

Attachment A

Skagit County -Detailed Scope of Work

Project Summary: Puget Lowland Small Streams Monitoring for the RSMP

Some 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 monitoring portion of the plan is called the Regional Stormwater Monitoring Program (RSMP).

The RSMP includes status and trends monitoring in Puget lowland streams and Puget Sound marine nearshore, focused on water quality and "watershed health". The monitoring will include physical habitat, sediment chemistry, and biological communities of wadeable streams.

The RSMP Coordinator at Ecology has formed a team to conduct the small streams monitoring. The team includes federal, state, and local government agencies, including King County, Skagit County, San Juan Conservation District, and the United State Geological Survey (USGS).

Skagit County is one of the entities referred to as RSMP Contractors (hereinafter, the County) that will conduct monitoring at RSMP small streams sites from January to December of 2015 in Skagit County.

The County will deliver monthly and quarterly reports as described in this agreement via email to the RSMP Coordinator.

Project Activities, Tasks, and Deliverables

Task A1: Planning: The County will confirm suitability, secure permission if necessary, and develop stage height/flow measurement plan for each site

Deliverable A1.1: Submit a summary of select site visits for suitability, permissions and stage measurement approach. (Target Date January 31, 2015)

Task A2: The County will manage the Monitoring Project and Quarterly Reporting

Deliverable A2.1: Prepare and send via email, project management status updates (quarterly) and attend coordination meetings (typically by phone monthly). (Target Dates: March 31 2015, June 30 2015, September 30 2015 and January 30, 2016).

Task A3: The County will conduct monthly water quality monitoring from January – December 2015

Deliverable A3.1: Submit monthly field measured data will be submitted quarterly with copies of field data sheets. (Target Dates: March 31 2015, June 30 2015, September 30 2015 and January 30, 2016).

Deliverable A3.2: Submit final water quality field and laboratory data deliverable sent to RSMP Coordinator. (Target Date: December 31, 2015).

Project Schedule

Calendar Year	2014	2015				2016
Task	4	1	2	3	4	1
1. Site Summary						
2. Project Management & Quarterly reports						Optional extension
3. Water Quality monthly monitoring						

Detailed Descriptions of Tasks and Deliverables

Skagit County staff will monitor suitable RSMP small stream sites located in the Puget Sound Lowland ecoregion.

Task A1: Visit sites, secure permissions and develop winter flow monitoring plan for each site.

Total Cost = \$4000

The County expects most streams to be wadeable. Sample timing can be planned around the best conditions within each month. The County will conduct a site visit to visualize low flow and acceptable high flow conditions. County staff will use their best professional judgment to determine when creeks have unsafe high flow conditions for wading or such low flows that measurement that using meters is impossible.

The County will notify the RSMP Coordinator when adverse conditions exist, to document the extent of affected streams and sites that exhibit unsafe conditions during 2015.

Deliverable A1.1: Summary of site visit for suitability, permissions and stage measurement approach.

Due Date: January 31, 2015

Skagit County will provide a letter summarizing the site conditions to the RSMP Coordinator: 1) dry in late summer, 2) anticipated to be hazardous for wading in winter months, and 3) how stage and discharge is planned to be monitored near the site. The letter will also discuss any pertinent local knowledge about the sites and/ or any outstanding permission necessary for monitoring.

Task A2: Project Management and Quarterly Reporting

Total Cost = \$18,000

The County will oversee the field team monitoring crews, and report to the RSMP Coordinator to ensure the goals and reporting requirements are met. Project management by RSMP Contractor will include attending the coordination calls hosted by the RSMP Coordinator, managing the field team, resolving any monitoring issues, and preparation of deliverables.

Project management time and expenses will be tracked and an invoice for time should be sent with a general status report accompanying the quarterly data reports. The status summary of the project during the course of monitoring will be the billable item for project management.

If the expenses associated with project management exceed the quarterly estimate (1/4 of the total deliverable), then timesheets and an expense report may be submitted as justification.

After the last monitoring event of the year, Skagit County will send the final EIM data spreadsheet and a completeness report on samples taken for each parameter at each site to the RSMP Coordinator.

Deliverable A2.1: Send quarterly project management status updates. Participate in coordination meetings (monthly calls) for sampling alignment and management and Due Date:

**Due Dates: March 31, 2015; June 30, 2015; September 30, 2015, and December, 31, 2015.
\$4000 per quarter**

Skagit County will prepare and send a project management status update to the RSMP Coordinator. Skagit County will participate on the RSMP Coordination conference calls. These emails are encouraged to accompany the data deliverables, however if communication about monitoring or site conditions is important, then the county is expected to send independent correspondence. This status update will be comprehensive but concise. The use of tables is encouraged. Project management for which attending the coordination meetings, and preparing quarterly reports throughout the project is the deliverable.

The status report will contain a summary of the status of monitoring efforts to date, any QA/QC concerns and resolutions. Project management status updates will include an invoice for the costs associated with project management and preparation of deliverables. The final deliverable in December 2015 will briefly summarize performance and completeness of sampling. This will include the number of monitoring events, including attempted monitoring trips where monitoring was not successful. The final report deliverable will also include the finalized data for the field gathered parameters, stage height, and flow measurements in the provided EIM spreadsheet.

Task A3: Conduct monthly water quality monitoring from January – December 2015

Monitoring will consist of both field measured parameters using a multi-meter and grab samples for laboratory measured parameters, listed in the table below and discussed in detail in the QAPP. Ecology's EIM data spreadsheet template will be provided by the RSMP Coordinator and populated with the field-measured data. This EIM spreadsheet and copies of the field data sheets will be sent to the RSMP Coordinator, who will verify and enter the data into EIM.

Water quality parameters to be collected.

Parameter	Where measured/Lab
Ammonia	MEL
Chloride	MEL
Dissolved organic carbon	MEL
Dissolved oxygen	Field Meter
Hardness	MEL
Fecal coliform	Edge Analytical Laboratory, Burlington, WA
Metals (total and dissolved)	MEL
Nitrate-Nitrite-N	MEL
Polycyclic aromatic hydrocarbons	MEL
pH	Field Meter
Orthophosphate	MEL
Specific Conductance	Field Meter
Temperature	Field Meter
Total nitrogen	MEL
Total phosphorus	MEL
Total suspended solids	MEL
Turbidity	MEL

MEL = Manchester Environmental Laboratory
WA State Department of Ecology
Attn: Sample Receiving
7411 Beach Dr E
Port Orchard, WA 98366-8204
Phone: 360-871-8800

Sub-task A3(a): Monthly Water Quality Monitoring

Total Cost \$57,300 for five RSMP small stream sites in the Skagit County.

Beginning January 2015, Skagit County will conduct monthly water quality monitoring at **five** RSMP sites, unless any of these sites is deemed unsuitable according to the criteria in the monitoring plan for this study *Quality Assurance Project Plan for Status and Trends Monitoring of Small Streams in the Puget Lowlands Ecoregion for Monitoring Conducted using Pooled RSMP Funds contributed by Municipal Stormwater Permittees (QAPP)*.

These **five** sites are identified as:

- Outside UGA Site Order #s (19, 20, 27 and 44)
- Within UGA Site Order #s (15)

If site(s) identified in sub-task A3(a) fail suitability criteria at some point during the course of monitoring then, Skagit County will notify the RSMP coordinator immediately. A re-sample in the same month will be attempted and if the site still fails suitability, then that site will not be sampled that month. Skagit County should resume monitoring the following month if conditions improve, or discuss with the RSMP Coordinator for a full cessation of monitoring at that site.

Optional Sub-task A3(b): Addition of Water Quality Sites (\$11,460 per site)

Site suitability conditions may change at any point in the sampling program across all of the RSMP sites. These changes may be accommodated by this agreement by increasing (or decreasing) the number of sites monitored by Skagit County staff. The costs for these changes per site include travel and would be limited to the Skagit County. The anticipated change in the final number of sites is expected to be low and will not exceed **one** site. All replacement sites will come in order on the master list and must meet suitability criteria.

The RSMP coordinator will be notified by the other RSMP contractors about sites suitability and disqualifications in other counties. The RSMP Coordinator will notify Skagit County in writing to begin sampling the additional site(s). The timeline that replacement sites would begin monitoring is from January – July, otherwise a replacement site will not be sought after the summer watershed health monitoring.

Deliverables A3.1 Quarterly field measured data and copies of field data sheets:

Cost: Included with monitoring

With each quarterly report, for sampling conducted at each RSMP monitoring site the County will send field measured data in the EIM spreadsheet format to the RSMP Coordinator. The County will also send copies of field data sheets and notes taken in the field. The report will also provide a brief status update on the completeness of the grab samples for the laboratory parameters for each site. This deliverable will invoice the costs associated with monthly monitoring including labor, travel, equipment, and monitoring supplies.

Skagit County - Budget Detail by Task

	Task 1. Planning	Task 2. Project Management	Task 3. WQ Monthly for 5 sites	Total by Object
Salaries and Benefits	2,568	11,556	33,898	48,022
Supplies	0	0	3,000	3,000
Equipment ^[1]	0	0	1,500	1,500
Indirect/Overhead % 35.8	1,432	6,444	18,902	26,778
Total Task	4000	18000	57,300^[2]	79,300

^[1]= Includes replacement equipment if necessary

^[2] = Per site is \$11,460