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State of New Hampshire

DEPARTMENT OF SAFETY
OFFICE OF THE COMMISSIONER
33 HAZEN DR. CONCORD, NH 03305
603/271-2791

JOHN J. BARTHELMES
COMMISSIONER

August 2, 2017

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Requested Action

Pursuant to RSA 21-P:43, the Department of Safety, Division of Homeland Security and Emergency Management (HSEM) requests authorization to enter into a Memorandum of Agreement (MOA) with the Department of Environmental Services (DES) (VC# 177894-B001) to support the Flood Hazards Program, which provides support for two full-time personnel and associated benefits necessary to support the program for the identification of river-induced public safety hazards in New Hampshire for a total amount of \$236,973.00. Effective upon Governor and Council approval through September 30, 2018. Funding source: 100% Federal Funds.

Funding is available in the SFY 2018 operating budget as follows:

02-23-23-236010-80920000	Dept. of Safety – Homeland Sec-Emer Mgmt – 100% EMPG Local Match	
072-500576	Grants-Federal – Grants to Other State Agencies-Federal	
Activity Code: 23EMPG 2016		\$ 236,973.00

Explanation

This MOA between Homeland Security and Emergency Management (HSEM) and the Department of Environmental Services (DES) is to support the Flood Hazard Program for the identification of river-induced public safety hazards. To address these initiatives under this grant, existing flood hazards program staff will undertake several activities.

As part of the activities under the attached MOA, the staff will develop the technical workflow to conduct hydraulic modeling of culvert failures and analyze the resulting impacts on critical downstream transportation and building infrastructure. They will continue current activities such as collecting, mapping, and managing local knowledge related to flood hazards from towns where this information has not previously been collected. The staff will also continue to administer the multi-agency Silver Jackets team to complete a project examining ice jam formation and its impact on the Gale River in Grafton County and to prioritize and conduct future projects that will provide technical assistance to NH towns for flood risk identification and reduction. Staff technical support will continue to be provided as needed to state agencies as well as to HSEM.

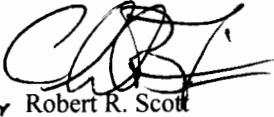
The grant listed above is funded from the FFY 2016 Emergency Management Performance Grant (EMPG), which was awarded to the Department of Safety, Division of Homeland Security and Emergency Management (HSEM) from the Federal Emergency Management Agency (FEMA). The grant funds are to be used to measurably improve all-hazard planning and preparedness capabilities/activities, to include mitigation, preparedness, response, and recovery initiatives at the state and local level. Grant guidance and applications are available to all Emergency Management Directors and other qualified organizations in the State. Subrecipients submit applications to this office, which are reviewed by the HSEM Planning Chief, Assistant Planning Chief and Field Representatives and approved by the HSEM Director. The criteria for approval are based on grant eligibility in accordance with the grant's current guidance and the documented needs of the local jurisdictions.

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
August 2, 2017
Page 2 of 2

The Emergency Management Performance Grants are 50% federally funded by FEMA with a 50% match requirement supplied by the subrecipient. The subrecipient acknowledges their match obligation as part of Section IV of the MOA.

In the event that Federal Funds are no longer available, General Funds and/or Highway Funds will not be requested to support this program.

Respectfully submitted,



for Robert R. Scott
Commissioner of Environmental Services

Respectfully submitted,



John J. Barthelme
Commissioner of Safety

**MEMORANDUM OF AGREEMENT (MOA)
BETWEEN
THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
AND
THE NEW HAMPSHIRE DEPARTMENT OF SAFETY**

FFY'16 Emergency Management Performance Grant (EMPG) Program

Flood Hazards Program

I. PURPOSE

The purpose of this project is to support the Flood Hazards Program, which provides support for two full-time personnel and associated benefits necessary to support the program of conducting assessments, providing technical assistance to communities and state agencies for the identification of river-induced public safety hazards in New Hampshire, while also providing policy coordination for Silver Jackets and the state stream crossing assessment initiative.

II. PARTIES

The parties to this agreement are New Hampshire Department of Environmental Services (hereinafter DES) and the New Hampshire Department of Safety, Division of Homeland Security and Emergency Management (hereinafter HSEM).

III. AUTHORITY

The Emergency Management Performance Grant (EMPG), awarded by HSEM, supports activities associated with all-hazard planning and preparedness capabilities and activities, to include mitigation, preparedness, response, and recovery initiatives. This EMPG Program supports the personnel and data management necessary to assist communities and state agencies relative to site-specific issues throughout the state.

IV. SCOPE OF WORK

The mitigation of flood hazards in New Hampshire in support of the public continues to be a priority at the state and federal levels. This priority has been to address flood risks while engaging in hazard mitigation practices and projects that withstand increased environmental pressures and forces. A second critical component of flood mitigation in New Hampshire has focused on assessing stream crossings (culverts) to identify those that lack capacity to handle flow and accommodate river processes to help state and local governments choose those crossings to replace that will maximize flood mitigation, environmental, and public safety benefits. To continue to address these initiatives under this grant, existing flood hazards program staff will undertake several activities.

First, staff will develop the technical workflow for conductance of hydraulic modeling of culvert failures and analysis of the resulting impacts on critical downstream transportation and building infrastructure. Important aspects of the workflow include: identification of the most vulnerable culverts on which to perform the modeling; collection, quality assessment and control, and pre-processing of model inputs; the technical setup and running of the model; and review and post-processing of the model outputs. A review of scientific literature will be performed to ensure that construction and operation of the model will be founded within the current science of flood process

analysis. Generated information will be made available to units within DES and HSEM for use in emergency operations, with technical assistance provided to agency staff on use of the data in identification of critical infrastructure identified as at-risk through the model output. Initial development of the modeling process will focus on the Merrimack Valley, an area where many culvert assessments have been performed and concerns about key infrastructure exist.

Second, continue to collect, map, and manage within ArcGIS, local knowledge relating to flood hazards from towns where this information has not already been collected, and make this information available to HSEM for use in the State Emergency Operations Center (SEOC); the collection and management of this data is evolving and improving due to efforts to standardize the collection of this data by New Hampshire Geological Survey (NHGS) and HSEM staff.

Third, continue to administer the multi-agency Silver Jackets, which will include completion of a project examining ice jam formation and impacts on the Gale River in Grafton County and final development of an Ice Observer Training Package to be available statewide upon project completion. Staff will also work with Silver Jackets team members in the conductance and prioritization of future projects in New Hampshire that emphasize providing technical assistance regarding flood risk identification and reduction to towns that request and require it.

Fourth, continue to lead stream crossing assessment efforts statewide, including (1) performance of all quality control assurance review for collected data, (2) development and enhancement of priority ranking criteria for each crossing, (3) training of data collectors, and (4) provision of results to HSEM and state and local partners.

A program expert will be available for presence in the SEOC during flood events to interpret the meaning of flood hazards program data in support of HSEM, DES and other staff in the SEOC, in support of emergency response and recovery decision making.

Additionally, will provide technical support, as needed, to state agencies to ensure that sound science and technical accuracy are incorporated into state efforts to address flood-based hazard preparedness policies and to provide the technical support needed to implement such policies. This assistance can include conductance of infrastructure and resource vulnerability assessments as necessary.

In partnership with HSEM, other state agencies and the Silver Jackets, program staff will review the roles and responsibilities of agencies in Recovery Support Function (RSF) #6 relative to pre- and post-disaster roles that span multiple organizations and work to determine roles that will require further establishment of coordination, program development, or data collection that could be pursued in future projects to maximize the ability of New Hampshire to fulfill roles in the plan and protect natural resources in the recovery and response to a flood or other disaster.

Staff will also continue to explore applications of Structure-from-Motion (SfM), an emerging methodology for rapidly collecting and producing variable resolution (low-to-high) topography data, as a tool for documenting erosion hazards, stream cross sections, and other physical phenomena related to fluvial geomorphology and broader flood hazards.

V. Funding

HSEM agrees to provide financial assistance from the FFY'16 EMPG Program in the amount of \$236,973.00 to DES in support of the tasks listed above, in accordance with Section IV. The financial assistance to be provided by HSEM under this MOA requires that DES provide a 50%

matching contribution of the total project amount. The match requirement of \$236,973.00 will be met by DES through the DES Dam Bureau, dam operations appropriation.

DES shall maintain financial records, supporting documents, and all other pertinent records for a period of three (3) years. In these records, DES shall maintain documentation of the 50% cost match required by this grant and agreed upon by DES.

Payments shall be made by HSEM to DES quarterly through submittal of invoices for services rendered. DES agrees to document \$236,973.00 in matching expenditures.

VI. TERMINATION

Either party may terminate this agreement by providing notice to the other thirty (30) days prior to termination.

VII. DURATION


This agreement shall continue in effect from October 1, 2017 until September 30, 2018, unless terminated earlier by either party.

VIII. AGREEMENT

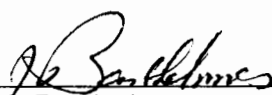
In WITNESS THEREOF, the parties hereto have executed this agreement, which shall become effective on the date the Governor and Executive Council of the State of New Hampshire approve the agreement.

NH Department of Environmental Services

NH Department of Safety

for 

Robert R. Scott
Commissioner



John J. Barthelmes
Commissioner

8/14/17

Date

8/14/17

Date

Approved by the Attorney General this 18th day of August, 2017, as to form, execution and substance.

OFFICE OF THE ATTORNEY GENERAL

