

# UW Bothell/Cascadia College Stormwater Management Program

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## Introduction

University of Washington (UW) Bothell and Cascadia College (CC) are classified as a Secondary Permittee under the Western Washington Phase II Municipal Stormwater Permit. In 2020, UW Bothell and Cascadia College were unified into a singular permit as one campus rather than two entities. As such, UW Bothell and CC must comply with Permit requirements, and all relevant ordinances, rules and regulations of the local jurisdiction (City of Bothell). Applicable rules and regulations include the City of Bothell stormwater and drainage control code, [Chapter 18.04](#) and [City of Bothell Surface Water Management Program](#).

As a Phase II Secondary Permittee, UW Bothell and CC are required to develop and implement a Stormwater Management Program (SWMP). This document serves as the UW Bothell and CC SWMP. The UW Bothell and CC SWMP is designed and implemented to reduce the discharge of pollutants from the stormwater system to the maximum extent practicable and protect water quality.

This UW Bothell and CC SWMP includes the following six (6) minimum measures:

- Public education and outreach on the impacts of stormwater pollution,
- Public involvement and participation,
- Illicit discharge detection and elimination,
- Construction site stormwater runoff control,
- Post-construction stormwater management for new development and redevelopment, and
- Pollution prevention and good housekeeping for facilities operations.

The SWMP describes these six minimum measures. Following each measure description is a list of actions that UW Bothell and CC are conducting to meet these requirements. The dates for completing these actions is available on the [City of Bothell Stormwater Maintenance and Inspections Website](#).

The construction of the Warehouse on-campus as well as the creation of the Facilities and Campus Operations Corporation Yard in 2020 resulted in the need to create a [Stormwater Pollution Prevention Plan \(SWPPP\)](#) for the facility as part of the MS4 program.

## Public Education and Outreach

According to the Permit, UW Bothell and CC will implement the following stormwater education strategies:

1. Storm drain inlets owned or operated by UW Bothell and CC that are located in maintenance yards, in parking lots, along sidewalks, and at pedestrian access points will be clearly labeled with the message similar to “Dump no waste – Drains to water body.” As identified during visual inspection and regular maintenance of storm drain inlets per the requirements of S6.D.3.d. and S6.D.6.a.i. below, or as otherwise reported to UW Bothell and CC, any inlet having a label that is no longer clearly visible and/or easily readable will be re-labeled within 90 days.
2. Each year, beginning no later than three years from the initial date of permit coverage, public ports, colleges, and universities will distribute educational information to tenants and residents on the impact of stormwater discharges on receiving waters, and steps that can be taken to reduce pollutants in stormwater runoff. Distribution may be by hard copy or electronic means.

Appropriate topics may include:

- How stormwater runoff affects local water bodies,
- Proper use and application of pesticides and fertilizers,
- Benefits of using well-adapted vegetation,
- Alternative equipment washing practices, including cars and trucks that minimize pollutants in stormwater,
- Benefits of proper vehicle maintenance and alternative transportation choices; proper handling and disposal of vehicle wastes, including the location of hazardous waste collection facilities in the area, and
- Hazards associated with illicit connections, and illicit discharges.
- Benefits of litter control and proper disposal of pet waste.

To meet this requirement:

- Most storm drains at UW Bothell and CC have gratings forged with “Outfall to Stream / Dump No Pollutants” on them. The gratings that do not have this forged on them are labeled with plastic pucks that say “No dumping, drains to wetland.” UW Bothell Facilities Services has a stormwater system and catch basin preventative maintenance program.
- The stormwater system is cleaned and inspected annually.
- The UW has an outreach webpage on stormwater quality and pollution prevention. This webpage is located on the Environmental Health & Safety Department (EH&S) website ([www.ehs.washington.edu/environmental/stormwater](http://www.ehs.washington.edu/environmental/stormwater)). EH&S has a stormwater awareness brochure for students and staff.
- A stormwater management training module has been created and added to the UW Facilities training menu ([www.washington.edu/facilities/orgrel/facilities-services-trainingcenter](http://www.washington.edu/facilities/orgrel/facilities-services-trainingcenter)). All employees are encouraged to take this training.
- SALMON-SAFE CONSIDERATIONS:
  - The UW Bothell aims to maintain Salmon Safe certification and to maintain the quality of campus water runoff to promote salmonid populations. In addition to City of Bothell stormwater requirements, Salmon Safe certification requires:

- Additional stormwater runoff monitoring and testing
- Pesticide Use Plan
- Water Conservation Plan
- Consideration of water quality facilities in new project
- The 2018 Salmon Safe recertification (re-certified every 5 years) for UW Bothell can be found at the following webpage: <https://salmonsafe.org/celebrating-earth-day-at-salmon-safe-certified-uwb-cascadia-college/>

## **Public Participation and Involvement**

According to the Phase II permit, UW Bothell and CC will:

1. Make the annual report available on the UW Bothell and CC website.
2. Make available on the UW Bothell and CC website the latest updated version of the SWMP Plan.
3. If UW Bothell and CC does not maintain a website may submit their updated SWMP Plan in electronic format to Ecology for posting on Ecology's website.

To meet this requirement:

- The SWMP and annual report is posted on the UW Bothell Campus [Sustainability webpage \(https://www.uwb.edu/campus-sustainability/campus-operations/water/stormwater-management-program\)](https://www.uwb.edu/campus-sustainability/campus-operations/water/stormwater-management-program).
- Additional information on Stormwater Management through the UW's campuses can be found on the UW EH&S [Stormwater Webpage \(https://www.ehs.washington.edu/environmental/stormwater\)](https://www.ehs.washington.edu/environmental/stormwater).

## **Illicit Discharge Detection and Elimination**

According to the Phase II permit, UW Bothell and CC will:

1. From the initial date of permit coverage, comply with all relevant ordinances, rules, and regulations of the local jurisdiction (City of Bothell) in which UW Bothell and CC are located that govern non-stormwater discharges.
2. Implement appropriate policies prohibiting illicit discharges and an enforcement plan to ensure compliance with illicit discharge policies.

These policies will address, at a minimum: illicit connections; non-stormwater discharges, including spills of hazardous materials; and improper disposal of pet waste and litter.

1. Allowable discharges: The policies do not need to prohibit the following categories of non-stormwater discharges:
  - Diverted stream flows
  - Rising ground waters
  - Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
  - Uncontaminated pumped ground water
  - Foundation drains
  - Air conditioning condensation

- Irrigation water from agricultural sources that is commingled with urban stormwater
  - Springs
  - Uncontaminated water from crawl space pumps
  - Footing drains
  - Flows from riparian habitats and wetland
  - Discharges from emergency firefighting activities in accordance with S2 Authorized Discharges
  - Non-stormwater discharges authorized by another NPDES or State Waste Discharge permit
2. Conditionally allowable discharges: The policies may allow the following categories of non-stormwater discharges only if the stated conditions are met and such discharges are allowed by local codes:
- Discharges from potable water sources, including but not limited to water line flushing, hyper-chlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges will be de-chlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.
  - Discharges from lawn watering and other irrigation runoff. These discharges will be minimized through, at a minimum, public education activities and water conservation efforts conducted by UW Bothell and CC and/or the local jurisdiction (City of Bothell).
  - De-chlorinated swimming pool, spa, and hot tub discharges. The discharges will be de-chlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and re-oxygenated if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Discharges will be thermally controlled to prevent an increase in temperature of the receiving water. Swimming pool cleaning wastewater and filter backwash will not be discharged to the MS4
  - Street and sidewalk wash water, water used to control dust, and routine external building washdown that does not use detergents. UW Bothell and CC will reduce these discharges through, at a minimum, public education activities and/or water conservation efforts conducted by UW Bothell and CC and/or the local jurisdiction (City of Bothell). To avoid washing pollutants into the MS4, the Secondary Permittee will minimize the amount of street wash and dust control water used.
  - Other non-stormwater discharges will be in compliance with the requirements of a pollution prevention plan reviewed by the Permittee which addresses control of such discharges.
3. UW Bothell and CC will address any category of discharges in bullets two and three above if the discharge is identified as a significant source of pollutants.
- Maintain a storm sewer system map showing the locations of all known storm drain outfalls, labeling the receiving waters (other than groundwater), and delineating the areas contributing runoff to each outfall. Make the map (or completed portions of the map) available on request to Ecology and to the extent appropriate to other Permittees. The preferred format for mapping is an electronic format with fully described mapping standards. An example description is provided on Ecology's website.
  - Conduct field inspections and visually inspect for illicit discharges at all known MS4 outfalls. Visually inspect at least one third (on average) of all known outfalls each year beginning no later than two years from the initial date of permit coverage. Implement procedures to identify and remove illicit discharges. Keep records of inspections and follow-up activities.

- Implement a spill response plan that includes coordination with a qualified spill responder.
4. No later than two years from initial date of permit coverage, provide staff training or coordinate with existing training efforts to educate staff on proper BMPs for preventing illicit discharges, including spills. Train all UW Bothell and CC staff who, as part of their normal job responsibilities, have a role in preventing such illicit discharges.

To meet these requirements:

- UW Bothell and CC has a [policy](#) to meet or exceed all environmental laws.
- UW has developed and adopted [policies that prohibit illicit discharges and illegal dumping](#).
- UW Bothell and CC has a storm system map showing all known storm drain outfalls, receiving waters and storm drainage areas.
- UW Bothell and CC inspect stormwater outfall annually.
- UW Bothell and CC has a campus spill response plan and a current contract with a qualified spill responder.
- All relevant staff persons are currently trained in hazardous waste management, including proper waste disposal and spill prevention. Chemical storage locations are audited by UW EH&S to help ensure that proper management procedures are in place.

## Construction Site Stormwater Runoff Control

From the date of Permit coverage, UW Bothell and CC will:

1. Comply with all relevant ordinances, rules, and regulations of the local jurisdiction(s) in which UW Bothell and CC is located that govern construction phase stormwater pollution prevention measures.
2. Ensure that all construction projects under the functional control of UW Bothell and CC, which require a construction stormwater permit, obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activities, or an individual NPDES permit prior to discharging construction related stormwater.
3. Coordinate with the local jurisdiction regarding projects owned or operated by other entities which discharge into the UW Bothell and CC municipal separate storm sewer system (MS4), to assist the local jurisdiction with achieving compliance with all relevant ordinances, rules, and regulations of the local jurisdiction(s).
4. Provide training or coordinate with existing training efforts to educate relevant staff in erosion and sediment control BMPs and requirements, or hire trained contractors to perform the work.
5. Coordinate as requested with Ecology or the local jurisdiction to provide access for inspection of construction sites or other land disturbances, which are under the functional control of UW Bothell and CC during land disturbing activities and/or the construction period.

To meet the above requirements:

- Contract specifications for UW Capital Projects must require compliance with City of Bothell stormwater requirements for construction activities. EH&S, Capital Projects and Facilities Services conduct design and site plan reviews to verify that best management practices are implemented to control erosion and sediment at the site.
- For each project that requires a construction stormwater permit (disturbed area of greater than one acre), UW Bothell/Cascadia Community College will obtain a permit.

- EH&S and Facilities Services conduct design and site plan reviews to verify that best management practices are implemented to control erosion and sediment at the site. The UW already has other policy statements that guide sustainable building on campus.
- All temporary erosion control plans (TESC) submitted with building permits are subject to approval by City of Bothell.
- Project contractors are required to have staff trained in erosion control if a TESC is required.
- Inspection of all construction sites is allowed.

## Post-construction Stormwater Management in New Development and Redevelopment

From the date of Permit coverage, UW Bothell and CC will:

1. Comply with all relevant ordinances, rules, and regulations of the local jurisdiction(s) in which the Secondary Permittee is located (City of Bothell) that govern post-construction stormwater pollution prevention measures.
2. Coordinate with the local jurisdiction regarding projects owned or operated by other entities which discharge into the UW Bothell and CC MS4, to assist the local jurisdiction with achieving compliance with all relevant ordinances, rules, and regulations of the local jurisdiction(s).

### To meet these requirements:

- Contract specifications for UW Capital Projects require compliance with City of Bothell's stormwater requirements for post-construction activities.
- The UW already has other policy statement that guide sustainable building on campus. The UW Capital Projects Office has over 25 Leadership in Energy and Environmental Design (LEED) accredited professionals on staff. Under new state law, state funded construction projects of a certain square footage must obtain LEED certification.
- Building permits, including post-construction stormwater management, are submitted to the City of Bothell. The City sees no distinction between the two systems when it comes to post-construction stormwater management.

## Pollution Prevention and Good Housekeeping

According to the Permit, UW Bothell/CC will:

1. Implement a municipal operation and maintenance (O&M) plan to minimize stormwater pollution from activities conducted by UW Bothell and CC. The O&M Plan will include appropriate pollution prevention and good housekeeping procedures for all of the following operations, activities, and/or types of facilities that are present within the Secondary Permittee's boundaries and under the functional control of the Secondary Permittee.
  - Stormwater collection and conveyance systems, including catch basins, stormwater pipes, open channels, culverts, and stormwater treatment and flow control BMPs/facilities. The O&M Plan will address, at a minimum: scheduled inspections and maintenance activities, including cleaning and proper disposal of waste removed from the system. UW Bothell and CC will properly maintain stormwater collection and conveyance systems owned or

operated by UW Bothell and CC and regularly inspect and maintain all stormwater facilities to ensure facility function. UW Bothell and CC will establish maintenance standards that are as protective as or more protective of facility function than those specified in Chapter 4 Volume I of the 2019 Stormwater Management Manual for Western Washington. UW Bothell and CC will review their maintenance standards to ensure they are consistent with the requirements of this section. UW Bothell and CC will conduct spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities following major storm events (24-hour storm event with a 10-year or greater recurrence interval).

- Roads, highways, and parking lots. The O&M Plan will address, but is not limited to: deicing, anti-icing, and snow removal practices; snow disposal areas; material (e.g. salt, sand, or other chemical) storage areas; all-season BMPs to reduce road and parking lot debris and other pollutants from entering the MS4.
- Vehicle fleets. The O&M Plan will address, but is not limited to: storage, washing, and maintenance of Secondary Permittee vehicle fleets; and fueling facilities. UW Bothell and CC will conduct all vehicle and equipment washing and maintenance in a self-contained covered building or in designated wash and/or maintenance areas.
- External building maintenance. The O&M Plan will address, building exterior cleaning and maintenance including cleaning, washing, painting; maintenance and management of dumpsters; other maintenance activities.
- Parks and open space. The O&M Plan will address, but is not limited to: proper application of fertilizer, pesticides, and herbicides; sediment and erosion control; BMPs for landscape maintenance and vegetation disposal; and trash and pet waste management.
- Material storage facilities, and heavy equipment maintenance or storage yards. UW Bothell and CC will develop and implement a Stormwater Pollution Prevention Plan to protect water quality at each of these facilities owned or operated by UW Bothell and CC and not covered under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or under another NPDES permit that authorizes stormwater discharges associated with the activity.
- Other facilities that would reasonably be expected to discharge contaminated runoff. The O&M Plan will address proper stormwater pollution prevention practices for each facility.
  - a) From the initial date of permit coverage, UW Bothell and CC will also have permit coverage for all facilities operated by UW Bothell and CC that are required to be covered under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that authorizes discharges associated with the activity.
  - b) The O&M Plan will include sufficient documentation and records as necessary to demonstrate compliance with the O&M Plan requirements in S6.D.6.a.i. through vii above.
  - c) No later than three years from the initial date of permit coverage, UW Bothell and CC will implement a program designed to train all employees whose primary construction, operations, or maintenance job functions may impact stormwater quality. The training will address:
    - The importance of protecting water quality.
    - The requirements of this Permit.
    - Operation and maintenance requirements.
    - Inspection procedures.
    - Ways to perform their job activities to prevent or minimize impacts to water quality.

- Procedures for reporting water quality concerns, including potential illicit discharges (including spills).

To meet these requirements:

- UW Bothell/CC have an [O&M Plan](#) for stormwater system maintenance, road and parking lot maintenance, vehicle fleet maintenance, external building maintenance, grounds maintenance, and material and equipment storage areas at UW Bothell/CC.
  - The UW Bothell O&M Plan for stormwater system maintenance was updated in March 2023 to better align with UW Seattle’s O&M Plan (updated March 2022) and updated City of Bothell BMPs.
- UW Bothell and CC have no industrial activities, so the requirement for General NPDES Permits for Stormwater Discharges Associated with Industrial Activities does not apply.
- UW will keep documentation to demonstrate compliance with the O&M Plan.
- EH&S has a Stormwater Protection BMP document for the purposes of training staff who are involved in the high-risk activities listed above.
- City of Bothell has adopted BMP requirements found in [King County’s Stormwater Pollution Prevention Manual](#). The latest update for King County’s Stormwater Pollution Prevention Manual is July 2021.

For more information about stormwater protection and other sustainability efforts, see the following websites:

- EH&S Stormwater webpage ([www.ehs.washington.edu/environmental/stormwater](http://www.ehs.washington.edu/environmental/stormwater))
- EH&S Stormwater Pollution Prevention webpage ([www.ehs.washington.edu/environmental/stormwater/stormwater-pollutionprevention](http://www.ehs.washington.edu/environmental/stormwater/stormwater-pollutionprevention))
- [UW Sustainability](https://sustainability.uw.edu/) (<https://sustainability.uw.edu/>)
- [UW Bothell Sustainability](https://www.uwb.edu/campus-sustainability) (<https://www.uwb.edu/campus-sustainability>)

### **Salmon-Safe Considerations**

The UW aims to maintain Salmon Safe certification and to maintain the quality of campus water runoff to promote salmonid populations. In addition to City of Bothell stormwater requirements, Salmon Safe certification requires:

- 1) Additional stormwater runoff monitoring and testing.
- 2) Pesticide Use Plan
- 3) Water Conservation Plan
- 4) Consideration of water quality facilities in new projects