



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

## **AMENDMENT NO. 3**

TO

CONTRACT NO. 1500140

BETWEEN THE

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

AND

THE CITY OF BELLINGHAM

**PURPOSE:** To amend the Agreement between the state of Washington, Department of Ecology, hereinafter referred to as “ECOLOGY” and THE CITY OF BELLINGHAM, hereinafter referred to as “BELLINGHAM” or “CONTRACTOR”.

**WHEREAS:** This Agreement is undergoing an extension and increase in scope to implement the monitoring on bioretention facilities that was planned under Tasks (4-6).

**IT IS MUTUALLY AGREED** the agreement is amended as follows:

- 1) The project end date is changed from June 30, 2018 to December 31, 2018.
- 2) Task 1 timeframe is corrected to include the initial year work began for project management, which was erroneously deleted with amendment 2.
- 3) Task 4 is amended to add more money for monitoring equipment and transit, based on previous site selection work and extend the timeframes on several deliverables for the monitoring work. Several deliverable dates are extended to allow monitoring efforts to continue thru the wet season, up to four months beyond the original period of data collection.
- 4) Task 5 is amended to increase compensated amounts for data analysis due to the time extension and extend the target date for several deliverables.
- 5) Task 6 is amended to increase compensation for the final report.
- 6) The total amount for this contract is increased by \$95,666 from \$467,186 to \$562,852.

Deletions are indicated by strikethrough (~~strikethrough~~) and additions are underlined (underline).

**Attachment A**  
**Amendment 3 Revisions**

**Task 1 Project Management**  
**(\$9,452, May 2015 - June 30, 2018)**

**Task 4, Monitoring Implementation**  
**(\$~~333,952~~, \$360,749 January 1, 2016 - May 31, 2018)**

1. Based upon the QAPP, select and procure monitoring equipment capable of meeting the requirements of this study. Utilize existing equipment where possible if it meets the study requirements and objectives. Any new equipment purchased will become the property of the City of Bellingham upon completion of the study. It shall be understood that the City of Bellingham shall make this equipment available to the Department of Ecology or other NPDES permittees whenever possible for use on other RSMP projects. The City of Bellingham shall be responsible for normal maintenance of this equipment for its use by the City of Bellingham. Use by others shall include their provision of normal maintenance and necessary expendable items. Neither the Department of Ecology nor the City of Bellingham shall be responsible for replacement of said equipment if it is lost, destroyed or unrepairable.

Deliverable 4.1: Proposed Equipment list and approximate cost. Target Date: ~~January 2016~~ June, 2016

Deliverable 4.2: Proposed purchase plan meeting State open bidding and procurement processes where applicable. Target Date: ~~January 2016~~ July, 2016

Deliverable 4.3: Documentation of bidding process showing the bid selection and reasoning for any deviation from use of the lowest responsible bidder. Target Date: ~~February 2016~~ August, 2016

Deliverable 4.4: Invoice and receipt of procured equipment. Target Date: ~~March 2016~~ August, 2016

2. Based upon the QAPP, testing of the sites shall be conducted to provide the information necessary to meet the goals of this study. This includes but is not limited to:
  - a) Geotechnical/soils design and current conditions
  - b) Review of facility hydrologic design and current conditions
  - c) Analysis of vegetation design and current condition

Deliverable 4.5: Memo report on geotechnical review with attached individual facility site testing reports. Target Date: September 2016

Deliverable 4.6: Memo report on hydrologic design review with individual reports for each facility. Target Date: September 2016

Deliverable: 4.7: Memo report on vegetative investigations with individual reports for each facility. Target Date: September 2016

3. Equipment shall be installed in conformance with the QAPP to provide monitoring at a minimum of 10 bio-retention stormwater facilities. The time frame for monitoring ~~may extend over two winters~~ is September to April, (with optional months of May and June) to collect an adequate

range of storm event conditions. Monitoring of facility performance during a minimum of 10 storm events shall include:

- a) Rainfall, continuous
- b) Temperature, continuous
- c) Evapotranspiration factors, calculated
- d) Groundwater elevation, observation
- e) Water input to the facility, continuous
- f) Water output from the facility, observation or continuous

Addition to Deliverable 1.1: A monitoring section of the quarterly reports (Deliverable 1.1) will be included once monitoring begins to summarize the status of flow, rainfall, and soil monitoring. Information provided will include the number of monitoring events and sites, relevant issues with monitoring, reasons why events were missed, and electronic spreadsheet of raw data files.  
Target Date: Quarterly 2016-2018

4. Labor and mileage (federal rate) associated with the retrieval of data, installation of monitoring equipment, and other monitoring activities, will be reimbursed under this task budget.

Deliverable: 4.8 (a) and (b) (both optional): With written approval from the RSMP Coordinator, monitoring will extend into May and June 2017. Deliverables will be technical memorandums summarizing the status of groundwater elevation and influence on infiltration at each of the monitored sites during May and June. The costs is \$11,000 per month. Target Dates: August 2017

**Task 5, Data Analysis**  
**~~(\$36,000)~~ \$54,944, January 1, 2016 - June 15, 2018)**

1. This task consists of maintaining, managing and utilizing data from the study to provide relevant information on the hydrologic function of bioretention facilities. Analysis of the individual facilities should be used to inform and support conclusions for the design, use and hydrologic performance of bioretention facilities on a wide scale for Western Washington.

Deliverable 5.1: Meeting with Stormwater Work Group members, Ecology staff and City of Bellingham staff to discuss results of monitoring, adequacy of data set and next steps for analysis.  
Target Date: November 2016 or as determined by Ecology

Deliverable 5.2: Provide technical memo summarizing the development of models for each bioretention based on as-built construction, confirmed drainage area, and site field conditions (depth of soil mix, groundwater, native soil infiltration, etc). The memo will also propose analysis framework and endpoints. Target Date: August ~~2016~~ 2017 or as determined by Ecology

Deliverable 5.3 As-built WWHM 2012 (or agreed upon newer version) model of each bioretention facility in the study. Target Date: October ~~2016~~ 2017

Deliverable 5.4: Technical memo summarizing interim study findings and conclusions for review and comments prior to creation of final report. This should include:

- Issues with existing designs or construction practices
  - Issues with site conditions or maintenance of facilities
  - Recommendations for bioretention designs and design methodologies
  - Recommendations for revised construction practices
- Development of an anticipated hydrologic performance matrix based on multiple variables of design, soils, vegetation, etc. Target Date: April 2018

Deliverable 5.5: Meeting with Stormwater Work Group members, Ecology staff and City of Bellingham staff to discuss Technical Memo and provide feedback prior to final reporting.

Target Date: April 2018 or as determined by Ecology

**Task 6, Final Report and Findings Communication**  
**(~~\$10,000~~ \$59,925, January 1, 2017 - June 30, 2018)**

1. This task is the provision of a final report that provides information on the totality of this project. Due to the uncertainty around the number of months needed for monitoring to capture a wide range of storm events, the target dates for the final report and communications are estimates, but all monitoring will be completed by the spring of 2018. The final report will at a minimum contain the following:

- Design Study Goals
- Selections Process
- A synopsis of the QAPP along with information on any necessary deviations from the proposed plan
- Study results from the monitoring with explanation of any uncharacteristic or any unexpected results.
- Site information for each of the facilities with location and photo. The information should include at a minimum: design performance versus actual performance, deviations between design and construction that led to the differential,
- Final recommendations from the technical memo and meetings in Task 5.

Deliverable 6.1: Electronic Draft Final Report for review and comments by Ecology, City of Bellingham and SWG. Target Date: January 2018

Deliverable 6.2: Presentation to the SWG. Target Date: January 2018

Deliverable 6.3: Three printed copies of Final Report, one electronic version of Final Report plus all data files, reports and miscellaneous data relevant to the project. Target Date: June 2018

Deliverable 6.4: Communication flyer and fact sheet for RSMP communications and website. Target Date: June 2018

**Total project costs = ~~\$467,186.00~~ 562,852.00**

State of Washington Department of Ecology  
Contract no. 1500140, Amendment 3  
City of Bellingham

All other terms and conditions of the original Agreement including any Amendments remain in full force and effect, except as expressly provided by this Amendment.

This Amendment is signed by persons who represent that they have the authority to execute this Amendment and bind their respective organizations to this Amendment.

This Amendment is effective on signature date of ECOLOGY.

IN WITNESS WHEREOF: the parties hereto, having read this Amendment in its entirety, including all attachments, do agree in each and every particular and have thus set their hands hereunto.

**State of Washington  
Department of Ecology  
By**

**City of Bellingham  
By**

\_\_\_\_\_  
Signature Date Signature Date

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Polly Zehm Kelli Linville

\_\_\_\_\_  
Deputy Director Mayor

\_\_\_\_\_  
Ted Carlson Date  
Department Head

\_\_\_\_\_  
Brian Henshaw Date  
Finance Director

\_\_\_\_\_  
Office of the City Attorney Date

Approved as to form only.  
Assistant Attorney General