

Round 4 Study Summaries



Studies and Reviews Informing Maintenance and Stormwater Manuals

Proposal Number	LOI Number	Project Title and Applicant	Estimated cost	Estimated duration	Project Goal
FP 01 • Proposal • Presentation	LOI 12	Synthesis of street sweeping research and practices: guiding program effectiveness and waste management <u>Laurie Larson-Pugh</u> with Washington Stormwater Center	\$362,500	2 years	Develop a guidance manual that will provide Permittees with information and tools that they can use to assist with developing and/or improving their street sweeping program to support meeting their MS4 permit requirements.
FP 04 • Proposal • Presentation	LOI 6	Development of a catch basin model to predict sediment accumulation and clean out frequency <u>Angela Gallardo</u> with King County	\$317,100	2-3 years	Create a simplified model to help Permittees establish an optimal cleanout frequency of catch basins and advance understanding of sediment dynamics in catch basins.
FP 05 • Proposal • Presentation	LOI 08	Application of Continuous Monitoring and Adaptive Control for Water Quality and Flood Control – Flett Creek Ponds <u>Dana de Leon</u> with City of Tacoma	\$233,800	1 year	Evaluate the benefits and implementation strategies for active controls and pond optimization upstream of the Flett Creek system.
FP 06 • Proposal • Presentation	LOI 05	Updated Infiltration Methods in the Stormwater Manuals <u>Sarah Norberg</u> with City of Tacoma	\$153,600	7 months	Technical review of recently developed advances in infiltration testing and design methodology.

Studies Improving Understanding of 6PPD-Q Stormwater Management

FP 02 • Proposal • Presentation	LOI 03	Measuring street sweeping 6PPD-q whole environment load reductions <u>Shelly Basketfield</u> with Seattle Public Utilities	\$764,500	4 years	Examine the potential for street sweeping to reduce the source of 6PPD-q on the roadway.
FP 03 • Proposal • Presentation	LOI 11	Treatment effectiveness of a full-scale stormwater facility using high performance bioretention soil media for 6PPD-quinone and other toxic chemicals <u>Chelsea Mitchell</u> with King County	\$267,000	2.5 years	Assess the effectiveness of Ecology-approved HPBSM at decreasing the 6PPD-q concentration and aquatic toxicity of stormwater at a full-scale bioretention facility in Bellingham.

Studies and Reviews to Inform the Municipal Stormwater Permits

FP 07 • Proposal • Presentation	LOI 10	Annual Report Questions for Improved Regional Learning and Permittee Efficiency <u>Bob Bernhard</u> with King County	\$364,400	2.5 years	Improve the annual reporting questions, specifically the questions about illicit discharge detection and elimination (IDDE) and source control.
FP 08 • Proposal • Presentation	LOI 01	Monitoring for Stormwater Contaminants of Emerging Concern in Western Washington <u>Dana de Leon</u> with City of Tacoma	\$1,998,310 Round 4: \$806,332 Round 5: \$1,191,978	4 years	Build a dataset of CEC concentrations associated with urban land uses and make this available to Permittees for use in their modeling and pollutant management efforts.

Projects that did not move forward to Stage 2: Full Proposals

Proposal Number	LOI Number	Project Title and Applicant	Project Goal
	LOI 02	Biomedix mix analysis for stormwater contaminant reduction with a focus on 6PPD quinone University of Washington	The project proposed to test each of the six media from the mesocosm study to determine which of the media is adsorbing stormwater contaminants, focusing on 6PPD quinone and determine if all media are necessary for future projects in the field. The project proposed to establish the most effective ratio of the media used in the mesocosm study for 6PPD quinone removal in the field.
	LOI 04	Stormwater Related Benefits Evaluation for Restorative and Enhanced Maintenance Type SSCs Pierce County	The project proposed an extensive literature search to identify and quantify the variables that influence each SSC type and document how these variables can influence the overall stormwater related benefits. The project proposed to analyze the data and variables that influence benefits to develop user-friendly calculators for each SSC activity to estimate the overall benefits.
	LOI 07	BMP Comparison of effectiveness, costs, constructability, and maintainability Washington Stormwater Center	The project proposed to create a matrix that Permittees could use to compare BMP effectiveness, costs, constructability, and maintainability of BMPs. The outcome of this work was to provide a user-friendly way to compare BMPs.
	LOI 09	How to build a BURito: determining design constraints for bioretention urban retrofits Washington Stormwater Center, WSU	The project proposed to compile design parameters for existing stormwater detention ponds to understand the range of conditions within which BURitos might be applied. Then, the project proposed to construct model systems of BURitos where the slope and rate at which influent stormwater is applied is altered.