



CITY OF MOSES LAKE

Stormwater Division



CITY OF MOSES LAKE

Stormwater Management Program Plan

Version 1.3

Last Update: March 2023

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RCW 90.48.080

Discharge of Polluting Matter in Waters Prohibited

It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department, as provided for in this chapter.

[1987 c 109 § 126; 1967 c 13 § 8; 1945 c 216 § 14; Rem. Supp. 1945 § 10964n.]



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Acronyms and Abbreviations

AKART	All Known and Reasonable Treatment
BMP	Best Management Practices
CWA.....	Clean Water Act
DOE	Washington State Department of Ecology
EPA.....	United States Environmental Protection Agency
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MEP.....	Maximum Extent Practicable
MS4.....	Municipal Separate Storm Sewer System
NPS.....	Non-Point Sources
NPDES.....	National Pollutant Discharge Elimination System
PCC.....	Spill Prevention Control and Countermeasures plan
SWMP.....	Stormwater Management Program
SWMMEW	Stormwater Management Manual for Eastern Washington
SWPPP.....	Stormwater Pollution Prevention Plan
TMDL.....	Total Maximum Daily Load
UIC.....	Underground Injection Control
WSDOT.....	Washington State Department of Transportation

Introduction

The City of Moses Lake...Lake Sports Capital of Washington

Moses Lake is a 6,500-acre freshwater lake centrally located in Grant County. The community lies in a prime tourism location on the I-90 corridor with good proximity to both east and west sides of the state. Moses Lake is the largest natural body of fresh water in County and has three main arms totaling over 18 miles long and up to one mile wide, offering 120 miles of shoreline and incomparable opportunities for wildlife and bird viewing, water sports, fishing, boating, and hiking. Due to its size, warm waters, location, and vast recreational offerings, it is Central Washington's recreational destination - the "Desert Oasis".

The community of Moses Lake is centered around its waterbody, and recreation and tourism are keystones of the city. Visitors and residents enjoy a vast variety of recreational opportunities centered on the lake. The City of Moses Lake is dedicated to preserving its greatest asset.

Recreational Lake Uses

- ✚ SIGHTSEEING (73%)
- ✚ HIKING (35%)
- ✚ WILDLIFE VIEWING (31%),
- ✚ WATER SPORTS (28%)
- ✚ FISHING (22%)
- ✚ BOATING (19%)
- ✚ BIRD WATCHING (13%)
- ✚ HUNTING (4%)

USER SURVEY (DDI, 2007)



FIGURE 1 - MOSES LAKE - PARKER HORN

NPDES Permit Background

The Clean Water Act (CWA) was enacted by the federal government in 1972 and has been the cornerstone of surface water quality protection in the United States. The Environmental Protection Agency (EPA), in conjunction with state and tribal governments, is responsible for the implementation of the CWA standards to regulate discharges from point and non-point sources to maintain surface water quality. The EPA developed the National Pollutant Discharge Elimination System (NPDES) program to administer these standards.

In 1987 the CWA was modified to include stormwater in the NPDES program. The regulations of the NPDES program require municipalities to obtain a permit to discharge stormwater from their Municipal Separate Sewer Systems (MS4s) into waters of the state, such as Moses Lake. The EPA has delegated authority to the Department of Ecology (DOE) to issue and enforce such permits.

The initial phase of the permitting process, Phase I, went into effect in 1990 and addressed cities over 100,000 in population. However, in 1999, the EPA amended the rules to include all municipalities in census defined urban areas with a population greater than 1,000. There are now three categories of NPDES permits tailored to the specific requirements and characteristics of a region, each with slightly different regulations:

- Phase I Municipal Stormwater Permit – Population of over 100,000; regulates the discharge from MS4s in Clark, King, Pierce and Snohomish counties, and the cities of Seattle and Tacoma
- Phase II Western Washington Municipal Stormwater Permit – Population of over 1,000; regulates the discharge from MS4s in at least 80 cities and portions of five counties in Western Washington
- Phase II Eastern Washington Municipal Stormwater Permit – Population of over 1,000; regulates the discharge from MS4s in 19 cities and portions of six counties in Eastern Washington

Moses Lake was issued a Phase II Eastern Washington Municipal Stormwater Permit that became effective on February 16, 2007. This permit is scheduled to be renewed in February 2024.

The requirements of the permit are to:

- Reduce the discharge of pollutants from its MS4 to the Maximum Extent Practicable (MEP)
- Meet state AKART (All Known, Available, and Reasonable methods of prevention, control, and Treatment) standards
- Protect water quality

The City is required to develop a stormwater management program plan (SWMPP) that include the following six components from section S5.C of the permit:

- | | |
|--|---|
| <ul style="list-style-type: none">▪ Public Education and Outreach▪ Public Involvement and Participation▪ Illicit Discharge Detection and Elimination▪ Construction Site Stormwater Runoff Control | <ul style="list-style-type: none">▪ Post Construction Stormwater Management for New Development and Redevelopment▪ Pollution Prevention and Operation and Maintenance for Municipal Operations |
|--|---|

The SWMP must also address any Total Maximum Discharge Limits (TMDLs) that may be in effect for the waterbody pursuant to Section S7 of the permit, must provide a program for long term monitoring of water quality, must apply an adequate system for reporting and recordkeeping pursuant to Section S8 and include Effectiveness Studies.

Chapter 2

Administration

Moses Lake's Stormwater Division is a branch of the City's Municipal Services Department, which provides administration for water quality programs and policies. Maintenance of stormwater facilities and structures is provided by the City's Public Works Street Department.

The Stormwater Division is committed to providing the public, local government, businesses and contractors with the education and tools that they need to maintain high standards of water quality throughout our watershed. This includes partnering with other agencies and individuals committed to protecting the environment, continuing to employ best management practices (BMPs) to maintain water quality, establishing new programs and opportunities for citizens to participate in the cause, and cooperating with the NPDES Phase II permitting requirements.

The NPDES Phase II permit requires the City to develop and implement its Stormwater Management Program Plan (SWMPP) by 2022, addressing all segments of the permit. The City is also required to provide written documentation of the Plan both on its website and as submitted to the Department of Ecology (DOE) in conjunction with its Annual Report, no later than March 31 of each permit year. This SWMPP is a living document and must be updated at least once annually and as policies and procedures evolve and is not to be considered a final document until so designated by the City.

The City strongly encourages the participation of interested citizens in providing comment on developing policies and procedures. If you would like to submit questions, comments, or suggestions, please contact Brad Mitchell, Stormwater Program Manager at:

Mail:	321 S. Balsam – P.O. Box 1579 Moses Lake, WA 98837
Phone:	(509) 764-3783 Municipal Services main number (509) 764-3792 Stormwater Program Manager/ Reporting hotline
Email:	bmitchell@cityofml.com
Web:	www.cityofml.com
Annual Reports	Annual Reports

Public Education and Outreach

Permit Requirements

NPDES S5.B.1 The City is required to create a public education and outreach program designed to inform the public about the impacts of stormwater discharges to water bodies and what they can do to reduce their contribution to stormwater pollution. This program should target the following audiences:

- The general public
 - Businesses and industry
 - Engineers, contractors, and developers
 - Municipal staff and elected officials
-

The permit also requires the City to perform periodic evaluation of the program's effectiveness in reducing or eliminating behaviors that contribute to stormwater impacts and use that data to direct the program more effectively. The City must also maintain records and documentation of public education and activities within the program.

Current Activities

The City operates a stormwater web page on its home page, [City of Moses Lake Stormwater](#), including the following information:

- Information for the public explaining the importance of water quality, stormwater impacts, and actions individuals can take to improve water quality.
- Information regarding illicit discharges, what constitutes an illicit discharge, and a reporting hotline and feedback form for spills or dumping.
- Information on City programs impacting water quality.
- The City Posts its Annual Reports and SWMPP for public viewing.
- Contact information for City departments involved in stormwater activities.

The Stormwater Division provides public information through such avenues as the City's outgoing utility bills, the city newsletters, and social media marketing posts.

Informational handout materials for the public and for local contractors are available on the web and at the Civic Center Annex. Additionally, the City working to develop educational materials targeted at specific outreach groups and demographics. Some of the targeted groups included businesses, developers, and the public. Materials will include radio advertisements, handouts included in utility bills and conversations with the public at events, open houses, and council meetings. These materials will replace earlier materials borrowed

from other jurisdictions or developed by the City.

City of Moses Lake Outreach Partners

- Moses Lake Irrigation and Rehabilitation District
- Grant County Health Department
- Columbia Basin Conservation District (CBCD)
- Moses Lake Watershed Council

Planned Activities

Beginning in 2023, the City anticipates continuing the partnership with CBCD for Education and Outreach. The City will also continue working the Moses Lake Watershed Council to increase awareness and boost education and outreach opportunities (E&O). Throughout the year the City will be participating in water conservation by hosting a series of educational booths to give the public a chance to come and learn about the efforts the City is making to improve water quality. Including best practices for homeowners regarding vehicle washing and fertilizer application best practices. The CBCD is hosting events such as “Water on Wheels” and “Yarely” to educate the public of all ages about the life cycle of a drop of Moses Lake water and bring education to children via the Moses Lake “Mobile Recreation” Events. Coloring Books and resource materials will be handed out at the events to bring awareness to Stormwater and keeping “Only Rain Down The Drain”.

Initially, information was distributed in a broad manner, primarily to establish familiarity of the public with the Stormwater Division, its goals, and practices. In 2023 the City will publicize materials on social media, the website and in person events.

Public Involvement and Participation

Permit Requirements

NPDES S5.B.2

The permit requires the City to ensure that its SWMPPP provides proper and legal public notice during implementation. The City must provide to the public opportunities for community involvement through such avenues as advisory panels, public hearings, participation in developing rate-structures, environmental activities, volunteer opportunities, or other similar activities.

The City must also provide some type of opportunity for the public to provide input on their SWMPPP and must post the most current version of its SWMPPP document and its permit annual report on its website for public review.

Current Activities

After the establishment of the City Stormwater website, efforts have been made to solicit public input and participation. The webpage features a hotline number for water quality issues, a comment form for public input and a Citizens Report for reports of [Illicit Discharges](#). Comments made on social media platforms will be evaluated to address concerns or problem issues the public is concerned about.

Most of the City's stormwater ordinances and regulatory mechanisms were introduced and passed in 2010, including those pertaining to the stormwater utility, utility rates and credits, construction and post-construction controls, and illicit discharges. As policies are adopted or changed, they are subject to review and approval by City Council, and thus open to public comment at that time. City Council agendas and meeting minutes are available to the public on the City website at <http://www.cityofml.com>.

Planned Activities

As the SWMPPP evolves, we anticipate that emerging policies and issues may necessitate additional opportunities for public input and participation. We are planning to develop new material to provide in utility bills, working with our Public Information Officer (PIO) to create engagement with social media postings, and working with the Columbia Basin Conservation District to provide events to solicit input from the public from a number of events where a survey will be provided to allow the public to participate in the Stormwater program. The City is updating its Municipal code to include a more robust Water Conservation chapter. This chapter also includes some new changes to Conditionally allowed discharges. The public will have the chance to provide comment throughout the process.

Illicit Discharge Detection and Elimination (IDDE)

Permit Requirements

**NPDES
S5.B.3**

The permit requires the City to develop, implement and enforce a program to detect and eliminate illicit connections and discharges, including spills, into the MS4.

The Permit's requirements for development of an IDDE program are focused on three primary areas:

▪ **MAPPING**

The City is required to develop a map of the MS4, identifying the entire stormwater system and all known connections. This map will be part of the City's master GIS mapping program, and include the following items:

- Stormwater structures, including underground injection control (UIC) wells
- Mapping zones of the MS4 to indicate problem areas
- Creating a Map outlining all the Structures that need repair
- Conveyance lines
- Outfalls
- Receiving waters
- Surface conveyances and structural BMPs owned or maintained by the City

These items may include the following information, depending on type: structure ID, direction of flow, size, type, project information and date of installation, incident and inspection reports, registration date and number (UIC wells) and photo/video documentation.

This master stormwater system map is supported by field surveys to locate and map any unknown connections and was complete at the end 2021. The master map receives updates as our GIS team analyzes the data.

The City shall maintain the currency of this master map and, when requested, will make this map available to other agencies.

▪ **REGULATION**

The permit requires that the City provide a regulatory mechanism to prohibit non-stormwater discharges into the MS4.

Non-stormwater discharges that [are prohibited](#) include the following items, unless specific conditions in the permit are met:

- Discharges from potable water sources
- Discharges from lawn watering and other irrigation runoff.
- Street and sidewalk wash water
- Other non-stormwater discharges (as determined by the permit)

Non-stormwater discharges that [are not prohibited](#) include the following items:

- Diverted stream flow or flows from riparian habitats and wetlands
- Springs or rising ground waters
- Dechlorinated swimming pool discharges provided the flow is controlled.
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Irrigation water from agricultural sources that is commingled with urban Stormwater
- Water from crawl space pumps, footing or foundation drains, and air conditioning condensation

The permit requires the City to establish and implement an enforcement strategy including escalating enforcement procedures and actions.

▪ **DETECTION AND ELIMINATION**

The city is required to develop and implement an ongoing IDDE program to detect and address non-stormwater discharges to the MS4, including spills, illicit connections, and illegal dumping. This program includes the following key areas:

- Develop procedures for locating priority areas which are likely to have illicit discharges or spills, or that have been sites of prior complaints.
- Implement field assessment activities for the purposes of detecting illicit discharges. Develop discharge investigations, evaluations, and reporting procedures for City employees and the public.
- Develop source tracking and remediation procedures.
- Implement an educational element that provides information to the public about the hazards associated with illegal discharges and improper disposal of waste.
- Establish and publicize a hotline for public reporting of spills and other illicit discharges. The City must keep a record of all calls received and all follow-up actions, and this information must be included in the annual report. The City also has a [reporting tool in our website](#) that allows citizens to report Illicit Discharges
- Provide procedural training to all stormwater inspections and office staff, and other municipal field staff that may observe an illicit discharge or connection to the MS4 during their duties.

Current Activities

The City conducts regular visual inspections of all known stormwater outfalls on an annual basis during the winter months when the lake level is low, and all structures can be readily observed and accessed. Data is collected about the outfall to determine condition and if the outfall needs any corrective action.

Maintenance, data collection, photography and cleaning of the structures are performed at this time. This visual inspection also includes an evaluation and report of any illicit discharge observed at the location.

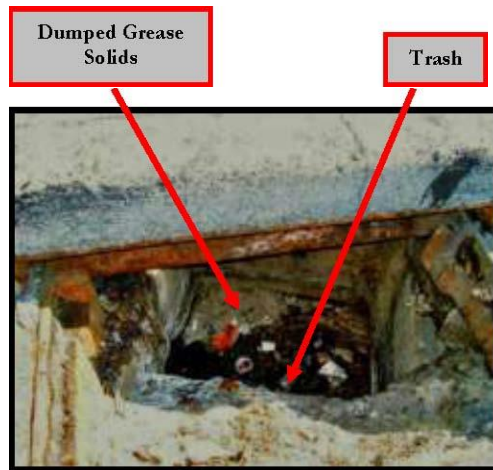


FIGURE 5: FOG ILLICIT DISCHARGE EVENT – CATCH BASIN

The City's Stormwater Division regularly responds to reports of illicit discharge, including backtracking and remediation.

Until the creation of the Stormwater Division, all such reports and service calls were received and processed by the Street Division, which oversees maintenance of the City's stormwater system.

As of 2008, these incoming calls began to be routed to the Stormwater Division via the hotline number (1-509-764-3792) or through the website's illicit discharge reporting form. The City has developed a process for tracking and reporting all illicit discharge reports, and the Street Division supervisor and the Stormwater Division work jointly to investigate and remediate these discharges as they take place.

During 2020-2021 the City hired Kelly Consultants to provide the City with a Stormwater Model and Basin analysis of the entire City. The model is updated and used for future stormwater planning and design.

As of 2021 the only remaining inlets to be mapped included active construction work in areas or streets that the city had not fully accepted into the MS4.



FIGURE 4: ANNUAL OUTFALL INSPECTION 1

IDDE REPORTS BY YEAR

2018	12
2019	29
2020	2
2021	11
2022	6

Planned Activities

For 2022 new procedures are being developed to assist in the detection and reporting of Illicit Discharges. Procedures include creating protocols for all departments to better report on Illicit Discharges. Inspection forms will be adjusted to include common Discharge identifiers such as odor, color, and volume. Field staff will be able to quickly determine if a structure is not behaving normally and document the changes for analysis.

The City will also be adding additional employees in the Stormwater department to fast track our plan to camera and inspect all Stormwater conveyance structures by end of year 2023. This information will be fed into the stormwater database, as will the video inspections obtained from the main stormwater lines. This will speed up the detection of illicit connections and allow the city to become fully compliant by 2024.

The most recent Ordinance was passed in 2009 creating Chapter 13.02 of the Moses Lake Municipal Code prohibiting illicit discharges and creating sanctions for illegal dumping and connections.

Construction Site Stormwater Runoff Control

Permit Requirements

NPDES S5.B.4

All Permittees shall implement and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that disturb one acre or more, and from construction projects of less than one acre that are part of a larger common plan of development or sale.

Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements. The Permittee shall implement an ongoing process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

All public and private projects, including City projects, must comply with these requirements.

The City is required to have a regulatory mechanism requiring runoff pollution controls at all construction project sites that addresses the following minimum standards:

- Regulations shall apply to construction sites disturbing one acre or above, or projects of less than one acre that are part of a common plan of development or sale. The City shall retain the right to apply these regulations to smaller sites if they present a hazard to water quality.
- The City must provide construction site operators information about how to comply with Appendix 1 of the Permit and apply the BMPs in the SWMMEW.
- Construction operators will be bound by these requirements, which include submittal of *Construction Stormwater Pollution Prevention Plans* (SWPPPs) and application of BMPs as necessary to protect water quality and satisfy state All Known and Reasonable Treatment (AKART) requirements. These SWPPPs shall address erosion and sediment control and control of other construction waste that may cause adverse impacts to water quality.
- The City must provide documentation that their BMP requirements will meet the state standards. The City adopts by reference the selection, design, installation, operation, and maintenance standards in the most recent version of the *Stormwater Management Manual for Eastern Washington*.
- Regulations shall grant the City legal authority to inspect private stormwater facilities that discharge into the City's MS4 and include an appropriate enforcement strategy for ensuring compliance.

Additionally, the City must develop a plan review program which meets the Phase II permit standards. This plan review program includes these standards:

- Review of construction site plans and SWPPPs
- Site inspections to ensure compliance and to determine efficacy of selected BMPs. The permit requires a minimum of one site inspection; however, the standard shall be site inspection in the three major phases of construction: before groundbreaking, during construction, and post-construction prior to acceptance of project.
- Recordkeeping and documentation of SWPPPs and site inspections

- A hotline number for public reporting of spills and illicit discharges in conjunction with construction activities
- Adequate training for City staff involved in plan review, site inspection and enforcement to carry out the provisions of this component.



FIGURE 6: SEDIMENT CONTROL VIOLATION

Current Activities

The City has made an informational handout on construction stormwater regulations available to contractors, developers and their design professionals doing business within the City. Throughout the Application process, the Stormwater manager is working with the Applicant to ensure Stormwater is being designed per the SWMMEW and follows all applicable core elements.

In compliance with Permit regulations, the City operates a public spill control hotline for illicit discharges, including construction site violations, construction site inspections and coordination with other departments for reports of illicit Discharges.



All construction within the MS4 is required to be conducted in accordance with the most recent Washington State Department of Transportation (WSDOT) *Standard Specifications for Road, Bridge, and Municipal Construction*, as revised by the City's *Community Street and Utility Standards* document. Construction site erosion and sediment and stormwater controls are specifically addressed in several sections of both documents. The *Community Standards* also provide design criteria for acceptable construction.

The City's Development Engineering Department and Building Department conduct plan reviews for all new and re-development projects within the City's jurisdiction.

Inspection of construction site erosion and sediment control is performed in conjunction with project inspection. Erosion and sediment violations are enforced under the Illicit Discharge regulations, which prohibit construction discharge into the City's MS4.

The City's Community Development Department regulates any construction activity within 200' of the shoreline under its Shoreline Master Program, including requiring BMPs per the SMMEW. Construction within this zone requires a shoreline permit, which is issued by the Community Development department.



Additional regulations are enforced in these areas per Municipal Code.

Phase II permit regulations require that the City adopt specific regulations and controls pertaining to construction site erosion and sediment control in year 2010. In 2010 City Council passed Ordinance #2571 creating Chapter 13.035 of the Moses Lake Municipal Code requiring runoff controls for construction sites.

Planned Activities



FIGURE 7: CONSTRUCTION SITE STRUCTURE

City will review existing regulations for comprehensiveness and will draft and adopt additional regulations for site plan review, inspection, and enforcement as necessary to meet the standards of the permit.

The Stormwater Manager will also attend each Pre-Construction Conference to hand out contact cards and include BMP material to contractors that pertain to the type of work that will be performed. Continual site visits will be performed by field staff to access if contractors are following standards of the permit.

The city is also moving towards training all full-time staff in the Stormwater Department to become Certified Erosion & Sediment and Control Leads to better identify and address construction stormwater violations and to notify the Stormwater Manager of deficiencies observed throughout the course of their normal duties.

Post-Construction Stormwater Management for New Development and Redevelopment

Permit Requirements

NPDES S5.B.5

All Permittees shall implement and enforce a program to address post-construction stormwater runoff to the MS4 from new development and redevelopment projects that disturb one acre or more, and from projects of less than one acre that are part of a larger common plan of development or sale.

The program shall ensure that controls to prevent or minimize water quality impacts are in place. Public and private projects, including projects proposed by the Permittee's own departments and agencies, shall comply with these requirements. The Permittee shall implement an ongoing process for ensuring proper project review, inspection, and compliance by its own departments and agencies

All public and private projects, including City projects, must comply with these requirements.

The City is required to have a regulatory mechanism requiring runoff pollution controls at all new development and redevelopment projects that addresses the following minimum standards:

- Regulations shall apply to new development and re-development project sites disturbing one acre or above, or projects of less than one acre that are part of a common plan of development or sale. The City shall retain the right to apply these regulations to smaller sites if they present a hazard to water quality.
- The City must provide information to design professionals on how to comply with Appendix 1 of the Permit and apply the BMPs in the SWMMEW.
- Project proponents and property owners will be bound by the requirements of the NPDES permit, including application of BMPs as necessary to protect water quality and satisfy state AKART requirements. These BMPs shall be selected to maintain natural drainages and reduce the total amount of impervious surfaces to the Maximum Extent Practicable (MEP).
- The City shall include provisions to allow for and encourage Low Impact Development (LID) techniques, taking into consideration site conditions, access, and long-term maintenance.
- The City must provide documentation that their BMP requirements will meet the state standards. The City adopts by reference the selection, design, installation, operation, and maintenance standards in the most recent version of the *Stormwater Management Manual for Eastern Washington (SWMMEW)*.
- Regulations shall include provisions to ensure long-term operation and maintenance of post construction facilities and establish standards for water quality.
- Regulations shall grant the City legal authority to inspect private stormwater facilities that discharge into the City's MS4 and include an appropriate enforcement strategy for ensuring compliance.

Additionally, the City must develop a plan review program which meets the Phase II permit standards. This plan review program includes these standards:

- Review of site plans to ensure that the plans include stormwater pollution prevention measures that meet the standards of the permit. In addition, staff shall review SWPPPs where required.
- Site inspections to ensure compliance and to determine efficacy of selected BMPs. Structural BMPs shall be inspected at least once during installation and upon final installation or completion of the project.
- Structural BMPs shall be inspected at least once every five years after final installation, or more frequently as determined by the City to be necessary to prevent adverse water quality impacts, to ensure that adequate maintenance is being performed.
- Operation and maintenance standards for structural BMPs in the most recent version of the *SWMMEW* shall be met.
- Recordkeeping and documentation of site inspections and enforcement activities.
- Adequate training for City staff involved in plan review, site inspection and enforcement to carry out the provisions of this component.

Current Activities

The City's Community Development Department conducts plan reviews for all new and re-development projects on private property within the City's jurisdiction. Comprehensive Drain Reports and Stormwater Drain Manuals are reviewed for compliance. Field inspection of stormwater controls is performed in conjunction with project inspection.

The City shall implement an ordinance or other regulatory mechanism that requires post-construction stormwater controls at new development and redevelopment projects. The ordinance or other regulatory mechanism shall include mechanisms to ensure compliance. The local program shall be adopted no later than December 31, 2022.

In 2010 City Council passed Ordinance #2571 creating Chapter 13.035 of the Moses Lake Municipal Code requiring post-construction runoff controls, in conjunction with construction site stormwater regulations.

Planned Activities

In 2022, the City is streamlining its existing plan review process and implementing a new construction inspection schedule to adhere to the Eastern Washington Phase II Stormwater Permit requirements. The review process will shift aspects of the Stormwater review to the Stormwater Systems Manager for all construction within right of way (ROW) and will also collect all project information into a virtual "folder" where all review items can be quickly accessed. All construction outside the ROW will be reviewed by the City of Moses Lake building Department.

Pollution Prevention and Good Housekeeping for Municipal Operations

Permit Requirements

**NPDES
S5.B.6**

The City is required to develop and implement an operation and maintenance program to prevent or reduce pollutant runoff from municipal operations.

By 2022, the City will be required to have an Operation and Maintenance Plan (an O&M Plan) in place that will protect water quality, reduce the discharge of pollutants, and satisfy state AKART requirements. The City's O&M Plan is required to meet or exceed the standards listed in Chapters 5, 6, and 8 of the most current version of the *Stormwater Management Manual for Eastern Washington*. The Plan must address pollution prevention and good housekeeping procedures for all the following types of facilities or activities:

- **Stormwater collection and conveyance systems**
 - Stormwater system inspections and maintenance
 - Structural BMP inspections and maintenance
 - Pollution prevention/good housekeeping practices
 - Proper disposal of waste removed from the system in accordance with Appendix 6.
- **Roads, highways, and parking lots**
 - Deicing and snow removal practices and snow disposal areas
 - Street cleaning practices and disposal
 - Material (e.g., salt, sand, or other chemical) storage areas
 - Reduction of road and parking lot debris and other pollutants from impervious surfaces that are owned, operated, or maintained by the City.
 - All-season BMPs to reduce road and parking lot debris and other pollutants from entering the MS4.
- **Vehicle fleets**
 - Storage, washing, repair, and maintenance of municipal vehicle fleets
- **Municipal buildings**
 - Cleaning, washing, painting and other maintenance activities
- **Parks and open space**
 - Proper chemical application (fertilizer, pesticides, and herbicides)
 - Erosion and sediment control
 - Landscape maintenance and vegetation disposal
 - Trash and dumpster management
 - Pet waste BMPs

▪ **Construction Projects/ Industrial Activities**

- Public construction projects shall comply with the same NPDES permit requirements that are applied to private projects
- All facilities owned or operated by the City that are required to have NPDES permit coverage shall be covered under the *General NPDES Permit for Stormwater Discharges Associated with Industrial Activities*

▪ **Material storage areas, heavy equipment storage areas, and maintenance areas.**

- Permittees shall implement a SWPPP to protect water quality at each of the facilities owned or operated by the permittee and not required to have coverage under the Industrial Stormwater General Permit or another NPDES permit that authorizes stormwater discharges associated with the activity.
 - A site map showing the facility's stormwater drainage, discharge points, and areas of potential pollutant exposure.
 - An inventory of the materials and equipment stored on-site, and the activities conducted at the facility which may be exposed to precipitation or runoff and could result in stormwater pollution.
 - A plan for preventing and responding to spills at the facility which could result in an illicit discharge.
 - A detailed description of the operational and structural BMPs in use at the facility and a schedule for implementation of additional BMPs. BMPs selected shall be consistent with the Stormwater Management Manual for Eastern Washington, or other Ecology-approved technical manual. The SWPPP shall be updated as needed to maintain relevancy with the facility.

▪ **Other facilities** that would reasonably be expected to discharge contaminated runoff.

The City's O&M Plan must include the following tasks:

- A minimum of 95% of all known stormwater treatment and flow control facilities (except catch basins) owned, operated, or maintained by the Permittee shall be inspected at least once every two years, with problem facilities identified during inspections to be inspected more frequently.
- All catch basins and inlets owned or operated by the Permittee shall be inspected every two years. Clean catch basins if the inspection indicates cleaning is needed to comply with the maintenance standards adopted pursuant to S5.B.6.a.
- Spot checks for potentially damaged stormwater treatment and flow control facilities shall be conducted after major storm events. (24-hour storm event with a 10-year or greater recurrence interval) Any needed repair or maintenance shall be performed as soon as practicable pursuant to the findings of regular inspection or spot check.
-

Current Activities

The City will annually update its O&M plan. Currently is drafting documents to procure a consultant to develop an Operations and Maintenance Plan.



Figure 8: New Municipal Operations & Maintenance building (l) and Surf and Slide Water Park (Aquatic Center) expansion (r)

In conjunction with renovation and new construction at City maintenance facilities, stormwater issues such as collection and conveyance, material storage, fleet maintenance, and oil and water separation have been addressed with BMPs.

Review of existing standards and policies for all pertinent City departments is in progress. The O&M plan is scheduled to be updated in 2022.

Planned Activities

In 2022, the City shall update the SWPPP (Stormwater Pollution Prevention Plan) for municipal facilities, including a schedule for inspections and ongoing training program for staff. Other training sessions sponsored by the City of Moses Lake will be scheduled and offered as department need and desire arises.

Compliance with Total Maximum Daily Load Requirements (TMDL)



Permit Requirements

NPDES S7

The City is required to comply with any requirements that may be in effect due to a TMDL for their MS4.

The Water Quality Assessment for the State of Washington lists the status of water quality for surface water bodies. This assessment evaluates water quality impairment into five different categories established by the EPA, in ascending order. The federal Clean Water

Act Section 303d list of impaired water bodies represent those waters rated Category 5. These waters are eligible for the implementation of a TMDL plan.

Current Activities

No TMDL restrictions have been imposed on the waterbody of Moses Lake at the time this document was created. Several studies of water quality have been undertaken in previous years identifying several areas of concern, primarily in nutrient (nitrogen and total phosphorus) content. As of this writing, Moses Lake was listed as a waterbody of impaired condition on the state's 303d list in several parameters.

Efforts working with the Moses Lake Watershed council will continue and work towards lowering the TD and TN levels. The City recognizes that nutrient loading has been and continues to be an ongoing issue for Moses Lake, resulting in the lake experiencing some degree of eutrophication. A large percentage of nutrient loading in Moses Lake comes from nonpoint sources, which are frequently difficult to trace. The DOE and several cities in the state of Washington have begun to take a proactive approach to eliminating these nonpoint sources of nutrient pollution. In the upcoming years, the City plans to evaluate the establishment of an alternative program for charity car washing, which would eliminate some sources of nutrient loading to the lake. Several sites have already been eliminated from charity car washing due to direct discharge.

In addition, the elimination of nutrient loading from nonpoint sources will be a strong focus of the City's public education program. The City will also continue to work with the Moses Lake Irrigation and Rehabilitation District and the Moses Lake Watershed council on measures to reduce nutrient loading upstream of the watershed.

Monitoring and Assessment

Permit Requirements

NPDES S8

Under the first permit, the Cities and Counties developed a regional monitoring plan that was submitted to Ecology in 2010 (Appendix F). During development of the current permit, Ecology developed a new approach to monitoring. The permit effective August 1, 2014, requires that each City and county collaborate with other permittees to develop and implement "Stormwater Management Program Effectiveness Studies." The City of Spokane Valley received funding from Ecology to lead a process to develop effectiveness study ideas for Eastern Washington. In 2016, Ecology ranked a list of fourteen effectiveness studies ideas.

▪ **Targeted SWMPP effectiveness monitoring**

SWMPP effectiveness monitoring is intended to improve stormwater management efforts by evaluating issues that significantly affect the success of the stormwater program.

The City must prepare to conduct monitoring to determine the effectiveness of the SWMPP at controlling stormwater-related problems, by addressing whether the SWMPP is adequately achieving its targeted goals.

To accomplish this end, the City must identify two suitable questions for water quality, and select sites where monitoring would be conducted, then develop a monitoring plan for each question. The plan must include the following elements:

- A statement of the question, an explanation of how and why the issue is significant to Moses Lake, and a discussion of whether and how the results of the monitoring may be significant to other MS4s.
- A specific hypothesis about the issue or management actions that will be tested.
- Specific parameters or attributes to be measured; and
- Expected modifications to management actions depending on the outcome of hypothesis testing.

▪ **Runoff Treatment BMP Effectiveness Monitoring**

BMP effectiveness monitoring is intended to evaluate the effectiveness and performance of runoff treatment BMPs by measuring pollutant removal. Categories to be monitored include basic treatment, metals treatment, and oil treatment BMPs.

The City is not required to conduct water sampling or other testing during the permit term, with the following exceptions:

- Water quality monitoring in conjunction with TMDL compliance (not applicable, at this time)
- Sampling or testing required for characterizing illicit discharges

If the City should perform or obtain any stormwater monitoring or testing, the description and results of testing are required to be part of the City's annual report within that year.

Current Activities

The permit effective August 1, 2019, requires permittees to continue participation in ongoing effectiveness studies and participate in a study for the new permit as a lead entity, by contributing staff time or other in-kind services, or by providing funding.



In 2021 the City participated in a region-wide Stormwater Effectiveness Study for Car Washing BMPs which had the following Study Objectives:

1. Understand to what extent the target audience currently uses preferred car washing BMPs.
2. Develop and implement an E&O program targeting adoption of preferred car washing BMPs.
3. Measure the target audience's understanding and adoption of targeted behaviors.
4. Develop recommendations based on the study findings and use the recommendations to revise and implement a modified E&O program.

Planned Activities

The City will review and implementation of effectiveness studies from around the eastern region, in particular the street sweeping evaluation program, which will help staff to refine the best combination of street sweeping and catch-basin cleaning, optimizing the amount of pollution removal for the money spent.

The Car Wash Effectiveness Study Results showed that the most used Car Washing BMP was commercial Car washes. It indicated that there were barriers for the implementation of the education and outreach materials. These results will help the city gear their outreach differently with Proper Car Washing BMP material that is distributed to the public.

Reporting and Record Keeping

Permit Requirements

NPDES S9

Permittees are required to keep adequate records in relation to this permit and submit an annual report to the Department of Ecology.

By March 31 of each permit year, the City is required to submit an annual report. The reporting period for the annual report will be the previous calendar year. The City is required to keep all records related to this permit and the SWMPP for at least five years, and to make all such records available to the public.

Annual reports must include the following:

- The *Annual Report Form for Cities, Towns, and Counties*, which summarizes permit compliance
- A copy of the current SWMPP
- Notification of any jurisdictional boundary changes resulting in an increase or decrease in the City's geographic area of permit coverage during the reporting period

Current Activities

Annual Reports are submitted to DOE by March 31st of each year and are posted on the City's website no later than May 31st following submission.

Pursuant to this task, copies of Annual Reports and the most current version of the City's Stormwater Management Program Manual are posted for public access on the City's Stormwater website at www.cityofml.com. These documents will be updated as changes are made.

All stormwater records are kept by the City's archival authorities and can be accessed during normal business hours by written request at City Hall, 321 S. Balsam, Moses Lake, WA 98837. The form for requesting records can be found on the City's website at *Available Forms/Executive/Request for Public Records Access*. Photocopies of all items are \$0.15 per letter-sized sheet. All oversized sheets are an additional charge; please ask at the Engineering Counter.

Planned Activities

The City plans to continue meeting the annual reporting guidelines in a timely manner. The SWMPP manual is a dynamic document and will continue to evolve as we go into subsequent years of this program. The City will be updating their manual and policies as new issues evolve.

The City is working to develop a Stormwater Comprehensive Plan in 2022-2023. This plan will create a standards and goals to assist professionals in stormwater system design in the future. Also, the city has begun heavily documenting its inspection and work orders in City works. Data is collected and analyzed to focus on problem areas to ensure the city is effectively utilizing its resources while maintaining the requirements of the Permit.

Glossary of Stormwater Terms

<u>AKART:</u>	All Known, Available and Reasonable methods of prevention, control and treatment
<u>Aquatic:</u>	Living or growing in or on the water
<u>Aquifer:</u>	An underground area that contains fresh water in sufficient amounts to yield useful quantities to wells and springs (see also “Groundwater”)
<u>Bacteria:</u>	Single cell organisms found in nearly every environment on Earth. In large amounts, some types of bacteria such as fecal coliform are harmful to the quality of surface water.
<u>Basin:</u>	A hydrologic unit consisting of a part of the surface of the Earth covered by a drainage system consisting of a surface stream or body of impounded surface water plus all tributaries. (See “Watershed”)
<u>Best Management Practices (BMPs):</u>	Methods, measures, or practices designed to prevent or reduce water pollution. Stormwater BMPs can include rain gardens, wetlands, infiltration structures, sediment retention ponds, vegetation strips and grassy swales. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
<u>Bioretention:</u>	Various types of stormwater BMPs that use landscaping and soils to remove pollutants from urban stormwater runoff by collecting it in shallow depressions.
<u>Buffer Strip or Zone:</u>	Undeveloped natural or vegetated land alongside a stream or lake that provides infiltration of stormwater runoff and filtering of pollutants.
<u>Catch Basin:</u>	An entryway to the storm drain system, usually located at street corners, and covered with a grate.
<u>City:</u>	City of Moses Lake
<u>Contaminant:</u>	Any substance that makes water impure and unfit for consumption or use
<u>Culvert:</u>	A short, closed (covered) conduit or pipe that passes storm water runoff under an embankment, usually a roadway.
<u>Clean Water Act (CWA):</u>	The cornerstone of surface water protection. Legislation that provides statutory authority for the NPDES program. Also known as the Federal Water Pollution Control Act, passed in 1972.
<u>DOE:</u>	The Washington State Department of Ecology (Also “Ecology”)
<u>Development:</u>	Any manmade change to improved and unimproved land, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, or drilling operations

Glossary of Stormwater Terms

<u>Discharge:</u>	An outflow of water from a stream, pipe, groundwater aquifer, or watershed
<u>Drainage Basin:</u>	The area of land that drains to a given point on a body of water. A drainage basin might also be referred to as a watershed.
<u>Dry Weather Flow:</u>	Runoff that enters the storm water drainage system from everyday activities such as car washing and lawn watering. Dry weather flow usually has a higher concentration of harmful nutrient chemicals and bacteria than does flow, that results from rainfall
<u>EPA:</u>	The United States Environmental Protection Agency.
<u>Ecosystem:</u>	The biological community (living plant and animals) and the non-living environment (water, rocks, chemicals, weather systems) functioning as one system
<u>Erosion:</u>	The wearing away of the earth's surface by running water, wind, ice, gravity or other natural or man-made agents Often the eroded debris (silt or sediment) becomes a pollutant via stormwater runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building and timber harvesting.
<u>Eutrophication:</u>	Excessive levels of phosphorous, nitrogen, and nutrients in the water, which leads to a decrease in oxygen levels. Often characterized by excessive growth of algae and aquatic vegetation, which results in deteriorated water quality and beach closings.
<u>Fecal Coliform Bacteria:</u>	A type of bacteria found in the intestines of humans and animals. The presence of fecal coliform bacteria in water, is an indicator of a potential health risk for individuals exposed to this water. Fecal coliform can enter waterways through sewage treatment plant discharge, sewage pipe overflows, or from pet and wild animal waste.
<u>Fertilizer:</u>	A substance used to increase growth of a plant or improve the quality of a crop. When used inappropriately, it can contribute to storm water pollution
<u>Filtration:</u>	The act of filtering, such as removing pollutants and sediment from storm water runoff
<u>Flood:</u>	A temporary rise in flow or stage of any watercourse or storm water conveyance system that results in storm water runoff exceeding its normal flow boundaries and inundating adjacent, normally dry areas.
<u>GIS:</u>	Geographical Information System: a computer database program providing geographical and mapping information for an area. The City's stormwater master maps are based on GPS locations integrated into a GIS system which links physical structures to their properties photos, inspection reports, etc.

Glossary of Stormwater Terms

<u>GPS:</u>	Global Positioning System: a global navigational satellite system used in precisely mapping locations of structures. The City's goal is that by its completion, the master stormwater map will contain GPS coordinates for all existing City-owned structures, insofar as is feasible.
<u>General Permit:</u>	A permit issued under the NPDES program to cover a certain class or category of storm water discharges. These permits reduce the administrative burden of permitting storm water discharges.
<u>Groundwater:</u>	That portion of the water beneath the surface of the Earth that can be collected with wells, tunnels, or drainage galleries, or that flow naturally to the Earth's surface via seeps or springs. (See also "Aquifer")
<u>Hydrologic cycle:</u>	Also known as the water cycle. The paths water takes through its various states -vapor, liquid, solid as it moves throughout the ocean, atmosphere, groundwater, streams, etc.
<u>Illicit Connection:</u>	Any connection or discharge to a municipal separate storm sewer that is not permitted, not composed entirely of storm water, and is not authorized by an NPDES permit.
<u>Illicit Discharge:</u>	Any discharge to a Municipal Separate Storm Sewer System (MS4) that is not entirely composed of stormwater. Sources of illicit discharges include but are not limited to sanitary wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater, car wash wastewater, radiator flushing disposal, spills from roadway accidents, and improper disposal of auto and household toxins. Exceptions include NPDES permitted industrial sources and discharges from fire-fighting activities.
<u>Impaired waters list:</u>	Creeks, streams or other bodies of water that do not meet state water quality standards. Under Section 303(d) of the Clean Water Act, states are required to develop lists of impaired waters.
<u>Impervious area:</u>	A surface which is covered with material that is resistant to infiltration by water, including but not limited to, most conventionally surfaced streets, roofs, sidewalks, patios, driveways, parking lots, and any other oiled, graveled, graded, compacted, or any other surface which impedes the natural filtration of surface water. Areas with more impervious surfaces generally contribute more to storm water runoff pollution and the amount (volume) of storm water runoff.
<u>Infiltration:</u>	The penetration of water through the ground surface into sub-surface soil.
<u>Low Impact Development (LID):</u>	The use of special landscaping techniques to reduce the impact that land development has on water quality. Rather than letting storm water run-off or forcing it into a drainage and pipe system, LID captures storm water on site, filters it through vegetation and lets it gradually soak into the ground or into streams.
<u>MLMC:</u>	Moses Lake Municipal Code
<u>MS4:</u>	Municipal Separate Storm Sewer System (See "Small Municipal Separate Storm Sewer System")
<u>Non-Point Source</u>	Pollution that cannot be traced to a single point because it comes from many

Glossary of Stormwater Terms

<u>(NPS) Pollution:</u>	individual places or a widespread area. Contamination occurs when rainwater, snowmelt or irrigation runoff picks up soil particles and pollutants (such as nutrients, motor oil, pet waste and pesticides) and deposits them into lakes, rivers, wetlands, and even our underground sources of drinking water
<u>National Pollutant Discharge Elimination System (NPDES):</u>	A federally mandated program authorized by Congress as part of the 1987 Clean Water Act and enacted by the EPA to control the discharge of pollutants to waters of the United States.
<u>Nutrient:</u>	An element or compound, such as nitrogen, phosphorous, and potassium that is necessary for plant growth. If there are too many nutrients in a stream or lake, that can cause an overgrowth of algae and other plants that kill fish and other aquatic life.
<u>Nutrient pollution:</u>	Human-caused addition of excess nutrients, such as grass clippings and pet waste that is carried to creeks, lakes and rivers by storm water runoff
<u>100-year flood:</u>	More accurately referred to as a "one percent chance flood." There is a 1% chance that a flood this large will happen in that area in any given year
<u>Outfall:</u>	The point where a sewer, drain or stream discharges to a receiving body of water.
<u>Permit Issuing Authority (Permitting Authority):</u>	The state agency or EPA regional office that issues environmental permits to regulated facilities. The Permitting Authority for the State of Washington is the Washington State Department of Ecology (DOE).
<u>Pervious:</u>	Surface that allows water to seep into the ground, such as soils, gravels, and vegetation.
Phosphorus:	A plant nutrient and an essential ingredient in fertilizer. High levels of phosphorus can cause algae blooms and fish kills.
<u>Point Source Pollution:</u>	A type of pollution that can be traced to a specific source, such as a factory or sewage treatment plant. Most of this type of pollution is highly regulated at the state and federal levels.
<u>Pollution:</u>	Presence of a contaminant to such a degree that the environment (land, water, or air) is not suitable for a particular use.
<u>Pollutant Loading:</u>	The transfer of pollutants from one place to another, such as sediment carried by storm water runoff into a stream
<u>Recharge:</u>	Re-supplying of water to the aquifer. Recharge generally comes from snowmelt and storm water runoff.
<u>Receiving Waters:</u>	Bodies of water that receive runoff or wastewater discharges, such as rivers, streams, lakes, estuaries, and ground water.
<u>Riparian:</u>	Area of grass, shrubs or trees alongside a stream or body of water. This zone provides shade for the stream and filters pollutants from storm water runoff (see "Buffer Zone")
<u>Runoff:</u>	Rainwater, snowmelt and other water that is not absorbed into the ground but

Glossary of Stormwater Terms

instead flows across the land picking up pollutants and eventually runs into surface water.

Sanitary Sewer:

A system of underground pipes that carries sanitary waste or process wastewater to a treatment plant. The City of Moses Lake has a separate sanitary sewer system, which does not handle or treat stormwater. (See “Wastewater”)

Sediment/Silt:

Soil, sand and materials washed from land into water, usually after rain. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud water so that sunlight does not reach aquatic plants.

Small Municipal Separate Storm Sewer System (MS4):

A storm sewer system located in an area serving a population less than 100,000, as determined by the latest U.S. Census, comprising multiple conveyance systems, including ditches, that transfers storm water from impervious surfaces to streams. The City of Moses Lake’s system is classified as a small MS4 and includes all stormwater structures and conveyance systems located within the incorporated area of the City of Moses Lake (City limits).

Spill Prevention Control and Countermeasures Plan (SPCC):

Plans to prevent and respond to spills of hazardous substances as defined in the Clean Water Act.

Storm Drain:

A slotted opening in a road system through which runoff from the road surface flows through an underground pipe into the closest receiving body of water. Some storm drains in the City’s MS4 lead to UIC wells, and the remainder lead directly to surface water such as the lake. Runoff in these facilities does not go through a treatment or processing plant. (See “Catch Basin”)

Storm Water:

Precipitation from a storm event that flows quickly into streams or accumulates in natural or constructed storage systems. Storm water often includes pollutants and sediment from land surfaces.

Storm Water Facilities:

Systems such as watercourses, constructed channels, storm drains, culverts, and detention/retention facilities that are used for the conveyance and/or storage of storm water runoff.

Storm Water Management:

Functions associated with planning, designing, constructing, maintaining, financing and regulating the facilities (both constructed and natural) that collect, store, control and/or convey storm water.

Storm Water System:

The entire assemblage of storm water facilities located within a watershed .

Storm Sewer Utility:

A means of establishing a dedicated and reliable source of revenue based on user fees, rather than taxes, to help solve storm water management problems. This steady revenue source ensures that funds will be available to support a local storm water management program.

Storm Water Wetlands:

An area of land designed with particular types of soils to hold excess storm water runoff and specially chosen plants to absorb pollutants from the runoff

Glossary of Stormwater Terms

<u>Surface Water:</u>	Water above the surface of the land such as a stream, river, pond, lake, or reservoir
<u>SWMPP:</u>	Stormwater Management Program
<u>SWMMEW:</u>	Stormwater Management Manual for Eastern Washington (Dept of Ecology publication #04-10-076). The SWMMEW is the guidance document for permit compliance in Eastern Washington, and the city adopts by reference the selection, design, installation, operation and maintenance standards for municipal stormwater contained within.
<u>SWPPP:</u>	Construction Stormwater Pollution Prevention Plan
<u>Total Maximum Daily Load (TMDL):</u>	Total amount of pollutants that a stream can contain without impairing the water or violating clean water laws, as determined by the EPA.
<u>Underground Injection Wells (UICs):</u>	A structure whose design is intended to retain and infiltrate stormwater runoff beneath the surface of the soil. A typical example of an UIC well is a drywell. UIC wells can be affected by runoff pollution due to their proximity to groundwater
<u>Urban Runoff:</u>	Storm water from urban areas, which tends to contain heavy concentrations of pollutants from vehicles and industry.
<u>Wastewater:</u>	Water in the sanitary sewer system which comes from sinks, toilets, showers, washing machines, etc. Wastewater is not the same as storm water runoff. Wastewater is treated before being released into the creeks. (See “Sanitary Sewer”)
<u>Water Quality:</u>	The chemical, physical and biological condition of water, usually in respect to whether it is suited for a particular purpose such as supporting aquatic life
<u>Water Quality Monitoring:</u>	Regular testing of water from lakes and streams to determine how healthy it is. Scientists measure the temperature; amount of oxygen; levels of certain bacteria, metals and toxic chemicals; and turbidity or how clear the water is.
<u>Watershed:</u>	A region of land drained by a single stream, river, or drainage network. Also known as a drainage basin. Everyone lives in a watershed. (See “Basin”)
<u>Wetlands:</u>	Land with a wet, spongy soil, where the water table is at or above the land surface for at least part of the year. Wetlands are characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include swamps, bogs, fens, marshes, and estuaries. Wetlands provide a habitat for aquatic life, terrestrial plants and animals, store floodwater and are effective at removing certain pollutants from storm water runoff.
<u>Wet Weather Flows:</u>	Water entering storm drains during rainstorms and/or snowmelt events.

Appendix 1

Eastern Washington Phase II Municipal Stormwater NPDES Permit Overview

Eastern Washington Phase II Municipal Stormwater Permit Overview – 2019 to 2024

The timeline below provides an overview of major program deadlines for implementing Permit requirements of S5 *Stormwater Management Program* (SWMP) and S8 *Monitoring and Assessment* for Continuing City, Town, and County Permittees (**By Date** means “no later than…”). This is guidance only. Table does not include all ongoing program elements. Please see the Permit for additional detail and related requirements.

S5 Permit Components	Ongoing Program Implementation	2019	2020	2021	2022	2023	2024
A. Stormwater Management Plan	Annually update and submit the SWMP with Annual Report (S9) <ul style="list-style-type: none"> - S5.A.5.a.ii: Track the cost/estimate of development and implementation of each component of the SWMP - S5.A.5.a.i: Track # of inspections, follow-up actions, official enforcement, public education & outreach activities 						
A.6. Coordination	Ongoing coordination			By March 31: Submit description of coordination mechanisms			
B.1. Public Education and Outreach	Ongoing implementation of education & outreach program elements			By Dec 31: Use results of measurements to direct ongoing program			
B.2. Public Involvement and Participation	Ongoing <ul style="list-style-type: none"> - Create opportunities for public, including overburdened communities, to participate in SWMP - Post SWMP and Annual Report to website by May 31 each year 						
B.3. Illicit Discharge Detection and Elimination	Ongoing <ul style="list-style-type: none"> - Implement program to prohibit, address, and eliminate illicit discharges and connections - Maintain mapping data - Train staff 	By Aug 1: <ul style="list-style-type: none"> - Begin to map all connections authorized by Permittee - Begin tracking total % of MS4 screened each year 	By Mar 31: MAY begin using WQWebIDDE form for annual reporting. If using own tracking: submit as much of the info as possible in format requested (or similar)	By Mar 31: Required to use WQWebIDDE form for annual reporting <ul style="list-style-type: none"> - If using own tracking: submit .xml file that follows the schema, but may submit alternative 	By Mar 31: If using own tracking system for recordkeeping, submit a .xml that follows the data schema	By Feb 2: Update, if needed, regulatory mechanism By Aug 1: <ul style="list-style-type: none"> - Update MS4 maps - Collect size and material for all known MS4 outfalls 	

S5 Permit Components	Ongoing Program Implementation	2019	2020	2021	2022	2023	2024
				formats (i.e., .xls, .csv, .txt) By Aug 1: Mapping data in electronic format with fully described mapping standards			

S5 Permit Components	Ongoing Program Implementation	2019	2020	2021	2022	2023	2024
B.4. Construction Site Stormwater Runoff control	Ongoing <ul style="list-style-type: none"> - Implement & enforce program to reduce pollutants in runoff - Train staff 				By Dec 31: Adopt and implement program that meets the requirements and follows SWMMEW (or ECY-approved manual)		
B.5. Post-construction Runoff Control	Ongoing <ul style="list-style-type: none"> - Implement & enforce program to reduce pollutants in post-construction runoff - Train staff 				By Dec 31: Adopt and implement program for post-construction		
B.6. Operations and Maintenance	Ongoing <ul style="list-style-type: none"> - Inspect & maintain stormwater facilities and catch basins controlled & regulated by the Permittee - Implement practices, policies, and procedures to reduce SW impacts from all Permittee lands - Train staff 				By Dec 31: Update O&M plan By Dec 31: Update SWPPPs for heavy equipment maintenance and/or storage yards/facilities		

S8 Monitoring and Assessment

S8 Permit Components	Ongoing	2019	2020	2021	2022	2023	2024
S8.A. Stormwater Management Program Effectiveness Studies	Ongoing - Continue to participate/implement existing approved studies			By June 30: Submit brief description of new study and participants' roles	By Sept 30: Submit detailed study design proposal	By July 31: Submit completed QAPP By Dec 1: Begin conducting study (or within 3 mos. of ECY approval)	

Other significant elements of the Permit

S1. Application for Coverage	Co-Permittees can end or amend agreements at any time.
S4.F. Response to Violations of Water Quality Standards	Notification and possible adaptive management may occur at any time.
S7. Compliance with Total Maximum Daily Load (TMDL) Requirements	Comply with and document applicable TMDL requirements listed in Appendix 2 per individual timelines.
S9. Reporting	<ul style="list-style-type: none"> - Keep all records related to the Permit for at least five years. - Beginning March 31, 2020, submit a report for the previous calendar year using WQWebPortal.
G3. Notification of Discharge Including Spills: Report discharges and spills into or from the MS4 which could constitute a threat to human health, welfare, or the environment	<ul style="list-style-type: none"> - Discharge to water: Call Emergency Management Division (EMD) at 1-800-645-7911 or 1-800-258-5990. - Discharge to/from MS4: Report to Ecology within 24 hours (do not need to report if EMD has been called).
G18. Duty to Reapply	Apply for Permit renewal no later than Feb. 2, 2024 (180 days before Permit expiration).
G20. Non-compliance Notification	Notify Ecology within 30 days of becoming aware of non-compliance.

Appendix 2

References & Links



City of Moses Lake

321 S. Balsam
P.O. Box 1579
Moses Lake, WA 98837

Municipal Services 509-764-3783
Stormwater Division 509-764-3792
Public Works Division 509-764-3951
<http://www.cityofml.com>

[Stormwater Home Page](#)
[Stormwater Management Program](#)
[Shoreline Master Program](#)
[Moses Lake Municipal Code](#)
[Community Street and Utility Standards](#)

WASHINGTON
waters
OURS TO PROTECT

Washington State Department of Ecology

Eastern Regional Office
N. 4601 Monroe Spokane, WA 99205-1295
509-329-3529

<http://www.ecy.wa.gov/programs/wq/stormwater/index.html>

Phase II Eastern Washington Municipal Stormwater Permit

<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseiiEwa/ewph2permit.html>

County, State and Watershed maps (includes 303(d) listed waters)

<http://www.ecy.wa.gov/services/gis/maps/maps.htm>

Underground Injection Control Program homepage

<http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html>

Construction Stormwater General Permit

<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>





United States Environmental Protection Agency

1-800-490-9198

<http://www.epa.gov>

National Pollution Discharge Elimination System (NPDES) – Stormwater Program

http://cfpub2.epa.gov/npdes/home.cfm?program_id=6

EPA Phase II Regulations

http://cfpub1.epa.gov/npdes/regresult.cfm?program_id=6&view=all&type=1

Other links

Washington State Department of Transportation – Standard Specifications for Road, Bridge and Municipal Construction

<http://www.wsdot.wa.gov/publications/manuals/M41-10.htm>

Revised Code of Washington – Illicit Discharge

<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48.080>