

6PPD Subgroup Meeting Summary

Wednesday February 5, 10:00 a.m. to 12:00 p.m.

The SWG 6PPD Subgroup formed in 2020 and meets quarterly with the support of the Stormwater Work Group (SWG). The goal of the SWG 6PPD Subgroup is to share the latest science on 6PPD and 6PPDQ.

10:00am Welcome, from Eli Mackiewicz, Co-Chair

10:05am Updates from the Washington State Department of Ecology

- [Presentations Slides Can Be Viewed Here](#)
- Updates on current research projects (Shelby Giltner, ECY)
 - Snoqualmie Indian Tribe QAPP: [Testing 6PPD-quinone on the Snoqualmie Reservation: Quality Assurance Project Plan](#)
 - New EA Engineering QAPP: [The Use of Unamended Soils for Treatment of 6PPDQ in Stormwater: Persistence, Soil Types, and Influence of Vegetation](#)
 - NV5's QAPP was fully executed on 2/3/25 for the Crumb Rubber Investigation and Street Sweeping, Land Use, and Traffic Density study. The QAPP: [Investigation of 6PPDQ Stormwater Management Quality Assurance Project Plan](#)
 - Final Results from Pierce County's 6PPD-Quinone Removal in Decant Facility. See overview of results in **[presentation slides above](#)** or view the Final Report: [Pierce County Final Report](#).
 - Stormwater Action Monitoring collective 6PPD project updates
 - [Characterization of Stormwater Transport of Contaminants of Emerging Concern](#)
 - [Longevity of Bioretention](#)
 - [Paired Watershed Retrofit and Restoration](#)
- Update on the 6PPD Action Plan, Legislative Report, and Ecology's 6PPD Budget Requests (Madison Bristol, ECY)
 - The 6PPD Action Plan was created throughout 2024 in collaboration with an

Advisory Committee. This effort was a bottom-up approach to define state agency budget requests to the WA State Legislature to address 6PPD holistically. For more information about the process, visit the [6PPD Action Plan webpage](#).

- A [Legislative Report](#) was published in Fall 2024 that describes state agency progress on 6PPD and commitments for the 2025-2027 biennium, given funding support from the Legislature.
- Ecology recently published a [focus sheet](#) describing their 6PPD budget requests.
- ITRC [Document](#): How to Use this Guidance Document (Madison Bristol, ECY)
 - Is the ITRC document being continually updated?
 - No, it is not being continually updated. The ITRC 6PPD Team might reconvene in the next few years to add new updates.

10:45am Stormwater Work Group (SWG) Updates (Madison Bristol, ECY)

- Four SWG meetings are scheduled for 2025: February 12, May 14, September 10, November 12
- The Round 5 SAM Study Solicitation process will begin in early Spring of this year. If you are interested in helping define funding priorities, please fill out the Study Solicitation Subgroup Interest Form: [Interest Form: SWG Study Solicitation Subgroup](#). 6PPD studies have been previously funded by SAM.

11:00am Break

11:05am Ecology's Lab Accreditation Unit (LAU) Requirements and Processes Presented by Rebecca Wood, LAU Supervisor

- [This presentation can be viewed here](#)
- LAU has 10 accreditation professionals – one of which addresses 6PPDQ. Responsibility of these accreditors:
 - Accredited 430 labs nationwide
 - Process initial applications for accreditation
 - Process annual accreditation renewals
 - Oversee third party accreditation process, many of these are out of state labs

- Perform technical document review for directly accredited labs
 - Audits directly accredited labs, with a goal of every 3 years
- What is accreditation
 - Labs must demonstrate technical competence, which includes producing accurate and defensible data
- Ecology Policy 22-02
 - Data produced for decision-making must be accurate and legally defensible; LAU program assures this capability
- WAC 173-50: establishes the WA Laboratory accreditation program
- 2023 rulemaking clarified and updated standards
- LAU is not a part of MEL – they are on the same physical campus but are different entities within Ecology
- When a lab requests a method addition to their accreditation, what all is required?
 - Most of this work revolves around labs that are already a part of their accreditation program
 - To get a method addition, a lab must submit a Standard Operating Procedure (SOP), performance testing results, bench sheets, method detection limits, demonstrate capability, extraction logs, etc. All in all, lab accreditation is a very technical, involved, and time-consuming process.
 - LAU conducts a technical review of the SOP and produces a report
- 6PPDQ specifics
 - Intention to transfer all labs to the EPA method
 - 6PPD is an emerging contaminant – the methodology is complex and new, which increases the time it takes to complete LAU's review and for labs to adopt defensible methods
- EPA 1634 draft method
 - There are specific modifications allowable if the labs deviate from the EPA method
 - Method requires extracted internal standard and non-extracted internal standard
 - To be accredited for EPA draft Method 1634, the lab SOP must follow EPA Draft Method 1634 and specify method modifications. They must be allowable modifications.

- Labs requesting accreditation
 - Accredited Labs: Manchester Environmental Lab (MEL) and King County Environmental Lab (KCEL)
 - Three other labs have submitted accreditation packets and are awaiting accreditation: City of Tacoma, UW Urban Waters, and Eurofins Sacramento are all under review
 - If people are interested in specific timelines, contact Rebecca Wood today

11:35am Lab Accreditation Q&A

Question: Any estimate of per sample costs for 6PPDQ?

Answer: WAC 1730-50 -190 includes fees for samples – you can see these prices under “Organics 2”.

Question: Is there a method for quantifying 6PPDQ in fish tissue?

Answer: Tissues are accredited under the solids and materials matrix. EPA Draft Method 1634 does not include tissue analysis, so we accredit for the laboratory SOP until an EPA Method is available for 6PPD-Q in tissue.

Question: Will accredited labs be required for implementation of 6PPDQ monitoring in the Industrial Stormwater General Permit and other permits?

Answer: Yes. ISGP facilities must use accredited labs for the 6PPD-Q sampling that begins on 1/1/2028. Labs can use the EPA method or an equivalent approved method from an accredited laboratory for permit implementation. Even if labs are using the EPA method, they must also be accredited to be used for 6PPDQ analysis.

Question: How many ISGP permittees will need to meet this new monitoring requirement?

Answer: 300-500 permittees with multiple outfalls each are required to monitor for 6PPDQ starting in 2028.

Question: What about 6PPDQ waivers?

Answer: Waivers do not go through LAU, but rather the Ecology quality assurance (QA) manager. If there is no existing accredited method for a matrix, a waiver can be issued. Waivers can be issued for other justifications on a case-by-case basis such as accredited labs are at capacity, or the data quality objectives of the project do not warrant accreditation. It is at the discretion of

the Ecology QA manager to approve or deny the waiver based on the review of the submitted SOP and objectives of the project requesting the waiver.

Question: How long does the accreditation process typically take?

Answer: It varies depending on the lab processes and supporting data. Accreditation can take over 1 year. They do anticipate that this process will go faster once EPA method 1634 is finalized and labs adopt this method.

Question: Can you clarify the guidance on the use of NIS and EIS? Is it correct that these cannot be swapped from 1634, even if the lab demonstrates a method that passes all other checks (LCS, MS, BTTA study, etc.)?

Answer: This question is out of the area of expertise for the meeting facilitators. Please direct the question to LAU's subject matter expert Kamille Ginder: kamilee.ginder@ecy.wa.gov

Question: What about the use of alternative internal standards (ie. 13C12-6PPDQ vs 13C6-6PPDQ)?

Answer: This question is out of the area of expertise for the meeting facilitators. Please direct the question to LAU's subject matter expert Kamille Ginder: kamilee.ginder@ecy.wa.gov

Question: Will there be a flag to indicate results are coupled with coho toxicity studies?

Answer: No but several studies are conducting toxicity studies simultaneously. See: [Bioretention effectiveness for 6PPD and PFAS - Washington State Department of Ecology](#)

General Q&A

Questions: Does meeting "site suitability" mean suitability for infiltration?

Answer: Yes. Soils being used in the EA column study on Unamended Soils were tested to determine if they meet the site suitability criteria for infiltration specified in the *2024 Stormwater Management Manual for Western Washington*.

- [2024SWMMWW - Site Suitability Criteria \(SSC\)](#)
- [The Use of Unamended Soils for Treatment of 6PPDQ in Stormwater: Persistence, Soil Types, and Influence of Vegetation](#)

Question: Given that there are thousands of stormwater BMPs (filtration, bioswales, detention, etc.) already deployed for conventional stormwater pollutants, has Ecology studied the

correlation between conventional pollutants and 6PPDQ to determine the likely effectiveness of existing BMPs? I.e., if a BMP removes 50% of a conventional pollutant, what percent of 6PPDQ is removed? 50%? More? Less?

Answer: Yes, several of our BMP effectiveness studies are looking at additional parameters including metals, TSS, and PAH's. Examples include:

- [Bioretention effectiveness for 6PPD and PFAS - Washington State Department of Ecology](#)
- [The Use of Unamended Soils for Treatment of 6PPDQ in Stormwater: Persistence, Soil Types, and Influence of Vegetation](#)
- NV5's Verification of BMP Effectiveness, Crumb Rubber Investigation, and Street Sweeping and Traffic Density Characterization (QAPP will be posted soon)
- City of Spokane -Bioretention Soil Media Study: Development of Non-Vegetated BMPs

Question: Are you using TSS? Any conventional Fe, TSS, Cu, etc.

Answer: See previous answer

Question: Is there an update when a report will be published for the King County/ECY HPBSM/6PPDQ study?

Answer: Per Chelsea Mitchell with King County: Report is final stages of review

Important Topic: Upcoming Stormwater Conference links

- [Green Infrastructure Summit, March 2025](#)
- [Managing Stormwater in Washington Conference](#)
- [PNCWA Spring Summit 6PPDQ Session](#)
- [MuniCon, May 2025](#)

Important Topic: There was expressed interest in Snoqualmie Floating Wetland. Below are the links and information that was shared in the chat:

- [Floating Wetlands Installation – Herrera](#)
- [Floating Treatment Wetland and Biomedia Module for Stormwater Treatment and 6PPD Quinone Removal](#)
- The floating wetlands have biomedia and plants that take up 6PPDQ, more studies are underway.
- There is some work in progress by a UW Seattle researcher, there should be more data available next year.
- On floating wetlands, is there any research that shows that technology can also reduce water temperature? Thinking of the issues in Lake WA and the Long Live the Kings incredible work in the ship canal!
- We are in discussions with WSDOT and Doug about doing a floating wetlands study - Herrera

- I've installed floating wetlands on large lakes, lots of work to keep functional.
- The Port of Vancouver installed a floating wetland in a stormwater pond to address zinc and copper, as part of a Level 3 corrective action under the ISGP.
- [Idaho Groups Utilize, Monitor Floating Wetlands](#)

Question: Is EA Engineering available in the call?

Answer: Madison Bristol can provide you with EA's contact info. Madison can be reached via email: madison.bristol@ecy.wa.gov

Question: Can anyone comment on the proposed House Bill 1041 that would prevent the state from regulating 6PPD in tires sold in Washington? "State and local governmental agencies shall not restrict or regulate the use or sale of tires under this chapter."

Answer: We are tracking this bill. It has not been scheduled for a hearing yet.

Question: When Ecology makes changes to aquatic life toxics criteria (or any other water quality criteria), you review studies from published literature and use them to guide the rule development (I have seen the use of the term "high quality studies"). Are these studies and data used in the rule development taken only from WA Ecology accredited labs?

Answer: The short answer is no. The studies used for criteria development do not need to be from accredited labs nor a standardized methodology. For additional information contact, Ecology Toxicologist Bryson Finch at bryson.finch@ecy.wa.gov.

Question: Slightly off-topic for anyone Ecology: Is there QA/QC guidance available for sampling protocols, especially for collecting 6PPD-q samples by citizen scientists/volunteers?

Answer: [Standard Operating Procedure EAP093, Version 1.0: Sampling 6PPD-Quinone in Receiving Waters](#)

Question: Has EPA approved WA aquatic life standards yet?

Answer: No. It is still undergoing ESA consultation.

11:50am Wrap-up

12:00pm Adjourn

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View the SWG Website

We regularly update the [SWG 6PPD Subgroup website](#) with information about upcoming meetings, past meeting materials, and important SWG documents. If you have additional questions about the SWG 6PPD Subgroup, contact shelby.giltner@ecy.wa.gov.