



DEPARTMENT OF
ECOLOGY
State of Washington

IAA No. C1600136

INTERAGENCY AGREEMENT (IAA)

BETWEEN

THE STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY

AND

CITY OF PUYALLUP

THIS INTERAGENCY AGREEMENT ("Agreement" or "IAA") is made and entered into by and between the state of Washington, Department of Ecology, hereinafter referred to as "ECOLOGY," and the CITY OF PUYALLUP hereinafter referred to as the "CITY," pursuant to the authority granted by Chapter 39.34 RCW.

THE PURPOSE OF THIS AGREEMENT is to provide National Pollutant Discharge Elimination System (NPDES) Municipal permittees with regional information to help improve their understanding of treatment at and performance of bioretention facilities and rain gardens.

THEREFORE, IT IS MUTUALLY AGREED THAT:

1) STATEMENT OF WORK

The CITY shall furnish the necessary personnel, equipment, material and/or service(s) and otherwise do all things necessary for or incidental to the performance of the work set forth in Appendix A, attached hereto and incorporated herein.

2) PERIOD OF PERFORMANCE

Subject to its other provisions, the period of performance of this IAA shall commence on **March 1, 2016**, or date of final signature, whichever comes later, and be completed by **March 1, 2019**, unless terminated sooner as provided herein. Amendments extending the period of performance, if any, shall be at the sole discretion of ECOLOGY.

3) COMPENSATION

The source of funds for this IAA is **General Fund – Private/Local (RSMP)**. Compensation for the work provided in accordance with this IAA has been established under the terms of RCW 39.34.130 and RCW 39.26.180(3). This is a performance-based contract, in which payment is based on the successful completion of expected deliverables.

The parties have determined that the cost of accomplishing the work identified herein will not exceed \$175,000.00. Payment for satisfactory performance of the work shall not exceed this amount unless the parties

mutually agree via an amendment to a higher amount. Compensation for services shall be based on the terms and tasks set forth in Appendix A, Statement of Work and Budget. ECOLOGY will not make payment until it has reviewed and accepted the completed work.

4) BILLING AND PAYMENT PROCEDURE

Payment requests shall be submitted on state form, Invoice Voucher A19-1A with supporting documentation. Invoices shall describe and document to ECOLOGY's satisfaction a description of the work performed, the progress of the work, and related fees. Each invoice voucher shall reference the Agreement (IAA) number and clearly identify those items that relate to performance under this Agreement. Payment will be made within thirty (30) days of a properly completed invoice (form A19-1A) with supportive documentation. All expenses invoiced shall be supported with copies of invoices paid.

Invoices are to be sent to:

State of Washington Department of Ecology Attn: Brandi Lubliner, RSMP Coordinator P.O. Box 47600 Olympia, WA 98504-7600

Payment requests may be submitted as deliverables are completed, on completion of the project or annually. Upon expiration of this Agreement, any claim for payment not already made shall be submitted to ECOLOGY within 30 days after the expiration date or the end of the fiscal year, whichever is earlier.

Payment for approved and completed work will be issued through Washington State's Department of Enterprise Services Statewide Payee Desk. To receive payment you must be registered as a state-wide vendor. To register submit a state-wide vendor registration form and an IRS W-9 form at website, <http://www.des.wa.gov/services/ContractingPurchasing/Business/VendorPay/Pages/default.aspx>. If you have questions about the vendor registration process you can contact DES at the Payee Help Desk at (360) 407-8180 or email payeehelpdesk@des.wa.gov.

5) ALTERATIONS AND AMENDMENTS

This Agreement may be amended by mutual agreement of the parties. Such amendments shall not be binding unless they are in writing and signed by personnel authorized to bind each of the parties.

6) ASSIGNMENT

The work to be provided under this Agreement, and any claim arising thereunder, is not assignable or delegable by either party in whole or in part, without the express prior written consent of the other party, which consent shall not be unreasonably withheld.

7) ASSURANCES

Parties to this Agreement agree that all activity pursuant to this contract will be in accordance with all the applicable current federal, state and local laws, rules, and regulations.

8) CONFORMANCE

If any provision of this contract violates any statute or rule of law of the state of Washington, it is considered modified to conform to that statute or rule of law.

9) DISPUTES

Parties to this Agreement shall employ every effort to resolve a dispute themselves without resorting to litigation. In the event that a dispute arises under this Agreement that cannot be resolved among the parties, it shall be determined by a Dispute Board in the following manner. Each party to this Agreement shall appoint one member to the Dispute Board. The members so appointed shall jointly appoint an additional member to the Dispute Board. The Dispute Board shall review the facts, agreement terms, and applicable statutes and rules, and then make a determination of the dispute. The determination of the Dispute Board shall be final and binding on the parties hereto, unless restricted by law. The cost of resolution will be borne by each party paying its own cost. As an alternative to this process, if state agencies, either of the parties may request intervention by the Governor, as provided by RCW 43.17.330, in which event the Governor's process will control. The parties may mutually agree to a different dispute resolution process.

10) FUNDING AVAILABILITY

ECOLOGY's ability to make payments is contingent on availability of funding. In the event funding from state, federal, or other sources is withdrawn, reduced, or limited in any way after the effective date and prior to completion or expiration date of this Agreement, ECOLOGY, at its sole discretion, may elect to terminate the agreement, in whole or part, for convenience or to renegotiate the agreement subject to new funding limitations and conditions. ECOLOGY may also elect to suspend performance of the agreement until ECOLOGY determines the funding insufficiency is resolved. ECOLOGY may exercise any of these options with no notification restrictions.

11) GOVERNING LAW AND VENUE

This Agreement is entered into pursuant to and under the authority granted by the laws of the state of Washington and any applicable federal laws. The provisions of this Agreement shall be construed to conform to those laws. This Agreement shall be construed and interpreted in accordance with the laws of the state of Washington, and the venue of any action brought hereunder shall be in the Superior Court for Thurston County.

12) INDEPENDENT CAPACITY

The employees or agents of each party who are engaged in the performance of this Agreement shall continue to be employees or agents of that party and shall not be considered for any purpose to be employees or agents of the other party.

13) ORDER OF PRECEDENCE

In the event of an inconsistency in the terms of this Agreement, or between its terms and any applicable statute or rule, the inconsistency shall be resolved by giving precedence in the following order:

- a. Applicable federal and state of Washington statutes, regulations, and rules.
- b. Mutually agreed upon written amendments to this Agreement.
- c. This Agreement.
- d. Statement of Work and Budget.
- e. Any other provisions of this Agreement, including materials incorporated by reference.

14) RECORDS MAINTENANCE

The parties to this Agreement shall each maintain books, records, documents and other evidence that sufficiently and properly reflect all direct and indirect costs expended by either party in the performance of the service(s) described herein. These records shall be subject to inspection, review or audit by personnel of both parties, other personnel duly authorized by either party, the Office of the State Auditor, and federal officials so authorized by law. All books, records, documents, and other material relevant to this Agreement will be retained for six years after expiration of this Agreement and the Office of the State Auditor, federal auditors,

and any persons duly authorized by the parties shall have full access and the right to examine any of these materials during this period.

Records and other documents, in any medium, furnished by one party to this Agreement to the other party, will remain the property of the furnishing party, unless otherwise agreed. The receiving party will not disclose or make available this material to any third parties without first giving notice to the furnishing party and giving it a reasonable opportunity to respond. Each party will utilize reasonable security procedures and protections to assure that records and documents provided by the other party are not erroneously disclosed to third parties subject to state public disclosure laws.

15) RESPONSIBILITIES OF THE PARTIES

Each party of this Agreement hereby assumes responsibility for claims and/or damages to persons and/or property resulting from any act or omissions on the part of itself, its employees, its officers, and its agents. Neither party will be considered the agent of the other party to this agreement.

16) RIGHTS IN DATA

Unless otherwise provided, data which originates from this Agreement shall be "works for hire" as defined by the U.S. Copyright Act of 1976 and shall be owned by state of Washington, ECOLOGY (*if otherwise, need AAG approval*). Data shall include, but not be limited to, reports, documents, pamphlets, advertisements, books magazines, surveys, studies, computer programs, films, tapes, and/or sound reproductions. Ownership includes the right to copyright, patent, register, and the ability to transfer these rights.

17) SEVERABILITY

If any provision of this Agreement or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision, if such remainder conforms to the requirements of applicable law and the fundamental purpose of this agreement, and to this end the provisions of this Agreement are declared to be severable.

18) SUBCONTRACTORS

The CITY agrees to take complete responsibility for all actions of any Subcontractor used under this Agreement for the performance. When federal funding is involved there will be additional subcontractor requirements and reporting.

Prior to performance, all subcontractor who will be performing services under this Agreement must be identified, including their name, the nature of services to be performed, address, telephone, WA State Department of Revenue Registration Tax number (UBI), federal tax identification number (TIN), and anticipated dollar value of each subcontract. Provide such information to ECOLOGY's agreement manager.

19) TERMINATION FOR CAUSE

If for any cause, either party does not fulfill in a timely and proper manner its obligations under this Agreement, or if either party violates any of these terms and conditions, the aggrieved party will give the other party written notice of such failure or violation. The responsible party will be given the opportunity to correct the violation or failure within 15 working days. If failure or violation is not corrected, this Agreement may be terminated immediately by written notice of the aggrieved party to the other.

20) TERMINATION FOR CONVENIENCE

Either party may terminate this Agreement upon thirty (30) days' prior written notification to the other party. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this Agreement prior to the effective date of termination.

21) WAIVER

A failure by either party to exercise its rights under this Agreement shall not preclude that party from subsequent exercise of such rights and shall not constitute a waiver of any other rights under this Agreement unless stated to be such in a written amendment to this Agreement signed by an authorized representative of the parties.

22) AGREEMENT MANAGEMENT

The representative for each of the parties shall be responsible for and shall be the contact person for all communications and billings regarding the performance of this Agreement.

The ECOLOGY Representative is:	The City of Puyallup Representative is:
Name: Brandi Lubliner Address: 300 Desmond Dr. SE (USPS) PO Box 47600 (FedEx) Olympia, WA 98504-7600 Phone: 360.407.7140 Email: brwa461@ecy.wa.gov	Name: Joy Rodrigues Address: 333 S Meridian Puyallup, WA 98371 Phone: 253.841.5579 Email: JRodriguez@ci.puyallup.wa.us

ATTACHMENT A: STATEMENT OF WORK

Effectiveness study to develop a monitoring protocol and assess rain garden and bioretention performance to reduce pollutants in stormwater

for

Washington State Department of Ecology,
Regional Stormwater Monitoring Program

Introduction

This scope of work is to implement an effectiveness study as part of the Regional Stormwater Monitoring Program (RSMP). The background, activities, deliverables and schedule associated with this study are provided below. Work on these tasks will be performed by the City of Puyallup (City) with assistance from Stewardship Partners. The City, Washington State University, Washington Stormwater Center, and Stewardship Partners are part of the technical advisory team and are hereafter referred to as the “Project Team”.

Background

Rain gardens along with larger-scale bioretention facilities are considered to be effective tools in the Low Impact Development (LID) toolbox and are being implemented at an accelerating rate. Project partners will develop a rain garden and bioretention assessment protocol that builds our region’s capacity to monitor basic functions of rain gardens and bioretention facilities and assess factors influencing their success and failure at a regional scale. The protocol will be developed to allow ease of implementation, repeatability across large geographic scales and multiple implementers, and provide data of scientific and adaptive management value. The key questions that this project is intended to answer are:

- What attributes of rain garden/bioretention functionality measured by volunteers and staff through visual observations and simple field or lab tests correlate best with functional success of the system?
- What construction activities and maintenance actions identifiable by volunteers and staff have the greatest correlation with functional success of a rain garden/bioretention facility?
- What attributes of rain garden/bioretention success correlate best with landowner perceptions of functional success, as measured by volunteers and staff through surveys and interviews?

Through two rounds of pilot studies in 4 or more Puget Sound counties, our team of academics, permittees, and on-the-ground experts with extensive experience in measuring rain garden/bioretention function will develop effectiveness metrics as a framework for the evaluation of rain garden/bioretention effectiveness. This framework will also provide insight into how installation methods and maintenance practices predict functional success of bioretention/rain garden success. The expected targeted effectiveness metrics could include volume control, infiltration capacity, bypass/overflow frequency, plant viability, public acceptance, soil structure development and whether or not the installation is still collecting runoff. Deliverables will be a protocol for measuring rain garden/bioretention success, a quantitative baseline rain garden/ bioretention effectiveness report based on pilot study data, survey methodology to assess stakeholder perceptions of success and a correlation between perceived and functional success of bioretention/rain garden success. With a replicable,

streamlined monitoring protocol, regional-scale data collection will become feasible and NPDES permittees will be able to monitor progress consistently, economically and effectively. Being able to compare and share data between municipalities will also be critical for region-wide evaluation of progress as well as foster collaborative approaches to shared obstacles. With effective, low-cost monitoring of rain gardens and bioretention at a regional scale, these deliverables might be adapted for use across the Puget Sound region, and help direct resources to where they will have the greatest impact.

Task 1: Initial Protocol Compilation and Implementation (Year 1)

Cost: \$65,000

Subtask 1.1: Literature Review and Creation of Draft Protocol

Develop a project advisory team that includes project partners and external advisors, including public works officials, engineers, and experts in the field. Conduct a comprehensive literature review focused on metrics associated with rain garden/bioretention facility functional performance, as well as on public acceptance and social marketing strategies related to these facilities. Convene an advisory team to compile an initial master list of rain garden/bioretention metrics and assessment methods, including both professional and volunteer collection efforts, including considering findings of an initial literature review. The potential targeted effectiveness metrics are volume control, infiltration capacity, bypass/overflow frequency, plant viability, soil structure development and whether or not the installation is still collecting runoff. Targeted response (dependent) variables to measure will include plant types, coverage and health, soil properties (porosity, pH, texture, organism / root structure abundance), evidence of overflow/bypass events, signs of sedimentation, presence of bare soil, evidence of erosion, owner and community perception and acceptance. Targeted independent variables will include design and planning aspects, implementation variables (engineering practices used, original plant choices, installation methods, date of installation, who does maintenance, type and quantity of maintenance received) and effectiveness variables (plant survival and hardiness, water infiltration and filtration, soil structure quality), and guidance materials consulted among others.

A summary memo will be prepared to list the metrics and methods to develop an initial draft protocol. Assessment methods will be developed in a 3 tiered manner that includes:

1. A thorough and rigorous assessment that can be done by specially trained staff or volunteers.
2. A rapid assessment that can be done by lesser-trained staff or volunteers, drawing on a subset of the more rigorous assessment.
3. A social science assessment including survey or interview methodology to determine perceived rain garden/bioretention functional success by landowners relative to measured success.

Deliverable 1.1: Summary memo providing a master list of metrics with the recommended metrics identified. The memo will attach the annotated literature review.

Target date: 3 months after start date

Deliverable 1.2: First version of bioretention monitoring protocol (v1) with a categorized set of metrics and assessment methods

Target date: 4 months after start date

Deliverable 1.3: First version of survey or interview methodology

Target date: 4 months after start date

Subtask 1.2: Version 1 Protocol Implementation

Using the draft protocol, develop implementer trainings and materials, which includes collaboration and submission to RSMP Coordinator. Revise protocol as necessary. Sixteen or more volunteers will be recruited and trained on the Version 1 protocol by WSU Extension offices. Volunteers will likely consist of interested property owners, WSU Beach Watchers, Storm Water Stewards and Master Gardeners, as well as staff from other organizations or municipalities. Implement the assessment protocol across an initial trial sample of 15 rain gardens/bioretention facilities selected as a representation of the range of site and facility characteristics seen in the Puget Sound region. Eight sites will be sampled in Snohomish County, three sites in Jefferson County, and four sites in Thurston County by WSU Extension and conservation district staff. A subset of rain gardens/bioretention facilities that are part of Bellingham lead project that fall within the above-mentioned counties will also be evaluated. Each rain garden will be visited at least twice, independently, by two assessment teams. Submit raw data (copies of field sheets and compiled reviewed data) and summary of initial findings to the RSMP Coordinator.

Findings from the preliminary data collection will be shared and reviewed by the project partners and the Advisory Team. An “audit” meeting will be hosted for feedback from these partners. A summary report on the Version 1 protocol and data collected will include highlights of what went well, what we have learned, what problems assessors encountered, missing information, and what needs to be changed.

Deliverable 1.4: Implementer training materials for the assessment protocol Version 1.

Target date: 6 months after start date

Deliverable 1.5: Provide in-person implementer training on conducting the assessment protocol Version 1.

Target date: 10 months after start date

Deliverable 1.6: Technical memo of results from the Version 1 survey including a spreadsheet of reviewed data. The memo will include a recommended plan for data storage and sharing.

Target date: 11 months after start date

Deliverable 1.7: Develop an agenda, host a post-implementation “audit” meeting of partners and advisors, and prepare a meeting summary memo with recommendations for protocol or project revisions.

Target date: 12 months after start date

Deliverable 1.8: Present on project to date at SWG meeting.

Target date: 13 months after start date

Task 2: Optimize Assessment Protocol and Implement on a Larger Scale (Year 2)
Cost: \$75,000

Subtask 2.1: Revise and implement Assessment Protocol Version 2

Update the Version 1 bioretention assessment protocol based on feedback from the audit meeting and presentation to SWG. Version 2 of the assessment protocol will improve repeatability, value of information, ease of implementation and potentially narrow parameters that have the greatest tie into rain garden / bioretention functional success. The Rapid Assessment protocol parameters will be selected and refined for testing in this period and provided to untrained volunteers and staff to conduct surveys in tandem with trained volunteers. The shareable database will be created as part of Task 2 on the Data.WA.gov website. The training materials will be updated to reflect Version 2 changes and how to create accounts and log into the database. A minimum of twenty four volunteers (potentially including volunteers involved with Version 1) will be recruited and trained by Washington State Extension offices. Implement the assessment protocol across 40 rain gardens/bioretention facilities. Twelve sites will be sampled in Thurston, eight sites in Jefferson, twelve sites in Snohomish and eight sites in Pierce Counties that were selected as a representation of the range of site and facility characteristics seen in the Puget Sound region. Each facility will be visited at least two times, independently, by two assessment teams. Submit raw data (copies of field sheets and compiled raw data) and summary of initial findings to RSMP Coordinator.

Deliverable 2.1: Updated protocol and training materials for the assessment protocol Version 2. Rapid Assessment protocols and instruction packets.
Target date: 14 months after start date

Deliverable 2.2: Provide online implementer training on conducting the assessment protocol Version 2, and transmit electronically the training material, list of trainers and trainees.
Target date: 16 months after start date (wet season, aiming for March)

Deliverable 2.3: Tech memo of results from the Version 2 survey including an exported spreadsheet from database.
Target date: 18 months after start date

Subtask 2.2: Compile and Evaluate Assessment Data.

We will assess round two data in comparison to round one to determine if protocol Version 2 increased repeatability of data collection and overall performance of protocol. We will assess if Rapid Assessment protocols are functional in collecting high quality data without training. All project partners will be included in evaluation.

Deliverable 2.4: Develop an agenda, host a post-implementation “audit” meeting of partners and Advisory Team, and submit a summary of meeting minutes.
Target date: 20 months after start date

Deliverable 2.5: Summary report of Version 1 and Version 2 data gathered from the bioretention facilities monitored, including recommendations for finalizing the assessment protocol.

Target date: 22 months after start date

Subtask 2.3: Develop a Peer-reviewed Assessment Protocol

Based on the analysis of these new data, final adjustments will be made to the protocol. In the final review the protocol will be divided into “a la carte” options for implementers to utilize based on their needs and constraints.

Deliverable 2.6: Develop final protocol (Version 3).

Target date: 24 months after start date

Task 3: Author, Publish and Distribute (year 3)

Cost: \$35,000

Subtask 3.1: Publish final protocols and data summary on WSU webpages

Update the v2 assessment protocol methodology, training curriculum and any support materials to become the published version for external use. The final protocol will be published online through WSU, WA Stormwater Center and Stewardship Partners websites. A webinar will be presented and archived. Release of the final protocol and pilot data will be shared in a fact sheet format, PowerPoint presentations via email networks through the 12,000 Rain Garden Campaign and Puget Sound ECO Nets, including audiences of landscape professionals, rain garden educators, government and non-government organizations and over 450 organizations that engage in education and outreach in the region. The Washington Stormwater Center will be invited to host one or more webinars on the topic.

The project team will develop an implementation proposal for how the final protocol can be rolled out by multiple stakeholder groups who wish to monitor the effectiveness of rain gardens and bioretention in any Puget Sound region. The plan will engage state and local governments, environmental NGOs, schools and universities as potential implementers of this monitoring protocol.

Deliverable 3.1: Post final protocol “Puget Sound Rain Garden/Bioretention Facility Assessment Protocol” for assessment of rain gardens and bioretention facilities” and “Analysis of Rain Garden/Bioretention Facility Effectiveness and Investment Guidance for Puget Sound Municipalities and NPDES Permittees”

Target date: 28 months after start date

Deliverable 3.2: Fact sheet, presentation to SWG on final protocol, and proposal for a scaled-up monitoring program.

Target date: 28 months after start date

Budget

After the City provides and receives approval on all project deliverables from the RSMP Coordinator, the City will invoice Ecology for costs and expenses not to exceed **\$175,000**.

Tasks/Subtasks	Estimated Costs
Task 1 Total Costs	\$65,000
<i>Subtask 1.1 Literature Review and Draft Protocol</i>	
• <i>Deliverables 1.1, 1.2, and 1.3</i>	<i>\$24,000</i>
<i>Subtask 1.2 Version 1 Protocol Implementation</i>	
• <i>Deliverables 1.4 and 1.5</i>	<i>\$26,000</i>
• <i>Deliverables 1.6, 1.7, and 1.8</i>	<i>\$15,000</i>
Task 2 Total Costs	\$75,000
<i>Subtask 2.1 Revise and Implementation of Protocol (V2)</i>	
• <i>Deliverable 2.1</i>	<i>\$20,000</i>
• <i>Deliverables 2.2 and 2.3</i>	<i>\$20,000</i>
<i>Subtask 2.2 Protocol V2 Data Assessment</i>	
• <i>Deliverables 2.4 and 2.5</i>	<i>\$15,000</i>
<i>Subtask 2.3 Revise and Implementation of Protocol (V3)</i>	
• <i>Deliverable 2.6</i>	<i>\$20,000</i>
Task 3 Total Costs	\$35,000
<i>Subtask 3.1 Final Protocol and Distribution</i>	
• <i>Deliverable 3.1</i>	<i>\$30,000</i>
• <i>Deliverable 3.2</i>	<i>\$5,000</i>
Project Total	\$175,000

Schedule

Anticipated timeline for task completion on a quarterly basis

Task Descriptions	2016				2017				2018			
	1	2	3	4	1	2	3	4	1	2	3	4
Task 1: Initial Protocol Compilation and Implementation (Year 1)		■	■	■	■	■						
Task 2: Optimize Assessment Protocol and Implement on a Larger Scale (Year 2)						■	■	■	■			
Task 3: Finalize and Promote Assessment Protocol									■	■		