



The State of New Hampshire
Department of Environmental Services

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Robert R. Scott, Commissioner

June 5, 2019

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** Joint Funding Agreement with the U.S. Geological Survey (USGS), Pembroke, NH, (VC# 175772-R001), in the amount of \$390,100 for streamflow gaging, effective as of July 1, 2019 through June 30, 2021, upon Governor & Council approval. 67% General Funds and 33% Interagency Funds.

Funding is available in the account as follows. Funding for FY 2020 and FY2021 is contingent upon continuing appropriation and availability of funds.

03-44-44-442010-3800-102-500731	<u>FY 2020</u>	<u>FY 2021</u>	<u>TOTAL</u>
	\$193,600	\$196,500	\$390,100

Dept. of Environmental Services, Dam Bureau Administration, Contracts for Program Services

EXPLANATION

Under the Joint Funding Agreement, USGS will operate and maintain the existing network of 24 continuous recording streamflow gages and 9 continuous water temperature gages for FY 2020 and 2021. This agreement is **sole source** because USGS is the only provider that operates the Streamflow Gaging Program in New Hampshire and because USGS is funding approximately 44% of the cost of the program. See Attachment A for the list of gage stations.

The state's participation in the USGS Cooperative Streamflow Gaging Program is authorized under RSA 482:85. Under the Cooperative Streamflow Gaging Program, the USGS operates and maintains gaging stations throughout New Hampshire and collects and publishes data on the flows in rivers and streams in the state. The data are used by numerous state and federal programs as well as municipalities and private industry. The data support emergency response, flood control and water management, planning activities, permitting, and hydraulic structure design.

Under this agreement the USGS will provide \$305,140 (approximately 44%) in funds towards the total cost of \$695,240 to operate the stream gaging network for the next two years, with the balance of \$390,100 (approximately 56%) being provided by the State. The State share is funded by NHDES (two-thirds) and the Department of Transportation (one-third) as established in a Memorandum of Agreement approved by Governor and Council on December 3, 2014 (Item 63). This Agreement has been approved by the Department of Justice as to form, content and execution.

We respectfully request your approval.

Robert R. Scott, Commissioner

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement
FOR
Water Resource Investigations

Fixed Cost Agreement YES[X] NO[]

THIS AGREEMENT is entered into as of the July 1, 2019, by the U.S. GEOLOGICAL SURVEY, New England Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the New Hampshire Department of Environmental Services party of the second part.

1. The parties hereto agree that subject to the availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation Water Resource Investigations (per attachment), herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50, and 43 USC 50b.

2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) include In-Kind-Services in the amount of \$0.00

- (a) \$305,140 by the party of the first part during the period July 1, 2019 to June 30, 2021
- (b) \$390,100 by the party of the second part during the period July 1, 2019 to June 30, 2021
- (c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of: \$0

Description of the USGS regional/national program:

- (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.
- (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.

4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.

5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.

6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.

7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program, and if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties. The Parties acknowledge that scientific information and data developed as a result of the Scope of Work (SOW) are subject to applicable USGS review, approval, and release requirements, which are available on the USGS Fundamental Science Practices website (<https://www.usgs.gov/about/organization/science-support/science-quality-and-integrity/fundamental-science-practices>).

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement
FOR
Water Resource Investigations

Customer #: 600000093
Agreement #: 19LGJFANH000010
Project #: LG40FDZ
TIN #: 02-6000618

9. Billing for this agreement will be rendered quarterly. Invoices not paid within 60 days from the billing date will bear Interest, Penalties, and Administrative cost at the annual rate pursuant the Debt Collection Act of 1982, (codified at 31 U.S.C. § 3717) established by the U.S. Treasury.

USGS Technical Point of Contact

Name: Richard Kiah
Supervisory Hydrologic Technician
Address: 331 Commerce Way Suite #2
Pembroke, NH 03275-3718
Telephone: (603) 226-7819
Fax: (603) 226-7894
Email: rkiah@usgs.gov

Customer Technical Point of Contact

Name: James Gallagher, Jr.
Address: NH DES, Water Division 29 Hazen Drive
Concord, NH 03302
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Fax:
Email: jgallagher@des.state.nh.us

USGS Billing Point of Contact

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Budget Analyst
Address: 331 Commerce Way
Pembroke, NH 03275-3718
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Fax: (603) 226-7894
Email: khannigan@usgs.gov

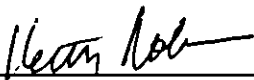
Customer Billing Point of Contact

Name: James Gallagher, Jr.
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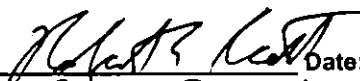
U.S. Geological Survey
United States
Department of Interior

New Hampshire Department of Environmental
Services


Signature

By  Date: 05/28/2019
Name: Keith Robinson
Title: Director

Signatures

By  Date: 6/7/19
Name: Robert R. Scott
Title: Commissioner, NHDES

Approved by Attorney General for form, substance and execution:

 6/7/19
Christopher G. Astin, Senior Assistant Attorney General



USGS-NHDES Cooperative Water Monitoring Program

July 1, 2019 - June 30, 2021

U.S. Geological Survey, New England Water Science Center, NH-VT Office in cooperation with the New Hampshire Department of Environmental Services

The U.S. Geological Survey (USGS), New England Water Science Center, in cooperation with the New Hampshire Department of Environmental Services (NHDES) will continue to cooperatively operate an integrated water monitoring network for the State of New Hampshire for the 2-year period from July 1, 2019 to June 30, 2021. A summary of network operations is described below.

Streamflow Program

The USGS will maintain 24 continuous recording streamgages and 9 continuous recording water temperature gages in New Hampshire during the period July 1, 2019 to June 30, 2021 (tables 1 and 2). Data will be displayed in near-real-time fashion on the USGS web page at <https://nh.waterdata.usgs.gov/nwis>. The data will also be stored permanently in the National Water Information System database. A combination of funding from the USGS Groundwater Streamflow Information Program and NHDES will support these gages. Total costs will be \$695,240 with approximately 56% from NHDES and 44% from USGS (tables 1 and 2).

Streamflow data are collected and finalized in accordance with USGS techniques and methods as published in the following documents:

- A) Discharge Measurements at Gaging Stations, <https://pubs.usgs.gov/tm/tm3-a8/>
- B) Stage Measurement at Gaging Stations, <https://pubs.er.usgs.gov/publication/tm3A7>
- C) Levels at Gaging Stations, <https://pubs.usgs.gov/tm/tm3A19/>
- D) Computation of Continuous Records of Streamflow, <https://pubs.er.usgs.gov/publication/twri03A13>

Additional references in surface water techniques and methods can be viewed at <https://nd.water.usgs.gov/pubs/wdr/wdrnd001/htdocs/d.publicationsw00.html>

Data Quality Assurance and Finalization

Data are quality assured on a routine basis. The quality assurance procedures include, but are not limited to, daily check of all sites on the web to ensure sites are operational and to verify data are reasonable. Efforts are made to remove outlier data as soon as noted. When a site stops reporting, efforts are made to restore service within 24 to 48 business hours. Under rare circumstances, service restoration may take longer. When gaps occur in the real-time data flow on the web, data are downloaded during the next site visit in an effort to backfill the data gap to produce a complete period.

Water year data are generally approved by April 1, of the following year. For example, the 2018 water year data (October 1, 2017, through September 30, 2018) will generally be approved and published on the USGS webpage by April 1, 2019. In some cases, although rare, site finalization and publication may extend beyond the April 1, target date.

For further information contact:

Richard Kiah, rkiah@usgs.gov, or (603) 226-7819

Table 1
Cooperative Streamgaging Stations in New Hampshire
State Fiscal Year 2020

NUMBER	STATION NAME	TOTAL COST	July 2019 to June 2020		NOTES
			USGS COST	STATE COST	
010642505	Saco River at River Street at Bartlett, NH	15800	6360.00	9440.00	Published water temperature, ¹ operational air temperature
01064801	Bearcamp River near South Tamworth, NH	14100	6360.00	7740.00	Modem telemetric site, operational precipitation
01072870	Isinglass River nr Dover, NH	15800	6360.00	9440.00	Published water temperature, operational air temperature
01073000	Oyster River at Durham, NH	14100	6360.00	7740.00	
01073319	Lamprey River at Raymond, NH	15800	6360.00	9440.00	Published water temperature, operational air temperature
01073500	Lamprey River at Newmarket, NH	14100	6360.00	7740.00	
010735562	Exeter River at Odell Road near Sandown, NH	14100	6360.00	7740.00	Operational air and water temperature
01073587	Exeter River nr Exeter, NH	14100	6360.00	7740.00	Modem telemetric site, operational precipitation
01073785	Winnicut River at Greenland, NH	14100	6360.00	7740.00	
01074520	E Branch Pemigewasset River at Lincoln, NH	14100	6360.00	7740.00	
01077400	Cockermouth River nr Groton, NH	14100	6360.00	7740.00	Operational air and water temperature
01081000	Winnepesaukee River at Tilton, NH	14100	6360.00	7740.00	Modem telemetric site
01091000	S Branch Piscataquog R nr Goffstown, NH	15800	6360.00	9440.00	Published water temperature, operational air temperature
01092000	Merrimack River near Goffs Falls, NH	6900	6350.00	550.00	Partially funded as Federal Priority Streamgage
01093852	Souhegan River nr Milford, NH	15800	6360.00	9440.00	Published water temperature, operational air temperature
010965852	Beaver Brook at North Pelham, NH	14100	6360.00	7740.00	
01129200	Connecticut River bel Indian Stream	1540	695.00	845.00	Published water temperature, operational air temperature
01129500	Connecticut River at North Strafford, NH	1540	695.00	845.00	Published water temperature, operational air temperature
01130000	Upper Ammonoosuc River near Groveton, NH	14100	6360.00	7740.00	Operational air and water temperature
01131500	Connecticut River near Dalton, NH	15540	6360.00	9180.00	Operational air temperature and slope gage
01138500	Connecticut River at Wells River, VT	14100	6360.00	7740.00	
01152500	Sugar River at West Claremont, NH	14100	6360.00	7740.00	
01154500	Connecticut River at North Walpole, NH	14100	6360.00	7740.00	
01154950	Cold River at High Street at Alstead, NH	15800	6360.00	9440.00	Published water temperature, operational air temperature
01157000	Ashuelot River near Gilsun, NH	15800	6360.00	9440.00	Published water temperature, operational air temperature
01161000	Ashuelot River at Hinsdale, NH	14100	6360.00	7740.00	
TOTAL		347620	154020	193600	

¹Operational data are collected by USGS for the purposes of supporting short-term operational needs of the data network or parameters measured to facilitate the computation of another parameter of interest. These parameters are not necessarily corrected for errors and not intended for publication.

Table 2
Cooperative Streamgaging Stations in New Hampshire
State Fiscal Year 2021

NUMBER	STATION NAME	TOTAL COST	July 2020 to June 2021		NOTES
			USGS COST	STATE COST	
010642505	Saco River at River Street at Bartlett, NH	15800	6240.00	9560.00	Published water temperature, ¹ operational air temperature
01064801	Bearcamp River near South Tamworth, NH	14100	6240.00	7860.00	Modem telemetric site, operational precipitation
01072870	Isinglass River nr Dover, NH	15800	6240.00	9560.00	Published water temperature, operational air temperature
01073000	Oyster River at Durham, NH	14100	6240.00	7860.00	
01073319	Lamprey River at Raymond, NH	15800	6240.00	9560.00	Published water temperature, operational air temperature
01073500	Lamprey River at Newmarket, NH	14100	6240.00	7860.00	
010735562	Exeter River at Odell Road near Sandown, NH	14100	6240.00	7860.00	Operational air and water temperature
01073587	Exeter River nr Exeter, NH	14100	6240.00	7860.00	Modem telemetric site, operational precipitation
01073785	Winnicut River at Greenland, NH	14100	6240.00	7860.00	
01074520	E Branch Pemigewasset River at Lincoln, NH	14100	6240.00	7860.00	
01077400	Cockermouth River nr Groton, NH	14100	6240.00	7860.00	Operational air and water temperature
01081000	Winnepesaukee River at Tilton, NH	14100	6240.00	7860.00	Modem telemetric site
01091000	S Branch Piscataquog R nr Goffstown, NH	15800	6240.00	9560.00	Published water temperature, operational air temperature
01092000	Merrimack River near Goffs Falls, NH	6900	6240.00	660.00	Partially funded as Federal Priority Streamgage
01093852	Souhegan River nr Milford, NH	15800	6240.00	9560.00	Published water temperature, operational air temperature
010965852	Beaver Brook at North Pelham, NH	14100	6240.00	7860.00	
01129200	Connecticut River bei Indian Stream	1540	680.00	860.00	Published water temperature, operational air temperature
01129500	Connecticut River at North Strafford, NH	1540	680.00	860.00	Published water temperature, operational air temperature
01130000	Upper Ammonoosuc River near Groveton, NH	14100	6240.00	7860.00	Operational air and water temperature
01131500	Connecticut River near Dalton, NH	15540	6240.00	9300.00	Operational air temperature and slope gage
01138500	Connecticut River at Wells River, VT	14100	6240.00	7860.00	
01152500	Sugar River at West Claremont, NH	14100	6240.00	7860.00	
01154500	Connecticut River at North Walpole, NH	14100	6240.00	7860.00	
01154950	Cold River at High Street at Alstead, NH	15800	6240.00	9560.00	Published water temperature, operational air temperature
01157000	Ashuelot River near Gilsum, NH	15800	6240.00	9560.00	Published water temperature, operational air temperature
01161000	Ashuelot River at Hinsdale, NH	14100	6240.00	7860.00	
TOTAL		347620	151120	196500	

¹Operational data are collected by USGS for the purposes of supporting short-term operational needs of the data network or parameters measured to facilitate the computation of another parameter of interest. These parameters are not necessarily corrected for errors and not intended for publication.