

Stormwater Work Group

Meeting Summary

Wednesday September 11, 2024 from 9:00 a.m. to 12:00 p.m.

Meeting Overview

The Stormwater Work Group (SWG) held its first in-person and hybrid meeting since 2020. **Thank you to Aspect Consulting** for providing the meeting space and amazing food, which made this meeting very successful. About 20 people attended the meeting in-person, and over 70 people attended virtually.

Meeting topics included:

- Viewing a Stormwater Action Monitoring (SAM) [presentation](#) on the Puget Sound nearshore mussel monitoring program
- Hearing updates from our partners at the Puget Sound Ecosystem and Monitoring Program (PSEMP), the National Estuary Program Stormwater Strategic Initiative Lead (Stormwater SIL), and the Washington State Department of Ecology (WA Ecology) permitting and 6PPD teams
- Hearing updates from SAM and PRO-C, including introducing the new SAM Coordinator Raghu Namburi, plans for Round 5 projects, and voting in a new PRO-C member
- Discussing strategies to include Eastern WA permittees in the SWG in response to permit changes
- Sharing information about the upcoming [6PPD Subgroup meeting](#) on October 4 in Bellingham

If you attended the meeting, please take the time to complete these short surveys:

- [Provide feedback](#) to help us improve the quality of SWG meetings
- [Sign-up for the Charter and Work Plan Subgroup](#) to be a vital part of updating the 2008 SWG Charter

Thank you as always to our voting representatives, members, and partner organizations for your commitment to the SWG community.

Don McQuilliams, SWG Chair

Abby Barnes, SWG Chair

Madison Rose Bristol, SWG Coordinator

Full Meeting Summary

Welcome and Introductions

Presentation: Introduction to the SWG

- We kicked off this hybrid meeting by asking all in-person attendees to introduce themselves. Then virtual attendees who were voting members or alternates also introduced themselves. Other virtual attendees introduced themselves via the chat.
- Abby Barnes, SWG Co-chair, gave a presentation (see above) introducing us to the purpose and structure of the SWG.

SAM Presentation: Puget Sound nearshore mussel monitoring

Presentation Slides

Project Website

- This presentation was given by Mariko Langness from the WA Department of Fish & Wildlife
- Mussels are a biomonitoring tool for the nearshore water quality conditions
- The purpose of mussel monitoring program is to assess the geographic extent and magnitude of toxic contaminants in the nearshore and determine whether conditions are improving or worsening
- The monitoring program is currently implementing the [new SAM study design](#) to expand to the entire Puget Sound lowland nearshore area and to continue partnering with local groups and NOAA National Centers for Coastal Ocean Science (NCCOS)
- This program has monitored over 192 unique sites from 2012-2022, including 49 SAM and 143 partner (NOAA, Tribes, local government) sites
- They conduct surveys every other year during winter, randomly selecting sites across four levels of impervious area in upland watersheds
- The 2021-2022 SAM Nearshore Monitoring Survey is the first survey done under a new study design. It is a regional assessment of whether collective stormwater management actions are leading to improved nearshore contaminant levels within the Puget Sound lowland ecoregion.
- 2021-2022 study results:
 - PAHs, PCBs, PBDEs, and DDTs were detected in almost all samples. PBDEs detection frequency was noticeably reduced. HCHS, Chlordanes, and dieldrin were less frequently detected. All metals continue to be frequently detected.
 - The central tendency concentration of most contaminants is either very similar or lower than previous surveys. This is partly due to the changed geographic extent of the study.

- Sites located adjacent to the upland watersheds with a higher percentage of impervious area had greater exposure to Σ 16PAHs, TPCBs, Σ 11PBDEs, Σ 6DDTs, and zinc, suggesting that impervious surface continues to provide a transport pathway from terrestrial to aquatic habitats in Puget Sound.
- Arsenic was the only measured contaminant where high concentrations were present at sites across all levels of impervious surface in the upland watershed, not just high impervious surface areas.
- Multiple surveys documented elevated concentrations at 5 sites of concern across the Puget Sound: Anacortes, Seattle, Port Orchard, Tacoma, and Port Angeles. These are now index sites for the larger WDFW monitoring program.
- The 2023-24 survey evaluated 49 sites and confirmed 35 sites with suitable locations to anchor. Data is expected for this current survey at the end of the permit cycle.

Q&A

Question: Have you considered some local sediment sampling to compare if the metals contamination is potentially coming from the water column or from the sediments? The levels of arsenic, coupled with the suspension height of the mussels is making me wonder if arsenic is emerging from the sediments and is getting uptaken by them as they filter water?

Answer: We have not tried to conduct sediment sampling at the same locations (mostly a funding issue). It is possible, and there's a lot of unanswered questions regarding metals and sample cycling. Sediment sampling is planned for every 10 years, where year 10 will occur between 2025-2026, since the [first survey was done in 2015-2016](#).

Question: How do you define the "nearshore"?

Answer: Cages are placed between 0 to 1.5 ft below the mean lower low water level.

Updates from Our Partners

Puget Sound Ecosystem and Monitoring Program (PSEMP)

- **Introduced Hannah Mittelstaedt, new PSEMP Coordinator**
- **PSEMP Toxics Work Group Meeting:** PSEMP, the umbrella organization of the SWG, hosted the Toxics Work Group in Seattle on Thursday, September 12. This meeting included a **boat tour** of contaminant cleanup and habitat restoration activities in the Lower Duwamish Waterway.
- **Dialogue Series: National Estuary Programs (NEPs) + other organizations with similar efforts:** The final Dialogue Series session took place virtually on September 17. The Dialogue Series is a PSEMP hosted event with large support from Oregon State University to grow an understanding around critical human wellbeing related topics. To view the previous sessions, see these [recording links](#).

National Estuary Program Stormwater Strategic Initiative Lead (Stormwater SIL)

- **Mega-Toxics RFP**

- The Puget Sound Stormwater Strategic Initiative Lead (Stormwater SIL) will open the application period for a new “Mega-Toxics” Request for Proposals (RFP) on October 23, 2024. This new RFP supports toxics reduction actions by providing \$4.5 million in grants from EPA Geographic Funds. The Stormwater SIL is looking to support projects that:
 - Implement recommendations from Chemical Action Plan for PCBs, PBDEs, PFAS, phthalates, PAHs, or the 6PPD Action Plan.
 - Conduct research into Contaminants of Emerging Concern to fill key data gaps, resolve identified uncertainties, conduct surveillance monitoring, or develop analytical methods for high priority CECs likely to impact aquatic life and humans that consume them.
 - Address PBDE or PCB toxic hotspots or sources in areas where TBiOS monitoring shows impacts to juvenile Chinook Salmon.
- If interested, there will be a virtual and recorded applicant webinar.
- Applications are expected to close on December 31, 2024. The Stormwater SIL will provide more details around the middle of September.

Q&A

Question: When the grants come out, is that something attainable to read and share with nonprofits?

Answer: Yes. Information will be posted on the [Stormwater SIL’s webpage](#). You can also reach out to Dustin Bilhimer at dustin.bilhimer@ecy.wa.gov for more information.

Question: What is the maximum budget allowed for each proposal?

Answer: Maximum award levels have not been decided on for this RFP. When the RFP is published, that information will be available in the announcement.

Question: Can industrial permittees and non-profits apply for this RFP?

Answer: Non-profits are eligible to apply for this RFP. Private or for-profit businesses are not eligible to apply, which might exclude some industrial permittees. However, private/for-profit businesses can partner with eligible entities (government agencies, Tribes, universities/research institutions, and NGOs) to still be awarded funding through this RFP. Eligible entities must be the primary applicant. If a private/non-profit business is interested in finding an eligible partner, we encourage them to fill out this [Interest in Applying form](#). The Stormwater SIL will use this information to connect folks with research partners so they can put together a proposal together.

Washington Department of Ecology (Ecology)

6PPD Work

- **Aquatic Life Toxics Criteria for 6PPDQ** – 0.012 ug/L for freshwater acute toxicity
 - Change from proposed draft criteria, which was 0.008 ug/L
 - View the [concise explanatory statement](#) for the rationale behind this change
 - [EPA standard](#): 0.011 ug/L
- **Industrial Stormwater General Permit (ISGP)**
 - **Introduce new permit writer - Shannon McClellan**
 - The ISGP will be reissued in late November 2024
 - Permit staff are currently responding to public comments, which will be shared alongside ISGP reissuance
- **Municipal Stormwater General Permits**
 - The Municipal Stormwater Permits were appealed by Puget Soundkeeper Alliance, Sound Transit, and a resident in Tumwater. Different parties were appealing for different reasons.
 - The Municipal Stormwater Permits are still in effect.
- **6PPD BMP Effectiveness Research** - 5 new projects as of Summer 2024 and a [new project website](#)
 - NV5 - Verification of BMP Effectiveness, Crumb Rubber Investigation, and Street Sweeping and Traffic Density Characterization
 - **NV5 is actively looking for sampling locations for testing crumb rubber fields and street sweeping effectiveness. If you would be willing to partner with NV5, reach out to morgan.baker@ecy.wa.gov**
 - Several folks were interested in this opportunity and reached out to Morgan, including Nick Hehemann at WSDOT.
 - Pierce County - 6PPD-quinone Removal in Decant Facility
 - City of Tacoma - Sediment Method Development
 - EA Engineering, Science, and Technology Inc., PBC - The Use of Unamended Soils for Treatment of 6PPDQ in Stormwater: Persistence, Soil Types, and Influence of Vegetation
 - Snoqualmie Indian Tribe - Testing 6PPD-quinone on the Snoqualmie Reservation

Q&A

Question: Is there an update on the accreditation process? There aren't enough labs to process all these future samples.

Answer: Currently, Manchester Environmental Lab (MEL) is the only accredited lab for 6PPDQ in water samples. There are at least 2 other labs whose applications packages are being actively

reviewed by the Lab Accreditation Unit at WA Ecology. We will continue to provide updates on the accreditation process as we learn more information. The SWG 6PPD Subgroup will have a conversation about laboratory methods and sampling procedures at the [upcoming subgroup meeting](#) in Bellingham on October 4.

Question: If 6PPDQ is in the ISGP, does this mean that monitoring data is considered “regulatory?” Does monitoring in the ISGP therefore require the use of an accredited lab? If so, we will need to be adaptable with approving labs to be responsive in the future. Additionally, this applies not just to 6PPDQ, but other contaminants of emerging concern.

Answer: Permittees will likely need to use accredited labs to analyze 6PPDQ monitoring samples for the ISGP. However, we are still in discussions regarding this requirement and will continue to inform and update partners about decisions. Ensuring there is enough lab capacity to process samples is a priority for Ecology, and we will continue to communicate with labs and the Lab Accreditation Unit to reduce bottlenecks.

Question: What is the cost of a lab sample for 6PPDQ?

Answer: Costs vary across labs. If samples are being analyzed by MEL from WA Ecology funded projects, the cost per 6PPDQ sample is \$275. Other labs have costs ranging from \$550 – \$700 per sample.

Question: Is the street sweeping request related to a SAM study?

Answer: No, the street sweeping study is with NV5, which is different than SAM studies.

SAM Updates

- We introduced Raghu Namburi, the new SAM coordinator (raghu.namburi@ecy.wa.gov)
- SAM Contributions for 2024: For MS4 permittees, the next payment is due December 1, 2024. Invoices will be sent out shortly and will use amounts from the 2019 permit Appendix 11. In 2025, payments will again be due August 15.
- Two projects were recently signed and are now under contract:
 - [City of Tacoma](#) - Monitoring for Stormwater Contaminants of Emerging Concern in Western Washington
 - [King County](#) - Treatment effectiveness of a Full-scale Stormwater Facility using High Performance Bioretention Soil Media for 6PPD-quinone and other Toxic Chemicals
- One additional project with Seattle Public Utilities is expected to be signed in October. This study will test the effectiveness of street sweeping for managing 6PPDQ.
- A few projects have recently been closed:
 - [Bioretention infiltration project](#)
 - [Mobile business source control project](#)
 - [Ditch vegetation study](#)

- Overall, SAM projects are going well. View the [Q1 Report](#) and [Q2 Report](#) for more information about projects.
- SAM is now in the process of starting negotiations for new projects. Throughout Winter 2024-2025, the Study Solicitation Subgroup will meet to discuss ideas for priority research topics. New projects will be selected for Round 5 in 2025.

Q&A

Question: When do you anticipate picking new projects? Will you use the same process you've used in the past for picking projects?

Answer: We will start the process of picking new topics this Winter. We will use the same process we've used in the past to select projects.

Question (from Lori Blair): From Lori Blair – they finished their study on permeable pavement, which also included working with school kids and testing 6PPDQ. Would municipalities be interested in getting involved to continue this study?

Answer (from Cory Shaw): WACA may be interested in helping with this by partnering with their Student Chapters at UW and CWU. Reach out to Cory if interested.

Question: Has the report been finalized for the permeable pavement study?

Answer (from Lori Blair): Yes, Ani at the WA Stormwater Center has this report. Additionally, you can view this [research paper](#).

PRO-C Updates

- **Funding full proposals from Round 4:**
 - Current PRO-C account predictions indicate at least a balance of \$900,000 that could support funding full proposals [FP4](#) and [FP5](#).
 - In 2023, the SWG recommended that PRO-C revisit these studies after funding FP6. PRO-C will facilitate a discussion of possible options at the November SWG meeting.
 - Generally, there are three options to consider. PRO-C is also open to discussing options not described below. Options include:
 - Fund one or both of the projects
 - Choose not to fund one or either of the projects and make the funds available for Round 5
 - Choose not to fund one or either of the projects and reserve the funds to cover potential overruns on existing projects.
 - **In preparation for the next SWG meeting in November, please review the [proposals FP4 and FP5](#), [permittee voting results](#), and [November 2023 SWG meeting notes](#).**
- **City of Redmond Paired Watershed Study**

- City of Redmond wants to develop a data dashboard as a way of displaying study results and findings. This would be a small amendment to the contract - \$55,000, which is similar to past SAM studies.
 - Jessica Atlakson is looking for additional people to help scope what data is significant for the tool. If interested, please reach out to Jessica.
- Will add to the Technical Advisory Committee (TAC) to develop a communications pool. Chelsea will send out a listserv asking for folks to join this TAC
- **PRO-C Recruitment of new members**
 - PRO-C is actively recruiting new members, especially non-permittees. Reach out to Todd Hunsdorfer if interested.
 - **SWG held a vote to approve Brandi Lubliner to be the new PRO-C member for the City of Tacoma. There was a majority vote for YES to approve Brandi.**

Q&A

Question: Is there a [website](#) for SAM projects or work groups about 6PPD?

Answer: We recently published a website that includes all SAM, Stormwater SIL, and Ecology-funded 6PPD projects.

Internal SWG Affairs

- **Eastern WA permittees inclusion in the SWG**
 - Due to new options in their permit requirements, E WA permittees now have the same opportunity as W WA permittees to contribute to SAM and participate in SAM program implementation through the SWG
 - SWG Chairs have been reaching out to E WA permit writers and permit groups to hear their interests and concerns. The chairs, SAM, and Ecology's permit team are considering hosting informational sessions for E WA permittees to learn more about the SWG and discuss concerns.
 - At the latest work group meeting of E WA stormwater permittees, the majority of permittees expressed that they are ready and willing to contribute to SAM.
 - We held a discussion at this meeting about the scope of the SWG. **Now that the SWG represents all of WA, how might the structure of the SWG change?**
 - Re-write the [charter](#), which was last updated in 2008. The SWG Charter and Work Plan Subgroup will work throughout 2025 to change SWG processes and representation as necessary. **If you are interested in joining this subgroup, please take 2 minutes to fill out this [interest form](#).** The SWG will also actively recruit E WA representatives to assist with rewriting the charter.

- Why is the SWG split between E and W WA? Do we also need to include Central WA in representation? It would also be beneficial to learn from each other about statewide stormwater management.
- E WA will be paying into SAM effectiveness studies, if they elect to. It will be important to continue conversations about funding equity.
- The **Study Solicitation Subgroup** will be kicking off this Winter. It would be beneficial to have E WA representation in this subgroup either through membership or through submitting ideas for research topics.
 - One research topic suggested: Statewide climate change impacts on stormwater systems and salmon populations
 - Consider including in the rubric for the study selection process a score to favor E WA or statewide projects
- For effectiveness studies, we will need to be conscientious about regional differences. A conversation should be led to discuss important differences to ensure effectiveness studies are impactful.
- Some members noted that even though this will be a large shift, SAM has already supported studies outside of the Puget Sound region. For example, projects have been conducted in E WA and the Lower Columbia. [Several completed SAM projects have relevance in E WA.](#)
- How could this change our relationship with PSEMP, which is a Puget Sound-based organization? Does it still make sense to be organizationally within PSEMP? What if the SWG established a Puget Sound-focused subgroup, which would communicate directly and often with PSEMP?

SWG 6PPD Subgroup

- The SWG 6PPD Subgroup will also be hosting an **in-person meeting on Friday October 4, 2024** from 10am –12pm at Bellingham City Hall, 210 Lottie Street Bellingham, WA 98225. A [hybrid option](#) is available for the meeting. Snacks and drinks will be provided. The day also includes optional site visits to local stormwater facilities from 1pm-3pm. For more information, visit the [SWG 6PPD Subgroup Website](#).

Future Meeting Dates

The next regular SWG meeting is **November 13, 2024** from 9am – 12pm PST. We may occasionally extend our meeting time; any extended meeting time will be determined at the previous meeting.

At our meeting on Wednesday, November 13, we will:

- Ask for SWG members to join the Study Solicitation and the Charter and Work Plan Subgroups
- View a presentation on FP4 and FP5 to assist with SAM funding decisions
- Provide updates on communications with E WA permittees
- Hold a vote on 2025 meeting dates: Feb 12, May 14, Sept 10, Nov 12
- Hear updates from our partners
- Hear PRO-C and SAM study updates

Stay in Touch by Joining these Email Distribution Lists

You can join any or all of our email lists on your GovDelivery [Subscriber Preferences Page](#). Enter your email address, click to add subscriptions, and navigate to the Water Quality Program list to find: **STORMWATER-ACTION-MONITORING**: up to three newsletters per year to hear about SAM study findings and upcoming workshops; **STORMWATER-WORK-GROUP** meeting agendas, materials, and summaries of our meetings, and additional announcements related to our work; and **SWG-6PPD-SUBGROUP** for meeting agendas and notes of those discussions.

View the SWG Website

We regularly update the [SWG website](#) with information about upcoming meetings, past meeting materials, and important SWG documents. If you have additional questions about the SWG, contact madison.bristol@ecy.wa.gov.