

Summary Sheet for Bridge Washing General Permits

This summary sheet is intended to help staff understand the requirements for the [Bridge Washing National Pollution Discharge Elimination System \(NPDES\)](#) and [General Hydraulic Project Approval \(GHPA\) Bridge Maintenance and Preservation](#) (Section A Bridge Deck and Drain Cleaning & Section B Bridge Washing and Cleaning) permits. These permits contain conditions that help avoid and minimize impacts to water quality and fish habitat. ***Be sure to contact your RMEC if you have any questions about these permits.***

Before Washing

1. The [HPA Permit Lead](#) will coordinate with Bridge Crews during late fall to develop a preliminary schedule for the next year. The initial schedule includes months/weeks. Jennifer Riedmayer will coordinate with bridge crews on monitoring.
2. **Avoid flushing bridges that are on tribal land (dry clean only) or in category 4 or 5 impaired waterbodies.**
3. Read the permit conditions and understand the requirements for bridge washing. This sheet summarizes the key points.
4. Spot Clean / Partial flush – flushing part of the bridge for inspection that does not include the full width of the bridge.
5. Full flush – flushing the entire width of the bridge. If it is on the schedule as a flush, we will assume we are doing a full flush for water quality monitoring percentage tracking.
6. Ensure the work is accurately scheduled on the [online bridge activity list](#) to meet Ecology's NPDES permit requirements. ***Please send bridge schedule lists and updates to your RMEC, [Jennifer Riedmayer](#), and Gregor Myhr.***
7. **Ecology requires us to report cubic feet per second (cfs) if we flush bridges outside of the season work window.** The season work windows is from November 1st to May 31st for Western Washington and from December 1st to June 30th for Eastern Washington. If the bridge washing needs to occur outside of the season windows or if the stream doesn't have a gage, coordinate with the RMEC to determine if the **stream meets the cfs criteria (231 cfs in Western Washington and 144 cfs in Eastern Washington).**

During Washing

1. Be sure the NPDES and GHPA permits and the **Maintenance ECAP** are on site.
2. For deck flushing and drain cleaning, follow the **BMPs (see provisions 5, 7, 9, 12, A3, A4, and A5)**. Use a street sweeper to clean bridge deck before flushing.
3. Note unique factors of the bridge for HATS reporting.
4. Collect garbage and other loose debris before flushing the bridge.

5. Conduct intensive hand cleaning (scrapping, sweeping, and vacuuming) if the bridge was **not** flushed during the **previous 12 months**.
6. Plug the bridge drains before flushing. Remove loose debris around the drain before unplugging.
7. Avoid flushing if the bridge has nesting colonies of birds.
8. Avoid washing structures during low or slack tide, if washing over **marine (salt) water** (Western Washington).
9. Use protocols in NPDES Appendix B if discharging water to ground and the soils and slope are suitable for infiltration.
10. Avoid flushing wash water onto the stream bed that's not covered with water. Use tarps if needed.
11. Minimize the scour impact of wash water discharges onto soil. Consider using a tarp over the exposed ground, if needed.
12. Remove residual grease by hand and prevent it from entering waterbody.
13. Avoid flushing parts of the bridge with loose paint. If paint starts flaking off, stop flushing that section and note it in HATS under comments.
14. Dispose garbage and waste at a proper upland site. Keep a spill kit onsite and prevent petroleum products, chemicals from entering waterbodies. Become familiar and understand the Solid Waste Disposal and Spill Prevention and Control permit sections (NPDES S6 and S7 and GHPA provisions).
15. Collect information that needs to be entered into HATS.
 - a. Date and duration of washing.
 - b. Type of operation.
 - c. Stream cfs under comments if the bridge was washed **outside of the season windows**. Please record it in HATS under the individual bridge records.
 - d. Amount of time for flushing (don't include time for dry cleaning).
 - e. Volume of water discharged during the operation (total gallons).
 - f. Areas washed or bridge/site conditions that are unique.
16. Follow the ECAP and contact the RMEC if there are any spills, fish kills (or in distress), questions, or concerns about complying with permit requirements. If there's a NPDES permit non-compliance issue, please submit a report to the RMEC so it can be uploaded into Ecology's system per the permit requirements. If there's a GHPA permit non-compliance issue, please submit a report of what happened to RMEC, [Jennifer Riedmayer](#), and Gregor Myhr. Also document the non-compliance issue under the comments in the HATS entry for the project.

After Washing

1. Enter the data into HATS. If you enter the data after the date, be sure to change the date to when the bridge was flushed. Be clear and efficient with any notes. We are not required to report drain cleaning. We need to report deck flushing for the NPDES permit, so report it under bridge flushing.

Summary Sheet for Hydro-demolition

This summary sheet is intended to help staff understand the requirements of the hydro-demolition activities as outlined in Administrative Order #22962

(<https://wsdot.wa.gov/sites/default/files/2024-12/Env-StormW-Companion-Order-AO-20240812.pdf>), which requires reporting of ten percent of water collected and discharged events annually.

The hydro-demolition activities intend to maintain Washington State bridges by removing the first few inches of the deteriorated bridge platform and re-concrete the bridge platform. This will extend the lifespan of the bridge.

This administrative order sampling and monitoring parameters are listed in tables below.

Table 1: Hydro-demolition Wastewater Effluent Action Levels

Parameter	Sampling Frequency	Sample Type	Action Level	Analytical Method
pH	Every Discharge	Grab	Minimum: 6.5 SU Maximum: 8.5 SU	SM4500-H ⁺ B
Turbidity	Every Discharge	Grab	25 NTU	SM2130 or EPA Method 180.1
Total Dissolved Solids	10% of Discharge Events	Grab	500 mg/L	SM2540-C

Table 2: Hydro-demolition Wastewater Monitor and Report Only

Parameter	Sampling Frequency	Sample Type	Action Level	Analytical Method
Total PAHs ²	10% of Discharge Events	Grab	Report Only	EPA Method 625.1
Sulfate	10% of Discharge Events	Grab	Report Only	EPA Method 300.0 or EPA Method 300.1
Chloride	10% of Discharge Events	Grab	Report Only	EPA Method 300.0 or EPA Method 300.1
Chromium, Total	10% of Discharge Events	Grab	Report Only	EPA Method 200.7 or EPA Method 200.8
Arsenic, Total	10% of Discharge Events	Grab	Report Only	EPA Method 200.7 or EPA Method 200.8
Selenium, Total	10% of Discharge Events	Grab	Report Only	EPA Method 200.7 or EPA Method 200.8

² Report the summation of the concentrations of the following compounds as "Total PAHs": acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene.

Prior to hydro-demolition activity

1. Schedule work on bridge by posting on WSDOT webpage (<https://wsdot.wa.gov/sites/default/files/2025-04/Env-StormW-Schedule-Hydromill.pdf>)
2. Ensure containment system and vehicles will be within WSDOT right of way or approved temporary construction leased areas.

During hydro-demolition activity

1. Ensure the NPDES Permit including the Administrative Order is on site when conducting the hydro-demolition activity including discharging and infiltration of the water at WSDOT listed pit sites. If access to the internet is available, having the order on a cell phone is adequate.
2. Ensure transport vehicles for hydromill operations are set up with WSDOT right of way.
3. Ensure bridge deck does not allow for hydromilled water to be released and is contained on the deck. This includes covers on drainage features, and sealants on cracks and openings on the drainage deck.
4. Collect the contained slurry in a vactor truck or drums likely with a sump pump or similar device to be transported to an approved site for treatment and discharge. The vactor truck or drums need to be labelled with suspect waste contents accordingly. Decontaminate the Vactor truck with liquinox or equivalent phosphate free spray two rinses of clean water, and a final rinse of distilled water. Discharge water into the pit site.
5. Secondary containment may be around the structure to ensure no media is mixed in the environment.
6. All analytical methods can use approved equivalent substitutes.
7. For sampling, pH and turbidity at each discharge. PH can be measured using paper and a turbidity meter to measure turbidity. Note: turbidity can be difficult to obtain to meet permit requirements.

At the Pit Site ([PIT SITES.xlsx](#))

1. As determined by the site operator, install a silt fence around the pit area except for where the access points are located.
2. Water used in the hydromill system will be tracked per job. Using a volume meter or equivalent device) to measure the amount of water being collected, treated, and discharged.

3. Collect the contained slurry in a vactor to be transported to an approved site. The slurry will be transferred to a 60' X 12' X 1' or similar structure to settle out all the solids from the slurry. WSDOT will wait 24 hours for settling out the solids.
4. Pump into the treatment system and add flocculant and carbon dioxide (CO₂) to the mixture to separate out the solids from the liquids. Wait 24 hours and pump out the liquids into the pit.
5. Sawdust or pellets will be added to solidify and dry the wet solids. The solidified solids will be collected and transported to an approved disposal/recycling facility.
6. Note: system capacity is 2000 gallons.
7. Minimize scour by using an energy dissipator (like rip rap with flexible 1 inch wire mesh) at the site to prevent scouring and allow the discharged water from transport vehicle to infiltrate.
8. Separate out the liquids from the solids and have those solids disposed of at an approved facility that accepts concrete and asphalt waste.

Sampling Instructions

1. Wear clean nitrile gloves for each sampling event.
2. Fill up the following containers with a bailer or stainless-steel pour container.
3. Between sampling events, either use a new bailer or decontaminated stainless-steel container.
4. For quality control, samples should be collected as outlined below for every 10 samples.
5. Send filled 1-liter bottles and 500 ml bottles to On-site Environmental via overnight delivery for quality control testing. Do not overfill the bottles. Each sample bottle has liquid preservative in it. Once the bottle is filled strive to have a bubble on the top of the bottle. By doing this it will ensure there is enough space in the sample for lab analytical testing.
6. Provide the following samples to the lab:
 - Total Dissolved Solids – 1, 250ml poly unpreserved
 - Sulfate and Chloride – 1, 500ml poly unpreserved
 - PAHs – 2, 1 liter amber unpreserved
 - Total Chromium, Arsenic, Selenium – 1, 250ml poly preserved with Nitric Acid
7. Please fill out Chain of Custody Form, sign it, and include in special instructions box to share sample results with **Gregor Myhr and Jennifer Riedmayer**.

8. Keep the bottom of the form and place the Chain of Custody in a sealed plastic copy in the cooler.
9. Tape the cooler to secure the lid. Please have some frozen icepacks in the cooler. Overnight the cooler too:

Onsite Environmental Incorporated
14648 NE 95th St
Redmond, WA 98052

After hydro-demolition activity

1. Enter the data into HATS. If you enter the data after the date, be sure to change the date to when the bridge was hydro-demolished. Be clear and efficient with any notes.
2. Collect information that needs to be entered into HATS.
 - a. Date and duration of hydromilling.
 - b. Location of hydromilling (bridge number).
 - c. Pit Site Location
 - d. Volume of water collected at hydromilling site (estimated gallons) and discharged at Pit Site (estimated gallons).
 - e. pH
 - f. Turbidity