

PART III: SUPPLEMENTAL INFORMATION

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

Stony Brook developed a Scope of Work and related budget based on DMR's needs and timeframes for conducting this work, which includes hiring new personnel. 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.

There is a timeline associated with this work because of the pressure of regulations that are coming for the lobster fishery in the next two years. Analyses need to be completed within the next couple of years to be included in this management process, so there may not be sufficient time for a full competitive process but this tool is of paramount importance to DMR.

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 (Jan 16, 2025 11:22 EST)		
Typed Name:	Meredith Mendelson, Deputy Commissioner	Date:	Jan 16, 2025
Signature of DAFS Procurement Official:	DocuSigned by: <i>Martha Verhille</i> 891CE7A1493D45B...		
Typed Name:	Martha Verhille	Date:	1/21/2025






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Final Audit Report

2025-01-16

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