



TO: Elizabeth A. Pauli, City Manager
FROM: Brandi Lubliner, P.E., Principal Engineer, Science and Engineering
John Burk, P.E., Division Manager, Science and Engineering
Geoffrey M. Smyth, P.E., Interim Director, Environmental Services
COPY: City Council and City Clerk
SUBJECT: Resolution – Interagency Agreement with Washington State Department of Ecology to Monitor Contaminants of Emerging Concern in Stormwater and Storm Sediments – July 9, 2024
DATE: June 11, 2024

DS
GMS

SUMMARY AND PURPOSE:

A resolution authorizing the execution of an interagency agreement with the Washington State Department of Ecology in the amount of \$1,224,287; accepting and depositing said sum into the ES Stormwater Fund 4301, to monitor stormwater transport of contaminants of emerging concern in Western Washington through December 31, 2025

BACKGROUND:

Persistent, bio accumulative, and toxic compounds are hazardous to human and environmental health and several higher profile chemicals have not been previously characterized in municipal stormwater systems in Western Washington. Environmental Services (ES) has one of the nation's richest datasets for stormwater and storm sediments pollutant management. These datasets will be leveraged to explore correlations with several other contaminants of emerging concern (CEC) that need to be characterized in typical Municipal Stormwater Separate Stormwater Systems (MS4s), specifically PFAS, 6PPD-quinone (6PPDQ), and microplastics. 6PPDQ was identified by the University of Washington Tacoma (UWT) in December 2020 as an abundant compound in stormwater. 6PPDQ comes from preservative used in rubber, particularly vehicle tires, and is incredibly toxic to coho salmon and other Washington endangered and threatened fish in the Puget Sound. The Washington State Legislature has funded the Department of Ecology (Ecology) to identify use of these rubber preservatives in other consumer products that may find their way into wastewater and stormwater. Environmental Protection Agency and Ecology are actively pursuing regulation of these chemicals in stormwater discharge permits as well as scientific and engineering studies to better understand fate, transport, and treatment.

ES staff and its laboratory is in partnership with UWT and their work with National Oceanic and Atmospheric Administration (NOAA), several Washington Tribes, and Washington State University Puyallup. This award will support the ES project management staff and a field study on stormwater in Tacoma stormwater pipes as well as coordination with 13 other Western Washington jurisdiction's stormwater pipes, stormwater sample collection, laboratory coordination and data analysis and reporting.

COMMUNITY ENGAGEMENT/ CUSTOMER RESEARCH:

This interagency agreement provides funding to gather data to better understand the abundance of CEC in stormwater and will be among the first projects in the region to do so. As such, no significant outreach has been performed by the City to date. This project will use the new method developed by our ES laboratory for 6PPDQ to analyze storm sediment samples. This will help prepare us for compliance sampling in the future, and findings will be incorporated into several of Tacoma's stormwater planning strategies for stormwater management which both have their own topical and public meetings.



2025 STRATEGIC PRIORITIES:

Equity and Accessibility:

By definition, a ‘toxic’ contaminant harms humans and wildlife such as orcas and salmon either directly or indirectly by accumulating or impacting Tribal and City resident food sources and environmental wellbeing. In Tacoma the abundance of some toxic contaminants such as metals and PCBs are well understood, but the concentration of new CEC such as a of PFAS, 6PPDQ, tire-wear particles, and other microplastics are not well studied anywhere in Western Washington. This interagency agreement will support a field study to gather the first comprehensive Western Washington dataset to understand the abundance of these CEC and this data will inform the following strategic policy goals:

- Strengthen and support a safe city with healthy residents.
- Ensure all Tacoma residents are valued and have access to resources to meet their needs.
- Assure outstanding stewardship of the natural and built environment.
- Encourage and promote an efficient and effective government, which is fiscally sustainable and guided by engaged residents.

Specifically, findings from the monitoring study will be used in the City of Tacoma’s new modeling tool developed in the Urban Watersheds Protection Plan (UWP Plan). The UWP Plan prioritizes sub-basin areas across the city for additional stormwater management based on Tacoma Equity Index, known areas of degraded surface water quality, and critical areas overlays to prioritize human and environmental wellbeing for future stormwater management.

Economy/Workforce: *Equity Index Score: Low Opportunity*

Increase the number of infrastructure projects and improvements that support existing and new business developments.

Livability: *Equity Index Score: Moderate Opportunity*

Improve access and proximity by residents to diverse income levels and race/ethnicity to community facilities, services, infrastructure, and employment.

Increase positive public perception of safety and overall quality of life.

Explain how your legislation will affect the selected indicator(s).

A clear understanding of the abundance of these CEC in stormwater and storm carried sediments will allow us to refine the UWP Plan to prioritize efforts to control sources of these contaminants in areas of greatest needs across the city. Actions include source control activities to track and stop sources of toxics into the City’s stormwater systems. Other actions include building or implementing more stormwater best management practices to prevent and reduce concentrations across different land uses of the City. The Washington State Department of Health, Ecology, Washington State Department of Transportation, and other agencies are evaluating environmental impacts to salmon and other affected fisheries, Tribal food security, human health, and receiving waters for many of these CEC, and the EPA and Ecology have begun to add requirements to draft National Pollutant Discharge Elimination System permits.

ALTERNATIVES:

Alternative(s)	Positive Impact(s)	Negative Impact(s)
1. Do not accept the funds from Ecology for the monitoring studies.	No obligation to manage the contract.	No known existing data on these contaminants. No data gathered to inform environmental and human prioritization metrics for stormwater management.



EVALUATION AND FOLLOW UP:

ES staff intend to use significant findings in the City’s stormwater management program and stormwater design manuals, stormwater comprehensive plan and the UWP Plan which shape the nature of stormwater actions taken in each of the basins discharging the City’s stormwater to ground or receiving waters. This data will aid with decisions on where to add stormwater treatment across the city and help us compete well for grant funds to build stormwater treatment facilities that will best protect natural resources and people.

STAFF/SPONSOR RECOMMENDATION:

ES recommends approval of this interagency agreement to study the abundance of these pollutants in both stormwater and storm sediments, to manage our liability under our stormwater permits and to begin to investigate how and where to minimize harm to our residents and natural resources.

FISCAL IMPACT:

Funds received from this interagency agreement, deposited into the ES Stormwater Fund, will be used to study CECs in both stormwater and storm sediments around the city and region.

Fund Number & Name	COST OBJECT (CC/WBS/ORDER)	Cost Element	Total Amount
ES Stormwater Fund 4301	521600	5310100	\$ 1,224,287
TOTAL			\$ 1,224,287

What Funding is being used to support the expense?

ES Stormwater Fund 4301

Are the expenditures and revenues planned and budgeted in this biennium’s current budget?

NO, PLEASE EXPLAIN BELOW

Cost impacts to 2024 budget will be absorbed from existing budget savings. We anticipate contributions will be included in the 2025/2026 biennium budget.

Are there financial costs or other impacts of not implementing the legislation?

No

Will the legislation have an ongoing/recurring fiscal impact?

No

Will the legislation change the City’s FTE/personnel counts?

No

ATTACHMENTS:

- Draft Interlocal Agreement with Ecology