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The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

April 30, 2020

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

REQUESTED ACTION

Authorize the 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, NH, in the amount of $211,000 to support the Piscataqua Region Monitoring Collaborative project, effective upon Governor and Council approval through June 30, 2021. 40% Federal Funds, 38% Other Funds, and 22% General Funds.

Funding is available in the accounts as follows, with the ability to adjust encumbrances between Fiscal Years through the State Budget Office, if necessary.

Dept. Of Environmental Services	FY 20	FY 21
03-44-44-442010-3642-072-500573 Coastal Zone Management, Grants-Federal	$ 0	$15,000
03-44-44-441018-4788-102-500731 CWSRF Loan Management, Contracts for Program Services	$15,000	$40,000
03-44-44-442010-1523-102-500731 Shellfish Protection, Contract for Program Services	$10,000	$36,000
03-44-44-442010-7602-102-500731 Surface Water Quality PPG, Contract for Program Services	$ 0	$70,000
03-44-44-442010-0852-073-500581 Rivers/Lakes Mgmt Protect Fund, Grants Non-Federal	$ 0	$25,000
TOTALS:	**$25,000**	**$186,000**

EXPLANATION

NHDES requests approval to enter into a **SOLE SOURCE** Cooperative Project Agreement with the Piscataqua Region Estuaries Partnership (PREP) program at University of New Hampshire (UNH). PREP was selected for this project because it has unique expertise in conducting research in the State's estuaries, and it has secured additional funds needed to complete the project. PREP is a program at UNH which facilitates cooperation between federal, state, and local government, non-governmental organizations,

businesses, and the public to improve the environmental quality of the state's estuaries. Each year, PREP monitors conditions in the estuaries to track trends in water quality, habitats, and land use.

The Piscataqua Region Monitoring Collaborative (PRMC) is a project which will allow communities, agencies, and organizations to combine their resources for critical collaborative monitoring of New Hampshire's estuaries. The PREP program at UNH will implement the PRMC project on behalf of NHDES, the Great Bay National Estuarine Research Reserve, New Hampshire Fish and Game Department, and other contributing agencies, organizations, and municipalities. All of these organizations share a common interest in understanding the health of New Hampshire's estuaries. These shared interests are best addressed by a shared monitoring program.

Due to the continued success of this program since its launch in 2014, NHDES would like to continue to support the collaborative monitoring effort in 2020. In 2020, the monitoring priorities for the PRMC include nitrogen trends and eelgrass conditions. These studies will help to understand the status and trends of water quality and habitats in the estuaries. NHDES will contribute funds to this project because the data are critical for managing the state's estuaries and aiding communities in meeting regulatory requirements.

Additionally, in 2020, New Hampshire will be one of a handful of states participating in a pilot program studying emerging contaminants of concern. NHDES is coordinating a sampling effort with PREP to examine micro-plastic concentrations in the marine environment. Micro-plastics have the potential to bioaccumulate through the food web, potentially conveying various toxics and carcinogens to people though human consumption of aquatic organisms.

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

We respectfully request your approval of this item.

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 **6/30/21**. 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: **2020-2021 Data Collection in the Great Bay Estuary**

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	**Campus Project Administrator**
Name: Steve Couture	Name: Lisa Scigliano
Address: NH DES Coastal Program 29 Hazen Drive Concord, NH 03301	Address: University of New Hampshire Sponsored Programs Administration 51 College Rd. Rm 112 Durham, NH 03824
Phone: 603-848-2489	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	**Campus Project Director**
Name: Steve Couture	Name: Rachel Rouillard
Address: NH DES Coastal Program 29 Hazen Drive Concord, NH 03301	Address: University of New Hampshire Room 302 Nesmith Hall Durham, NH 03824
Phone: 603-848-2489	Phone: 603-862-3948

Campus Authorized Official *KJ*
Date 04/24/20

F. Total State funds in the amount of **$211,000** 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 % 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. **NA02NOS4190038/#99127312** from **NOAA/EPA**under CFDA# **11.419/66.605**. 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, **Department of Environmental Services** have executed this Project Agreement.

By An Authorized Official of:
University of New Hampshire
Name: Karen M. Jensen
Title: Director, Pre-Award
Signature and Date:
Karen Jensen Digitally signed by Karen Jensen Date: 2020.04.24 09:38:47 -04'00'

By An Authorized Official of:
Department of Environmental Services
Name: Robert R. Scott
Title: Commissioner
Signature and Date:
4 May 2020

By An Authorized Official of: the New Hampshire Office of the Attorney General
Name: Joshua Harrison
Title: Assistant Attorney General
Signature and Date: 5/5/2020

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

Campus Authorized Official KJ
Date 04/24/20

EXHIBIT A

A. Project Title: 2020-2021 Data Collection in the Great Bay Estuary

B. Project Period: Upon Governor and Council Approval – June 30, 2021

C. Objectives: Campus will collect and analyze seaweed and seagrass for percent cover and biomass at intertidal and/or subtidal sites throughout the Great Bay Estuary

D. Scope of Work: Campus will:

Section I: Monitoring Seagrass Health in 2020 in the Great Bay Estuary

1. Implement Seagrass Net protocols at the Great Bay and Portsmouth Harbor monitoring sites, a complete seasonal monitoring on three permanent transects in Great Bay and summer and fall seasons on three permanent transects in Portsmouth Harbor that includes seagrass percent cover, canopy height, biomass, density, grazing, flowering and environmental variables (temperature, light and salinity) along with photographic and seagrass voucher specimens and associated work at the laboratory for complete data analysis.

Section II: UNH Monitoring Activities to Support the National Coastal Condition Assessment in 2020

2. ASSIGN LEAD STAFF

3. PARTICIPATE IN TRAINING AND OBTAIN IACUC PERMIT

All project staff will attend a regional training session tentatively that is scheduled to be held in NH in May 2020, but remote training may occur instead. An IACUC permit for euthanizing fish will also be required prior to fieldwork involving fish sampling.

4. COLLECT WATER SAMPLES AND FIELD DATA FOR THE 2020 COMBINED STUDY DESIGN

Collect water samples, field measurements, sediment samples, and fish samples and measure physicochemical parameters for 17 station visits (15 sites) for the NCCA. At the NCCA sites, water samples, field measurements, sediment samples, and fish samples will be collected using standardized protocols for the NCCA.

5. SHIP WATER, SEDIMENT AND FISH TISSUE SAMPLES TO EPA CONTRACT LABORATORIES

Label, package, and ship water samples, sediment samples, and fish tissue samples to the EPA contract laboratories following the standardized protocols for the NCCA.

6. PREPARE FIELD SAMPLING SUMMARY

Prepare a memo describing the field sampling activities completed by Campus during the 2020 field season. In this memo, Campus will specify which work tasks from the 2020 NCCA work plan were successfully completed, list the number of samples collected for each type (e.g., water, sediment, fish), highlight any work tasks that were not completed,

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and explain any difficulties encountered. The deliverable for this task will be due by December 31, 2020.

7. CONDUCT QUALITY ASSURANCE REVIEW OF FIELD DATA
Be responsible for checking the field data from 2020 for errors or omissions. Campus will proof the field data sheets and complete data entry into software required for the NCCA. Campus will Campus will summarize the information in a Quality Assurance Report. The deliverable for this task will be due by June 30, 2021.

Section III. 2020 Estuarine Water Quality Monitoring Activities

8. Maintain and operate the RECOMS water quality monitoring program

9. Monitor bacteria, nutrient and eutrophication parameter concentrations at estuarine stations in the Piscataqua Region estuaries between June 1, 2020 and December 31, 2020. The sampling schedule for each station and a detailed list of analytical parameters are provided in the following tables. The final work product will be an Excel spreadsheet containing quality-assured results for each station on each date and a final report describing any deviations from the protocols.

June through December 2020
H=High Tide Sample, L=Low Tide Sample

Station	Dissolved Nutrients	Particulate Nutrients	Suspended Solids	Bacteria	Water Clarity	Field Parameters
GRBAP	H&L	H&L	H&L	H&L	H&L	H&L
GRBUPR	L	L	L	L	L	L
GRBLR	L**	L	L	-	L	L**
GRBOR	L**	L	L	-	-	L**
GRBGBW	L	L	L	L	L	L
GRBGB	L**	L	L	-	L	L**
GRBSQ	L**	L	L	-	L	L**
GRBGBE	L	L	L	-	L	L
HHHR	L	L	L	-	L	L
Samples per month	24	10	24	4	9	14
QA samples per month	2	2	2	1	2	-
Total samples	232	114	232	45	96	125

*Sampling at all stations for all parameters in not always possible in December as a result of icing and/or extreme low tides.
**Measurement of this parameter will be completed by UNH using funding from another source besides PREP.

Parameters for Analysis

- Dissolved nutrients: ammonia, nitrate+nitrite, orthophosphate, total dissolved nitrogen, silica. Silica will only be measured at stations GRBAP. For each station visit, one sample for dissolved nutrients will be collected from the surface waters (0.5 m depth). For quality assurance, triplicate samples will be collected at one station visit each month.

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- Particulate nutrients: particulate nitrogen, particulate carbon. For each station visit, one sample for particulate nutrients will be collected from the surface waters (0.5 m depth). For quality assurance, triplicate samples will be collected at one station visit each month.
- Suspended Solids: chlorophyll-a, total suspended solids. For each station visit, one sample for suspended solids will be collected from the surface waters (0.5 m depth). For quality assurance, triplicate samples will be collected at one station visit each month.
- Bacteria: enterococci. Every tenth result for bacteria will consist of two replicate samples.
- Water clarity: vertical profiles of photosynthetically active radiation (PAR) will be measured to enable calculation of diffuse attenuation coefficients (Kd). Every tenth PAR profile will be replicated in triplicate to assess the accuracy of the method. This measurement will not be performed at GRBOR due to insufficient water depth.
- Physicochemical: water temperature, salinity, dissolved oxygen, and dissolved oxygen saturation. Every result for physicochemical parameters will consist of one set of results for all the parameters.

E. Deliverables Schedule: Campus shall submit

1. Spring instrument deployment by June 12, 2020 (Section III)
2. Field season halfway point by August 31, 2020 (Section III)
3. PDF of field data sheets for the five monitoring events by October 30th, 2020 (Section I)
4. Completion of field season by December 15, 2020 (Section III)
5. Receipt of lab data in preparation for QC report generation by March 31, 2021 (Section III)
6. Final report delivered (one printed copy and one electronic version) describing the results and any deviations from the protocols established in the Quality Assurance Project Plan by April 1, 2021 (Section I)
7. Provide interim progress report from Task 5 by December 31, 2020 (Section II)
8. Submit a final report that includes the deliverables from Tasks 5 and 6 by June 20, 2021 (Section II)

F. Budget Invoicing Instructions: Using standard Campus invoices, Campus will submit invoices to State in accordance with the following schedule based upon satisfactory completion of specific tasks, and receipt of deliverables as described in Section E. Deliverable Schedule above. Upon satisfactory completion of specific tasks State will pay Campus 30 Days of receipt of each invoice.

1. Upon completion and NHDES approval of deliverable 1..... $29,000
2. Upon completion and NHDES approval of deliverable 2..... $29,000
3. Upon completion and NHDES approval of deliverable 3..... $15,000
4. Upon completion and NHDES approval of deliverable 4..... $29,000
5. Upon completion and NHDES approval of deliverable 5.....$29,000

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6. Upon completion and NHDES approval of deliverable 6 ..... $10,000
7. Upon completion and NHDES approval of deliverable 7..... $35,000
8. Upon completion and NHDES approval of deliverable 8..... $35,000

TOTAL BUDGET: $211,000

G. **Funding Credit:** (Sections I and III) An appropriate funding credit and logo shall appear on all materials intended for public distribution. In addition, all final work products and outreach materials associated with the work for the items above shall include the NOAA, NHCP and DES logos. All work products and outreach materials shall state that "This project was funded, in part, by NOAA's Office for Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program." Examples of final work products and outreach materials include, but are not limited to, final reports, press releases, newsletter articles, website pages, and signage.

(Section II) An appropriate funding credit and logos of U.S. Environmental Protection Agency and the New Hampshire Department of Environmental Services shall appear on all materials intended for public distribution. The funding credit shall be: "This project was funded by the U.S. Environmental Protection Agency through the National Coastal Condition Assessment and the Performance Partnership Grant with the New Hampshire Department of Environmental Services."

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Date 04/24/20

EXHIBIT B

This Project Agreement is funded under a Grant/Contract/Cooperative Agreement to State from the Federal sponsor specified in Project Agreement article F. All applicable requirements, regulations, provisions, terms and conditions of this Federal Grant/Contract/Cooperative Agreement are hereby adopted in full force and effect to the relationship between State and Campus, except that wherever such requirements, regulations, provisions and terms and conditions differ for INSTITUTIONS OF HIGHER EDUCATION, the appropriate requirements should be substituted (e.g., OMB Circulars A-21 and A-110, rather than OMB Circulars A-87 and A-102). References to Contractor or Recipient in the Federal language will be taken to mean Campus; references to the Government or Federal Awarding Agency will be taken to mean Government/Federal Awarding Agency or State or both, as appropriate.

Special Federal provisions are listed here: ☐ None or **Uniform Guidance issued by the Office of Management and Budget (OMB) in lieu of Circulars listed in paragraph above.** .

Campus Authorized Official *KJ*

Date 04/24/20