



Stormwater Management Plan

Phase II Permit for Western Washington

**Stormwater Management Plan
Phase II Permit for Western Washington
Highline College
Des Moines, Washington 98198
Permit No. WA04-5712**

**In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised code of Washington
And
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.**

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INTRODUCTION

A. Permit

The purpose of this document is to delineate the process by which Highline College (HC) shall comply with the *National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Discharges from Small Separate Storm Sewers in Western Washington*. This permit authorizes the discharge of stormwater to the waters of the state of Washington from municipal separate storm sewer systems (MS4s). Permitted MS4s must effectively prohibit non-stormwater discharges into the storm sewers and must apply stormwater management controls to the maximum extent practicable.

B. Requirements

HC is classified under the NPDES as a Secondary Permittee, which is an MS4 operator that is not a city, town or county. HC is required to apply for and obtain coverage under the Western Washington NPDES permit. In order to qualify for that coverage, HC shall implement the following actions and activities:

1. Public Education and Outreach – Educate tenants and residents on stormwater issues, through a variety of media including labeling storm drains inlets. To increase awareness on the public's role in water stewardship.
2. Public Involvement and Participation – Make the public aware of the program content and status of implementation via public notice.
3. Illicit Discharge Detection and Elimination – Establish and enforce a policy that prevents illicit discharge to the maximum extent practicable.
4. Construction Site Stormwater Runoff Control – Ensure that all construction projects comply with the NPDES and local ordinances, rules, and regulations.
5. Post-Construction Stormwater Management for New Development and Redevelopment – Ensure that completed projects comply with the NPDES and local ordinances, rules and regulations.
6. Pollution Prevention and Good Housekeeping for Municipal Operations – Develop and implement an operation and maintenance (O&M) plan to minimize stormwater pollution.

C. Execution

The above actions and activities shall be carried out in accordance with stated deadlines, and they shall be fully implemented no later than 180 days prior to the expiration date of the permit (August 2, 2019). Further information can be accessed at the EPA NPDES National Menu of Stormwater Best Management Practices website (<http://cfpub.epa.gov/npdes/stormwater/menuofbmps>).

D. Campus Description

Highline College is located on an approximately 80 acre site within the City of Des Moines. The entire site slopes downward from east to west. The developed portion, with 32 buildings and three major parking areas, occupies the eastern (upper) part of the site. There are approximately 32 acres of impervious surface. The western portion is wooded and contains a storm water retention pond system and a small stream flowing into a wetlands area which

outlets to Massey Creek. Most runoff from the developed areas is collected by catch basins, and a piping system that directs water into the retention ponds. Some small amount of stormwater from the south and southeast portions of campus is directed into the city storm sewer running along South 240th Street.

Schedule of Events and Tasks

Event / Task	Date - 2019
Permit issued	8/2/19
Comply with all relevant local (Kent, Des Moines) regulations including construction and post-construction runoff control.	Ongoing
Have permits in place as required under industrial stormwater general permit.	Ongoing
First year annual Report	3/31/2022 Annual
Label stormwater drain inlets 100%	Ongoing
Developed policies for prohibiting illicit discharges	Ongoing
Second year annual Report	3/31/23
Conduct field inspections & develop procedures for preventing illicit discharges.	Ongoing
Implement education program. Publish SWMP for public review	Ongoing
Develop SW system map	Completed 8/20/2011
Develop spill response plan	Completed 8/20/2011
Develop and implement O&M Manual. Train staff on procedures	Ongoing
Permit expires	Current Permit expires: 7/31/24

1. PUBLIC EDUCATION AND OUTREACH

This section outlines the process whereby HC shall educate the college community on stormwater issues. The college community consists of students, staff, faculty, visitors, service providers and contractors. Some elements must be initiated, while others are already in place and shall be maintained. The goal shall be to increase awareness of the link between on-campus activities and water quality in streams, lakes and Puget Sound. Students and staff shall be provided with guidance on steps and specific actions that they can take to reduce their stormwater pollution potential.

This process shall be carried out through the Facilities Department in cooperation with other campus groups to design and implement specific means of carrying out each of the elements, delegating as necessary. The required educational topics shall be covered through a variety of media and employ the following strategies:

A. Label Stormwater Drains.

All storm drain inlets on campus shall be clearly and permanently labeled with the message "Don't Pollute – Flows to Waterways". The specific location of these storm drain inlets is indicated on the stormwater drainage map. All inlets are currently labeled. Any inlet having a label that is missing or no longer clearly visible shall be re-labeled within 90 days.

B. Educate students and staff on stormwater issues.

Each year, information on the impact of stormwater discharges on receiving waters and the steps that can be taken to reduce pollutants in stormwater runoff shall be distributed. This information shall be distributed through a variety of media: handouts, pamphlets, newspaper articles, science seminars, lectures, web pages and course work. Different combinations of topics shall be addressed each year. The following topics shall be covered:

a. How stormwater runoff affects surface water.

HC Students and staff shall be educated on common pollutants, particularly those associated with commuting to campus. They shall also be educated on the potential impact of those pollutants on surface water. An emphasis shall be placed on the impact of everyday activities on water quality, and ways in which HC community members can minimize their impact on surface water shall be recommended.

b. Proper use and application of pesticides and fertilizers.

HC maintains a strict policy against herbicides and non-organic fertilizers. Students and staff shall be educated on the reasoning behind this policy, and they shall be encouraged to carry this ideology into their own homes.

c. Benefits of using native and well-adapted vegetation.

d. Alternative equipment washing practices including cars and trucks that minimize pollutants in stormwater.

Students and staff shall be educated on equipment and vehicle washing practices that minimize discharge to the MS4s, which include: using a commercial car wash, using

biodegradable soaps, using nozzles that shut off automatically, limiting wastewater to the greatest extent practicable: washing in a designated pervious area, diverting wash water into the sanitary sewer system; and covering storm drains while washing vehicles.

e. Benefits of alternative transportations choices.

Commute Trip Reduction Program shall spread information on the nature of these programs, and it shall encourage participation in them. The goal shall be to sustain high participation in the programs, thereby reducing campus traffic and the resulting pollution.

f. Proper handling and disposal of wastes, including the location of hazardous waste collection facilities in the area.

Students and staff shall be educated on proper identification and disposal of household hazardous waste, including locations of local used oil recyclers, used battery collection sites and household hazardous waste drop off sites.

g. Benefits of litter control and proper disposal of pet waste.

2. PUBLIC INVOLVEMENT AND PARTICIPATION

The college shall publish a public notice in the local newspaper soliciting public review of the SWMP. The latest updated version of the SWMP shall be made available to the public via posting to the HC website. In addition, students and staff shall be involved in planning, data gathering and prevention activities. Science classes shall be encouraged to monitor the stormwater retention ponds.

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

HC shall comply with local ordinances, rules, and regulations that govern non-stormwater discharges and illegal dumping. These procedures shall address, at the minimum: illicit connections, non-stormwater discharges and spilling, dumping, or otherwise improperly disposing of hazardous materials, pet waste, and litter.

A. The following sources may be discharged to the stormwater system:

- a. Non-stormwater discharges covered by another NPDES permit
- b. Discharges from emergency fire fighting activities
- c. Diverted stream flows
- d. Rising ground waters
- e. Uncontaminated ground water infiltration
- f. Foundation drains
- g. Air conditioning condensation
- h. Irrigation water from agricultural sources that is commingled with urban stormwater
- i. Springs

- j. Water from crawl space pumps
 - k. Footing drains
 - l. Flows from riparian habitats and wetlands.
- B. The following sources are not allowed to discharge to the stormwater system, unless stated conditions are met:
- a. *Discharges from potable water sources, including water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water, unless the water is dechlorinated to 0.1 ppm or less, pH-adjusted if necessary, and controlled to prevent resuspension of sediments in the stormwater system.*
 - b. *Discharges from lawn watering and other landscape irrigation runoff.* These discharges are reduced through limited irrigation only during the summer months. Irrigation schedules and sprinkler patterns are monitored frequently to ensure landscaped areas are not overwatered.
 - c. *Street and sidewalk wash water, water used to control dust, and routing external building wash down that does not use detergents.* Where moss accumulates, buildings and sidewalks are cleaned with a pressure washer annually. Water is conserved to the maximum extent practicable, and no chemicals are used. The Grounds group shall conduct field inspections and visually inspect for illicit discharges at all known outfalls that discharge to surface waters. Illicit discharge is wastewater that enters the stormwater system without being treated, and it occurs as a result of improper connections in the wastewater system. The wastewater system shall be regularly inspected for integrity. At least one third (on average) of stormwater outfalls shall be inspected each year beginning no later than two years from the date of permit coverage. Inspections and follow-up activities.
- C. Develop and implement a spill response plan that includes coordination with a qualified spill responder.
- D. The Grounds and the Maintenance Services groups shall be trained in the prevention of spills and illicit discharges. They shall be oriented in the proper handling of wastewater and the means for detecting – through visual inspection and testing – illicit discharges. A schedule for periodic inspections shall be established.
- 4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

All construction sites on campus, greater than one acre, shall have controls in place to prevent pollution of stormwater. The standard set of construction specifications in Division 01, section 01500 “Temporary Facilities and Controls” specifies particular safeguards and procedures that all contractors shall be required to follow. College project managers shall be responsible for monitoring the site.

Highline College shall develop a program to eliminate or reduce any runoff problems due to construction activity. Contractors and consultants shall be made aware of this program at the pre-construction meeting and they shall be held responsible for stormwater pollution that occurs due to their actions.

5. POST-CONSTRUCTION RUNOFF CONTROL

Highline College shall develop plans to control any potential runoff pollution due to construction activities. Increases in impervious surface are of particular concern. These plans shall be in place prior to construction. After construction, stormwater in the retention ponds shall be monitored to ascertain any change in quantity and quality of the water.

6. POLLUTION PREVENTION AND GOOD HOUSEKEEPING

Pollution prevention and good housekeeping require the development and implementation of a solid plan, and students and staff must be trained to follow that plan. The goal of the plan is to lessen our contribution of pollutants to the maximum extent practicable, by identifying and targeting everyday activities that may affect stormwater.

A. O&M Plan

The Facilities Department shall develop and implement an operation and maintenance (O&M) plan to minimize stormwater pollution. The O&M plan must include appropriate pollution prevention and good housekeeping procedures for all of the following operations, activities, and/or types of facilities. Grounds and Maintenance shall keep records in order to track 1) performance of operational source control activities, 2) performance of scheduled inspections, 3) responses to spills and 4) other potential pollution incidents. Operations, activities and/or types of facilities include:

- a. *Stormwater collection and conveyance systems, including catch basins, stormwater sewer pipes, open channels, culverts, structural stormwater controls, and structural runoff treatment and/or flow control facilities.*

The O&M Plan shall establish a formal procedure for monitoring, maintaining, and repairing these systems. The O&M Plan shall include a timeline for inspection, a protocol for addressing maintenance issues, and a plan for record keeping. Further, it shall delegate these responsibilities to specific parties. These inspections shall be done at regular intervals, with records kept of all observations and actions.

The O&M Plans' emphasis shall be on prevention. It shall identify and implement means of minimizing the influx of debris into the MS4. Open ditches shall be visually inspected and cleared of debris as necessary. The waste from oil-water separators shall be removed regularly and disposed of properly.

The plan shall establish maintenance standards that are as protective or more protective of facility function as those specified in Chapter 4 Volume V or the 2019 Ecology-Stormwater Management Manual for Western Washington.

b. Roads and parking lots

The O&M Plan shall include an all-season BMP to reduce road and parking lot debris and other pollutants from entering the MS4. It shall include a schedule for the frequency of street and parking lot cleaning, and a protocol for appropriate disposal of waste collected during this process.

The O&M Plan must address procedure for de-icing these paved areas, as carried out by the Grounds group. The O&M Plan shall establish a formal procedure for applying de-icing materials, and the proper storage of these materials.

c. College vehicle.

The O&M Plan shall establish a procedure for pollution prevention and runoff reduction from activities including maintenance of the vehicles. The plan shall seek consistency of practices, to reduce the discharge of pollutants to the MS4 to the maximum extent practicable.

d. External building maintenance.

The Maintenance group performs external building maintenance by periodically washing the buildings and sidewalks as needed. The O&M Plan shall establish a formal protocol for cleaning and any other external building maintenance that may be required.

e. Grounds and open spaces.

The O&M Plan shall address the application of organic fertilizers and BMPs for landscape maintenance, vegetation disposal and trash management.

B. Employee Training

All employees whose construction, operations, or maintenance job functions may impact stormwater quality shall be educated in the following areas:

1. The importance of protecting water quality – Employees shall be trained on the recreational, educational, and ecological value of HC's campus.
2. *The requirements of the Permittee* – Employees shall be trained on the contents of the SWMP and the steps that HC must follow to comply with the permitting process.

3. *Operation and maintenance requirements* – Employees shall be trained on the contents of the O&M Plan and on steps for compliance with that plan.
4. *Inspection Procedures* – Employees shall be trained on the frequency and manner of inspections. They shall be given proper equipment to do their jobs, and they shall be trained in its use. Employees shall be trained to follow the schedules contained in the O&M Plan.
5. *Ways to perform their job activities to prevent or minimize impacts to water quality* – Employees shall be trained in the impact of everyday activities on water quality and provided with alternatives that reduce impact.
6. *Procedures for reporting water quality concerns, including potential illicit discharges* – Employees shall be given information on who they can contact to report illicit discharges and other water quality concerns.