

Stormwater Management Program Plan 2025

City of Monroe

www.monroewa.gov/stormwater



INTRODUCTION

Permit Overview & Background

The City of Monroe actively maintains an NPDES Phase II Municipal Stormwater Permit. The National Pollutant Discharge Elimination System (NPDES) is a program created by the federal government as a part of the Clean Water Act in 1972 (33 U.S.C. §1251 et seq.). The intention of the Clean Water Act is to prevent, reduce, and eliminate pollution in United States' waters to restore and maintain its chemical, physical, and biological integrity. The Act accomplishes this goal through establishing a basic structure for regulating pollutant discharges into the waters of the United States. Other related authorizations of the Clean Water Act and NPDES program include:

- Establishing and maintaining specific water quality standards and requirements for contaminants in surface waters.
- Requiring by law, a permit be obtained prior to discharging any pollutant from a point source into navigable waters.
- Recognition of the need to address critical environmental problems posed by nonpoint source pollutant discharges.

In Washington State, the NPDES program is implemented by the Washington State Department of Ecology (Ecology) and operates in conjunction with the State's Water Pollution Control Law (Chapter 90.48 RCW).

As a municipality with a population below 100,000 residents, the City of Monroe (Monroe) is considered a Phase II community. As such, Monroe operates in full compliance with Ecology's Phase II NPDES Municipal Stormwater Permit (permit) as a small/medium municipal separate storm sewer system (MS4). There are currently more than 80 cities and portions of 6 counties with a Phase II permit in Washington.

The permit authorizes the discharge of stormwater runoff from an MS4 into surface waters of the state (i.e., rivers, lakes, streams, wetlands, ditches, etc.) as well as groundwater. This authorization is contingent upon the Phase II municipality's discharge meeting state water quality standards and/or implementing permit specified best management practices (BMP). In an effort to protect water quality and reduce the discharge of non-point source pollutants to the maximum extent practicable, the use of BMPs is vital. Per the requirements stipulated in the permit and by Ecology, Monroe employs BMPs that are intended to meet all known, available, and reasonable methods of prevention, control, and treatment (AKART) of pollutants.

The permit requires that all regulated Phase II municipalities create and implement a Stormwater Management Program Plan (SWMP) and update it annually. The program is grouped into the following components:

- Stormwater Planning
- Public Education and Outreach
- Public Involvement and Participation
- MS4 Mapping and Documentation
- Illicit Discharge, Detection and Elimination
- Controlling Runoff from Development, Redevelopment, and Construction Sites
- Municipal Operations and Maintenance
- Stormwater Management for Existing Development
- Source Control Program for Existing Development
- Operations and Maintenance



Coho Salmon

With a focus on the protection of water quality in our surface and groundwaters, the strategic approach to the components of this permit is essential. The permit's requirements and conditions are phased throughout a five-year term. Each year, Monroe completes and submits an annual compliance report to Ecology by the 31st of March; the report documents how the city has maintained compliance with the requirements and conditions of its permit. One requirement of the permit is for the City to

maintain an annual SWMP that discusses proposed and continuing activities for the upcoming year. This document serves as that plan.

Permit History

The first Phase II Municipal Stormwater Permit was issued in 2007; Monroe was brought under permit coverage at that time. The permit is termed a “general permit” meaning that one blanket permit is issued specifying general requirements and conditions applicable to all Phase II municipalities.

Monroe is currently operating under the 2024 permit which will remain in effect through July 31, 2029. Permits are updated on a five-year cycle. The current permit can be found on [Ecology’s website](#) or through the city’s stormwater program website: www.monroewa.gov/304/stormwater.

In August 2019, Ecology issued an updated version of the Stormwater Management Manual for Western Washington (SWMM); Monroe adopted this version of the manual in 2022. The manual contains standards for BMPs used in Western Washington. The SWMM provides guidance for construction, industrial, municipal, sand and gravel, boat yard, and linear transportation permit holders. The SWMM can be found on Ecology’ website at:

<https://fortress.wa.gov/ecy/ezshare/wq/Permits/Flare/2019SWMMWW/2019SWMMWW.htm>.

NPDES Annual Report Documentation

Submittal of an annual report to Ecology by Monroe is required by March 31st each year. It consists of the following documents:

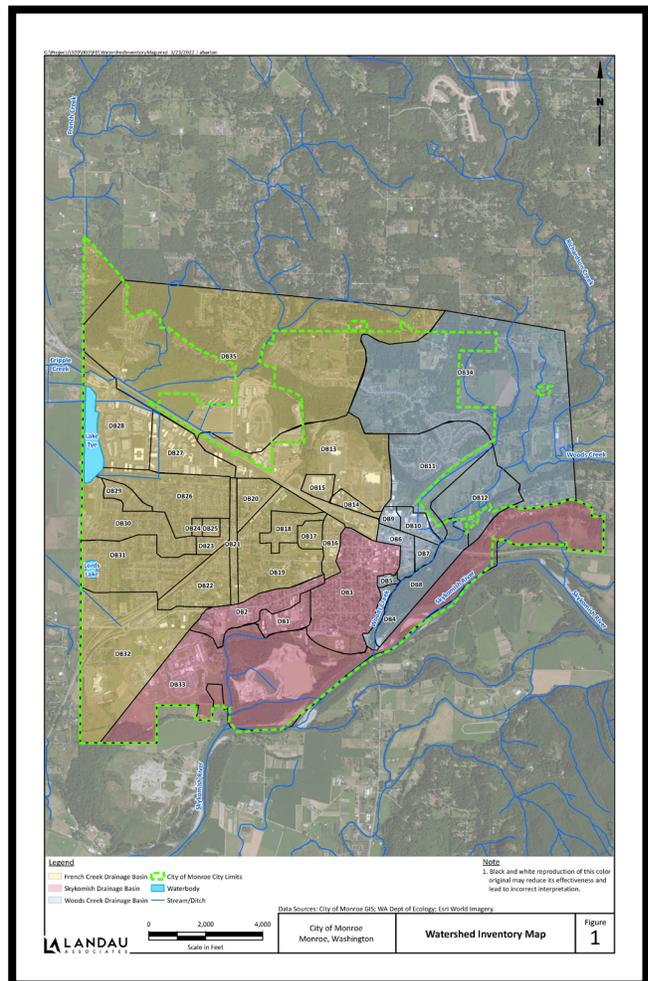
- Stormwater Management Program Plan: Developed by the city to summarize the continuing and planned NPDES activities to assure compliance for the coming year (2025).
- Compliance Annual Report: A prescriptive report, provided by Ecology and filled out by the City, that verifies compliance for the previous calendar year (2024).

City of Monroe Overview & Background

The City of Monroe is located in Snohomish County approximately 22 miles northeast of Seattle, Washington. Monroe lies at the base of the Cascade foothills in the Skykomish River Valley. The Skykomish River creates a natural flowing border to the south. Woods Creek forms a pseudo eastern border with a small section of city limits lying to south and east of the creek. The western portion Monroe, including a commercial corridor along State Route 2, Frylands neighborhood, and developing areas north of State Route 2 lie within the French Creek drainage basin. State Route 522 and the Burlington Northern Santa Fe Railroad also intersect within the city.

The majority of Monroe is built on shallow slopes, typically less than 0.5 percent grade. The soils within these flat areas are composed of loamy/silty sands which are well suited to farming activities. Beneath these soils lie deep recessional outwash gravels which drain exceedingly well. Due to natural stormwater infiltration capabilities, Monroe experiences minimal areas of localized flooding. With growth, development, and the increase of impervious surfaces, urbanization has created the vital need for proper stormwater management to ensure that flooding does not become a concern.

The City discharges stormwater to three watershed basins: French Creek Drainage Basin (yellow), Skykomish Drainage Basin (pink), and Woods Creek Drainage Basin (blue).



Water quality degradation due to stormwater runoff occurs from many different sources. Stormwater runoff can carry pollutants from a variety of sources into local waterways. These sources include but are not limited to residential, commercial, industrial, agriculture, and livestock locations. Pollutants in

stormwater runoff can include sediment, metals (zinc, copper, lead, etc.), oil and grease, pesticides and fertilizers, and bacteria. Increased impervious surfaces from urbanization within the Puget Sound basin has led to an increase in runoff. Man-made structures such as rooftops, streets, and parking lots, directly correlate to greater levels of stormwater runoff and peak flow rates. These increased pollutant loads are linked to the increase in volumes of stormwater runoff, resulting in negative impacts to downstream properties, localized water bodies, and the Puget Sound. This runoff can be detrimental to many species including native salmon.

Monroe's SWMP Plan is intended to achieve the following goals:

- Reduce the discharge of pollutants entering into and discharging from the City's MS4 to waters of the state, to the maximum extent practicable.
- Implement all known, available, and reasonable methods of pollution prevention, control, and treatment standards.
- Protect water quality both locally and regionally.

PROGRAM PERFORMANCE MEASURES

Monroe is required to implement a stormwater planning program to inform and assist in the development of policies and strategies that act as water quality management tools to protect receiving waters.

Stormwater Planning

Monroe's stormwater planning program informs and assists in the development of policies and strategies to protect receiving waters, including:

- Maintaining an interdisciplinary team to inform and assist in the development, progress, and influence of the stormwater planning program. The interdisciplinary team was created in 2020; it involves staff from the Public Works Department, the Department of Planning, as well as the Police and Fire Department.
- Coordination with long-range plan updates. Monroe will determine how (1) stormwater management needs and (2) protection and improvement of receiving water health is informing the City's planning process, as well as influencing policies and implementation strategies.
- Continuing to develop and implement code-related Low Impact Development (LID) requirements with the intent to make LID a preferred and commonly used approach to site development when applicable.
- Assessing existing local receiving waters and contributing area conditions to prioritize which receiving waters are most likely to benefit from stormwater management planning, including stormwater retrofits and land use/management actions.

Public Education & Outreach

Monroe continues to maintain an education and outreach program for the area served by its MS4. The program is designed to teach target audiences about relevant water quality information that includes specific subject areas, and/or BMPs. The main goals of public education and outreach are to:

- Build general awareness of water quality and stormwater BMPs to protect receiving waters of the state.
- Affect behavior change which will ultimately assist in protecting and maintaining water quality.
- Reduce and/or eliminate behaviors that cause or contribute to adverse stormwater impacts.

Monroe's stormwater management program includes a variety of planned and continuing activities that meet the permit's performance measures. Public education and outreach efforts currently target residents, businesses, elected officials, policy makers and city employees. The education program



Lake Tye Science Day

components have been developed by the City and in partnership with the Snohomish Conservation District and Sound Salmon Solutions. In the coming year, Monroe will continue to work under a renewed and expanded inter-local agreement with the Conservation District targeted towards K-12 education programs. Monroe's partnership with Sound Salmon Solutions, a local nonprofit, will enable the City to provide educational classes and opportunities to Monroe Highschool students. These lessons and educational opportunities will take place in both a classroom and field setting.

1. Educational Opportunities

In 2025, courses taught by Snohomish Conservation District will include:

Activities	Grades
Four Rain Drops Lesson	Elementary School
Salmon of Puget Sound Lesson	Elementary School
Fish Grow on Trees Lesson	Elementary School
Macro Mayhem! Lesson	Elementary School
Water Quality Monitoring w/ Chemical Test Kits	Middle School
Water Quality Monitoring w/ Benthic Macroinvertebrates Lesson	Middle School

State Envirothon Team Support	High School
Youth Art Contest Support	All Grades

Classes focus on the importance of clean water in a watershed, the roles of macroinvertebrates within the stormwater ecosystem, and how actions of an individual can positively or negatively affect stormwater and salmon. Programs will be offered virtually, in-person, or asynchronously in 2025.

In 2025, courses taught by Snohomish Conservation District will include:

Activities	Grades
Classroom Lessons: Two 85-minute lessons per year taught to Environmental Science students.	High School
Field Trips: Two half-day field trips at local restoration or open space sites.	High School

Lessons will focus on water quality related topics including stormwater, clean water and watershed health, salmon habitat, native plants, and how the actions of an individual can positively or negatively affect stormwater and salmon.

In 2025, Monroe is continuing to fund additional education and outreach efforts through community events. In partnership with the Snohomish Conservation District, the City will continue to host Lake Tye Science Day which teaches youth in the community about ways to protect the City's local waterways, including Lake Tye. Stations are set up to teach about various urban pollutants that impact stormwater like oil spills, dog waste, and fertilizers. Other stations include salmon art, water quality testing, and a water quality filtration demonstration.



2024 Lake Tye Science Day Flyer

The City and Snohomish Conservation District will be hosting a new workshop in 2025 titled “Homes for Habitat” which will focus on water quality messaging including:

- Alternative to Lawns: converting to native landscapes

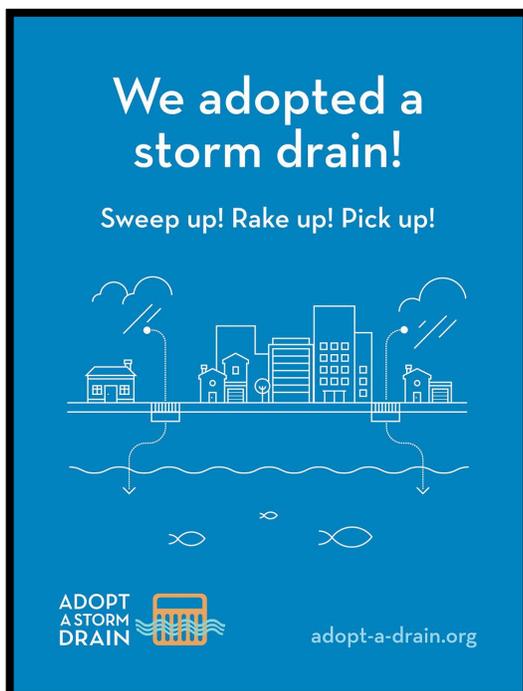
- Natural Lawn Care: caring for lawn in a sustainable way for water and wildlife
- Bees & Beyond: pollinators, predators, and other beneficial insects
- Composting & Vermiculture
- Backyard Wildlife Habitat

The City will also partner with Monroe High School's senior class to host a restoration event in honor of Earth Day. The restoration event will be an opportunity for the senior class of 2025 to satisfy their community service goals while learning restoration skills.

Additionally, the City will continue to highlight local stewardship opportunities, put out stormwater related education and messaging to the community through social media platforms, and table at community events including the Egg Hunt, National Night Out Against Crime, and the Monroe Farmers Market.

2. Behavior Change

Beginning in 2025, Monroe will begin to implement a new public behavior change outreach campaign: Adopt a Drain. The Adopt a Drain program promotes community members volunteering to adopt a



Adopt A Drain Campaign

storm drain in their neighborhood and keep it clear of leaves, trash, and other debris to reduce water pollution and help prevent localized flooding. Upon adoption of a storm drain, volunteers are asked to donate 15 minutes, twice a month, to keep their drains clean and clear, as well as to fill out a quick volunteer report (to estimate the amount of debris collected over and around the drain). The City will track and monitor the participation level of the campaign, behavior changes associated with the campaign, and overall impact and success of the campaign on an annual basis over the course of the permit cycle. Messaging regarding the campaign and best management practices to protect storm drains and water quality will be shared on the City's social media platforms.

Since 2023, Monroe has paid into and participated in the regional behavior change campaign “Don’t Wait to Inflate”. The campaign was led by Puget Sound Starts Here and the goal of the campaign was to promote checking car tires for proper tire inflation and ensuring tires are properly inflated. Puget Sound and salmon are at risk from stormwater runoff that picks up pollutants like tire particles (zinc and 6PPD-q) and carries them into local waterways. Messaging was shared through digital and social media platforms, as well as regionally broadcasted radio and tv commercials. The City advertised campaign ads regularly on social media and in its online newsletter, *Monroe This Week*. The City will continue to pay into and participate in regional campaigns in 2025.



Don't Wait to Inflate Campaign

3. Community Events

Through collective and continued teamwork with neighboring cities, local non-profit organizations, and partnering agencies, the City participates in numerous events. Events in 2025 that the City will participate in to promote its stormwater program are:

- Earth Day
- Arbor Day
- Sky Valley Education Center Civics Class
- Monroe Community Egg Hunt
- National Night Out Against Crime
- Monroe Farmer’s Market
- Lake Tye Science Day



2024 Orca Recovery Day Event

Both Sound Salmon Solutions and Snohomish Conservation District have committed to tabling at Monroe events in 2025 to assist in environmental education and outreach efforts.

4. Volunteer and Stewardship Opportunities

In 2025, Monroe will continue to welcome all groups wishing to participate in volunteer and stewardship work promoting water quality and stormwater management. In years past, groups including the Snohomish Conservation District, Sound Salmon Solutions, Adopt A Stream Foundation, Washington Conservations Corps, and the Boy Scouts of America have organized projects in the city. Projects with these organizations and groups have varied from Mutt Mitt station installation to native tree plantings, and removal of noxious weeds.

Multiple restoration projects are budgeted by the City in 2025 and may be completed in partnership with local non-profits such as the Snohomish Conservation District or Sound Salmon Solutions. These projects will help restore native habitat, remove noxious weeds and invasive plant species, leading to habitat improvements within Monroe's watersheds. In addition to City-led and budgeted stewardship projects, the City will also continue to support local restoration efforts led by partnering agencies and local non-profit organizations; these efforts include but are not limited to projects at the Monroe Foothill Wetlands Preserve site (Snohomish Conservation District, Washington Conservation Corps, Forterra), the Trestle Removal Project at Woods Creek (Adopt A Stream Foundation), the French Creek Water Pollution Prevention Project (Adopt A Stream Foundation), and the Woods Creek Side Channel Project (Adopt A Stream Foundation).

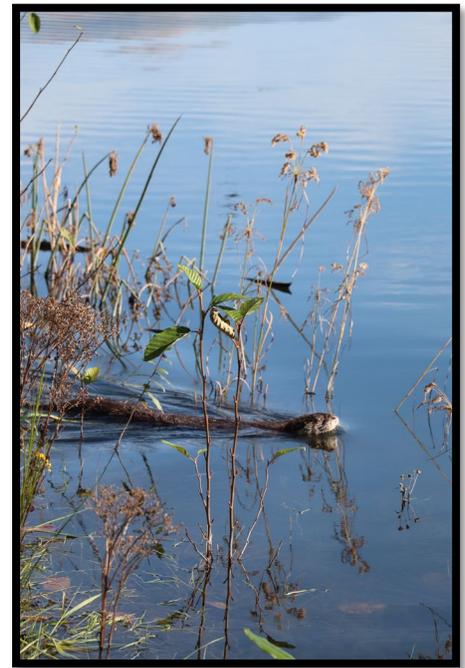
Monroe will continue to track and maintain records of public education and outreach activities in 2025.

Public Involvement & Participation

Participation by the public is encouraged by Monroe; the City continues to create opportunities for public involvement through various activities and programs which include:

- General public participation and documentation: Monroe utilizes a public comment process at all city council meetings to provide an opportunity for public input.
- Social media outlets are utilized as an informative scheduling and announcement tool. Meetings, updates, committee participation, local events are shared with the public in order to promote participation in decision making processes that effect the development and implementation of the stormwater program and permit.

- *Monroe Listens* is a city managed service on its website that can be used to comment, provide feedback, or report concerns about all city issues including stormwater compliance. Citizens are encouraged to use *Monroe Listens* for general inquiries and correspondence, or in case of an emergency are able to call Public Works directly at: 360-794-6100.



Beaver swimming in Lords Lake

MS4 Mapping & Documentation

The city actively maintains a computer-based geographic information system (GIS) as a tool to store, visualize, analyze, and interpret geographic data. GIS mapping and documentation requirements are described in the permit and have been on-going since January 2020. The City has completed mapping its stormwater system in its entirety as well as mapping all private storm drainage connections coming into the City's MS4.

In 2019, Monroe implemented a new asset tracking software. Brightly Asset Essentials has allowed comprehensive work order processing to be assimilated into the city's MS4 mapping and documentation procedures. As new development is approved, MS4 mapping and information will be reviewed and updated, and a maintenance schedule can be set through Asset Essentials.

All mapping and asset maintenance information can be made available upon request. GIS maps can also be accessed online at: <https://gis.monroewa.gov/cityportal/home>.

Illicit Discharge Detection and Elimination

Monroe's Illicit Discharge Detection and Elimination (IDDE) program has been fully implemented city-wide since 2011 through Monroe Municipal Code (MMC) Chapter 13.34: Illicit Discharge, Detection and Elimination; it includes specific compliance requirements described in the permit.

Included in the program is response to improper materials disposal and all spills into the City's MS4. The permit requires that the following program elements are implemented:

- Procedures for reporting, correcting, and/or removing illicit connections, spills, or other illicit discharges suspected or identified. The program also must include procedures for addressing pollutants entering the MS4 from an interconnected or adjoining MS4 (example: MS4 from a neighboring city or secondary permittee).
- Informing public employees, businesses, and the general public of hazards associated with illicit discharges or improper disposal of waste.
- Implementing ordinances or other regulatory mechanism to effectively prohibit non-stormwater illicit discharges into Monroe's MS4, to the maximum extent practicable under state and federal law.
- Creating and maintaining an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into Monroe's MS4.
- Once identified, implementing an ongoing program designed to address illicit discharges (including spills) and connections into Monroe's MS4.
- Training staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges (including spills) and illicit connections, to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Monroe maintains documentation of staff trainings and training materials.
- In addition to maintaining staff training records and materials, Monroe submits an annual report that contains the following data: identified illicit discharges, illicit connections, and spills. These reports may be found by, reported to, or investigated by Monroe.



Oil Spill into Monroe's MS4

Monroe currently maintains activities and programs that meet the requirements described in the permit; the City will continue to implement these programs and activities as new and/or increased requirements are described in the permit.

1. Mapping

City staff actively use GIS to perform annual inspections and associated maintenance of the MS4 infrastructure, to clean clogged storm drains, respond to accidental spills, and investigate illegal discharges. All records of the described activities are logged, and records are maintained.

2. Staff Training

Each year, Monroe stormwater staff conduct Spill Response & IDDE staff training. The training course is 2 hours and covers related topics including:

- IDDE detection
- MS4 requirements
- Common MS4 & IDDE issues
- Basic spill response

The goal of the course is to provide employees with the tools to take an active role in the IDDE program. It also builds a higher awareness and reinforces the importance of stormwater management. Upon completion of the course, staff will be able to identify and report on IDDE issues as needed.

3. Spill Response/IDDE

A 24-hour standby phone number is maintained by Monroe for any non-stormwater staff that may be present in the field and need to report a spill or initiate spill response efforts; the 24-hour standby phone also operates as an after-hour dispatch for the public to report spills. The City maintains a large stock of spill response supplies on campus and the city fleet is stocked with spill response kits. Spills and clean up actions are tracked by stormwater staff and reported immediately to the Department of Ecology to be logged into their Environmental Reporting Tracking System.

4. City Dispatch & Service Requests

General information related to water pollution and stormwater is available on Monroe's webpage. *Monroe Listens* can be used to report non-emergency issues, or the 24-hour standby hotline is posted for immediate contact. Response by the City during business hours is reported through City Hall and then dispatched to the appropriate personnel. Response includes verification of a spill, spill cleanup, scheduling of potential maintenance, and any other activity deemed necessary by department personnel. All spills are reported to Ecology as required by state law; other agencies may be reported to as applicable. All complaints and concerns are responded to based upon the severity of the incident and most are investigated within 24 hours. If an illicit discharge is found, Public Works and Code Enforcement staff will work with the discharging party to correct the issue.

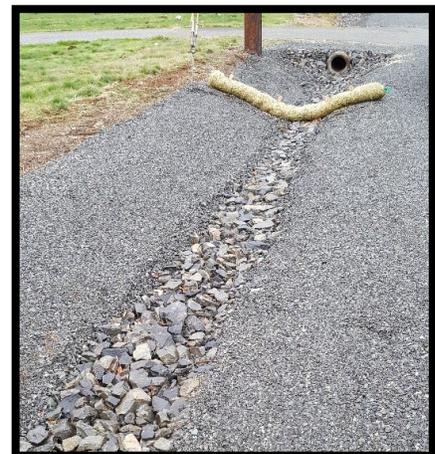
5. Screening

Monroe conducts routine inspections of the City's MS4 as well as screens outside systems coming into the MS4 for illicit discharges. City personnel who are charged with IDDE inspections and screening are trained based off of current guidance manuals provided by Ecology. The current IDDE program consists of observation of private structures during inspection of stormwater facilities and commercial buildings. Publicly owned structures, including catch basins, ditches, control structures, pretreatment facilities, and ponds are inspected on annual basis.

Controlling Runoff from New Development, Redevelopment, and Construction Sites

The construction and development program requirements described in the permit require that Monroe maintains permitting procedures and code enforcement tools to ensure that surface water runoff and stormwater pollution is minimized to the maximum extent practicable. Requirements of the program include:

- Establish and maintain a permitting process that includes site plan review, inspection, and enforcement capabilities to ensure that all stormwater program standards are met.



Check Dam Installed at Construction Site

- Implement and maintain an ordinance or other enforceable mechanism(s) that addresses stormwater runoff from new development, redevelopment, and construction site projects.
- Continue to enforce local ordinances controlling runoff from construction sites that are also covered by Ecology's NPDES Construction Stormwater General Permit.
- Provide ongoing training to staff whose primary job duties are implementing the City's program to control stormwater runoff from new development, redevelopment, and construction sites. Staff training records will be maintained and provided upon request.
- Provide a link on the City's webpage to Ecology's NPDES Construction Stormwater General Permit Notice of Intent (NOI) form.

1. City Codes and Standards

Monroe regularly reviews city codes to evaluate if updates or revisions are necessary to maintain compliance with permit requirements. Enforcement capabilities are also regularly evaluated, revised, or updated as needed. Starting in 2021, review of codes and enforcement tools began to be conducted by an Interdisciplinary Team staffed with personnel from various city departments. This collaboration of staff will enable the City to discuss codes that affect stormwater management and identify and/or resolve barriers that prevent the implementation of best management practices protecting water quality.

Monroe maintains an on-going effort to identify and implement necessary stormwater protections in its development process. This can include tools for permit reviewers and applicants to utilize criteria for low impact development (LID) when determining BMP selection, design, feasibility, competing needs criteria, and limitation.

2. Inspection and Permitting

The stormwater management program inspection process includes, but is not limited to permitting, site plan review, inspection, and enforcement. Per MMC Chapter 23.40.010: Stormwater Management Manual, new and redeveloped projects in Monroe are subject to some or all minimum requirements documented in the adopted SWMM. The City's current stormwater management program is applied to

all sites that meet the thresholds described in Volume I of the SWMM: Minimum Technical Requirements and Site Planning.

The City is conducts inspections of all known building sites purposed for development activities. Prior to clearing and construction, all known development sites with the potential for sediment transport as determined through site plan review will continue to be inspected based on the definitions and



Installation of TESC measures

requirements of the permit. Additionally, all current and future construction will be inspected by qualified city staff during the construction period to verify proper installation and maintenance of required erosion and sediment controls. A final inspection upon completion and/or occupancy will be conducted before the City takes ownership of a stormwater system. A reviewed and verified maintenance plan and responsible party is to be deemed at this time. Enforcement will be used on an as needed basis.

Monroe enforcement strategies are developed and implemented to respond to issues of non-compliance. Code enforcement language can be found in MMC Chapter 1.04: Enforcement. Records will be maintained to establish responsible parties. Currently, Monroe does not allow construction sites to apply the “Erosivity Waiver” found in Appendix I of the permit.

3. Record Keeping

Record keeping is a cornerstone of Monroe’s stormwater program. Records include inspection reports and any informal and formal enforcement actions taken by staff (warning letter, notice of violation, stop work order, and penalty); records of these kinds will be kept in compliance with both the Public Records Act policy and the record keeping guidelines described in the stormwater permit.

4. Notice of Intent

Monroe currently directs all appropriate parties to the “Notice of Intent for Construction Activity” and the “Notice of Intent for Industrial Activity” on Ecology’s stormwater website. Links to both forms can be found on the City’s website.

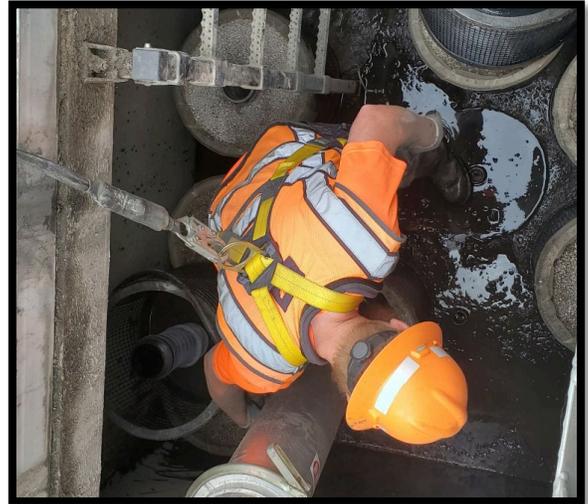
5. Training

Monroe continues to train all staff responsible for the implementation of the stormwater program as it pertains to the control of stormwater runoff from new development, redevelopment, and construction sites. The training will continue to cover aspects of permitting, site plan review, construction site inspection, and enforcement. Follow up training will be provided as needed to address changes in procedures, techniques, or staffing. The City has documented and will retain records of the training provided to staff.

Operations & Maintenance

Monroe’s permit requires that maintenance standards implemented by the City are as protective, or more protective, of facility function than those specified in the adopted SWMM. Monroe currently implements activities and programs that surpass the minimum performance measures described in the permit, including:

- Maintenance of stormwater facilities regulated by the permittee.
- Maintenance of stormwater facilities owned by the permittee.
- Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all land owned or maintained by the permittee, and road maintenance activities under the functional control of the permittee.
- Implement an ongoing training program for employees of the permittee whose primary construction, operations, or maintenance job functions may impact stormwater and water quality. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing.



Maintenance of Water Quality Filters

- Implement a Stormwater Pollution Prevent Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the permittee in areas subject to the permit that are not required to have coverage under the Industrial Stormwater General Permit or another NDPES permit that authorizes stormwater discharges associated with the activity.

1. General Operations & Maintenance

To ensure an adequate long-term stormwater management program, Monroe maintains specific BMPs for post-construction stormwater facilities. These BMPs are reviewed each year to ensure they are up to date and relevant to the goals of the program, including a set of standard operation procedures (SOP) for practices that are permitted within the system. Monroe has adopted city ordinances that clearly identify the responsible party of a specific stormwater facility, as well as lay out the necessary requirements for maintenance. The purpose of the operations and maintenance SOPs are to ensure that proper working order of all systems are maintained. If maintenance is required at a stormwater facility, the city or the responsible party is expected to conduct maintenance in a timely manner.

Maintenance timelines are as follows:

- Within 1 year for typical maintenance of facilities, except catch basins.
- Within 6 months for catch basins.
- Within 2 years for maintenance that requires capital construction of less than \$25,000.

Maintenance may be delayed based upon circumstances beyond Monroe's control. This could include (but are not limited to) denial or delay of access by property owners, denial or delay of necessary permit approvals, or unexpected reallocations of maintenance staff to perform emergency work. For any exceedance of a required timeframe, Monroe will document the circumstances and how they were beyond the city's control and report any delays to Ecology.

2. Inspections

In 2025, annual inspections of all stormwater treatment and flow control facilities (other than catch basins) permitted by Monroe will be inspected for functionality, unless maintenance records dictate

otherwise. Reduction of the inspection frequency will be based on maintenance records of double the length of time of the proposed frequency. In the absence of maintenance records, Monroe may substitute written statements to document a specific less frequent inspection schedule. Written statements will be based on actual inspection and maintenance experience and will be certified in accordance with G19 of the permit.

a. *Identification*

To identify maintenance needs of new construction for flow control and water quality treatment facilities, including catch basins, inspections will take place every 6 months during the construction period (i.e., 1-2 years following the subdivision approval). This data will be used as a baseline to determine system maintenance requirements for proper operation. Monroe currently has ordinances in place requiring maintenance on private facilities. This information will be reviewed and revised as needed in 2025.

b. *Post-storm Inspections*

Monroe conducts spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major storm events (greater than 24-hour/10-year recurrence interval rainfall). Streets and catch basins are also checked for possible flooding after a significant rain event. If spot checks indicate widespread damage or maintenance needs, the City will inspect the stormwater treatment and flow control facilities that may be affected. Repairs or appropriate maintenance action will be taken in accordance with the maintenance standards described above. Monroe has determined specific sites that will be assessed after all major storm events.



Probing Sediment Depth in Catch Basin

c. *Catch Basin & Inlet Inspections*

The City normally inspects and cleans all catch basins requiring maintenance on a two-year cycle as required by the Phase II permit. In 2024, the City inspected and verified the entire MS4 conveyance system to ensure all infrastructure was correctly logged in its asset management database. This work also ensured that the City's stormwater infrastructure is accurately mapped and can be utilized by both staff and the public. Currently, Monroe is responsible for the inspection and maintenance of over 3,500 catch basins. Inspection and maintenance records are maintained through the Brightly Asset Essentials program; this program also maintains records related to the inspections and maintenance of water quality filter cartridges, oil water separators, control structures, stormwater ponds and vaults, and other stormwater infrastructure.

d. Business Inspections

In 2023, the City began implementing a Source Control Business Inspection Program which provides guidance and technical assistance to businesses in Monroe. In preparation for this program, the City established an inventory of businesses that



Source Control Business Inspection Program Graphic

are required to be inspected based upon Appendix 8 of the permit. Appendix 8 directs the City to inspect specific types of businesses known to have stormwater pollution generating activities, These business types are identified by their North American Industry Classification System (NAICS) codes. Examples of businesses required to be inspected by the permit include (but are not limited to) automotive dealers, gasoline service stations, repair and maintenance shops, restaurants, manufacturing facilities, and construction related yards. Monroe identified 288 businesses based upon their NAICS code that are required to be inspected.

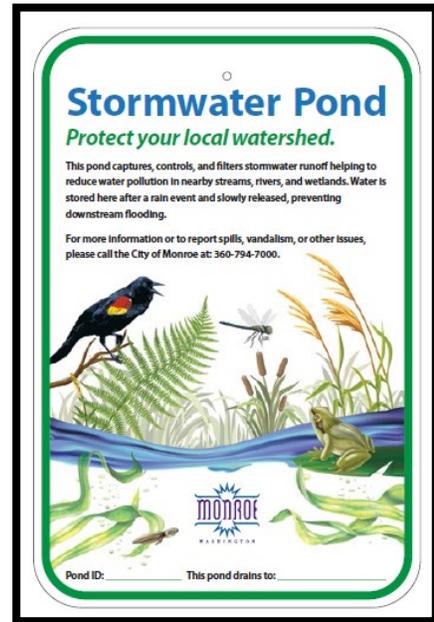
Inspections consist of a site evaluation, followed by education and technical assistance related to pollution prevention. Follow-up by staff will be coordinated to ensure a business complies with the required stormwater standards. In 2022, the City amended MMC Chapter 13.34: Illicit Discharge, Detection and Elimination, to support and enforce the inspection program. Information related to the city's Source Control Business Program can be found on the city's website at:

<http://monroewa.gov/1134/Source-Control-Business-Inspection-Progr>.

3. Reduction of Stormwater Impacts

The following activities will be conducted with specific implementation of BMPs used to reduce stormwater impacts associated with runoff from streets, parking lots, roads, or highways.

- Culvert cleaning
- Ditch maintenance
- Street cleaning
- Pipe cleaning
- Road repair, resurfacing, or pavement grinding
- Utility installation
- Pavement striping
- Maintenance of roadside areas
- Vegetation management
- Dust control
- Snow and ice control



City Stormwater Pond Signage

Monroe's current operations and maintenance program for streets, water, sewer, and storm drainage incorporates the applicable portions of Element 10 of the Regional Road Maintenance Program, which was developed for Endangered Species Act compliance. Element 10 of the program includes a selection and implementation process for BMPs and a training program for use of BMPs. The operation and maintenance program includes an IDDE component. Other work groups within the city have included the appropriate practices in their procedures to comply with the permit.

2025 PROJECTED BUDGET

Estimated Stormwater Costs	
Annual permit fees	\$14,274.00
Stormwater Management Action Planning (SMAP)	\$25,000.00
Stewardship Opportunities, Conservation & Restoration	\$9,200.00
Education & Outreach, Classroom Education (SCD)	\$20,565.00
Behavior Change, Pet Waste Station Supplies	\$6,500.00
Behavior Change, Dumpster Campaign	\$5,206.00
Employee Stormwater Training	\$6,000.00
MS4 Screening & Maintenance Program	\$175,000.00
Spill Response Supplies	\$15,000.00
Pre-treatment Facility Water Quality Filters	\$10,000.00
Source Control Business Inspection Program, Education & Outreach Materials	\$8,500.00
TMDL Analytics and Sampling Supplies	\$3,500.00
Regional Stormwater Action Monitoring Fees	\$12,000.00
Construction Stormwater Field Supplies	\$1,500.00

Some costs described above are funded through the city's Stormwater Capacity Grant issued bi-annually by Ecology.



ADDITIONAL PERFORMANCE MEASURES

Appendix 2 – Total Maximum Daily Load Requirements

A Total Maximum Daily Load (TMDL) is a regulatory term described in the Clean Water Act to restore impaired waters that have identified the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. Monroe currently has 8-TMDLs: Cripple Creek,



Woods Creek

French Creek, Lake Tye, Lords Lake, and Woods Creek. The permit requires Monroe to comply with specific requirements described in the Appendix. Records must be kept of all actions required by Monroe relevant to those applicable to TMDLs; the status of the implementation of the TMDL is also required to be included as a part of the City's Annual Report which is submitted to Ecology each

year. Each Annual Report includes a summary of relevant program activities conducted within a TMDL area to address applicable TMDL parameter(s).

If new TMDLs are approved by EPA after a permit is issued, Ecology may establish new TMDL related performance measures through future permit modification, should the agency determine additional actions, monitoring, or reporting is necessary to demonstrate reasonable progress towards achieving TMDL water load allocations. Some TMDLs may require program implementation that include:

- *Business Inspections:* Inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control best management practices for bacteria. Commercial animal handling areas are associated with SIC Industry Group no. 074 and 075, including NAICS Major Group 1152xx, and NAICS 325315 (composting facilities), and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where organic solid waste is degraded and transformed under controlled conditions designed to promote aerobic decomposition and considered composting

facilities (defined in accordance with chapter 173-350 Washington Administrative Code). All qualifying facilities were required to begin being inspected by August 1, 2016. If the City of Monroe determines, through inspections or otherwise, that a facility has failed to adequately implement BMPs to prevent bacteria source potential, the City will re-inspect the facility at least once more during the permit term to verify compliance, and/or initiate enforcement actions.

- *Public Education & Outreach:* Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- *Operations & Maintenance:* Install and maintain animal waste collection and/or education stations at municipal parks and other permittee-owned and operated lands reasonable expected to have substantial domestic animal (dog and horse) used and the potential for pollution of stormwater.
- *Illicit Discharge Detection & Elimination:* When conducting IDDE-related field screening (as required in S5.C.3), screen for bacteria sources in any screened MS4 sub-basins with discharge to surface waters in the TMDL area.
- *Surface Water Monitoring:* Review the fecal coliform data collected per the approved 2023 Quality Assurance Project Plan. Per the plan, the City implements the following program:
 - a. Collect 12 samples in at least one location per calendar year.
 - b. Report data to Ecology annually through the City's annual report.

1. TMDL Monitoring & Implementation

Monroe has chosen a targeted implementation approach to fulfill the TMDL requirements described in the Phase II permit. The QAPP for sampling discharges from stormwater conveyance was submitted under the 2019 Phase II permit to Ecology. Monroe's 2025 sample site locations are described below:

Site Name/ID	Watershed	Latitude	Longitude	Site Name - Description
French Creek	French Creek	48.87324	-122.0123	French Creek north of Lake Tye walking trail
Lake Tye Outfall	French Creek	47.87050	-122.01238	North outlet of Lake Tye on western shore
Lake Tye Inlet	French Creek	47.86331	-122.00873	North inlet (open ditch line) of Lake Tye on eastern shore
Lords Lake Outfall	French Creek	47.85495	-122.01166	Lake outlet at northwest corner of Lords Lake, in between the weir and vault

2. Monitoring Records

Monitoring of all 4 -TMDL sites is conducted monthly. Information collected during the sampling and subsequent lab testing includes date, time, temperature, dissolved oxygen, fecal coliform, and weather. In 2024, the sampling results collected are described in the tables below.

Al Borlin Park												
Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	12:00	1:30	12:30	12:00	09:21	10:37	09:53	10:01	9:45	9:45	9:47	10:03
Temp (C)	7.2	8.5	8.3	9.4	9.1	10.4	14.4	16.4	16.3	9.0	7.6	3.8
Dissolved Oxygen (mg/l)	11.2	11.37	11.34	11.13	11.11	11.2	10.24	9.81	9.4	11.34	11.83	13.08
Fecal Coliform CFU/100ml	14	9	5	24	28	42	90	88	42	46	36	4
#2 sample	15	4	10	22	22	32	85	73	18	32	14	6
Weather	Recent	No Rain	Recent	Recent	No Rain	No Rain	No Rain	No Rain	Rain	No Rain	No Rain	No Rain

Eagles Park												
Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	12:30	1:55	12:50	12:20	09:46	10:53	10:11	10:17	9:59	10:04	9:59	10:17
Temp (C)	8.9	10.2	9.6	10.7	10	12.1	13.8	15.2	16.3	12.3	10.6	8.8
Dissolved Oxygen (mg/l)	9.52	9.5	9.38	9.5	10	9.68	10.66	9.6	9.4	10.4	10.16	10.56
Fecal Coliform (CFU/100ml)	29	1	28	28	4	4	4	52	16	24	85	2
Weather	Recent	No Rain	Recent	Recent	No Rain	No Rain	Rain	No Rain	Rain	No Rain	No Rain	No Rain

Cripple Creek

Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	12:50	2:15	1:10	12:43	10:02	11:06	10:24	10:37	10:12	10:42	10:24	10:33
Temp (C)	6.5	8.4	8	9.3	9	11.1	13.9	15	16.6	8.9	8	3.1
Dissolved Oxygen (mg/l)	11.69	11.26	11.5	11.24	10.97	10.74	10.09	9.9	9.4	11.34	11.49	13.4
Fecal Coliform (CFU/100ml)	16	14	9	75	320	110	85	330	210	68	6	6
Weather	Recent	No Rain	Recent	Recent	No Rain	No Rain	Rain	No Rain	Rain	No Rain	No Rain	No Rain

French Creek

Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	1:10	2:30	1:30	1:00	10:20	11:18	10:37	10:54	10:26	11:03	10:39	10:50
Temp (C)	6.5	9.1	8.7	10.2	10.5	12.9	14.9	15.4	14.9	9.6	7.5	4.2
Dissolved Oxygen (mg/l)	8.95	8.81	9.5	8.9	8.9	9.85	6.62	6.2	5.6	7.66	8.43	10.25
Fecal Coliform (CFU/100ml)	2	2	5	19	24	18	14	150	14	18	20	4
Weather	Recent	No Rain	Recent	Recent	No Rain	No Rain	Rain	No Rain	Rain	No Rain	No Rain	No Rain

Lake Tye Out Fall

Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	1:30	2:50	1:50	1:15	10:31	11:29	10:46	11:03	10:39	11:23	10:49	11:00
Temp (C)	7.1	8.3	8.4	11.3	14.1	17.3	20.7	22.8	21.8	17.1	11.7	7.6
Dissolved Oxygen (mg/l)	9.74	13.98	11.86	10.32	10.6	10.26	10.2	10	9.2	6.9	7.34	8.83
Fecal Coliform (CFU/100ml)	74	23	11	1	<2	10	10	18	110	26	65	90
Weather	Rain	No Rain	Recent	Recent	No Rain	No Rain	Recent	No Rain	Rain	No Rain	No Rain	No Rain

Lake Tye Inlet

Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	1:50	3:10	2:10	1:30	10:53	11:41	10:59	Flow Stagnant	10:57	11:42	10:59	11:16
Temp (C)	8.7	10.1	9.9	11.2	11.5	14.4	15.70	N/A	15.6	11.7	10.1	8
Dissolved Oxygen (mg/l)	7.06	6.66	8.3	8.49	5.64	6.74	2.65	N/A	1.5	2.62	4.71	5.53
Fecal Coliform (CFU/100ml)	5	11	7	53	8	6	20	N/A	110	80	10	>2
Weather	Rain	No Rain	Recent	Recent	No Rain	No Rain	Recent	No Rain	Rain	No Rain	No Rain	No Rain

Lords Lake Outfall

Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	2:00	3:25	2:30	1:55	11:06	11:53	11:22	11:24	11:12	12:07	11:13	11:28
Temp (C)	8.2	9.5	9.5	11.9	14.3	17.7	21	22.6	21.6	16.5	11	7.5
Dissolved Oxygen (mg/l)	9.28	10.81	12.23	11.19	12.98	13.98	14.87	12.2	9.8	8.22	7.78	9.34
Fecal Coliform (CFU/100ml)	84	11	9	60	16	4	140	60	63	24	10	180
Weather	Rain	No Rain	Recent	Recent	No Rain	No Rain	Recent	No Rain	Rain	No Rain	No Rain	No Rain

Southwest Ditch												
Date	1/10/24	2/13/24	3/12/24	4/9/24	5/2/24	6/6/24	7/1/24	8/1/24	9/9/24	10/3/24	11/7/24	12/4/24
Time	2:20	3:35	2:50	2:10	11:17	Low flow	No flow	Low flow	No flow	Low flow	Low flow	Low flow
Temp (C)	7.9	10	10.6	12.4	12.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dissolved Oxygen (mg/l)	10.05	9.34	9.74	9.65	8.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fecal Coliform (CFU/100ml)	11	33	18	15	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weather	Rain	No Rain	Recent	Recent	No Rain	No Rain	Recent	No Rain	Rain	No Rain	No Rain	No Rain

3. Additional Monitoring & Assessment

Other continued and planned stormwater management activities in 2025 include:

- Participate in regional and state monitoring forums to develop feasible and effective monitoring requirements.
- Continue to pay into and participate in the Stormwater Action Monitoring (SAM) program.
- Report all water quality violations to Ecology within 30 days of becoming aware of the potential violations, per the Phase II permit reporting requirements.
- Conduct IDDE tracking and sampling following the IDDE program requirements set forth by the Phase II permit.



Monroe Foothills Wetlands