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Nicholas A. Toumpas
Commissioner

José Thier Montero
Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6527
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964



September 11, 2014

Her Excellency, Governor Margaret Wood Hassan
And the Honorable Council
State House
Concord, NH 03301

SOLE SOURCE
100% Federal funds

REQUESTED ACTION

Authorize the New Hampshire Department of Health and Human Services, Division of Public Health Services, to enter into **sole source** agreement with Plymouth State University (Vendor #177866-B007) 17 High Street, MSC #6, Plymouth, NH 03264, for improving the use of excessive heat notification from the National Weather Service and for building capacity for assessing the impact of extreme precipitation events on water supplies, in an amount not to exceed \$71,097, effective upon the date of Governor and Executive Council approval, through September 30, 2015.

Funds to support this request are available in the following accounts in State Fiscal Year 2015, and anticipated to be available for State Fiscal Year 2016, with the authority to adjust amounts within the price limitation, adjust encumbrances between State Fiscal Years, and amend the related terms of the contract without further approval from the Governor and Executive Council, if necessary.

05-095-090-900510-51730000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVCES, HHS: DIVISION OF PUBLIC HEALTH , BUREAU OF PUBLIC HEALTH STATISTICS AND INFORMATICS, EPH TRACKING

SFY	Class/Object	Class Title	Activity Number	Amount
2015	102-500731	Contracts for Program Services	90041000	\$35,547
2016	102-500731	Contracts for Program Services	90041000	\$35,550
			TOTAL	\$71,097

EXPLANATION

This agreement is **sole source** because Plymouth State University was named in the Department's application for federal funds from the Environmental Public Health Tracking grant.

This purpose of this request is to improve the relevance and use of excessive heat notifications from the National Weather Service. Additionally, the Vendor will build surveillance tools and capacity for assessing the impact of extreme precipitation events on the State's water resources in order to better protect the health of the residents of New Hampshire.

The National Weather Service has expressed a willingness to align the threshold for public health actions triggered by extreme heat events with regional evidence of attributed health impact. The

vendor will assure that the National Weather Service criteria for issuing excessive heat notifications is appropriate for the protection of New Hampshire's current population by analyzing the relationship between summer heat events and summer trends in morbidity and mortality in Maine and New Hampshire. The findings will provide the National Weather Service with evidence for issuing excessive heat advisories for each region of the state in accordance to the regions' current populations.

Secondly, the Vendor will build surveillance tools and capacity for assessing the impact of extreme precipitation events on the quality of New Hampshire water sources. For example, extreme environmental conditions impact New Hampshire's drinking water quality. Specifically, heavy precipitation combined with storm water runoff and associated sewer overflows can flush pathogens directly into surface water, which may increase the risk of gastrointestinal illness in the State's populations. This project will use available data to assess the public health impact of extreme precipitation events and will build tools to help stakeholders evaluate risks in concert with the Center for Disease Control's best practices for controlling water-borne illnesses.

Environmental conditions can also impact upon the quality of recreational waters used for swimming. For this reason effective prediction models and data surveillance combined with early warning tools currently exist for coastal beaches; however, inland beaches on lakes, ponds and rivers have no such system. In order to rectify this situation the New Hampshire Department of Environmental Services and the US Geological Survey have been working to identify methods for collecting relevant environmental data to predict freshwater beach-specific bacteria levels. Once the data are in hand, public health analysis and further development of predictive models is required to develop accurate predictions and to link environmental conditions directly to health outcomes. A web-based system to issue water quality warnings will be designed and implemented based in these predictive models. Once this system is established, it will inform decision making at multiple levels including beach managers, local health officers, water shed protection groups and the public at large.

The provisions of this grant program required States to name either an institute of higher education, a hospital, a nonprofit organization, or a commercial organization as a project partner during the application process. The Department named Plymouth State University as its partner in obtaining these federal funds due to the availability of academic staff with the expertise to effectively participate in health projects designed to ameliorate weather-related public health threats. The Department will utilize the vendor's findings through these two projects to improve upon the New Hampshire Excessive Heat Response Plan and to otherwise protect New Hampshire citizens from public health threats. Both projects will be managed in close coordination and consultation with the Department of Environmental Services due to the obvious environmental ties.

Should the Governor and Executive Council not approve this request, the State will not be able to as effectively warn citizens about health hazards related to inland water sources and extreme heat events. Further, the Department may experience reduced technical capacity to develop protective guidelines in the future. Lastly, the citizens of New Hampshire may be negatively impacted because NH is widely expected to have an increase in extreme precipitation events over the ensuing years.

Source of Funds: 100% Federal Funds from the US Department of Health and Human Services, Centers for Disease Control, Catalog for Domestic Assistance (CFDA) # 93.070, Federal Award Identification Number (FAIN) U38EH000947.

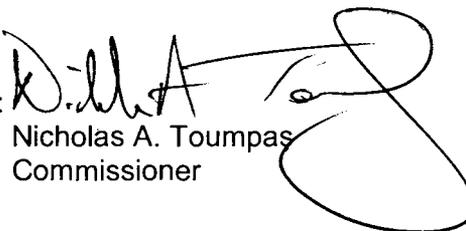
In the event that federal funds become no longer available, general funds will not be requested to support this request.

Respectfully submitted,



José Thier Montero, MD, MHCDS
Director

Approved by:



Nicholas A. Toumpas
Commissioner

COOPERATIVE PROJECT AGREEMENT
STATE OF NEW HAMPSHIRE and
Plymouth State University
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 Health and Human Services**, (hereinafter "State"), and the University System of New Hampshire, acting through **Plymouth State University**, (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 **September 30, 2015**. 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: Environmental Public Health Tracking Program

- 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: Brook Dupee
Address: 29 Hazen Drive
Concord NH 03301

Phone: 271-4483

Campus Project Administrator

Name: Jahnay Pickett
Address:
17 High Street, MSC #51
Plymouth NH 03264

Phone: 535-3233

- 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: Thomas Lambert
Address: 29 Hazen Drive
Concord NH 03301

Phone: 271 - 4395

Campus Project Director

Name: Kathleen Bush, PhD
Address:
17 High Street, MSC #64
Plymouth NH 03264

Phone: 535-2514

F. Total State funds in the amount of \$71,097 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 not cost-share a % of total costs during the term of this Project Agreement.

Federal funds paid to Campus under this Project Agreement are from the **Maintenance and Enhancement of Environmental Public Health Tracking** grant from the Centers for Disease Control, CFDA # 93.070. 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

If amended by mutual agreement of the parties, 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 are hereby amended to read:

H. State has chosen to **not take** possession of equipment purchased under this Project Agreement.

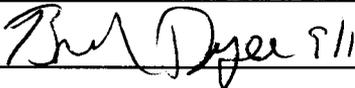
This Project Agreement and the Master Agreement constitute the entire agreement between State and Campus regarding this Cooperative Project, and supersede and replace any previously existing arrangements, oral or written; all changes herein must be made by written amendment and executed for the parties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

By An Authorized Official of: DHHS

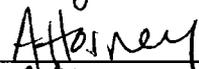
Name: Brook S. Dupee

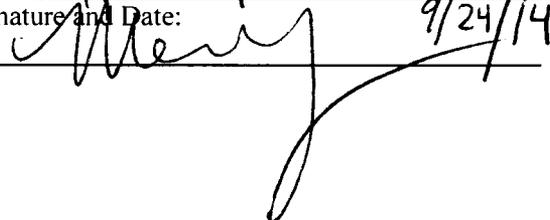
Title: Bureau Chief

Signature and Date:  9/11/14

By An Authorized Official of: the New Hampshire Office of the Attorney General

Name: 

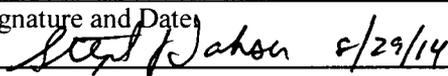
Title: 

Signature and Date:  9/24/14

By An Authorized Official of: PSU

Name: Stephen J. Taksar

Title: VP for Finance & Administration

Signature and Date:  9/29/14

By An Authorized Official of: the New Hampshire Governor & Executive Council

Name:

Title:

Signature and Date:

EXHIBIT A

Statement of Work:

PROJECT 1: IMPROVING RELEVANCE AND USE OF EXCESSIVE HEAT NOTIFICATIONS

The National Weather Service (NWS) is open to aligning the threshold for the public health action of issuing extreme heat event products (watch, alert, and warning) with regional evidence of the attributable health impact. The goal of the project is to assure that the NWS criteria is appropriate for the protection of the region's current population and that public health officials can use the notification products effectively to protect health. NH EPHT will analyze the relationship between summer heat events and morbidity and mortality in Maine and NH and the findings will provide the NWS with evidence for issuing excessive heat advisories in this region which are relevant for the current local population. User needs assessments will focus on understanding whether notification products would be more effective if they were packaged with more relevant local level information related to the estimated impacts of the heat event and how the NH Excessive Heat Response Plan could be improved. In subsequent years the project will focus on communications and outreach activities to ensure end users understand the meaning, validity, and utility of the new product.

INPUTS

- 1) Stakeholders/users: National Weather Service (NWS); Injury prevention program; Public safety agencies; Schools; Employers with outdoor summer work; Regional Planning Commission; Those identified in the NH Excessive Heat Emergency Response Plan
- 2) Partners: Maine EPHT; National Weather Service; Academic partners with expertise in estimating effects of environmental on health; NH DPHS Injury Prevention Program; NH Climate and Health program
- 3) Data: Hospital discharges; Deaths (vital records); Weather data from National Climatic Data Center (NCDC); MapNH Health datasets (projected population, risk, and outcome data)

WORK PLAN

- 1) Year 1
 - a. Milestone: Register intent with NWS
 - b. ID stakeholders; Elicit needs and requirements; Acquire academic support
 - c. Milestone: Academic partners have access to health and weather data for analysis
 - d. Develop analysis around one weather station then extend to 11 NH stations
 - e. Combine with Maine results and generalize findings for the region
 - f. Milestone: Excessive heat criteria for recommendation to NWS
 - g. Present to NWS and respond to feedback
 - h. Milestone: NWS aligns heat product criteria with evidence
 - i. Develop project specific communications plan

OUTCOME EVALUATION

- 1) Analysis methods, results, and documentation meet the needs of NWS for setting regional heat alert criteria; We can evaluate the effectiveness of the tools provided to end users including the ability for them to make decisions based on the information and the level of confidence with which they make decisions.; Evaluate partner satisfaction with our support and the value of that support.

Logic Model:

Logic Model for Local Project 1: Improving Relevance and Use of Excessive Heat Notifications			
Strategies (Activities)	Strategies (Outputs)	Short-term outcomes	Mid-term outcomes
Assist state and local programs in assessing health impacts from excessive heat exposure	Locally relevant evidence based excessive heat criteria used for issuing notifications	Increase ability to access relevant heat notifications and targeted risk communication material	Increase ability for PH to design and implement targeted excessive heat related interventions
Assist state and local programs by providing excessive heat criteria that are relevant to the local population	Documentation of observed historical health outcomes associated with excessive heat	Increase ability for decision makers to implement actions in targeted communities	
Collaborate with the National Weather Service in updating the excessive heat advisory criteria	Excessive heat notification messaging and communication tools		
Support PH system with implementation of messaging and alerts based on excessive heat notifications.	Training material for PH officials to implement excessive heat notifications		
Provide expertise on analyzing observed outcomes associated with excessive heat events			

PROJECT 2: BUILD SURVEILLANCE TOOLS/CAPACITY FOR ASSESSING IMPACT OF EXTREME PRECIPITATION EVENTS (EPE) ON RECREATIONAL AND DRINKING WATER SAFETY

Extreme environmental conditions impact New Hampshire (NH) drinking water quality. Specifically, heavy precipitation combined with storm-water runoff and associated sewer overflows can flush pathogens directly into surface water which may increase risk of gastrointestinal illness (GI). This project will use available data to assess the public health impact of EPEs and will build tools to help stakeholders evaluate risks (a priority in the CDC's Building Resilience Against Climate Effects (BRACE) framework). Environmental conditions also impact recreational water quality used for swimming and fishing and these adverse conditions have been linked to health outcomes in NH. Effective prediction models and data surveillance combined with early warning tools already exist for coastal beaches. However, inland beaches on lakes, ponds, and rivers have no such system. NH DES and the USGS have been working to identify methods for collecting relevant environmental data to predict beach specific bacteria levels. Data analysis and further development of predictive models is required to develop accurate predictions and to link these environmental conditions to observed health outcomes. A web-based system to issue water quality warnings needs to be designed and implemented. Once established this system will inform decision-making at multiple scales including beach managers, local health officers, watershed protection groups, and the general public. Many groups are already invested in protecting NH waterways, this project will add-value by providing a trusted risk evaluation. This project will have a large community engagement component, in working with these partners we will be better able to assess end-user needs and build a surveillance/warning tool that meets the multiple needs of our stakeholders and also builds general capacity for monitoring and responding to changing environmental conditions.

INPUTS

- 1) Stakeholders/users: Municipal drinking water managers; Local planners; beach managers; Infectious disease surveillance staff; Watershed; Regional stakeholder groups;
- 2) Partners: NH DPHS Bureau of Infectious Disease Control; NH DES Beach Program; United States Geological Survey; NH DPHS Climate and Health Program; Academic partners at Plymouth State University and University of New Hampshire; Office of Energy and Planning
- 3) Data: Hospital discharge and syndromic surveillance data from NH DHHS; Public drinking water quality data from NH DES; Private drinking water quality data from USGS; Meteorological data from NOAA/NWS; Recreational water quality data from NH DES and USGS

WORK PLAN

- 1) Year 1
 - a. Develop contract with supporting academic partners; Facilitate data access
 - b. ID stakeholders; Elicit needs and requirements;
 - c. Develop and implement data analysis plan.
 - d. Milestone: Academic partners recommend EPE criteria for taking action
 - e. Develop project specific communications plan
 - f. Milestone: beta version of surveillance/forecasting/alerting tools
 - g. Evaluate and respond to user feedback on beta version
 - h. Milestone: Launch v1.0 tools to pilot users (including outreach and training)

OUTCOME EVALUATION (SEE EVALUATION AND PERFORMANCE MANAGEMENT SECTION FOR PROCESS).

- 1) Effectiveness of the Early Warning and Surveillance Tools through a stakeholder engagement process; stakeholders will be asked to comment on their ability to make decisions based on the information provided and the level of confidence with which they make decisions.; Accuracy of the beach closure warning system by comparing predictive models to actual water quality analysis collected by NH DES; Results of a successful health impact analysis project will allow us to estimate the long-term burden of GI resulting from water contamination.

Logic Model:

Logic Model for Local Project 2: Build surveillance tools/capacity for assessing impact of extreme precipitation events (EPE) on recreational and drinking water safety			
Strategies (Activities)	Strategies (Outputs)	Short-term Outcomes	Mid-term Outcomes
Develop evidence based criteria for defining EPE related hazards to drinking water systems.	Standardized data related to observed health impacts from historical EPE	Increase access to and understanding of EPE and outcome data including trends and impacts.	Increase ability for understand drinking water system vulnerabilities to EPE.
Assist infectious disease, env. health, and planners in understanding water system vulnerabilities	Standardized data on observed bacteria levels associated EPE	Increase access to and understanding of quality alerts including trends and impacts.	Increase ability to use data for protecting against recreational exposure to hazardous water caused by EPE.
Collaborate with USGS on developing recreational water quality alert criteria	Tools to view water system vulnerabilities to EPE		Increase ability to use data to understand water system vulnerabilities to EPE.
Collaborate with academic to develop analytical methods.	Develop tools to provide water quality alerts		Increase public's ability to reduce risk to recreational water quality exposures.
Collaborate with academia to develop classroom materials	Training material for water system managers and EPE		Increase ability for stakeholders to use data to address vulnerabilities
	Training for beach managers and EPE		Increased ability to use EPE in the classroom to improve STEM education
			Increased ability to understand climate change related risks.
			Increased ability to promote effective land use planning.

EXHIBIT B

All applicable requirements, regulations, provisions terms and conditions of the referenced Federal Grant are adopted in full force and effect by the State and Campus, except that Campus shall comply with 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 shall be taken to mean Campus; references to the Government or Federal Awarding Agency shall be taken to mean Government/Federal Awarding Agency or State or both, as appropriate.

Project Director:
Dr. Kathleen Bush

Start and End Dates:
10/1/2014-9/30/2015

				Project Costs	
A. Faculty		Base	Mos or %		
	P1	0	4.50	Acad	30,000
			0.00	Summer	0
			0.00	Cal	0
	Co-P1	0	0.00	Acad	0
			0.00	Summer	0
			0.00	Cal	0
	Co-P1	0	0.00	Acad	0
			0.00	Summer	0
			0.00	Cal	0
	Other Sr Personnel	0	0.00	Acad	0
			0.00	Summer	0
			0.00	Cal	0
	Total Faculty				30,000
B. Other Personnel					
	Grad Students AY		0.0%	613NZ0	0
	Grad Students SU (Partial Fringe)		7.7%	613NZ0	4,500
	Subtotal Grad Students				4,500
	Post Doctoral Assoc			611Q90	0
	Pat Staff			615NZ0	0
	OS Staff			617NZ0	0
	Labor (incl student)			61SNZ0	0
	Labor (Partial Fringe exempt)			61SNZ0	0
	Total Salaries & Wages (A+B)				34,500
C. Fringe Benefits					
		4,500	7.7%	65YF10	347
		30,000	38.5%	65YF10	11,550
		0	27.9%	65YF10	0
	Subtotal Fringe				11,897
	Total Salaries, Wages & FB (A+B+C)				46,397
D. Tuition				721100	0
E. Equipment				740000	0
F. Travel				710000	3,000
G. Other Direct Costs					
	Materials & Supplies			711200	
	Publications Cost			711200	0
	Consultants			717000	0
	Computer Services			711200	0
	Subcontracts			730001	0
	Service Providers			717200	0
	Participant Support			722200	0

Other	Graduate Training (R and ArcGIS)		1.000
Other			0
	Total Direct Costs		<u>50.397</u>
H. Facilities & Administrative		0.00 760300	20.700
	Total Direct + F&A		<u>71.097</u>
I. Cost Sharing (if any)			0
J. Program Income (if any)			0
	Total Project Costs		<u>71.097</u>
	S&W Base		34.500

F&A Rate	60.00%
Full Fringe Rate	38.50%
FICA Rate	7.70%
Post doc rate	27.90%
Inflation Factor	0.00%

Invoices shall be submitted (monthly) for actual work performed.

Invoices shall be submitted by mail or email to:

Name: Thomas Lambert
Address Division of Public Health Services
Address 29 Hazen Drive
Address Concord NH 03301
Phone # 603-271-4395
Email address: TLambert@DHHS.State.NH.us

And shall include an attestation from the Project Director that the invoice accurately reflects work performed during the period cited.