



DEPARTMENT OF
ECOLOGY
State of Washington

AMENDMENT NO. 2

TO

Contract NO. C2100076

BETWEEN THE

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

AND

WASHINGTON STATE UNIVERSITY

PROJECT TITLE: Longevity of Bioretention Depths for Preventing Acute Toxicity from Urban Stormwater Runoff

PURPOSE: To amend the Agreement between the state of Washington, Department of Ecology, hereinafter referred to as “ECOLOGY,” and WASHINGTON STATE UNIVERSITY, hereinafter referred to as “WSU” or “Contractor.”

WHEREAS, contract is extended for an additional 17 months. Due to administrative delay this Amendment was not timely. Both parties are in agreement to continue this Agreement.

WHEREAS, the original contract provided funding for the 10 water year (WY) dose experiment, at 6 events per water year. Additional Ecology funds will cover 3 (WYs) of stormwater dose experiment, including chemical analysis, hydraulic conductivity, and toxicity assessment (zebrafish and coho salmon) at the end of each water year.

IT IS MUTUALLY AGREED the Agreement is amended as follows:

- 1) The Period of Performance is amended to read as follows:

The expiration date is extended from June 30, 2022 to November 30, 2024.

- 2) The Scope of Work is amended to add the following tasks and budget: (Deleted text is indicated with strike thru (~~sample~~) and new text is indicated with underlined (sample).

Deliverable 4.7: Progress Report 7: reporting the experiment and data analysis process for Ecology-funded 2 additional WY and any issues or observations.

(\$83,443) Target Date: December 2022

Deliverable 4.8: Progress Report 8: including Ecology-funded 3 additional WY dose experiment results and discussion

(\$55,629) Target Date: March 2023

Deliverable 4.9: Progress Report 9: including Ecology funded 3 additional WY dose experiment results and discussion

(\$27,814) Target Date: June 15, 2023

- 3) The Budget is amended to increase the total budget by \$166,886. The table below will be added as Table 2 in the Scope of Work.

Category	Cost
Salaries (incl. benefits)*	\$78,094
Supplies/Services **	\$54,355
Institutional Overhead (x 0.26)	\$34,437
Total for deliverables 4.7, 4.8, & 4.9	\$166,886

Budget justification

*Salaries includes: 1 month for the PI to manage the project and oversee data analysis and report preparation, 6 months for a research assistant to collect runoff, dose experimental columns, sample water, conduct toxicology testing, and analyze data, plus 6 month for a technician to assist and conduct fish husbandry. Salaries are inclusive of benefits.

**Supplies & services includes:

Analytical chemistry for influent and effluent water for 42 samples Additional water chemistry costs (\$17,955), and PAHs (\$8,400) and 6PPD-quinone (\$21,000) analyses costs. The quinone cost is estimated.

Supplies for qPCR analysis of exposed zebrafish toxicology screening tool (reagents and supplies for qPCR for 18 samples (6 treatments x 3 events = \$2,500)

Replacement peristaltic pump and tubing for dosing the experimental systems with collected runoff, as original pump purchased for the project has expired (\$4,500)

- 4) The Scope of Work is amended to reflect new target dates of deliverables as follows (no change to budget):

(Deleted text is indicated with strike thru (~~sample~~) and new text is indicated with underlined (sample).

Task 5: Outreach & Communication (Total Cost \$58,060)

Deliverable 5.1: Draft fact sheet explaining results for stormwater managers, NPDES permit coordinators, and others involved in stormwater management.

(\$14,514.50) Target Date: ~~April 2022~~, August 30, 2024

Deliverable 5.2: Two presentations to share findings with stormwater managers, including a presentation to the Stormwater Workgroup and one regional stormwater conference/workshop.

(\$14,514.50) Target Date: ~~March 2022~~, August 30, 2024

Deliverable 5.3: Draft Interim report covering SAM funded experiment results using SAM template.

(\$14,514.50) Target Date: ~~December 2021~~ April 15, 2024

Deliverable 5.4: Final Interim report covering SAM funded experiment results using SAM template.

State of Washington Department of Ecology
Contract no. C2100076, Amendment 2
Washington State University

(\$14,514.50) Target Date: ~~March 2022~~, July 1, 2024

All other terms and conditions of the original Agreement including any other 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 July 1, 2022.

IN WITNESS WHEREOF, the parties below, having read this Amendment in its entirety, including any attachments, do agree in each and every particular as indicated by their below signatures.

**State of Washington
Department of Ecology**

Washington State University

By:

By:

Signature

Date

Signature

Date

Heather R. Bartlett

Print Name

Deputy Director

Title