

Form 9-1366
(Oct. 2005)

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement

Customer #: 600000020/FY15-16
Agreement #: 15WNWA30030
Project #: YG00FNA
TIN #: 916001063
Fixed Cost Agreement Yes No

FOR
WATER RESOURCES INVESTIGATIONS

THIS AGREEMENT is entered into as of the 10th day of August, 2015, by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the WASHINGTON STATE DEPARTMENT OF ECOLOGY, party of the second part.

1. The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation a **fixed-price agreement for a project to monitor pre-selected small streams as a part of the Regional Stormwater Monitoring program in the Puget Sound Basin. Attachment A is enclosed and describes the scope of work and is considered a part of this agreement**, 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) includes In-Kind Services in the amount of \$ N/A.
 - (a) **\$60,000** by the party of the first part during the period
June 1, 2015 to MARCH 31, 2016

 - (b) **\$0** by the party of the second part during the period
JANUARY 1, 2015 to MARCH 31, 2016

 - (c) 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.

 - (d) 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 costs, 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.

9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered **QUARTERLY**. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983).

**U.S. Geological Survey
United States
Department of the Interior**

**Name of Customer
Washington State
Department of Ecology**

USGS Point of Contact

Customer Point of Contact

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Signatures

Signatures

By Cynthia Barton Date 8-18-15

By [Signature] Date 9/3/15

Name: **Cynthia Barton, Ph.D., L.G., L.H.G.**
Title: **Science Center Director**

Name: Bill Moore
Title: Manager PDS Section

By _____ Date _____

By _____ Date _____

Name:
Title:

Name:
Title:

Attachment A

United States Geological Survey -Detailed Scope of Work

Project Summary: Measuring continuous stream stage in Puget Lowland Small Streams for the RSMP

The Stormwater Work Group (SWG) members recommended a specific NPDES municipal permittee-funded plan for monitoring the effects of stormwater under the permits in the Puget Sound region. The resulting program, a subset of the overall strategy, is called the Regional Stormwater Monitoring Program (RSMP). The RSMP has three main components; one of which is a status and trends monitoring in Puget ecoregion lowland streams and Puget Sound marine nearshore. For the Puget lowland streams the focus for monitoring is water quality and "watershed health" (physical habitat, sediment chemistry, and biological communities) of wadeable streams.

The RSMP Coordinator at Ecology has formed a small streams monitoring team made up of federal, state, and local government entities to conduct the small streams monitoring. These team members include; King County, Skagit County, San Juan Conservation District, and the United States Geological Survey (USGS) who will conduct the RSMP streams sampling. USGS is one of these entities (referred to as RSMP Contractors) and will conduct monitoring at RSMP small streams sites from January to December of 2015 in Whatcom, Snohomish, Pierce, Thurston, Mason, Kitsap, Jefferson and Clallam Counties.

In addition to this work already underway, the USGS will be measuring stream stage continuously at a subset of the water quality sites. This additional work is the subject of this brief proposal and summarized below.

Project Activities, Tasks, and Deliverables

Task 1: Purchase and installation of level loggers for measuring continuous stage at 15 RSMP sites (June through December, 2015)

Task 2: Compilation and processing continuous records of stage and calculation of flow metrics to analyze flow characteristics of the 15 small stream sites at the end of the measurement period (January-February, 2015)

Deliverable 1: Plots of finalized stage data for the 15 RSMP sites and a table of flow metrics from these data (Target Date: March 31 2015). This information can be included in the data analysis task that is being developed under a separate agreement.

Project Schedule

Calendar Year	2015				2016	
	1	2	3	4	1	2
1. Purchase and Install of sensors			■	■		
2. Processing of data and					■	■

Detailed Descriptions of Tasks and Deliverables

Task 1: Purchase and installation of level loggers for measuring continuous stage at 15 RSMP sites.

Level loggers designed for measuring continuous stage in small streams will be purchased, and installed at a subset of the 34 monthly water quality sites currently being monitored by the USGS for the small stream status and trends project for the RSMP. Sites will be chosen after USGS can determine which sites will have continuous flow for the remainder of the year.

USGS will email a letter to the RSMP Coordinator providing a final list of what sites were equipped with these sensors.

Task 2: Compilation and processing continuous records of stage and calculation of flow metrics to analyze flow characteristics

Stage records will be processed and analyzed for data quality following standard USGS protocols for continuous records management. From these final data, flow characteristics related to urbanization and storm runoff (Konrad and others, 2005) will be determined in order to help quantify the degree of flow alteration at the sites. Finalized stage records will be archived in the USGS NWIS database.

Final time series plots of stage and a table of calculated flow metrics will be provided to Ecology for inclusion in the RSMP small streams status and trends data analysis proposal which is currently being developed jointly by the USGS, Ecology, and King County.

USGS - Budget Detail by Task

	Task 1. Purchase and install of level loggers	Task 2. Data processing and calculation of flow metrics	Total cost
Total Task	\$25,000	\$35,000	\$60,000

Budget Detail by funding source

	FY2015
USGS cooperative water program	\$60,000
Ecology	\$0