



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

94



January 25, 2024

His Excellency, Governor Christopher T. Sununu
and The Honorable Council
State House
Concord, NH 03301

REQUESTED ACTION

Authorize the New Hampshire Department of Environmental Services (NHDES) to enter into a **SOLE SOURCE** agreement with the University of New Hampshire, Sponsored Program Administration (VC #315187-B083), Durham, New Hampshire, in the amount of \$42,752 to perform laboratory analysis of seawater samples to identify and quantify harmful algae cells, effective upon Governor and Council approval through March 31, 2025. 100% General Funds.

Funding is available in the following account:

	<u>FY 2024</u>
03-44-44-442010-15230000-102-500731	\$42,752
Dept. Environmental Services, Shellfish Protection Program, Contracts for Program Services	

EXPLANATION

NHDES requests approval to enter into a **SOLE SOURCE** Cooperative Project Agreement with the University of New Hampshire, Department of Biological Sciences (UNH). NHDES recently purchased a FlowCam, a benchtop instrument that allows for rapid identification of marine harmful algae cells in seawater using high-speed digital photography and image-recognition software and continues to evaluate the utility of this instrument and its applicability to the marine algae monitoring programs run by the NHDES Shellfish Program, as required by state law and by the National Shellfish Sanitation Program. This is a **SOLE SOURCE** agreement because the laboratory of Dr. Elizabeth Harvey at UNH operates the same type of FlowCam. The instrument has shown promise for supplementing light microscope identifications made by NHDES staff or volunteers, particularly during periods of intensive algae blooms when a much larger volume of samples needs to be examined to safely keep commercial and recreational shellfish harvest areas open. During such periods, the availability of staff and volunteers trained in light microscope identifications can limit the number of samples that can be analyzed. This is the only such lab in the vicinity that could be used to augment NHDES resources in this manner.

Dr. Harvey is interested in working with NHDES, has a staff member trained in the use of the FlowCam, and can provide the staff who are already familiar with the department's methods for seawater sample collection and examination using the light microscope. Partnering with Dr. Harvey's laboratory will provide NHDES staff with needed backup to process the increased number of samples that are needed

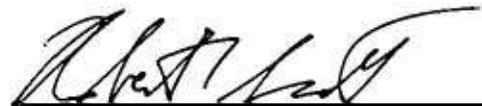
during algae bloom events. Being able to process these samples in a timely manner benefits the NH commercial shellfish aquaculture industry by avoiding unnecessary harvest closures.

This agreement provides funds for UNH to provide a laboratory technician two days per week for the term of the agreement, to perform field sample collection, light microscope identification, and FlowCam analyses at the NHDES Pease field office, and to provide consultation services to NHDES staff learning the FlowCam analysis routines and methodologies for post-processing the FlowCam data. The comparisons between microscope results and FlowCam results will allow NHDES to understand the degree to which the FlowCam data match light microscope results and will enable NHDES to identify the monitoring conditions and situations in which use of a FlowCam is/is not appropriate for meeting National Shellfish Sanitation Program requirements.

Total project costs are budgeted at \$42,752.

This agreement has been approved by the Office of the Attorney General as to form, execution, and content.

We respectfully request your approval.

A handwritten signature in black ink, appearing to read "Robert R. Scott", written over a horizontal line.

Robert R. Scott, Commissioner

COOPERATIVE PROJECT AGREEMENT

between the

STATE OF NEW HAMPSHIRE, **Department of Environmental Services**

and the

University of New Hampshire of the UNIVERSITY SYSTEM OF NEW HAMPSHIRE

- A. This Cooperative Project Agreement (hereinafter "Project Agreement") is entered into by the State of New Hampshire, **Department of Environmental Services**, (hereinafter "State"), and the University System of New Hampshire, acting through **University of New Hampshire**, (hereinafter "Campus"), for the purpose of undertaking a project of mutual interest. This Cooperative Project shall be carried out under the terms and conditions of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, except as may be modified herein.
- B. This Project Agreement and all obligations of the parties hereunder shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve this Project Agreement ("Effective date") and shall end on **3/31/25**. If the provision of services by Campus precedes the Effective date, all services performed by Campus shall be performed at the sole risk of Campus and in the event that this Project Agreement does not become effective, State shall be under no obligation to pay Campus for costs incurred or services performed; however, if this Project Agreement becomes effective, all costs incurred prior to the Effective date that would otherwise be allowable shall be paid under the terms of this Project Agreement.
- C. The work to be performed under the terms of this Project Agreement is described in the proposal identified below and attached to this document as Exhibit A, the content of which is incorporated herein as a part of this Project Agreement.

Project Title: 2024-25 NHDES FlowCam and Harmful Algal Bloom Analytical Services

- D. The Following Individuals are designated as Project Administrators. These Project Administrators shall be responsible for the business aspects of this Project Agreement and all invoices, payments, project amendments and related correspondence shall be directed to the individuals so designated.

State Project Administrator

Name: Chris Nash
 Address: NHDES
 222 International Drive, Suite 175
 Portsmouth, NH 03801
 Phone: 603-559-1509

Campus Project Administrator

Name: Dianne Hall
 Address: University of New Hampshire
 Sponsored Programs Administration
 51 College Rd. Rm 116
 Durham, NH 03824
 Phone: 603-862-0529

- E. The Following Individuals are designated as Project Directors. These Project Directors shall be responsible for the technical leadership and conduct of the project. All progress reports, completion reports and related correspondence shall be directed to the individuals so designated.

State Project Director

Name: Chris Nash
 Address: NHDES
 222 International Drive, Suite 175
 Portsmouth, NH 03801
 Phone: 603-559-1509

Campus Project Director

Name: Elizabeth Harvey
 Address: Department of Biological Sciences
 College Road
 Durham, NH 03824
 Phone: 603-862-3418

F. Total State funds in the amount of \$42,752 have been allotted and are available for payment of allowable costs incurred under this Project Agreement. State will not reimburse Campus for costs exceeding the amount specified in this paragraph.

Check if applicable

Campus will cost-share 0 % of total costs during the term of this Project Agreement.

Federal funds paid to Campus under this Project Agreement are from Grant/Contract/Cooperative Agreement No. _____ from _____ under CFDA# _____. Federal regulations required to be passed through to Campus as part of this Project Agreement, and in accordance with the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002, are attached to this document as Exhibit B, the content of which is incorporated herein as a part of this Project Agreement.

G. Check if applicable

Article(s) _____ of the Master Agreement for Cooperative Projects between the State of New Hampshire and the University System of New Hampshire dated November 13, 2002 is/are hereby amended to read:

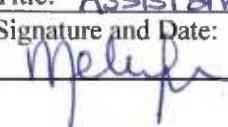
H. State has chosen **not to take** possession of equipment purchased under this Project Agreement.
 State has chosen **to take** possession of equipment purchased under this Project Agreement and will issue instructions for the disposition of such equipment within 90 days of the Project Agreement's end-date. Any expenses incurred by Campus in carrying out State's requested disposition will be fully reimbursed by State.

This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties by their authorized officials.

IN WITNESS WHEREOF, the University System of New Hampshire, acting through the University of New Hampshire and the State of New Hampshire, _____ have executed this Project Agreement.

By An Authorized Official of:
University of New Hampshire
Name: Karen M. Jensen
Title: Director, Pre-Award Compliance
Signature and Date: Karen Jensen Digitally signed by Karen Jensen
Date: 2024.01.11 14:52:48
+05'00'

By An Authorized Official of:
Department of Environmental Services
Name: Robert R. Scott
Title: Commissioner
Signature and Date:  1/26/24

By An Authorized Official of: the New Hampshire Office of the Attorney General
Name: Melissa Fales
Title: Assistant Attorney General
Signature and Date:  2/2/24

By An Authorized Official of: the New Hampshire Governor & Executive Council
Name: _____
Title: _____
Signature and Date: _____

EXHIBIT A

- A. Project Title:** 2024-25 NHDES Harmful Algal Bloom Analytical Services
- B. Project Period:** March 1, 2024 through March 31, 2025
- C. Objectives:** : The objectives of this project are to analyze seawater samples and generate estimates of cell abundance of selected harmful algal bloom species on a weekly basis using light microscopy and the NHDES FlowCam benchtop instrument, to evaluate the variability of the FlowCam estimates under different types of algal bloom conditions, to develop FlowCam image libraries on the NHDES FlowCam, and to develop customized FlowCam protocols for the target taxa of interest to the NHDES Shellfish Program. The results of the FlowCam estimates will be compared to results of cell abundances estimated by light microscopy (performed by NHDES staff and/or volunteers).
- D. Scope of Work:** Dr. Elizabeth Harvey will provide services of her laboratory technician Sara Smith for two days per week, generally Mondays and Tuesdays. The laboratory technician will perform FlowCam analyses on 1-3 seawater samples each week, using the FlowCam located at the NHDES Pease field office. FlowCam analyses will comprise of running the samples through the instrument, maintaining digital logs of sample runs and reporting cell abundances of harmful taxa observed to NHDES. The lab technician will also analyze 2-5 seawater samples each week using light microscopy at the NHDES Pease field office, following DES Standard Operating Procedures, and will provide cell abundance of harmful taxa observed in hard copy to the DES Shellfish Program Specialist. The lab technician will also register for the Karen A. Steidinger Marine Harmful Algae Taxonomy Training Course that is held in August at the National Center for Marine Algae and Microbiota.
- E. Deliverables Schedule:** Reports. Campus Project Director shall provide electronic results (updated Microsoft Excel spreadsheet for FlowCam work) on a weekly basis to the State Project Director, as well as hard copy microscopy counts on a weekly basis to the State Project Director.
- F. Budget and Invoicing Instructions:** Using standard Campus invoices Campus shall submit requests for payment/invoice by 6/30/24, 9/30/24, 12/31/24, and 3/31/25. Invoices will be based on actual project expenses incurred during the invoicing period, and shall show current and cumulative expenses by major cost categories. State shall issue payment to Campus within 30 days of receipt. The final billing must be received by the State no more than 30 days after the completion date.

Budget Items	State Funding	Cost Sharing	Total
1. Salaries & Wages	\$ 20,800	\$ 0	\$20,800
2. Employee Fringe Benefits	\$ 6,906	\$ 0	\$ 6,906
3. Travel	\$ 3,500	\$ 0	\$ 3,500
4. Supplies and Services	\$ 0	\$ 0	\$ 0
5. Equipment	\$ 0	\$ 0	\$ 0
6. Facilities & Admin Costs	\$11,546	\$ 0	\$11,546
Subtotals	\$42,752	\$ 0	\$42,752
In Kind Contribution		\$ 0	\$ 0
Total Project Costs:			\$42,752

