United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, Public Law 100-4 (hereafter CWA),

Joint Base Lewis-McChord
(hereinafter "Permittee")

is authorized to discharge from all municipal separate storm sewer system (MS4) outfalls in the Permit Area described in Part 1.1 to waters of the United States, including but not limited to, Murray Creek, Clover Creek, Puget Sound, and other associated waters, in accordance with the conditions and requirements set forth herein.

Pursuant to Washington Department of Ecology's certification the Permit requirements must be applied to discharges to waters of the State.

A copy of this Permit (including the following Appendices) must be kept as part of the Permittee's Stormwater Management Program (SWMP) Document.

Appendix A	Permit Area Description for Joint Base Lewis-McChord
Appendix B	Annual Report Template
Appendix C	Determining Construction Site Sediment Damage Potential
Appendix D	Street Waste Disposal

This Permit becomes effective INSERT DATE**.**

This Permit and the authorization to discharge expires at midnight, INSERT DATE**.**

The Permittee must reapply for authorization to discharge on or before INSERT DATE**,** (180 days before the expiration of this Permit), pursuant to Part 6.2 (*Duty to Reapply*), if the Permittee intends to continue its operational control and management of discharges from the MS4 beyond the term of this Permit.

DRAFT
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CAPT, USPHS
Branch Chief, Permits, Drinking Water and Infrastructure

SCHEDULE OF SUBMISSIONS
The Permittee must submit the following items during the Permit term**.**

	Action Item	**Due Date**
1.	Equivalent Documents, Plans or Programs	
	See Part 1.5	*6 months from effective date of Permit*
2.	Identification of PFAS Infiltration	
	See Part 2.3.4	*No later than March 31 following the end of the first reporting year*
3.	Monitoring/Assessment Plan and Objectives (Monitoring Option 1)	
	See Part 3.3	*6 months from effective date of Permit if permittee chooses this option*
4.	Stormwater Action Monitoring Program (Monitoring Option 2)	
	See Part 3.4	*6 months from effective date of Permit if permittee chooses this option*
5.	*Wet Weather Monitoring for PFAS*	
	See Part 3.5	*No later than March 31 following the end of the second reporting year*
6.	Recordkeeping	
	See Part 3.7	*Retain for a period of at least five years.*
7.	Annual Reports and Monitoring Reports	
	See Part 3.8	*No later than March 31 following the end of each reporting year*

8. EPA notification of a known or likely exceedance of water quality standards	
See Part 4	*30 days from when Permittee becomes aware*
9. Adaptive Management Response	
See Part 4.4	*60 days from when Permittee becomes aware*
10. Noncompliance Report	
See Part 5.9	*Within 24 hours from when Permittee becomes aware*
11. Renewal Application	
See Part 6.2	*180 days prior to the expiration date of the Permit*

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ACRONYMS

AFFF	Aqueous Film Forming Foam
AOA	Airport Operations Areas
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CFS	Cubic Feet per Second
CGP	Construction General Permit, otherwise known as the *NPDES General Permit for Stormwater Discharges from Construction Activities*, Permit #WAR12F000
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
ESC	Erosion and Sediment Control
FR	Federal Register
I-IBI	Index of Biological Integrity
LA	Load Allocation
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
LID	Low Impact Development
MEP	Maximum extent practicable
MS4	Municipal Separate Storm Sewer System
MSGP	EPA Stormwater Multi-Sector General Permit, otherwise known as the *NPDES General Permit for Stormwater Discharges Associated with Industrial Activities*, Permit #WAR05F000
NPDES	National Pollutant Discharge Elimination System
NSC	Naval Support Complex
O&M	Operation and Maintenance
PFAS	Per- and Polyfluoroalkyl Substances
POTW	Publicly Owned Treatment Works
PS	Puget Sound
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RCW	Revised Code of Washington
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SMMWW	Stormwater Management Manual for Western Washington
TMDL	Total Maximum Daily Load
US	United States
USC	United States Code
WAC	Washington Administrative Code
WLA	Wasteload Allocation

1 APPLICABILITY

1.1 Permit Area

This permit covers all geographic areas of the military installation served by the MS4 owned and/or operated by the Joint Base Lewis-McChord (JBLM), within Pierce and Thurston Counties in Washington State. Specifically, the Permit Area includes but is not limited to the cantonment areas (comprised of and referred to as JBLM-Main, JBLM-North, and/or JBLM-McChord Field) and all military training areas. See Appendix A.

1.2 Discharges Authorized Under this Permit

During the effective dates of this Permit, the Permittee is authorized to discharge stormwater to waters of the United States from all portions of its MS4 located within the boundaries of the Permit Area described in Part 1.1, subject to the conditions set forth herein.

Pursuant to Part 2.3.2 below, this Permit also conditionally authorizes the discharges from the Permittee's regulated MS4 which are categorized as allowable non-stormwater discharges.

1.3 Limitations on Permit Coverage

1.3.1 Compliance with Water Quality Standards

If the Permittee complies with all the terms and conditions of this Permit, it is presumed that the Permittee is not causing or contributing to an exceedance above the State of Washington's water quality standards. This Permit does not authorize discharges that will cause or have the reasonable potential to cause or contribute to, an exceedance above the applicable State surface water quality standards (Chapter 173-201A WAC), sediment quality standards (Chapter 173-204 WAC), standards in EPA's revision of certain Federal water quality criteria applicable to Washington (40 CFR 131.45), and other appropriate requirements of State law. If the Permittee finds that there has been a discharge that causes or has the reasonable potential to cause or contribute to, an exceedance above the State of Washington water quality standards, the required response by the Permittee is set forth in Part 4 (*Required Response to Violations of Water Quality Standards*).

1.3.2 Snow Disposal to Receiving Waters

The Permittee is not authorized to dispose of snow directly to waters of the United States or directly to the MS4(s). Discharges from Permittee-owned or operated snow disposal sites, and the Permittee's snow management practices, are authorized under this Permit when such sites/practices are operated using Best Management Practices (BMPs) as required in Part 2.5 (*Pollution Prevention and Good Housekeeping for Municipal Operations*). Such BMPs must be designed to prevent pollutants in the runoff and prevent violations of the applicable water quality standards.

1.3.3 Stormwater Discharges Associated with Industrial or Construction Activity

The Permittee is not authorized to discharge stormwater associated with industrial

activity (as defined in 40 CFR §122.26(b)(14)), and/or stormwater associated with construction activity (as defined in 40 CFR §122.26(b)(14)(x) and (b)(15)), unless such discharges are otherwise authorized under the *NPDES General Permit for Stormwater Associated with Construction Activities For Federal Facility Operators in Washington State (CGP)*, the *NPDES Multi-Sector General Permit for Stormwater Associated with Industrial Activities For Federal Facility Operators in Washington State (MSGP)*, or another appropriate NPDES permit.

1.3.4 **Non-Stormwater Discharges**

The Permittee is not authorized to discharge non-stormwater from the MS4, unless such discharges satisfy one of the following conditions:

1.3.4.1 The non-stormwater discharges comply with a separate NPDES permit;

1.3.4.2 The non-stormwater discharges originate from and during emergency firefighting activities, and such discharges either do not involve PFAS-containing aqueous film-forming foams (AFFFs), or involve PFAS-containing AFFFs and are consistent with Part 2.5.8 of this Permit. After the emergency has ceased, non-stormwater discharges (e.g., discharges associated with cleanup) to the MS4 are prohibited. Determination of cessation of the emergency is at the discretion of the emergency on-scene coordinator.

1.3.4.3 The non-stormwater discharges result from a spill and are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge; or

1.3.4.4 The non-stormwater discharges result from a spill and consist of emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges; or

1.3.4.5 The non-stormwater discharges consist of one or more flows listed below, and such flows are managed by the Permittee in accordance with Parts 2.3 and 2.5 of this Permit:

1.3.4.5.1 Potable water sources, including but not limited to, water line flushing, hyperchlorinated water line flushing, fire hydrant flushing, and pipeline hydrostatic test water;

1.3.4.5.2 Landscape watering and other irrigation runoff;

1.3.4.5.3 Dechlorinated swimming pool, spa, and hot tub discharges;

1.3.4.5.4 Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents;

1.3.4.5.5 Diverted stream flows;

1.3.4.5.6 Rising ground waters;

1.3.4.5.7 Uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20));

1.3.4.5.8 Uncontaminated pumped ground water;

1.3.4.5.9 Foundation drains;

1.3.4.5.10 Air conditioning condensation;

1.3.4.5.11 Irrigation water from agricultural sources that is commingled with urban stormwater;

1.3.4.5.12 Springs;

1.3.4.5.13 Uncontaminated water from crawl space pumps;

1.3.4.5.14 Footing drains; and/or

1.3.4.5.15 Flows from riparian habitats and wetlands.

1.4 Permittee Responsibilities

1.4.1 Shared Implementation with Outside Entities

The Permittee may share or delegate implementation of one or more of the stormwater management control measures to an entity that has municipal stormwater management authority/experience. The Permittee may rely on another entity if:

1.4.1.1 The other entity, implements the control measure;

1.4.1.2 The particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement; and

1.4.1.3 The other entity agrees to implement the control measure on the Permittee's behalf.

The Permittee and outside entity must maintain a written and binding agreement between the parties. Any previously signed agreement may be updated, as necessary, to comply with this requirement. The written agreement must describe each organization's respective roles and responsibilities related to this Permit and identify all aspects of stormwater management where the entities will share or delegate implementation responsibility. Any such agreement must be referenced in the Permittee's stormwater management program (SWMP) Document and acknowledged to EPA with the next Annual Report.

The Permittee remains responsible for compliance with the permit obligations if the other

entity fails to implement the control measure (or component thereof).

1.4.2 Maintain Adequate Legal Authority

The Permittee must maintain relevant enforceable mechanisms sufficient to control pollutant discharges into and from the MS4 and meet the requirements of this Permit.

The SWMP Document required by Part 1.4.3, below, must summarize all of the legal authorities to implement Parts 2.3,.2.4 and 2.5 of this Permit.

If existing legal authority is not sufficient to fully implement the terms of this Permit, the Permittee must adopt regulatory or contractual mechanisms, as appropriate, that provide adequate legal authority as allowed and authorized pursuant to applicable federal law.

1.4.3 SWMP Document

The Permittee must maintain a written SWMP document, or documents, to describe in detail how the Permittee complies with the required control measures in this Permit. Existing SWMP documents may be updated to comply with this requirement.

The Permittee's SWMP Document must also describe interim schedule(s) for implementation of any control measure components to be developed and/or implemented during the term of this Permit.

No later than the reporting deadline for the first Annual Report, the Permittee's SWMP Document must be completed and available through the website required in Part 2.2.3 (*Website*).

The Permittee must submit an updated SWMP document with the Permit Renewal Application as required by Part 6.2 (*Duty to Reapply*).

1.4.4 SWMP Information and Statistics

The Permittee must maintain a method of gathering, tracking, and using SWMP information to set priorities, and assess Permit compliance. The Permittee must track activities and document program outcomes as stipulated by the respective SWMP control measure (e.g., the number of inspections, official enforcement actions, and/or types of public education actions, etc.), and must cite relevant information and statistics, reflecting the specific reporting period, in each Annual Report.

1.4.5 Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation

The Permittee must implement the required control measures of this Permit in all new areas added or transferred to the Permittee's MS4 (or for which a Permittee becomes responsible for implementation of stormwater quality controls) as expeditiously as practicable but not later than one (1) year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately. Any additions and schedules for implementation must be documented in the next SWMP Document update and Annual Report following the transfer.

1.5 Equivalent Documents, Plans or Programs

The Permittee may submit to EPA any documents, plans, programs, or program summaries that the Permittee believes to be equivalent to a required control measure or control measure component specified in Part 2 of this Permit. Such equivalent documents, plans or programs must be submitted for EPA review and consideration no later than six months from the effective date of the Permit.

1.5.1 Required Information

In support of any request for consideration of equivalent documents, plans, programs or program summaries, the Permittee must submit a copy of the relevant document, plan, program, or program summary, and include the following information to support its request:

1.5.1.1 A detailed written discussion identifying the original control measure or component that is addressed by the Permittee's submittal, and the reasons, rationale, citations, and/or references sufficient to demonstrate that the alternative document, plan or program meets or exceeds the requirements of the control measure or component it is meant to replace;

1.5.1.2 If needed, a detailed implementation schedule the Permittee intends to follow to enact the alternative control prior to the expiration date of this Permit; and

1.5.1.3 A description of any local public notice or public engagement process, including relevant results of such public engagement, that the Permittee conducted regarding the equivalent document, program or plan, prior to submittal.

1.5.1.4 Upon receipt of request for consideration of equivalent documents, plans or programs, EPA will review the information to assess if the document, plan or program sufficiently meets the requirements of this Permit to be deemed equivalent (with Ecology approval) to the required control measure or control measure component.

1.5.2 Determination

Based on this review, EPA will determine whether additional permit terms and conditions specific to the Permittee must be referenced in this Permit. If new or specific permit terms and conditions are warranted, EPA will notify the Permittee and the public of its intent to modify this Permit. EPA will accept public comment for a minimum of 30 days on such proposed modifications, pursuant to 40 CFR §§ 122.28(d)(2), 122.62 and 124. As specified in Part 6.1 (*Permit Actions*), a Permittee's request for consideration of equivalent documents, plans or programs, does not stay any permit condition, and does not replace the required control measure or control measure component until EPA completes a permit modification procedure as outlined above.

1.5.3 Notification from EPA

Upon completion of a permit modification process, EPA will notify the Permittee, in writing, of its final decision to recognize the equivalent control measure(s) through new or additional permit conditions specific to the Permittee.

2 STORMWATER MANAGEMENT PROGRAM (SWMP) CONTROL MEASURES

2.1 Education and Outreach on Stormwater Impacts

The Permittee must conduct and/or participate in public education and outreach activities designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities.

The education and outreach activities must be designed to educate target audiences about the stormwater problem and provide specific actions they can follow to minimize the problem. The Permittee may meet this requirement individually or through cooperation with other entities.

The Permittee must describe the specific education program goals in the SWMP Document. The Permittee must track and maintain records of public education and outreach activities and outcomes.

2.1.1 General Stormwater Outreach and Education

The Permittee must target its education and outreach program activities to reach a combination of the following audiences that is appropriate for each facility or operation:

- Project managers;
- Contractors;
- Tenants
- Residents;
- Environmental staff.

2.1.1.1 The Permittee must list and publicize means, as appropriate to the facility or operation, for individuals to report spills and other illicit discharges for investigation.

2.1.1.2 The Permittee must inform target audiences within the Permit Area of environmental impacts associated with illegal discharges and improper disposal of waste and how to report them. This program must be conducted in concert with the Illicit Discharge Detection & Elimination requirements outlined in Part 2.3.

2.1.1.3 The Permittee must select from the following topics to build general awareness and effect behavior change through its education and outreach activities:

- Proper use, storage and disposal of household hazardous waste;
- Proper recycling;
- Appropriate stormwater management practices for commercial, food service, and automotive activities, including carpet cleaners, home-based or mobile businesses;
- Appropriate yard care techniques for protecting water quality, including proper timing and use of fertilizers;

- Proper pet waste management;
- Appropriate spill prevention practices;
- Proper management of street, parking lot, sidewalk, and building wash water;
- Proper methods for using water for dust control; and
- Proper design and use of Low Impact Development (LID) techniques;
- Other topic(s) that focus(es) on facility-specific source(s) or cause(s) of water quality degradation.

2.1.2 **Additional Public Education and Outreach for JBLM**

In addition to the other provisions in Part 2.1 of the Permit, JBLM must conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.

2.1.3 **Assessment**

The Permittee must measure and document the understanding and adoption of the targeted behavior[s] for at least one audience in at least one topic in Part 2.1.1 and provide a summary of implementation of Part 2.1.2. The assessment must be used to direct education and outreach resources most effectively through the remainder of the Permit term. The Permittee must evaluate and summarize resulting changes in adoption of the targeted behavior(s). The Permittee may meet this requirement individually or through cooperation with other entities.

2.1.4 **Reporting**

In each Annual Report, the Permittee must summarize its education and outreach activities during the reporting period and provide one or more examples of successful education/outreach activity.

2.2 Public Involvement/Participation

2.2.1 Comply with Applicable Federal Requirements

The Permittee must comply with applicable federal public notice requirements when conducting the public involvement and participation activities associated with this Permit.

2.2.2 Engage Appropriate Audiences.

At least annually, the Permittee must conduct one or more meetings to coordinate among appropriate staff and management within their installation/ organization, and others who play a role in elements of Permit implementation, to ensure effective implementation of the SWMP control measures required by this Permit. To the extent that stormwater management activities and decisions affect JBLM neighbors and nearby activities and operations, public engagement should be used to help set priorities for implementation activities with significant effects on those people and organizations.

2.2.3 Website

The Permittee must make the updated SWMP Document required by Part 1.4.3, above, available to the public on the Permittee's website.

2.2.4 Volunteer Activities

At least twice during the Permit term, the Permittee must sponsor one or more volunteer activities designed to actively engage residents and employees at the Permittee's installation to better understand how stormwater can become polluted and how their activities can affect stormwater quality. Such public involvement activities must complement the public education/outreach activities required by Part 2.1, above. Volunteer activities may include, but are not limited to, storm drain stenciling or marking program; establishing a means for residents and employees to report pollution concerns; stream clean-up activities; etc.

2.2.5 Reporting

In each Annual Report, the Permittee must summarize its public involvement and participation activities during the reporting period and provide one or more examples of successful public involvement/engagement activities.

2.3 Illicit Discharge Detection and Elimination (IDDE)

The Permittee must implement an on-going program to detect and remove illicit connections and discharges into the MS4. The Permittee must include a written description of the program in the SWMP Document. The Permittee must implement an IDDE program which fully addresses each of the following components:

2.3.1 Map of MS4 Areas

The Permittee must update and maintain current maps of the MS4 located within the Permit Area. At a minimum, the MS4 map must include the following information:

- facility boundaries;
- known MS4 outfalls,
- receiving waters, other than groundwater;
- Tributary conveyances for all known MS4 outfalls. The following attributes must be mapped for all known outfalls: tributary conveyances (type, material and size where known); associated drainage areas; and land use;
- Stormwater treatment and flow control BMPs/facilities owned, or operated, by the Permittee, including information about type, and design capacity.
- Geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface waters;
- Points at which the Permittee's MS4 is interconnected with other MS4s or other storm/surface water conveyances; and
- Locations of all Permittee owned or operated industrial facilities, maintenance/storage facilities, snow disposal sites that discharge directly to the Permittee's MS4, areas of known toxic and bioaccumulative materials usage and contamination, and/or waters of the U.S.

Consistent with national security laws and directives, a copy of the completed MS4 map must be submitted, at a minimum as part of the Permit renewal application required in Part 6.2 (*Duty to Reapply*). During the permit term, a copy of the MS4 map must be submitted to EPA upon request.

Consistent with national security laws and directives, the Permittee must provide mapping information to operators of adjacent regulated MS4s upon request.

2.3.2 Policy

The Permittee must effectively prohibit, through policy, ordinance, or other regulatory mechanism all illicit discharges into the MS4 under the legal authorities of the Permittee. As necessary, the mechanism to comply with this Permit must be adopted, (or existing mechanism amended), no later than two years from the Permit effective date.

The Permittee must implement appropriate actions associated with the policy to correct identified illicit discharges.

2.3.2.1 *Allowable Discharge*s: The regulatory mechanism does not need to prohibit the following discharges, consistent with Part 1.3.4 (*Non-Stormwater Discharges*), above:

- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20));
- Uncontaminated pumped ground water;
- Foundation drains;
- Air conditioning condensation;
- Irrigation water from agricultural sources that is commingled with urban stormwater;
- Springs;
- Uncontaminated water from crawl space pumps
- Footing drains;
- Flows from riparian habitats and wetlands;
- Non-stormwater discharges covered by another NPDES permit;
- Non-stormwater discharges from emergency firefighting activities that do not involve the use of PFAS-containing AFFFs; and
- Non-stormwater discharges from emergency firefighting activities that involve the use of PFAS-containing AFFFs, provided such discharges are in compliance with the provisions of Part 2.5.8.

2.3.2.2 *Conditionally Allowable Discharges*: The regulatory mechanism may allow the following categories of non-stormwater discharges, only if the stated conditions are met:

2.3.2.2.1 *Discharges from potable water sources, including but not limited to water line flushing, hyper-chlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water*: Planned discharges must be dechlorinated to a total residual chlorine concentration of 0.1 parts per million (ppm) or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4.

2.3.2.2.2 *Discharges from lawn watering and other irrigation runoff*: These discharges must be minimized through, at a minimum, public education activities required by Part 2.1, and water conservation efforts.

2.3.2.2.3 *Dechlorinated swimming pool, spa, and hot tub discharges*: The discharges must be dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and re-oxygenized if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Discharges must be thermally controlled to prevent an increase in temperature of the receiving waters. Swimming pool cleaning wastewater and filter backwash must not be discharged to the MS4.

2.3.2.2.4 *Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents*: The Permittee must reduce these discharges through, at a minimum, public education activities required through Part 2.1 and/or water conservation efforts. To avoid washing pollutants into the MS4, the Permittee must minimize the amount of street wash and dust control water used. At active construction sites, street sweeping must be performed prior to washing the street.

2.3.2.2.5 *Stormwater accumulating in secondary containment structures.* Following sampling of accumulated stormwater for any pollutant that might reasonably be expected to occur based on current or legacy activities, and verification that no pollutants occur at concentrations that would cause or contribute to water quality impairments, accumulated stormwater in secondary containment structures may be discharged to the MS4 following a visual inspection that verifies that no sheens or accumulated solids are present in the discharge. Stormwater sampling must be repeated after any incident in which pollutants have collected in the secondary containment structure and the same assessment procedures followed.

2.3.2.2.6 *Other non-stormwater discharges.* The discharges must be in compliance with the requirements of a pollution prevention plan reviewed by the Permittee which addresses control of such discharges.

2.3.3 Detection and Elimination

The Permittee must implement an on-going program to detect and address non-stormwater discharges, spills, and illicit connections into their MS4. This program must be described within the SWMP Document and include:

2.3.3.1 *Procedures for locating priority areas likely to have illicit discharges*, including areas where complaints have been recorded in the past, and areas with storage of large quantities of materials that could result in spills; and areas where storage, usage, releases or contamination of any pollutant in Table 3.3.5 is or has occurred;

2.3.3.2 *Field assessment activities,* including visual inspection of outfalls draining priority areas during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges. Where MS4 outfalls are submerged, the Permittee may inspect the first unflooded manhole upstream of the outfall. The dry weather screening activities may include field tests of parameters selected by the Permittee as being indicators of discharge sources. The Permittee may utilize less expensive “field test kits,” and test methods not

approved by EPA under 40 CFR Part 136, provided the manufacturer's published detection ranges are adequate for the illicit discharge detection purposes;

2.3.3.2.1 The Permittee must continue dry weather field screening for non-stormwater flows from stormwater outfalls.

2.3.3.2.2 No later than 180 days prior to the Permit expiration date, the Permittee must complete field screening of at least 75% of all MS4 outfalls located within the Permit Area;

2.3.3.2.3 Screening for illicit connections must be conducted in an effective manner as described in *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October 2004; *Illicit Connection and Illicit Discharge Field Screening and Source Tracking Guidance Manual*, Herrera Environmental Consultants, Inc, 2020 Revision; or another methodology of comparable effectiveness.

2.3.3.3 *Procedures for characterizing* the nature of, and potential public or environmental threat posed by, any illicit discharges which are found by or reported to the Permittee. Procedures must address the evaluation of whether the discharge must be immediately contained and steps to be taken for containment of the discharge;

2.3.3.3.1 Compliance with this provision will be achieved by immediately responding to all illicit discharges including spills and recurring discharges which are determined to constitute a threat to human health or the environment;

2.3.3.3.2 Investigating (or referring to the appropriate agency) immediately any spills or releases, and within seven (7) calendar days, any complaints, reports or monitoring information that indicates a potential illicit discharge; and immediately investigating (or referring) problems and violations determined to be emergencies or otherwise judged to be urgent or severe; investigations should include identification of pollutant volumes/loads and potential impacts;

2.3.4.3.3 Immediately containing spills or other illicit discharges and implementing clean-up measures, as appropriate.

2.3.3.4 *Procedures for notifying affected parties*, including immediate notification of spills and illicit discharges, and ongoing updates about abatement measures and possible impacts.

2.3.3.4.1 The permittee must immediately notify downstream operators of MS4s, shellfish beds/fisheries,

agricultural/livestock operations and drinking water systems (public or private) of spills or other non-stormwater discharges that may impact those systems;

2.3.3.4.2 For illicit discharges that cannot be immediately abated and that have the potential to affect human health, or any of the systems identified in Part 2.3.3.4.1, the Permittee shall keep those parties informed of the status of illicit discharge elimination activities and also provide other information and data, as appropriate, on potential impacts.

2.3.3.5 *Procedures for tracing the source of an illicit discharge*; including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures; and

2.3.3.6 *Procedures for eliminating the discharge*; including scheduling and implementing remedial measures and other safeguards to ensure the discharge does not recur; technical assistance; follow-up inspections; and escalating the issue if the discharge is not eliminated.

2.3.3.6.1 Compliance with this provision will be achieved by initiating an investigation within twenty-one (21) days of a report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection. Upon confirmation of the illicit nature of a storm drain connection, the Permittee must initiate action within forty-five (45) days in a documented effort to eliminate the illicit connection.

2.3.4 Identification of Potential PFAS Infiltration into the MS4

Utilizing the PFAS areas of potential interest locations identified in the August 2020 Final Preliminary Assessment/Site Inspection Report, the Permittee must assess the potential discharge of PFAS through the MS4 infrastructure.

2.3.4.1 The Permittee must identify at least 2 wet weather outfall monitoring locations to implement PFAS wet weather monitoring. At least 1 of the identified outfall locations must discharge to Clover Creek.

2.3.4.2 This assessment must be submitted to EPA with the 1st year annual report. Wet weather water quality monitoring of PFAS compounds at the selected outfall monitoring locations will begin within 18 months of the permit effective date. See Part 3.5 (*Wet Weather Water for PFAS Compounds*).

2.3.5 Training

The Permittee must ensure that all staff responsible for the identification and investigation are trained to conduct these activities. Orientation and training concerning

the Permittee's SWMP must be accomplished within the first six months of employment for new staff who work directly on stormwater management issues. Follow-up training must be provided as necessary to address changes in procedures, techniques, or requirements.

2.3.6 **Reporting**

The Permittee must implement a means of program evaluation and assessment to track the number and type of illicit discharges identified, dry weather screening efforts, and location and any efforts to correct identified illicit discharges.

The Permittee must maintain a record of input received and follow-up actions taken in Part 2.3.3, and include a summary in the Annual Report. The Permittee must provide examples of successful IDDE activities occurring in the reporting period, summarize relevant training provided or obtained, and the staff members trained.

2.4 New Development, Redevelopment and Construction Site Runoff Control

The Permittee must implement and enforce a program to reduce pollutants in stormwater runoff to the MS4 from construction, new development and redevelopment project site activities. The program must apply to private and public development, including roads.

The Permittee must include a brief written description of this program in the SWMP Document, including a list of the policies and procedures used to implement the following minimum components.

2.4.1 Oversight

The Permittee must provide adequate direction and oversight to “regulated construction activities” and “regulated industrial activities” as defined in Part 7 (Definitions) that occur within the Permit Area to ensure that entities responsible for regulated activities obtain authorization to discharge under the appropriate stormwater permits issued by EPA.

2.4.2 Policy

The Permittee must implement an enforceable mechanism available under the legal authorities of the Permittee to address runoff from new development, redevelopment and construction site projects as follows:

2.4.2.1 The Permittee’s enforceable mechanism must contain thresholds, definitions, and minimum requirements for new development, redevelopment, and construction sites that are equivalent to the 2019 Western Washington Phase I and II Municipal Stormwater Permits (Appendix 1- Minimum Technical Requirements for New Development and Redevelopment) and the 2019 Stormwater Management Manual for Western Washington (SWMMWW). Within 18 months of the permit effective date, the Permittee must update JBLM stormwater regulation 200-3 to comply with this requirement.

2.4.2.2 The Permittee’s enforceable mechanism must include:

- Site planning requirements;
- BMP selection criteria;
- BMP design criteria;
- BMP infeasibility criteria;
- Low Impact Development (LID) competing needs criteria;
- BMP limitations

2.4.2.3 In Airport Operation Areas (AOA), stormwater site plans shall be prepared consistent with the *Aviation Stormwater Design Manual* (2008) or equivalent. For road projects, the design requirements and best management practices shall be prepared consistent with the *Highway Runoff Manual* (WSDOT 2019) or equivalent.

2.4.2.4 If the Permittee chooses to use alternative means to meet this requirement, the Permittee must document how their requirements, limitations, and criteria will reduce the discharge of pollutants to the

maximum extent practicable, protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act and the State of Washington. Such documentation must be submitted to EPA pursuant to Part 1.5 (*Equivalent Documents, Plans or Programs*) no later than the reporting deadline for the first Annual Report.

2.4.2.5 For development in the training area in Muck Creek Watershed, JBLM stormwater regulation 200-3 must be revised to require new development project sites that retain stormwater within the sub-basin from which it originates. Within 18 months of the permit effective date, the Permittee must update JBLM stormwater regulation 200-3 to comply with this requirement.

2.4.3 Site Plan Review, Inspection and Corrective Action

The program must include site plan review, site inspection, and contractual powers sufficient to meet the standards listed in Parts 2.4.3.1 through 2.4.3.7 below, for both private and public projects. At a minimum, this program shall be applied to all sites that meet the minimum thresholds adopted pursuant to Part 2.4.2, above. Projects for which the design process was completed prior to the effective date of this Permit are expected to incorporate these requirements to the extent possible but may document where it is not possible to do so.

2.4.3.1 Review of all stormwater site plans for proposed development activities.

2.4.3.2 Inspect, prior to clearing and construction, all development sites that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix C *Determining Construction Site Sediment Damage Potential*. As an alternative to evaluating each site according to Appendix C, the Permittee may choose to inspect all construction sites that meet the minimum thresholds adopted pursuant to Part 2.4.2.1, above.

2.4.3.3 Inspect all development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.

2.4.3.4 Inspect all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new developments every six months until 90% of the common plan of development is constructed (or when construction is stopped and the site is fully stabilized) to identify maintenance needs and enforce compliance with maintenance standards as needed.

2.4.3.5 Inspect all development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. Verify that maintenance requirements are assigned/entered into the JBLM's electronic tracking system for stormwater treatment and flow control BMPs/facilities. Enforce as necessary based on the inspection.

2.4.3.6 Compliance with the inspection requirements above, shall be determined by the presence and records of an established inspection program designed to inspect all sites. Compliance during this Permit term shall be determined by achieving at least 80% of scheduled inspections.

2.4.3.7 An internal tracking system must be implemented to respond to issues of non-compliance.

2.4.4 Stormwater Retrofits to Reduce Pollutant Discharges to Impaired Receiving Waters for JBLM

2.4.4.1 The Permittee must characterize the MS4 discharges to Clover Creek and utilize the 2016 McChord Field Stormwater Study to implement at least one retrofit project prior to the expiration date of the permit.

2.4.4.2 For any retrofit projects initiated during this permit term, the Permittee must select retrofit projects using practices that have been shown to effectively reduce the pollutants listed in Table 3.3.5 and 6PPD-quinone in stormwater discharge such as those detailed in Ecology's 2022 *Stormwater Treatment of Tire Contaminants Best Management Practices (BMP) Effectiveness Report*.[1]

2.4.4.3 For any retrofit projects initiated during this permit term, the Permittee must assess the effectiveness of pollutant removal, as a result of the retrofit projects.

2.4.5 Training

The Permittee must ensure that all staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including plan review, construction site inspections, and enforcement, are trained to conduct these activities. Orientation and training concerning the Permittee's stormwater management program must be accomplished within the first six months of employment for new staff who work directly on stormwater management issues. Follow-up training must be provided as necessary to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

2.4.6 Reporting

The Permittee must summarize in each Annual Report for the relevant reporting period: any corrective actions taken at construction sites during the previous reporting period; number of site plans reviewed; site inspections conducted by the Permittee, including the location and total number of such inspections and result/response; and one or more example of major follow-up action(s) conducted by the Permittee, any subsequent enforcement actions, and/or any referrals to different departments or agencies. The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. The annual report must include a progress summary of all retrofit

1 Washington Department of Ecology, *Stormwater Treatment of Tire Contaminants Best Management Practices Effectiveness*, 2022. https://fortress.wa.gov/ecy/ezshare/wq/Permits/Flare/2019SWMMWW/Content/Resources/DocsForDownload/2022_SWTreatmentOfTireContaminants-BMPEffectiveness.pdf?utm_medium=email&utm_source=govdelivery

projects planned and implemented during the reporting period.

2.5 Pollution Prevention and Good Housekeeping for Operations & Maintenance.

The Permittee must update and implement its operations and maintenance (O&M) program to prevent or reduce pollutants in runoff from the Permittee's MS4 and from ongoing municipal operations in the MS4 area. The written program description must be included in the SWMP Document. At a minimum, the O&M program must address each of the following program components:

2.5.1 Maintenance Standards for Permanent Stormwater Facilities

2.5.1.1 The Permittee must implement maintenance standards for its permanent stormwater facilities used for onsite management, flow control and treatment that are protective of facility function. The maintenance standard is a baseline for optimum performance of the facility under the precipitation and runoff conditions for which it is designed. The SWMP should also document: frequencies of inspections, tests or evaluations to determine functionality under appropriate conditions; specific criteria that determine when maintenance activities are required; specific protocols for repairs; and adequate record-keeping. Maintenance standards and maintenance procedures must be documented in the SWMP document.

The purpose of a maintenance standard is to determine if maintenance of a stormwater facility is required. The maintenance standard is not a measure of the facility's required condition at all times between inspections. Falling short of the maintenance standard between inspections is not a permit violation if established procedures are being followed.

For facilities that do not have maintenance standards, the Permittee must develop maintenance standards.

2.5.1.2 Unless there are circumstances beyond the Permittee's control, if an inspection required in Part 2.5.2 below identifies that a facility's maintenance standard has not been met, the Permittee must perform appropriate maintenance as follows:

- Within 1 year for most facilities, except catch basins;
- Within 6 months for catch basins;
- Within 2 years for maintenance that requires capital construction of less than $25,000;
- The Permittee shall report to EPA in annual reports any schedule for maintenance that requires capital construction of $25,000 or more.

Where circumstances beyond the Permittee's control prevent the maintenance activity from occurring, the Permittee must document within the corresponding Annual Report the circumstances and how they were outside the Permittee's control.

2.5.1.3 The O&M program must include an enforceable mechanism that clearly identifies the party/parties responsible for maintenance.

2.5.2 **Inspection of Permanent Stormwater Facilities**

The O&M program must include annual inspections, at a minimum, of all Permittee owned or operated permanent stormwater facilities used for flow control and treatment, other than catch basins. The Permittee may determine that some facilities require more frequent inspections.

2.5.2.1 If maintenance and inspection records support such action, the Permittee may reduce the inspection frequency up to, but not to exceed two years. In the absence of maintenance records, the Permittee may substitute written statements, e.g., vendor or engineer specifications, to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be included within the SWMP Document and certified in accordance with Part 6.5 (*Signatory Requirements*).

2.5.3 **Spot Check Inspection of Permanent Stormwater Facilities**

The Permittee must conduct spot checks of potentially damaged permanent stormwater control facilities (other than catch basins) after major storm events. A spot check, at a minimum, is a visual inspection, though it may also include things like determining the depth of solids accumulation, ensuring drains are clear, valves are functioning, or other assessments, as appropriate. For the purposes of this Permit, a major storm event is rainfall greater than the 24-hour, 10-year recurrence interval. The Permittee must conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the visual or other, as appropriate, spot check inspections.

2.5.4 **Inspections of Catch Basins**

The Permittee must inspect all catch basins and inlets owned or operated by the Permittee at least once before the end of the permit term. The Permittee must clean catch basins if inspection indicates cleaning is needed. Decant water and solids must be disposed of in accordance with Part 5.13 (*Removed Substances*) and Appendix D of this Permit.

2.5.5 **Compliance**

Compliance with the inspection requirements in Parts 2.5.2 and 2.5.4 above will be determined by evaluating Permittee records of the permanent stormwater facility inspection program. The Permittee must inspect at least 95% of identified permanent stormwater facilities used for flow control and treatment, and 95% of all catch basins, by the Permit expiration date

2.5.6 **Maintenance Practices**

The Permittee must document and implement maintenance practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways, parks, open space, road right-of- way, maintenance yards, stormwater facilities used for flow control and treatment and from road maintenance activities located or conducted within the Permit Area by the Permittee or other entities. The Permittee must ensure that the following activities are conducted in a manner that is protective of receiving water

quality:

- Pipe cleaning;
- Cleaning of culverts that convey stormwater in ditch systems;
- Ditch maintenance;
- Street cleaning;
- Runway/Airfield cleaning/maintenance, including clean-up from firefighting activities;
- Road repair and resurfacing, including pavement grinding;
- Snow and ice control;
- Utility installation;
- Pavement striping maintenance;
- Maintaining roadside areas, including vegetation management;
- Dust control;
- Application of fertilizer, pesticides, and herbicides;
- Sediment and erosion control;
- Landscape maintenance and vegetation disposal;
- Trash management; and
- Building exterior cleaning and maintenance.

2.5.7 Training

The Permittee must implement an on-going training program for the Permittee's facility maintenance staff, contracted companies, environmental project officers, or other staff whose construction, operations or maintenance job functions may impact stormwater quality.

The training program must address the importance of protecting water quality; the requirements of this Permit; operation and maintenance standards, inspection procedures; selection of appropriate BMPs as required in this Part; ways to perform their job activities to prevent or minimize impacts to water quality; and procedures for reporting water quality concerns, including potential illicit discharges.

Orientation and training concerning the Permittee's SWMP must be accomplished within the first six months of employment for new staff who work directly on stormwater management issues. Follow-up training must be provided as needed to address changes in procedures, techniques, or requirements.

2.5.8 PFAS Management at JBLM

2.5.8.1 The Permittee must develop a PFAS management plan which will implement measures to minimize discharges of PFAS via the MS4 during emergency firefighting activities. The permittee is not expected to deploy control measures during an emergency.

The Permittee must implement measures to minimize discharges of PFAS via the MS4 during post-emergency activities, including clean-up.

2.5.8.2 The Permittee must establish specific protocols for minimizing the resuspension, conveyance and discharge of PFAS already in the MS4, both during normal operations and during all maintenance and

remediation activities.

2.5.8.3 The Permittee must report on all activities undertaken in fulfillment of Parts 2.5.8.1 and 2.5.8.2 in each Annual Report.

2.5.9 Stormwater Pollution Prevention Plans for Equipment Maintenance/Material Storage Yards

The Permittee must implement Stormwater Pollution Prevention Plans (SWPPP) for any heavy equipment maintenance or storage yards, and/or material storage facilities owned or operated by the Permittee within the Permit Area, which are not already regulated under the NPDES *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities, #WAR05F000* or another NPDES permit. As relevant, all SWPPPs must include provisions to minimize discharges from the use and clean-up of PFAS consistent with the requirements of Part 2.5.8 of the Permit.

Implementation of non-structural BMPs must begin immediately after the SWPPP is developed. A schedule for installation of any necessary structural BMPs must be included in the SWPPP. The Permittee may use generic SWPPPs that can be tailored to multiple similar activity sites to comply with this requirement. The SWPPP(s) must include a summary of BMPs utilized at the site and periodic visual observation of discharges from the facility by responsible staff to verify the effectiveness of BMPs used to reduce pollutants in runoff.

2.5.10 Reporting

Records of all permanent stormwater facility inspections, catch basin inspections, identified failures to meet maintenance standards, maintenance activities and schedules, repair activities and enforcement activities conducted by the Permittee must be maintained in accordance with Part 3.6 (*Reporting Requirements*) below, and summarized for the preceding reporting period within the corresponding Annual Report.

2.5.10.1 Where circumstances beyond the Permittee's control prevent the maintenance activity from occurring, the Permittee must document within the corresponding Annual Report the circumstances and how they were outside the Permittee's control.

2.5.10.2 The Permittee must document the total number of Permittee-owned or operated permanent stormwater facilities used for flow control and treatment to be inspected in compliance with this Part. Subsequent Annual Reports must summarize the Permittee's inspection and maintenance of those permanent stormwater facilities.

2.5.10.3 The Permittee must report the total number of Permittee-owned or operated catch basins to be inspected in the upcoming year in compliance with this Part. Subsequent Annual Reports must document the Permittee's progress toward inspecting and maintaining all catch basins prior to the Permit expiration date.

2.5.10.4 The Permittee must maintain records of relevant training provided or

obtained, and the staff members trained. A summary of training must be included in the Annual Report.

3 MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

3.1 Compliance Evaluation

At least once per year, the Permittee must evaluate its compliance with all Permit conditions and report on progress toward achieving the control measures. This evaluation of permit compliance must be documented through each Annual Report submitted as described in Part 3.7.2 (*Annual Reports*).

3.2 Monitoring Options

The Permittee must implement one of the following monitoring options. The Permittee shall provide EPA a decision within 6 months of the effective date of this permit by either submitting an updated monitoring plan described in Option 1 (Part 3.3) or by notifying EPA of its intent to participate in the Stormwater Action Monitoring (SAM) program described in Option 2 (Part 3.4). Should the Permittee opt for participation in SAM later in the permit term, the Permittee shall notify EPA of this decision and include a specific schedule for transitioning from Monitoring Option 1 to Monitoring Option 2.

3.3 Monitoring Option 1

3.3.1 Monitoring/Assessment Plan and Objectives

The Permittee must monitor/assess wet weather discharges, surface water quality, and stream biology to measure the effectiveness of SWMP control measures to minimize impacts from MS4 discharges on receiving waters. The Permittee must conduct monitoring to estimate phosphorus loading from its MS4 discharges into American Lake; characterize water quality discharging through JBLM Canal; characterize water quality in Clover Creek and Murray Creek; assess baseline biological conditions in Clover Creek and Murray Creek; and conduct monitoring to determine pollutant loading into Clover Creek from the MS4.

3.3.2 Reporting Additional Monitoring & Assessment Activities

The Permittee may conduct additional stormwater discharge, water quality, biological assessment, or other manner of monitoring/assessment to further refine characterization of the MS4 discharges into Puget Sound, and to quantitatively assess MS4 pollutant reductions. If the Permittee quantitatively monitors more frequently than required by this Permit, in more locations than required by this Permit, the results of such additional monitoring must be considered, summarized, and submitted to EPA as required in Part 3.7.3 (*Monitoring Reports*), below.

3.3.3 Representative Sampling

Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

3.3.4 Analytical Methods

Sample collection, preservation, and analysis must be conducted according to test procedures approved under 40 CFR Part 136, unless another method is required under 40 CFR Part 136 Subchapters N or O, or other test procedures have been specified in this Permit or approved by EPA as an alternative test procedure under 40 CFR §136.5. Where an approved 40 CFR Part 136 method does not exist, and other test procedures have not been specified, any available method may be used after approval by EPA. The Permittee must use sufficiently sensitive analytical methods which meet the following:

3.3.4.1 The Permittee must use a method that detects and quantifies the level of the pollutant, or

3.3.4.2 The Permittee must use a method that can achieve a maximum minimum level (ML) less than or equal to those specified;

3.3.4.3 For parameters that do not have an effluent limit, the Permittee may request different MLs. The request must be in writing and must be approved by EPA.

3.3.5 Pollutants of Concern

The Permittee shall consider the pollutants of concern in Table 3.3.5 in development of the monitoring and assessment strategy, and must be able to justify failure to include any of these pollutants in the plan. The monitoring plan should also include any additional parameters that are likely to be present in MS4 discharges based on prior assessments or known activiites, and that could cause or contribute to exceedances of water quality standards. The plan must also include monitoring of any pollutants for which receiving waters are impaired. The Plan should include initital screening for certain pollutants of concern that may then be dropped from longer term monitoring efforts if they are detected in MS4 discharges infrequently in trace amounts.

Table 3.3.5 Pollutants of Concern for Monitoring

Parameter	Units
Flow*	cfs
Temperature	°C
Oil and Grease	mg/L
Dissolved Oxygen	mg/L
PFAS	ng/L
pH	s.u.
E. coli	cfu/100mL
Total Nitrogen	mg/L
Total Kjeldahl Nitrogen	mg/L
Total Phosphorus	mg/L
Total Suspended Solids	mg/L
Turbidity	NTU
Total and Dissolved Copper	µg/L
Total and Dissolved Zinc	µg/L
Hardness*	mg/L

* Parameters important to data interpretation

3.3.6 Wet Weather Discharge Monitoring

3.3.6.1 The monitoring plan must continue to use the locations, sample type, parameters, and intended frequency for sample collection during wet weather. Flow monitoring must also be undertaken in association with discharge monitoring.

3.3.6.2 As required by Part 3.3.9 (*Quality Assurance Requirements*) below, the Permittee must develop a Quality Assurance Program Plan (QAPP), or revise an existing QAPP, to clearly identify all monitoring methods and protocols to be used in the wet weather sampling effort.

3.3.6.3 Any data collected during the reporting period must be summarized annually and submitted to EPA as part of the corresponding Annual Report. See Part 3.6.3 (*Monitoring Reports).*

3.3.6.4 The Permittee must continue to sample at least quarterly from at least one stormwater outfall discharging to American Lake. This monitoring must include stormwater flow measurements collected using automated or manual sampling methods. Samples must be analyzed for total phosphorus as summarized below.

Table 3.3.6.4 American Lake MS4 Outfall Monitoring

Parameter	Monitoring Requirements		
	Sample Location[1]	**Sample Frequency[2]**	**Sample Type**
Flow (cfs)	See Below	Quarterly	Composite
Total Phosphorus (mg/L)	See Below	Quarterly	Composite

1. At least one (1) MS4 outfall discharging into American Lake, location(s) to be selected by Permittee.

2. Samples must be collected at least quarterly during a storm event sufficient to produce a discharge.

3.3.6.5 The Permittee must continue to collect monthly samples of MS4 discharges into Clover Creek, as specified below.

Table 3.3.6.5 Clover Creek MS4 Outfall Monitoring

Parameter	Monitoring Requirements		
	Sample Location[1]	**Sample Frequency[2]**	**Sample Type**
Flow (cfs)[3]	See Below	See Below	Composite
Oil and Grease	See Below	See Below	Grab
Dissolved Oxygen (mg/L)	See Below	See Below	Composite, via *in situ* probe
pH (s.u.)	See Below	See Below	Composite, via *in situ* probe
E. coli (cfu/100m/L)	See Below	See Below	Grab

Table 3.3.6.5 Clover Creek MS4 Outfall Monitoring			
Total Nitrogen (mg/L)	See Below	See Below	Composite
Total Phosphorus (mg/L)	See Below	See Below	Composite
Total Suspended Solids (mg/L)	See Below	See Below	Composite
Turbidity (NTU)	See Below	See Below	Composite, via in situ probe
Total and Dissolved Copper (µg/L)	See Below	See Below	Composite
Total and Dissolved Zinc (µg/L)	See Below	See Below	Composite
Hardness (mg/L)	See Below	See Below	Composite
1. Samples must be collected from at least two (2) outfall locations discharging into Clover Creek.			
2. Over a period of twenty-four (24), the Permittee must collect samples monthly at both outfall locations.			
3. Stormwater flow measurements must be collected using automated or manual sampling methods.			

3.3.7 Ambient Water Quality Monitoring

3.3.7.1 The monitoring plan must identify the location, sample type, parameters, and intended frequency for sample collection.

3.3.7.2 As required by Part 3.3.9 (*Quality Assurance Requirements*), the Permittee must develop a QAPP, or revise an existing QAPP, to clearly identify all monitoring methods and protocols to be used in the water quality sampling effort.

3.3.7.3 Any data collected during the reporting period must be summarized annually and submitted to EPA as part of the corresponding Annual Report. See Part 3.6.3 (*Monitoring Reports*), below.

3.3.7.4 **Water Quality in the JBLM Canal.** The Permittee must continue to monitor water quality in the JBLM Canal. Over a period of 24 consecutive months, the Permittee must continue to collect water quality samples at least quarterly, for a total of eight (8) quarterly samples. In addition, the Permittee must also collect at least five (5) individual samples during “high flow” storm events, at a frequency to be determined by the Permittee. For total and dissolved copper, monitoring frequency is monthly. This monitoring must include flow measurement(s) using automated or manual sample methods. All samples collected must be analyzed for the parameters listed below. All monitoring of water quality samples within the JBLM Canal, comprised of the minimum thirteen (13) sampling events describe above, must be completed no later than 180 days prior to the expiration date of the permit. Any monitoring data representing water quality discharging through the JBLM Canal must be summarized and reported to EPA annually as part of the corresponding Annual Report.

Table 3.3.7.4 Water Quality Monitoring Requirements for JBLM Canal		
	Monitoring Requirements	
Parameter	Sample Location[1]	Sample Frequency
Flow (cfs)	See Below	See Below[2]
Temperature (°C)	See Below	See Below[2]
Dissolved Oxygen (mg/L)	See Below	See Below[2]
pH (s.u.)	See Below	See Below[2]
E. coli (cfu/100m/L)	See Below	See Below[2]
Total Nitrogen (mg/L)	See Below	See Below[2]
Total Phosphorus (mg/L)	See Below	See Below[2]
Total Suspended Solids (mg/L)	See Below	See Below[2]
Turbidity (NTU)	See Below	See Below[2]
Total and Dissolved Copper (µg/L)	See Below	1/month[3]
Total and Dissolved Zinc (µg/L)	See Below	See Below[2]
Hardness (mg/L)	See Below	See Below[2]

1. Samples must be collected from at least one (1) location within JBLM Canal, downstream of all MS4 discharges/other flows entering the Canal, and prior to discharge into Puget Sound.
2. Over a period of twenty-four (24) months, the Permittee must collect samples quarterly, for a minimum of four samples per year, resulting in a minimum total of eight quarterly samples. An additional five (5) individual samples must be collected during the "high flow" storm events, at a frequency to be determined by the Permittee.
3. An additional five (5) individual samples must be collected during the "high flow" storm events, at a frequency to be determined by the Permittee.

3.3.7.5 **Water Quality in Clover Creek and Murray Creek.** The Permittee must monitor water quality in both Clover Creek and Murray Creek. This monitoring must include flow measurement(s) using automated or manual sampling methods. All samples must be analyzed for the parameters identified in the tables below. Any monitoring data representing water quality in Clover Creek and Murray Creek must be summarized and reported to EPA annually as part of the corresponding Annual Report.

Table 3.3.7.5.a Water Quality Monitoring Requirements for Clover Creek		
	Monitoring Requirements	
Parameter	Sample Location[1]	Sample Frequency[2]
Flow (cfs)	See Below	Quarterly
Temperature (°C)	See Below	Quarterly
Dissolved Oxygen (mg/L)	See Below	Quarterly
pH (s.u.)	See Below	Quarterly
E. coli (cfu/100m/L)	See Below	Quarterly
Total Nitrogen (mg/L)	See Below	Quarterly
Total Phosphorus (mg/L)	See Below	Quarterly

Table 3.3.7.5.a Water Quality Monitoring Requirements for Clover Creek		
Total Suspended Solids (mg/L)	See Below	Quarterly
Turbidity (NTU)	See Below	Quarterly
Total and Dissolved Copper (µg/L)	See Below	Quarterly
Total and Dissolved Zinc (µg/L)	See Below	Quarterly
Hardness (mg/L)	See Below	Quarterly

1. At a minimum, continue to collect samples in clover creek upstream and downstream and outfalls J002, J003, and J007.
2. A minimum of four (4) samples must be collected in each calendar year.

Table 3.3.7.5.b Water Quality Monitoring Requirements for Murray Creek		
	Monitoring Requirements	
Parameter	**Sample Location[1]**	**Sample Frequency[2]**
Flow (cfs)	See Below	Quarterly
Temperature (°C)	See Below	Quarterly
Dissolved Oxygen (mg/L)	See Below	Quarterly
pH (s.u.)	See Below	Quarterly
E. coli (cfu/100m/L)	See Below	Quarterly
Total Nitrogen (mg/L)	See Below	Quarterly
Total Phosphorus (mg/L)	See Below	Quarterly
Total Suspended Solids (mg/L)	See Below	Quarterly
Turbidity (NTU)	See Below	Quarterly
Total and Dissolved Copper (µg/L)	See Below	Quarterly
Total and Dissolved Zinc (µg/L)	See Below	Quarterly
Hardness (mg/L)	See Below	Quarterly

1. A minimum of one location in Murray Creek, to be selected by the Permittee.
2. A minimum of four (4) samples must be collected in each calendar year.

3.3.8 Biological and Habitat Monitoring

3.3.8.1 The monitoring plan must identify the location and intended frequency for sample collection. The Permittee must collect at least two (2) benthic macroinvertebrate samples in Clover Creek and two (2) benthic macroinvertebrate samples in Murray Creek and undertake associated habitat assessments in the waterbodies specified therein no later than the expiration date of this Permit.

3.3.8.2 One sampling event must be conducted between the months of August-October within any calendar year of the Permit term.

3.3.8.3 As required by Part 3.3.9 (Quality Assurance Requirements), the Permittee must develop a QAPP, or revise an existing QAPP, to clearly identify all monitoring methods and protocols to be used. The Permittee

must use benthic macroinvertebrate monitoring protocols that are consistent with the contemporary Western Washington benthic macroinvertebrate monitoring programs. Each sample must be analyzed and scored using the Puget Sound Lowlands benthic index of biological integrity (B-IBI), as described at http://pugetsoundstreambenthos.org/SiteMap.aspx

3.3.8.4 Any data collected during the reporting period must be summarized annually and submitted to EPA as part of the corresponding Annual Report. See Part 3.7.3 (*Monitoring Reports).*

3.3.9 Reporting

In each Annual Report the Permittee shall summarize the results of all monitoring and evaluations undertaken during the reporting year. The summary will discuss all types of assessments per the monitoring plan developed by the Permittee and approved by EPA pursuant to the requirement of Part 3, herein. The summary will include an interpretation of the data and how the Permittee plans to use them to inform the SWMP.

3.4 Monitoring Option 2

3.4.1 Stormwater Action Monitoring (SAM)

The Permittee shall participate in the regional Stormwater Action Monitoring (SAM) program. The details of participation may be negotiated with the SAM network, and may include financial commitments, special studies in lieu of funding contributions, or any other combination of participatory measures acceptable to all parties. The Permittee must notify EPA within six months of the effective date of this permit, if it elects to implement this option, and be a fully participating member of SAM within 1 year of the effective date of this permit.

3.5 Wet Weather Monitoring for PFAS

Regardless of whether the Permittee implements Monitoring Option 1 or Monitoring Option 2, the Permittee must monitor for PFAS in accordance with this part. Within 18 months of the permit issuance, the Permittee must begin quarterly, grab sample wet weather monitoring for PFAS. Identification of wet weather monitoring locations is discussed in Permit Part 2.3.4.

Table 3.5 PFAS Monitoring Requirements

Parameter	Units	Monitoring Requirements	
		Sample Frequency	Sample Type
Per-and Polyfluoroalkyl Substances (PFAS)	ng/L	quarterly	24-hour composite

3.5.1 Monitoring Method

Prior to approval of analytical methods for PFAS chemicals under 40 CFR § 136, the Permittee must use the latest version of EPA Method 1633. After analytical methods for

PFAS chemicals are approved under 40 CFR § 136, the Permittee may use any sufficiently sensitive approved analytical method. The PFAS chemicals that must be analyzed are listed in Table 3.5.1.

Table 3.5.1 PFAS Chemicals to be Analyzed

Target Analyte Name	Abbreviation	CAS Number
Perfluoroalkyl carboxylic acids		
Perfluorobutanoic acid	PFBA	375-22-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluoroundecanoic acid	PFUnA	2058-94-8
Perfluorododecanoic acid	PFDoA	307-55-1
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorotetradecanoic acid	PFTeDA	376-06-7
Perfluoroalkyl sulfonic acids		
Acid Form		
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluoropentansulfonic acid	PFPeS	2706-91-4
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluoroheptanesulfonic acid	PFHpS	375-92-8
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorononanesulfonic acid	PFNS	68259-12-1
Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluorododecanesulfonic acid	PFDoS	79780-39-5
Fluorotelomer sulfonic acids		
1*H*,1*H*, 2*H*, 2*H*-Perfluorohexane sulfonic acid	4:2FTS	757124-72-4
1*H*,1*H*, 2*H*, 2*H*-Perfluorooctane sulfonic acid	6:2FTS	27619-97-2
1*H*,1*H*, 2*H*, 2*H*-Perfluorodecane sulfonic acid	8:2FTS	39108-34-4
Perfluorooctane sulfonamides		
Perfluorooctanesulfonamide	PFOSA	754-91-6
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2
Perfluorooctane sulfonamidoacetic acids		
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6
Perfluorooctane sulfonamide ethanols		
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2
Per- and Polyfluoroether carboxylic acids		
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
4,8-Dioxa-3*H*-perfluorononanoic acid	ADONA	919005-14-4
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6
Ether sulfonic acids		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9

Table 3.5.1 PFAS Chemicals to be Analyzed		
Target Analyte Name	**Abbreviation**	**CAS Number**
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7
Fluorotelomer carboxylic acids		
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4

3.5.2 **Minimum Levels**

The Permittee must achieve minimum levels no greater than those listed in Table 6 of EPA Method 1633**.**

3.5.3 **Quality Assurance**

QA/QC procedures for PFAS sampling and analysis consistent with 40 CFR 136.7 must be documented in the Quality Assurance Project Plan. See Part 3.6 (*Quality Assurance Requirements*).

3.5.4 **Monitoring Schedule**

The Permittee must continue to sample at least quarterly at each of the selected monitoring locations. If, after 8 consecutive calendar quarters of monitoring, all results for a given outfall are non-detect for all PFAS analytes listed in Table 1 of EPA Method 1633, the Permittee may discontinue PFAS monitoring at that outfall location for the remainder of the permit term. Beginning with the 2nd Year annual report, the Permittee must submit a summary monitoring report documenting all data collection to date as directed by Part 3.8.3 (*Monitoring Reports*).

3.6 Quality Assurance Requirements

The Permittee must develop a QAPP for all monitoring required in this Part. The QAPP must be developed concurrent with the monitoring plan as described in Part 3.3.1 *(Monitoring/Assessment Plan and Objectives)*, above. Any existing QAPPs may be modified to meet the requirements of this section. Upon completion of the monitoring plan and QAPP, the Permittee must submit the combined document to EPA with the 1st year Annual Report. Any updates to the QAPP must be submitted to EPA as a part of the subsequent Annual Report.

3.6.1 **QAPP Content**

The QAPP must be designed to assist in planning for the collection and analysis of stormwater discharge, water quality and/or biological/benthic macroinvertebrate samples in support of the Permit, and in explaining data anomalies when they occur. The Quality Assurance portion of the QAPP must be prepared in the format which is specified in the documents listed in Part 3.3.9.2 below.

At a minimum, the QAPP must reflect the content specified in the documents listed in Part 3.3.9.2, and include, but not limited to, the following information:

3.6.1.1 Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality

assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements;

3.6.1.2 Map(s) indicating the location of each sampling point;

3.6.1.3 Qualification and training of personnel; and

3.6.1.4 Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the Permittee

3.6.1.5 QAPP Procedures: Throughout all sample collection and analysis activities, the Permittee must use EPA-approved QA/QC and chain-of-custody procedures described in the following documents:

- *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). Copies of these documents can be found at http://www.epa.gov/quality/qs-docs/g5-final.pdf and/or
- *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, July 2004, Washington Department of Ecology Publication No. 04-03-030.

3.6.1.6 QAPP Updates and Availability: Copies of the QAPP must be maintained by the Permittee and made available to EPA upon request. The Permittee must amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP.

3.7 Recordkeeping

The Permittee must retain for a minimum of 5 years all records, including Annual Reports, documenting the implementation of the SWMP. The Permittee must submit the records to EPA only when such information is requested. The Permittee must make records (including the permit application, Annual Reports and the SWMP document) available to the public. The public must be able to request and view the records during normal business hours, and the Permittee must make all reasonable efforts to comply with such requests. As allowed by the Freedom of Information Act, the Permittee may charge fees for copies of documents provided in response to written requests from the public.

3.8 Reporting Requirements

3.8.1 Electronic Submittals

The Permittee must submit documents required by this permit to EPA at the addresses identified below. Documents required by this permit include, but are not limited to, SWMP documents, agreements, notifications, maps, adaptive management reports, quality assurance plans, annual reports, stormwater monitoring reports, and permit renewal applications.

Electronic or digital format documents are required. Submittals must be provided either via e-mail or secure file transfer service, such as a file transfer protocol (FTP) software.

File attachments cannot exceed 25MB total per email and may not include Zip files. If e-mail size is greater than 25MB, then submittals must be sent by secure file transfer service.

The file name of electronic documents must be as follows: *YYYY_MM_DD_«NPDES Permit Number»_«Report or Document TypeName»,* where YYYY_MM_DD is the date that the Permittee submits the document.

The Permittee must sign and certify all electronic submittals as required by Part 6.5 (Signatory Requirements).

3.8.1.1 **Addresses:** The Permittee must submit all documents required by this permit to the specified EPA office using the email addresses listed below. Emails to submit documents must use the following email subject line: *CWA NPDES «NPDES Permit Number» «Report or Document TypeName»*

Addressee	Electronic Mail Address
U.S. EPA Region 10 Director, Water Division	EPAR10WD-NPDES@epa.gov
U.S. EPA Region 10 Director, Enforcement & Compliance Assurance Division	R10enforcement@epa.gov

3.8.1.2 **Electronic Document Submittal using an EPA Web Portal:** Prior to the Permit expiration date, EPA may provide the Permittee with instructions for submitting electronic or digital format documents required by this permit to EPA using a dedicated EPA Web Portal for the MS4 Permit program. The Permittee may then use that portal after requesting and receiving permission from EPA. Upon use of the dedicated EPA Web Portal, the Permittee is no longer required to submit documents to EPA via email.

3.8.2 **Annual Reports**

No later than March 31 of each year beginning in 2023, the Permittee must submit an Annual Report to EPA.

The reporting period for the 1st Year Annual Report will be from the effective date of the permit through January 31, 2023**.** Reporting periods for subsequent Annual Reports will align with calendar years, i.e., February 1 through January 31. Annual Reports are due every year that the permit is in effect, including an administrative continuance.

The Permittee must make all Annual Reports (including any required attachments) available to the public through the Permittee-maintained website required by Part 2.2.3 (*Website*), above, within 30 days of the due date of each Annual Report.

3.8.2.1 EPA may provide the Permittee with instructions and/or alternative formats for submitting Annual Reports and all required attachments electronically using NetDMR. If EPA provides the Permittee an alternative means of submitting reports and/or other required documents during the Permit term (other than the manner described herein), the Permittee may use that alternative reporting mechanism in lieu of this provision.

3.8.2.2 The Permittee's Annual Report must reflect the status of the Permittee's implementation of the Permit requirements during the relevant reporting period, and must include the following information:

3.8.2.2.1 All required attachments, including any summaries, descriptions, reports, and other information the Permittee uses to demonstrate compliance with the Permit requirements during the relevant reporting period.

3.8.2.2.2 The url for the website where the SWMP Document is posted;

3.8.2.2.3 If applicable, notification to EPA that the Permittee is relying on another Permittee or outside entity to satisfy any of the obligations under this Permit;

3.8.2.2.4 Notification of any annexations, incorporations, or jurisdictional boundary changes resulting in either an increase or decrease in area during the reporting period; and

3.8.2.2.5 Notification of any changes to the point(s) of contact responsible for authorization, certification and signature pursuant to Part 6.5 (*Signatory Requirements*), below.

3.8.3 **Monitoring Reports**

The Permittee must submit all monitoring data collected during the relevant reporting period as an attachment to the corresponding Annual Report. An "Annual Stormwater Monitoring Report" must be submitted as an attachment with each Annual Report beginning in **2024**.

Each report must summarize all monitoring data collected during the preceding water year (October 1 – September 30). The first stormwater monitoring report submitted may include data from a partial water year, if available, and should document Permittee accomplishments to date regarding the initiation of the monitoring activities required by **Part 3**. Each subsequent report must integrate data from earlier years into the analysis of results, as appropriate.

The file name of the electronic Stormwater Monitoring Report must be as follows: *YYYY_MM_DD_«Permit Number»_SW Monitoring WYXXXX*, where YYYY_MM_DD is the date that the Permittee submits the report and XXXX is the

Water Year represented in the report.

All Monitoring Reports must include:

3.8.3.1 the date, exact place, and time of sampling or measurements;

3.8.3.2 the name(s) of the individual(s) who performed the sampling or measurements;

3.8.3.3 the date(s) analyses were performed;

3.8.3.4 the names of the individual(s) who performed the analyses;

3.8.3.5 the analytical techniques or methods used; and

3.8.3.6 the results of such analyses, including a summary interpretation of the data collected and a discussion of quality assurance issues and comparison to previously collected information, as appropriate. Raw monitoring data must be submitted in an Excel spreadsheet or text-format electronic file.

4 REQUIRED RESPONSE TO EXCEEDANCES OF WATER QUALITY STANDARDS

The Permittee must notify EPA in writing within 30 days of becoming aware that, based on credible site-specific information, a discharge from the Permittee's MS4 is causing or contributing to a known, likely, on-going, and/or continuing exceedance of water quality standards in the receiving water. The requirements of this Part apply to situations where an adaptive management response is needed to resolve the violation(s).

4.1 Written Notification

Written notification provided under this Part must, at a minimum, identify the source of the site-specific information; describe the location, nature and extent of the known or likely water quality standard violation in the receiving water; and explain the reasons why the MS4 discharge is believed to be causing or contributing to the problem. This notification must document any prior response activities the Permittee may have conducted pursuant to Part 5.9 (*24 Hour Notice of Noncompliance Reporting*), below.

4.2 Adaptive Management

In the event that EPA determines, based on a notification from the Permittee as provided under this Part or through any other means, that a discharge from the MS4 owned or operated by the Permittee is causing or contributing to an ongoing and/or continuous violation of water quality standards in a receiving water, EPA will notify the Permittee in writing that an adaptive management response is required as outlined below in Part 4.4.1 *(Adaptive Management Response Report*), below.

4.3 EPA Review

EPA may elect not to require an adaptive management response from the Permittee if EPA determines that the violation of water quality standards is already being addressed by a total maximum daily load (TMDL) implementation plan or other enforceable water quality cleanup plan; or, EPA concludes the MS4 contribution to the violation will be eliminated through implementation of other permit requirements, regulatory requirements, or Permittee actions.

4.4 Adaptive Management Response

Within 60 days of receiving a notification pursuant to Part 4.1, or by an alternative date established by EPA, the Permittee must review its SWMP and submit a report to EPA.

4.4.1 Adaptive Management Response Report

The Adaptive Management Response Report must include:

4.4.1.1 A description of the operational and/or structural BMPs that are currently being implemented at the location to prevent or reduce any pollutants that are causing or contributing to the violation of water quality standards, including a qualitative assessment of the effectiveness of each BMP.

4.4.1.2 A description of potential additional operational and/or structural BMPs that will or may be implemented in order to prevent or reduce any pollutants that are causing or contributing to the violation of water quality standards.

4.4.1.3 A description of the potential monitoring or other assessment and evaluation efforts that will or may be implemented to monitor, assess, or evaluate the effectiveness of the additional BMPs.

4.4.1.4 A schedule for implementing the additional BMPs including, as appropriate: funding, training, purchasing, construction, monitoring, and other assessment and evaluation components of implementation.

4.4.2 EPA Action

EPA will acknowledge, in writing, receipt of the Adaptive Management Response Report within a reasonable time and notify the Permittee when it expects to complete its review of the report. EPA will either approve the additional BMPs and implementation schedule or require the Permittee to modify the report as needed. If modifications are required, EPA will specify a reasonable time frame in which the Permittee must submit and EPA will review the revised report.

4.4.3 Additional BMPs

The Permittee must implement the additional BMPs, pursuant to the schedule approved by EPA, beginning immediately upon receipt of written notification of approval.

4.4.4 Status Summary

The Permittee must include with each subsequent Annual Report a summary of the status of implementation and the results of any monitoring, assessment or evaluation efforts conducted during the reporting period. If, based on the information provided under this Part, EPA determines that modification of the BMPs or a specific implementation schedule is necessary EPA will notify the Permittee in accordance with Part 4.4.5 (*Modifications*), and/or Part 6.1 (*Permit Actions*).

4.4.4.1 If EPA notifies the Permittee that changes to the requirements of this Permit are necessary pursuant to this Part, the notification will offer the Permittee an opportunity to propose alternative program changes to meet the objectives of the requested modification. Following this opportunity, the Permittee must implement any required changes according to the schedule set by EPA.

4.4.5 Modifications

Any formal modifications to the requirements of this Permit will be accomplished according to Part 6.1 (*Permit Actions*).

5 COMPLIANCE RESPONSIBILITIES

5.1 Duty to Comply

The Permittee must comply with all conditions of this Permit. Any permit noncompliance constitutes a violation of the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

5.2 Penalties for Violations of Permit Conditions

5.2.1 Civil and Administrative Penalties

Pursuant to 40 CFR Part 19 and the CWA, any person who violates CWA §§ 301, 302, 306, 307, 308, 318 or 405, or any permit condition or limitation implementing any such sections in a permit issued under CWA § 402, or any requirement imposed in a pretreatment program approved under CWA §§ 402(a)(3) or 402(b)(8), is subject to a civil penalty not to exceed the maximum amounts authorized by CWA § 309(d) and the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. § 2461 note; Pub. L. 101-410) as amended by the Debt Collection Improvement Act of 1996 (31 USC § 3701 note) and the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note, Pub. L.114-74) (currently $64,618 per day for each violation).

5.2.2 Administrative Penalties

Any person may be assessed an administrative penalty by the Administrator for violating CWA §§ 301, 302, 306, 307, 308, 318 or 405, or any permit condition or limitation implementing any of such sections in a permit issued under CWA § 402. Pursuant to 40 CFR Part 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by CWA § 309(g)(2)(A) and the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. § 2461 note; Pub. L. 101-410) as amended by the Debt Collection Improvement Act of 1996 (31 USC § 3701 note) and the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note, Pub. L.114-74) (currently $25,847 per violation, with the maximum amount of any Class I penalty assessed not to exceed $64,618). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by CWA § 309(g)(2)(B) and the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. § 2461 note; Pub. L. 101-410) as amended by the Debt Collection Improvement Act of 1996 (31 USC § 3701 note) and the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note, Pub. L.114-74) (currently $25,847 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $323,081).

5.2.3 Criminal Penalties

5.2.3.1 Negligent Violations

The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to

criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.

5.2.3.2 Knowing Violations
Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

5.2.3.3 Knowing Endangerment
Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

5.2.3.4 False Statements
The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. The CWA further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

5.3 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the

conditions of this Permit.

5.4 Duty to Mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge or disposal in violation of this Permit that has a reasonable likelihood of adversely affecting human health or the environment.

5.5 Proper Operation and Maintenance

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also include best management practices, adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this Permit.

5.6 Toxic Pollutants

The Permittee must comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5.7 Planned Changes

The Permittee must give notice to the Director and Washington Department of Ecology as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

- The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR §122.29(b); or
- The alteration or addition could significantly change the nature or increase the quantity of the pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.

5.8 Anticipated Noncompliance

The Permittee must give advance notice to the Director of EPA Office of Compliance and Enforcement using the address provided in Part 3.6.1.1, of any planned changes in the permitted facility or activity which may result in noncompliance with this Permit.

5.9 Twenty-Four Hour Notice of Noncompliance Reporting

The Permittee must report the following occurrences of noncompliance by telephone at (206) 553-1846, within 24 hours from the time the Permittee becomes aware of the circumstances:

- Any discharge to or from the MS4 which could result in noncompliance that may

endanger health or the environment;

- Any unanticipated bypass or upset that results in or contributes to an exceedance of any effluent limitation in this Permit. See Part 6.10 (*Bypass of Treatment Facilities*);
- Any upset that results in or contributes to an exceedance of any effluent limitation in this Permit. See Part 5.11 *(Upset Conditions*).
- Any spills or discharges of oil and hazardous materials. These discharges must be reported to Washington Emergency Management Divisions at 1-800-258-5990.

5.9.1 **Written Report**

The Permittee must also provide a written submission within five (5) business days of the time that the Permittee becomes aware of any event required to be reported under Part 5.9 above. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the estimated time noncompliance is expected to continue if it has not been corrected; and all steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee must submit its written report to EPA and Ecology as specified in Part 3.5 (*Reporting Requirements*).

The written report must be submitted in paper form. The Permittee must sign and certify the report in accordance with the requirements of Part 6.5 (Signatory Requirements). The Permittee must submit the legible originals of these documents to the Director, Enforcement and Compliance Assurance Division, at the following address:

U.S. EPA Region 10
Attn: ICIS Data Entry Team
1200 Sixth Avenue, Suite 155
ECAD 20-C04
Seattle, Washington 98101-3188

5.9.2 **Written Report Waiver**

The Director of EPA Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.

5.10 Bypass of Treatment Facilities

5.10.1 **Bypass not exceeding limitations**

The Permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 5.10.2 and 5.10.3 of this Part.

5.10.2 **Notice**

5.10.2.1 Anticipated bypass.

If the Permittee knows in advance of the need for a bypass, it must submit prior notice, to the Director, if possible, at least 10 days before the date of the bypass.

5.10.2.2 Unanticipated bypass.

The Permittee must submit notice of an unanticipated bypass as required under Part 5.9. (*Twenty-four Hour Notice of Noncompliance Reporting*).

5.10.3 **Prohibition of bypass**

Bypass of stormwater from all or any portion of a stormwater treatment BMP is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the Permittee for a bypass, unless:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
- The Permittee submitted notices as required under Part 5.10.2 above.

5.10.4 **Optional Approval**

The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part 5.10.3.

5.11 Upset Conditions

5.11.1 **Effect of an Upset**

An upset constitutes an affirmative defense to an action brought for noncompliance with a technology-based permit effluent limitation if the Permittee meets the requirements of Part 5.11.2. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

5.11.2 **Conditions Necessary for a Demonstration of Upset**

To establish the affirmative defense of upset, the Permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- An upset occurred and that the Permittee can identify the cause(s) of the upset;
- The permitted facility was at the time being properly operated;
- The Permittee submitted notice of the upset as required under Part 5.9, (*Twenty-four Hour Notice of Noncompliance Reporting*) and,
- The Permittee complied with any remedial measures required under Part 5.4(*Duty to Mitigate*).

5.11.3 **Burden of proof**

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

5.12 Other Noncompliance

The Permittee must report all instances of noncompliance, not required to be reported within 24 hours, as part of each Annual Report. Such noncompliance reports must contain all the information listed in Part 5.9 (*Twenty-four Hour Notice of Non-Compliance Reporting*). Ongoing or continuing violations of applicable water quality standards

5.13 Removed Substances

All collected screenings, grit, solids, sludges, filter backwash water, decant water, and/or other pollutants removed in the course of maintenance, and/or treatment or control of stormwater and other wastewaters must be managed and disposed of in a manner such as to prevent such pollutants from entering the waters of the U.S. See also Appendix D of the Permit.

6 GENERAL REQUIREMENTS

6.1 Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§122.62, 122.64, or 124.5. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. See also Part 6.13 (*Reopener Clause*).

6.2 Duty to Reapply

If the Permittee intends to continue its operational control and management of discharges from the MS4 as regulated by this Permit after the Permit expiration date, the Permittee must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Director, the Permittee must submit an application at least 180 days before the Permit expiration date.

6.3 Duty to Provide Information

The Permittee must furnish to EPA, within the time specified in the request, any information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee must also furnish to EPA, upon request, copies of the records required to be kept by this Permit.

6.4 Other Information

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application, or any report to EPA, it must promptly submit the omitted facts or corrected information in writing.

6.5 Signatory Requirements

All permit applications, reports, or information submitted to EPA must be signed and certified as follows:

6.5.1 **All permit applications must be signed and certified:**

- For a corporation: by a principal corporate officer.
- For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

6.5.2 **Duly Authorized Representative**

All reports required by this Permit and other information requested by EPA must be signed by a person described in Part 6.5.1 above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

6.5.2.1 The authorization is made in writing
By a person described above and submitted to the Director;

6.5.2.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, Such as the position of plant manager, owner or operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

6.5.2.3 Written authorization is submitted to EPA Director of the Office of Compliance and Enforcement.

6.5.3 **Changes to Authorization**

If an authorization under Part 6.5.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part 6.5.2 must be submitted to EPA Director of the Office of Compliance and Enforcement prior to or together with any reports, information, or applications to be signed by an authorized representative.

6.5.4 **Certification**

Any person signing a document under this part must make the following certification:

> *"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

6.6 Availability of Reports

In accordance with 40 CFR Part 2, information submitted to EPA pursuant to this Permit may be claimed as confidential by the Permittee. In accordance with the CWA, permit applications, permits, and effluent data are not considered confidential. Any confidential claim must be asserted at the time of submission by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the Permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR §2, Subpart B (Public Information) and 41 Federal Register 36924 (September 1, 1976), as amended.

6.7 Inspection and Entry

The Permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as

may be required by law, to:

6.7.1 **Enter**
Upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

6.7.2 **Access**
Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

6.7.3 **Inspect**
Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

6.7.4 **Sample, monitor, evaluate or audit**
At reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the CWA, any discharges, substances or parameters at any location.

6.8 Property Rights

The issuance of this Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

6.9 Transfers

This Permit is not transferable to any person except after written notice to the Director of the Water Division. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the CWA.

6.10 State/Tribal Laws

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state/Tribal law or regulation under authority preserved by Section 510 of the CWA. No condition of the Permit releases the Permittees from any responsibility or requirements under other environmental statutes or regulations.

6.11 Oil and Hazardous Substance Liability

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under Section 311 of the Clean Water Act or Section 106 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

6.12 Severability

The provisions of this Permit are severable, and if any provision of this Permit, or the application

of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

6.13 Re-opener Clause

This Permit is subject to modification, revocation and reissuance, or termination at the request of any interested person (including the Permittee) or upon EPA initiative. However, permits may only be modified, revoked or reissued, or terminated for the reasons specified in 40 CFR §§122.62 or 122.64, and 40 CFR §124.5. This includes new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance, and/or future monitoring results. All requests for Permit modification must be addressed to EPA in writing and must contain facts or reasons supporting the request. See also Part 6.1 (*Permit Actions*).

7 DEFINITIONS

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative [40 CFR §122.2].

Air Operations Areas (AOAs) is defined in the *Aviation Stormwater Design Manual – Managing Wildlife Hazards Near Airports* (December 2008). For the purposes of this Permit, the term AOA means any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. This includes such paved or unpaved areas that are used or intended to be used for unobstructed movement of aircraft in addition to associated runways, taxiways, or aprons. For the purposes of this permit, the term AOA includes the following unique subareas as defined in the *Aviation Stormwater Design Manual – Managing Wildlife Hazards Near Airports* (December 2008) and described in this Part: Clearway, Object-Free Area, Runway Protection Zone, Runway Safety Area, and Taxiway Safety Areas. See: http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm

Best Management Practice, or BMP, means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States and waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2 and 122.44(k). For the purposes of this Permit, *BMP* broadly refers to any type of structural or non-structural practice or activity undertaken by the Permittee in the course of implementing its SWMP. See "*stormwater control measure (SCM).*"

Bioretention means engineered facilities that treat stormwater by passing it through a specified soil profile, and either retain or detain the treated stormwater for flow attenuation.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

CFR means the Code of Federal Regulations, which is the official annual compilation of all regulations and rules promulgated during the previous year by the agencies of the United States government, combined with all the previously issued regulations and rules of those agencies that are still in effect.

Common Plan of Development means a contiguous construction project or projects where multiple separate and distinct construction activities may be taking place at different times on different schedules but under one plan. The "plan" is broadly defined as any announcement or piece of documentation or physical demarcation indicating construction activities may occur on a specific plot; included in this definition are most subdivisions and industrial parks.

Construction General Permit or *CGP* means the current version of the U.S. Environmental Protection Agency's *NPDES General Permit for Stormwater Discharges from Construction Activities in Areas in the State of Washington subject to construction activity by a Federal Operator, Permit No. WAR10F000.* The Permit is posted on EPA's website at https://www.epa.gov/npdes/stormwater-discharges-construction-activities

Construction Activity includes, but is not limited to, clearing, grading, excavation, and other site preparation work related to construction of residential buildings and non-residential buildings,

and heavy construction (e.g., highways, streets, bridges, tunnels, pipelines, transmission lines and industrial non-building structures). See *Stormwater Discharge Associated with Construction Activity*.

Control Measure as used in this Permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States and waters of the State.

CWA or the Act, means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, 33 U.S.C. § 1251 et seq. [40 CFR §122.2].

Director means the Regional Administrator of EPA Region 10, or the Director of EPA Region 10 Water Division, Director of EPA Region 10 Enforcement and Compliance Assistance Division, or an authorized representative thereof.

Discharge when used without qualification means the “discharge of a pollutant” as defined at 40 CFR §122.2.

Discharge of a pollutant means (a) any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or (b) any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger” [40 CFR §122.2].

Draft permit means a document prepared under 40 CFR §124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit” [40 CFR §122.2].

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean, including schedules of compliance.” [See CWA §502(11) and 40 CFR §122.2].

EPA means the Environmental Protection Agency Region

Erosion means the process of carrying away soil particles by the action of water.

Facility means any NPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Hyperchlorinated means water that contains more than 10 mg/Liter chlorine.

Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge is defined at 40 CFR §122.26(b)(2) and means any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire-fighting activities.

Impaired Water (or "Water Quality Impaired Water") for purposes of this Permit means any water body identified by the State of Washington or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards. Impaired waters include both waters with approved or established Total Maximum Daily Loads (TMDLs), and those for which a TMDL has not yet been approved or established.

Industrial Activity as used in this Permit refers to the eleven categories of industrial activities included in the definition of discharges of stormwater associated with industrial activity at 40 CFR §122.26(b)(14).

Industrial Stormwater as used in this Permit refers to stormwater runoff from industrial activities, such as those defined in 40 CFR 122.26(b)(14)(i-xi).

Infiltration is the process by which stormwater penetrates into soil.

Low Impact Development (LID) means a stormwater and land use management strategy that strives to mimic pre-development hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of onsite natural features, site planning, and distributed stormwater management practices that integrated into a project design.

Major storm event as used in this Permit, refers to rainfall greater than the 24-hour, 10 year-recurrence interval. See also *storm event*.

Maintenance means the repair and maintenance activities conducted on currently serviceable structures, facilities, and equipment that involves no expansion or use beyond that previously existing and results in no significant adverse hydrologic impact. It includes those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems. Those usual activities may include replacement of dysfunctional facilities, including cases where environmental permits require replacing an existing structure with a different type structure, as long as the functioning characteristics of the original structure are not changed. One example is the replacement of a collapsed, fish blocking, round culvert with a new box culvert under the same span, or width, of roadway.

Material Storage Facilities means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

Minimize means to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Method Detection Limit (MDL) means the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results.

Minimum Level (ML) means either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL). Minimum levels may be obtained in several ways: They may be published in a method; they may be sample concentrations equivalent to the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor.

MS4 means "municipal separate storm sewer system" and, as used within the context of this Permit, refers to separate storm sewer systems owned or operated by JBLM Western Washington as described in Part 1. See “municipal separate storm sewer” below and definitions at 40 CFR 122.26(b)(16-19).

MSGP, or Multi-Sector General Permit means the current version of the U.S. Environmental Protection Agency’s *NPDES Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity In Areas In The State Of Washington Subject To Industrial Activity By A Federal Operator, Permit No. WAR05F000.* The Permit is posted on EPA’s website at https://www.epa.gov/npdes/final-2015-msgp-documents

Municipal Separate Storm Sewer is defined at 40 CFR 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2. See also *MS4* and or *Small Municipal Separate Storm Sewer System.*

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA [40 CFR §122.2]. The term includes an “approved program” delegated to a State agency.

New development, for the purposes of this Permit, means land disturbing activities, including Class IV General Forest Practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans. Projects meeting the definition of redevelopment shall not be considered new development.

Outfall means a point source as defined below and by 40 CFR 122.2 at the point where a discharge leaves the Permittee’s MS4 and enters a surface receiving waterbody or surface receiving waters. Outfall does not include pipes, tunnels, or other conveyances which connect

segments of the same stream or other surface waters and are used to convey primarily surface waters (i.e., culverts).

Owner or operator means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

Permanent stormwater management controls see *post-construction stormwater management controls*.

PFAS or Per and Polyfluoroalkyl substances are a group of man-made fluorinated compounds that are hydrophobic and lipophobic, manufactured and used in a variety of industries globally. These compounds are persistent in the environment as well as in the human body.

Point Source is defined at 40 CFR §122.2 and means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant is defined at 40 CFR §122.2, and includes: dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials [except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2011 et seq.)], heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Project site means that portion of a property, properties, or right of way subject to land disturbing activities, new hard surfaces, or replaced hard surfaces.

Post-construction stormwater management, post-construction controls, or *permanent stormwater management controls* means those controls designed to treat or control runoff on a permanent basis once construction is complete, including stormwater treatment and flow control BMPs /facilities, including detention facilities, bioretention, vegetated roofs, permeable pavements, etc.

QAPP means Quality Assurance Project Plan.

QA/QC means quality assurance/quality control.

Receiving waters means naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, groundwater and marine waters, to which a MS4 discharges. See also *waters of the United States*.

Redevelopment, for the purposes of this Permit, on a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), means the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.

Regulated Construction Activities include clearing, grading, or excavation that results in a land disturbance of greater than or equal to one acre, or that disturbs less than one acre if part of a larger common plan of development or sale that would disturb one acre or more. Any stormwater discharge from regulated construction activity requires a separate NPDES permit (#WAR12000F). See also *Stormwater Discharge Associated with Construction Activity*.

Regulated Industrial Activities, as used in this Permit, include the categories of industrial activity described at 40 CFR §122.26(b)(14)(i)-(ix) and (xi). Any stormwater discharge from regulated construction activity requires a separate NPDES permit (WAR05F000).

Regulated Small MS4, for the purposes of this Permit*,* means 1) any municipal separate storm sewer system located within a Census-defined Urbanized Area of the State of Washington which is automatically designated as needing a NPDES permit pursuant to federal requirements found in 40 CFR §§ 122.32; and/or 2) any MS4 designated by EPA pursuant to 40 CFR §§122.26((a)(1)(v) and/or 123.35 as needing a NPDES permit.

Runoff see *stormwater.*

Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR §122.41(m)(1)(ii).

Site means the area defined by the legal boundaries of a parcel or parcels of land that is (are) subject to new development or redevelopment. For road projects, *site* means the length of the project site and the right-of-way boundaries define the site.

Small Municipal Separate Storm Sewer System and/or *Small MS4* is defined at 40 CFR §122.26(b)(16-17) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States, but is not defined as “large"' or “medium” municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas such as individual buildings.

Snow management means the plowing, relocation and collection of snow and ice.

Source control means stormwater management practices that control stormwater *before* pollutants have been introduced into stormwater; a structure or operation that is intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants.

Source control BMP means a structure or operation that is intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants.

Storm Event or *measurable storm event* for the purposes of this Permit means a precipitation event that results in an actual discharge from the outfall and which follows the preceding measurable storm event by at least 48 hours (2 days). See also *major storm event*.

Stormwater, and *stormwater runoff* as used in this Permit means runoff during and following precipitation and snow melt events, including surface runoff and drainage, as defined at 40 CFR §122.26(b)(13). Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.

Stormwater Control Measure means physical, structural, and/or managerial measures that, when used singly or in combination, reduce the downstream quality and quantity impacts of stormwater. Also, SCM means a permit condition used as narrative effluent limitations to prevent or control the discharge of pollutants. This may include a schedule of activities, prohibition of practices, maintenance procedures, or other management practices. SCMs may include, but are not limited to, treatment requirements; operating procedures; practices to control plant site runoff, spillage, leaks, sludge, or waste disposal; or drainage from raw material storage. See "*best management practices (BMPs).*

Stormwater Discharge Associated with Construction Activity, as used in this Permit, refers to a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (*e.g.*, clearing, grading, or excavation), construction materials or equipment storage or maintenance (*e.g.*, fill piles, borrow areas, concrete truck washout, fueling) or other industrial stormwater directly related to the construction process are located. (See 40 CFR §122.26(b)(14)(x) and 40 CFR §122.26(b)(15) for the two regulatory definitions of stormwater associated with construction sites.)

Stormwater Discharge Associated with Industrial Activity, as used in this Permit, refers to the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial activity included in the regulatory definition at 40 CFR §122.26(b)(14).

Stormwater Facility means a constructed component of a stormwater drainage system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins, and modular pavement. See also "permanent stormwater management controls" and/or "post-construction stormwater management controls."

Stormwater Management Practice or Stormwater Management Control means practices that manage stormwater, including structural and vegetative components of a stormwater system.

Stormwater Management Program (SWMP) refers to a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.

Stormwater Management Program Document (SWMP document) refers to the written document which describes the Permittee's

Stormwater Pollution Prevention Plan (SWPPP) means a site-specific plan designed to describe the control of soil or other materials to prevent pollutants in stormwater runoff, generally developed for a construction site, or an industrial facility. For the purposes of this Permit, a SWPPP means a written document that identifies potential sources of pollution, describes practices to reduce pollutants in stormwater discharges from the site, and identifies procedures that the operator will implement to comply with applicable permit requirements.

Street Waste includes liquid and solid wastes collected during maintenance of stormwater catch basins, detention/retention ponds, ditches and similar stormwater treatment and conveyance structures, and solid wastes collected during street and parking lot sweeping. "Street Waste," as defined here, does not include solids and liquids from street washing using detergents, cleaning of electrical vaults, vehicle wash sediment traps, restaurant grease traps, industrial process waste, sanitary sewage, mixed process, or combined sewage/stormwater wastes. Wastes from oil/water separators at sites that load fuel are not included as street waste. Street waste also does not include flood debris, landslide debris, and chip seal gravel.

Total Maximum Daily Load (TMDL) means the sum of the individual waste load allocations (WLAs) for point sources, load allocations (LAs) for non-point sources, and natural background. See 40 CFR §130.2. See also: *Applicable Total Maximum Daily Loads.*

Treatment means stormwater management practices that 'treat' stormwater after pollutants have been incorporated into the stormwater.

Uncontaminated, for the purposes of this Permit, means that the MS4 discharge does not:

- result in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at any time since November 16, 1987; or
- result in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
- Contribute to a violation or exceedance of an applicable Washington water quality standard

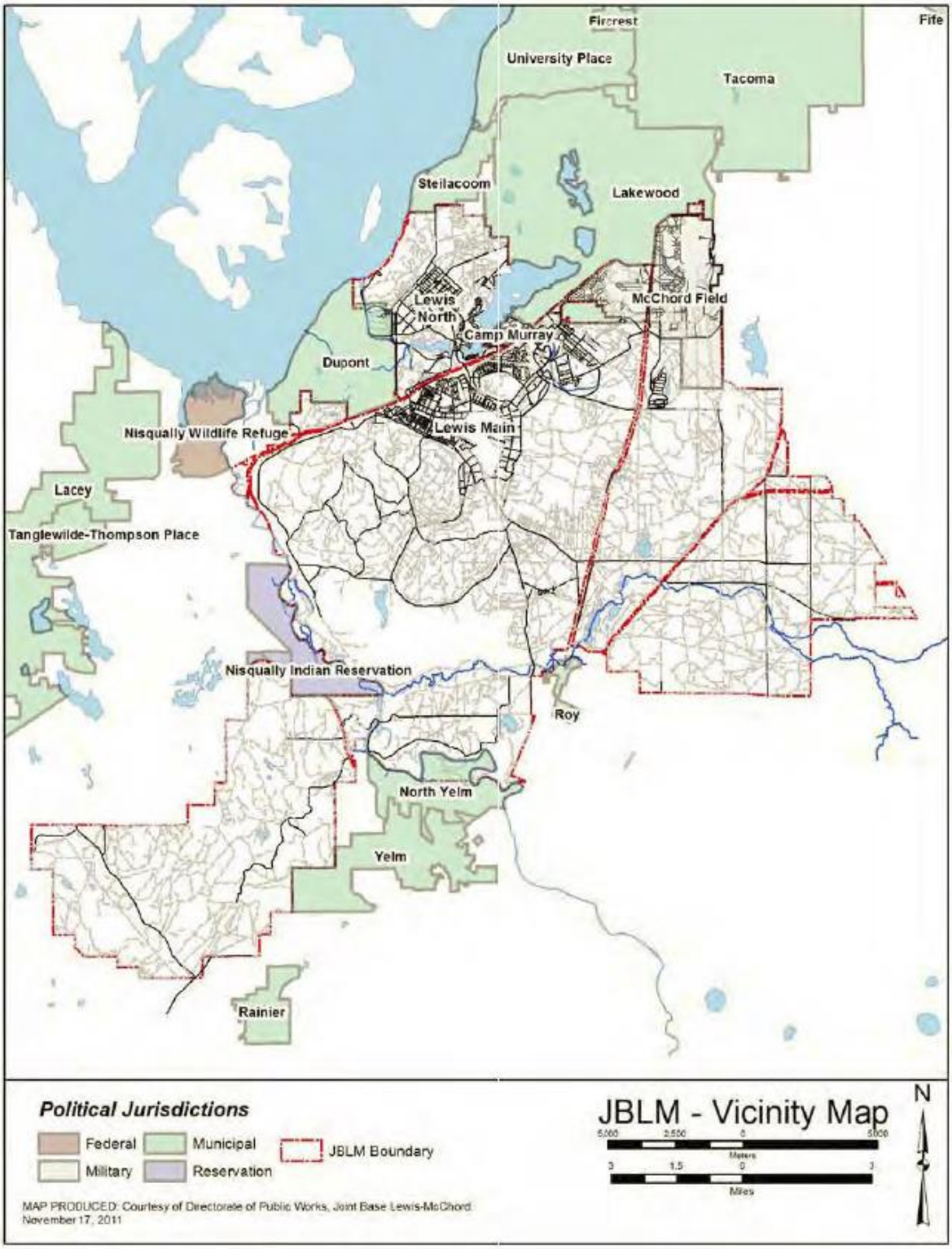
Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR §122.42(n)(1).

Waters of the State includes those waters as defined as *waters of the United States* in 40 CFR §122.2 within the geographic boundaries of Washington State and *waters of the state* as defined in Chapter 90.48 RCW, which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington. See also "receiving waters."

Waters of the United States or *waters of the U.S*. means those waters defined in 40 CFR §120.2.

Wetland means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.

APPENDIX A. Vicinity Map of JBLM Installation



APPENDIX B - Annual Report Template

This Appendix outlines the content of the Annual Reports and provides a fillable pdf that the Permittee may opt, but is not obligated, to use.

Annual Report Template
JBLM
Municipal Separate Storm Sewer System (MS4)
Permit WAS026638

Reporting Period

- ☐ Year 1 Reporting Period: effective date of the permit –
- ☐ Year 2 Reporting Period:
- ☐ Year 3 Reporting Period:
- ☐ Year 4 Reporting Period:
- ☐ Year 5 Reporting Period:
- ☐ Other _____

General Information

Contact Person Name and Title: _____

Phone Number: _____ E-mail: _____

Stormwater Website URL: _____

Signature and Certification

Certification: *"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

Signature: _____ Date: _____

Printed Name: _____

Signatory Title: _____

Section I. Permittee Responsibility (Part 1):
If you answer "NO" to any of these questions, please explain in the Comments section.

Year 1 Annual Report		
1.	YES ☐ NO ☐	Has the Permittee submitted to EPA for consideration any documents, plans, programs or program summaries that the Permittee believes to be equivalent to a required control measure or control measure? *If the answer is "YES", use the Comments section to briefly list the one or more documents, plans or programs you have requested be considered as an Equivalent Document, Plan or Program. Cite the relevant Permit provision for each.* (Part 1.5)
All Reporting Years		
2.	YES ☐ NO ☐	Have PFAS-containing AFFFs been used for any reason at JBLM during the reporting year? If yes, please explain in the Comments section. (Part 1.3.4)
3.	YES ☐ NO ☐	Do you, the Permittee, share Permit implementation responsibility with one or more Outside Entity for compliance with the Permit? *If yes, please explain in the Comments section*. (Part 1.4.1))
4.	YES ☐ NO ☐	If yes, is the agreement with Outside Entity(s) formalized in a written and binding agreement between parties? (Part 1.4.1)
5.	YES ☐ NO ☐	If yes, is the agreement with Outside Entity(s) described/cited in the Stormwater Management Program (SWMP) Document? (Part 1.4.1)
6.	YES ☐ NO ☐	Have you established and maintained relevant enforceable mechanisms, to control pollutant discharges into and from the MS4 and to meet the requirements of this Permit? (Part 1.4.2)
7.	YES ☐ NO ☐	Are you maintaining system(s) to track SWMP data and information? (Part 1.4.4)

Permittee Responsibility and Equivalent Documents, Plans or Programs Comments:

Section II. Stormwater Management Program (SWMP) Control Measures (Part 2)
Please answer all questions.

Education and Outreach on Stormwater Impacts (Part 2.1)
If you answer "NO" to any of these questions, please explain in the Comments section.

8.	YES ☐ NO ☐	Have you listed and publicized means for the public and Permittee personnel to report spills and other illicit discharges? (Part 2.1.1.1)
9.	YES ☐ NO ☐	Have you informed target audiences of the environmental impacts associated with illegal discharges and improper disposal of waste and how to report them? (Part 2.1.1.2)
10.	YES ☐ NO ☐	Have you selected specific education and outreach topics to build general awareness and effect behavior change? *Please list these topics in the Comments section.* (Part 2.1.1.3)
11.	YES ☐ NO ☐	Have you conducted public education and outreach behaviors specifically on bacterial pollution problems? (Part 2.1.2)
12.	YES ☐ NO ☐	Have you assessed, or participated in efforts to assess, the understanding and adoption of intended behaviors by the target audiences for at least one of the topics? *In the Comments section,* p*lease summarize your efforts to assess the education and outreach activities conducted during the reporting period, and how this information is being utilized to improve the public education and outreach program efforts.* (Part 2.1.3) *Please also include one or more example of successful education/outreach.* (Part 2.1.3)

Education and Outreach Comments:

Public Involvement/Participation (Part 2.2)
If you answer "NO" to any of these questions, please explain in the Comments section.

13.	YES ☐ NO ☐ NA ☐	Have you complied with applicable federal notice requirements, as relevant? (Part 2.2.1)
14.	YES ☐ NO ☐	Have you conducted one or more meetings to coordinate among appropriate staff, managers and others who play a role in Permit implementation? *Briefly describe meeting(s), participants and topics in the Comments section.* (Part 2.2.2)
15.	Narrative	*In the Comments section, please describe any engagement with affected entities in setting priorities for the storm water program*. (Part 2.2.2)
16.	YES ☐ NO ☐	Have you sponsored at least twice during the Permit term volunteer activities designed to actively engage residents and/or employees to better understand stormwater pollution? *Please describe these events and activities in the Comments section.* (Part 2.2.4)

Public Involvement/Participation Comments:

Illicit Discharge Detection and Elimination (Part 2.3)
If you answer "NO" to any of these questions, please explain in the Comments section.

17.	YES ☐ NO ☐ NA ☐	Have you developed updated maps of the MS4 within the Permit Area that include all of the features listed in Part 2.3.1 of the Permit? *For Annual Reporting Years 1 through 4, you may check NA if these maps have not yet been completed.* (Part 2.3.1)
18.	YES ☐ NO ☐ NA ☐	Do you effectively prohibit non-storm water discharges into the MS4 (except those authorized in Part 1.3.4 of this Permit) through effectively robust policies and procedures? *For Annual Reporting Years 1 and 2, you may check NA if you have not yet implemented effective policies and procedures.* (Part 2.3.2)
19.	YES ☐ NO ☐ NA ☐	For any discharges of potable water, have you dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4? (Part 2.3.2.2.1)
20.	YES ☐ NO ☐ NA ☐	Have discharges from lawn watering and other irrigation runoff been minimized through public education and water conservation efforts? Part 2.3.2.2.2)
21.	YES ☐ NO ☐ NA ☐	For any discharges of swimming pool, spa and hot tub waters, have you dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and re-oxygenized if necessary, volumetrically and velocity controlled to prevent resuspension of sediments in the MS4, thermally controlled to prevent an increase in temperature of the receiving waters, and prohibited the discharge of pool cleaning wastewater and filter backwash? (Part 2.3.2.2.3)
22.	YES ☐ NO ☐ NA ☐	Have discharges from street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents been minimized through public education and water conservation efforts? (Part 2.3.2.2.4)
23.	YES ☐ NO ☐	For any discharges of accumulated stormwater from secondary containment structures, have you conducted sampling to verify that no pollutants cause or contribute to water quality impairments, AND visually verified prior to any discharge, that there are no visible sheens or solids in the discharge?? (Part 2.3.2.2.5)
24.	YES ☐ NO ☐	Does the program described in the SWMP document include procedures for locating priority areas likely to have illicit discharges, including areas where complaints have been recorded and areas with storage of large quantities of materials that could result in spills and areas where storage, usage, releases or contamination of any pollutant in Table 3.3.5 is or has occurred? (Part 2.3.3.1)
25.	YES ☐ NO ☐ NA ☐	Do you conduct a dry weather analytical and field screening

		monitoring program to identify non-stormwater flows from stormwater outfalls? *For Annual Reporting Years 1 and 2, you may check NA if you have not yet begun dry weather field screenings. (Part 2.3.3.2.1)*
26.	YES ☐ NO ☐ NA ☐	For Annual Reporting Year 5 only, have you completed field screening of at least 75% of all MS4 outfalls located within the Permit Area? *For Annual Reporting Years 1 through, you may check NA unless you have completed screening of 75% of the MS4 outfalls in the Permit Area.* (Part 2.3.3.2.2)
27.	YES ☐ NO ☐	Are your screening methods/protocols consistent with *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October 2004, or another methodology of comparable effectiveness? (Part 2.3.3.2.3)
28.	YES ☐ NO ☐	Do you have and implement procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges which are found by or reported to the Permittee? (Part 2.3.3.3)
29.	YES ☐ NO ☐	Do these procedures include the evaluation of whether the discharge must be immediately contained and the steps to be taken for containment of the discharge per the stipulations in Part 2.3.4.3? (Part 2.3.3.3)
30.	Narrative	*In the Comments section, please summarize all illicit discharge responses, including responses to spills and recurring discharges. Also summarize any investigations and referrals as detailed in Part 2.3.3.3.2.* (Parts 2.3.3.3.1, 2.3.3.3.2 and 2.3.3.3.3)
31.	YES ☐ NO ☐	Do you have and implement procedures for notification of affected parties, including immediate notification of the spills and illicit discharges and ongoing updates about abatement measures and possible impacts? (Part 2.3.3.4)
32.	Narrative	*In the Comments section, please summarize all notifications to downstream operators of MS4s, shellfish beds/fisheries, agricultural/livestock operations, drinking water systems (public or private) or other affected entity of spills or other non-stormwater discharges that may impact those systems.* (Part 2.3.3.4.1) *Please include in the description all outreach, discussions and/or information exchanges regarding the impacts of discharges and the status of illicit discharge elimination activities.* (Part 2.3.3.4.2)
33.	YES ☐ NO ☐	Do you have and implement procedures for tracing sources of illicit discharges, including visual inspections, opening manholes, using mobile cameras, collecting and analyzing water samples, and other procedures, as appropriate? (Part 2.3.3.5)
34.	YES ☐ NO ☐	Do you have procedures for eliminating illicit discharges, including scheduling and implementing remedial measures and other safeguards to ensure the discharge does not recur? (Part 2.3.3.6)

35.	YES ☐ NO ☐	Do these procedures include initiation of an investigation within 21 days of a report or discovery of an illicit connection to determine the source, nature and volume, and responsible party? (Part 2.3.3.6.1)
36.	YES ☐ NO ☐	Do these procedures include initiation of action to eliminate the illicit connection within 45 days of confirming the connection? (Part 2.3.3.6.1)
37.	Narrative	*In the Comments section, please include the results of the identification of potential PFAS infiltration in the MS4 at JBLM. (Part 2.3.4)*
38.	YES ☐ NO ☐	Have all staff responsible for investigating, identifying and eliminating illicit discharges, spills, and illicit connections into the MS4 received program-specific training? (Part 2.3.5)
39.	Narrative	*In the Comments section, please describe any training provided during this reporting period, including new employee training and follow-up training*. (Part 2.3.5)
40.	Narrative	*In the Comments section, please include a general summary of the results of dry weather screening program activities conducted over the preceding reporting period, including number and type of illicit connections identified, dry weather screening efforts, and location and efforts to correct identified illicit discharges.* (Part 2.3.6)

Illicit Discharge Detection and Elimination Comments:

New Development, Redevelopment, and Construction Site Runoff Control (Part 2.4)
If you answer "NO" to any of these questions, please explain in the Comments section.

41.	YES ☐ NO ☐	Does the SWMP document describe, and are you implementing, a program to reduce pollutants in stormwater runoff to the MS4 from all construction, new development and redevelopment project site activities in the Permit Area, including roads? (Part 2.4)
42.	YES ☐ NO ☐ NA ☐	During this reporting year have you provided adequate oversight to "regulated construction activities" and "regulated industrial activities" to ensure that all regulated activities obtained coverage under the appropriate stormwater permits? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.1)
43.	YES ☐ NO ☐	Have you implemented an enforceable mechanism to address runoff from new development, redevelopment and construction site projects to include the minimum requirements, thresholds and definitions? (Part 2.4.2.1)
44.	YES ☐ NO ☐	Does the enforceable mechanism include all of the criteria listed in Part 2.4.2.2 of the Permit? (Part 2.4.2.2)
45.	YES ☐ NO ☐	Have you had any equivalent criteria approved by EPA for use in stormwater controls from new development, redevelopment, and construction site runoff? *If so, in the Comments section please describe how these have been utilized during this reporting year.* (Part 2.4.2.4)
46.	YES ☐ NO ☐	Have you implemented policies and procedures, including contract mechanisms, to ensure review of all stormwater site plans for proposed development activities? (Part 2.4.3.1)
47.	YES ☐ NO ☐ NA ☐	Do you inspect, prior to clearing and construction, all development sites that have a high potential for sediment transport as determined through plan reviews based on definitions and requirements of Appendix C of the Permit? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.3.2)
48.	YES ☐ NO ☐ NA ☐	Do you inspect all development sites during construction to verify proper installation and maintenance of required erosion and sediment controls? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.3.3)
49.	YES ☐ NO ☐ NA ☐	During this reporting year, did you take the necessary enforcement actions, as relevant, based on the results of these inspections? *If yes, please describe in the Comments section. Only choose NA if there were no construction activities in the Permit Area or you did not identify any failures to properly install or maintain the required controls.* (Part 2.4.3.3)
50.	Narrative	*In the Comments section please document what percentage of all permanent stormwater treatment and flow control*

		BMPs/facilities and catch basins in new developments were inspected every six months prior to 90% of the common plan of development being constructed during this reporting year? (Part 2.4.3.4)
51.	YES ☐ NO ☐ NA ☐	Do you inspect all development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities? *Only choose NA if there were none of these activities in the Permit Area during this reporting year.* (Part 2.4.3.5)
52.	YES ☐ NO ☐	Are all maintenance requirements assigned/entered into the electronic tracking system for stormwater treatment and flow control BMPs/facilities? (Part 2.4.3.5)
53.	YES ☐ NO ☐	Do you keep adequate records to document that all the requirements of Part 2.4.3 of the Permit have been fully implemented? (Part 2.4.3.6)
54.	YES ☐ NO ☐	Were at least 80% of scheduled inspections completed during this reporting year? (Part 2.4.3.6)
55.	YES ☐ NO ☐	Have you established and implemented an internal tracking system to respond to issues of non-compliance? (Part 2.4.3.7)
56.	Narrative	*Annual Reporting Year 5: In the Comments Section, please provide any updates to the retrofit project on Clover Creek that you have implemented during this permit term.* (Part 2.4.4.1)
57.	Narrative	*In the Comments section, please describe any training provided during this reporting period, including new employee training and follow-up training*. (Part 2.4.5)
58.	Narrative	*In the Comments section, please include a general summary any corrective actions taken at construction sites, number of site plans reviewed, site inspections, and one or more example of follow-up actions.* (Part 2.4.6)

New Development, Redevelopment, and Construction Site Runoff Control Comments:

Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance (Part 2.5)

If you answer "NO" to any of these questions, please explain in the Comments section.

59.	YES ☐ NO ☐	Have you established maintenance standards that are protective of facility function for all permanent stormwater facilities used for onsite management, flow control and treatment? (Part 2.5.1.1)
60.	YES ☐ NO ☐	Were all required maintenance activities, as relevant, undertaken per the schedules in Part 2.5.1.2? (Part 2.5.1.2)
61.	YES ☐ NO ☐	Does your operation and maintenance program include an enforceable mechanism that clearly identifies the party/parties responsible for maintenance? (Part 2.5.1.3)
62.	YES ☐ NO ☐	During this reporting year have you conducted inspections of all stormwater treatment and flow control BMPS/facilities that discharge to the MS4 at least annually or per an alternative schedule as established in the SWMP based on maintenance records or other documented information? (Part 2.5.2)
63.	Narrative	*In the Comments section, please specify the number of inspections of permanent stormwater facilities conducted pursuant to Parts 2.5.2. Please also indicate what percentage of the overall number of permanent stormwater facilities these numbers represent.* (Part 2.5.2)
64.	YES ☐ NO ☐	During this reporting year, have you conducted spot checks of all permanent stormwater facilities, per the requirements of Part 2.5.3 after all major storm events? (Part 2.5.3)
65.	Narrative	*In the Comments section, please specify the number of catch basins and inlets that were inspected during this reporting year. Please also indicate what percentage of the overall number of catch basins and inlets, this represents.* (Part 2.5.4)
66.	Narrative	*In the Comments section, please specify the number of catch basins cleaned during this reporting year.* (Part 2.5.4)
67.	YES ☐ NO ☐	During this reporting year, did you undertake and complete all the necessary maintenance, as required by Part 2.5.6 of the Permit, and as described in the SWMP document? (Part 2.5.6) *Please briefly describe in the Comments section.*
68.	Narrative	*In the Comments section, please describe any training provided during this reporting period, including new employee training and follow-up training*. (Part 2.5.7)
69.	Narrative	*In the Comments section, please summarize all measures implemented to minimize or eliminate discharges of PFAS via the MS4. (Part 2.5.8.1)*
70.	YES ☐ NO ☐	Have you established specific protocols for minimizing the resuspension, conveyance and discharge of PFAS in the MS4, both during normal operations and during all maintenance and remediation activities. (Part 2.5.8.3)
71.	YES ☐ NO ☐ NA ☐	Have you developed and implemented SWPPPs for all heavy

		equipment maintenance and storage yards and all material storage facilities within the MS4 area that are not already regulated under the MSGP? *Only choose NA if there were none of these facilities in the Permit Area OR if this is the Annual Report for Year 1.* (Part 2.5.9)
72.	YES ☐ NO ☐	During this reporting year, have you kept records of all inspections, findings of inspections, follow up actions to correct problems, and all maintenance? (Part 2.5.10)

Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Comments:

Section III. Monitoring, Recordkeeping and Reporting Requirements (Part 3)
If you answer "NO" to any of these questions, please explain in the Comments section.

73.	Narrative	*In the Comments section, please provide an evaluation of your compliance with the Permit conditions and progress towards achieving the control measures, during this reporting year.* (Part 3.1)
74.	☐ Option 1 ☐ Option 2	For Annual Reporting Year 1: Did you select monitoring Option 1 (Monitoring/Assessment Plan) or monitoring Option 2 (participation in the Stormwater Action Monitoring Program)? *For all reporting years: If you selected Option 1, please answer questions 71, 72 and 73. If you selected Option 2, please answer question 74.*
75.	Narrative	*In the Comments section, please summarize the results of all monitoring and evaluation undertaken during this reporting year. Discuss results of all types of assessments per the monitoring plan approved by EPA pursuant to Parts 3.3.1 through 3.3.10 of the Permit. Provide your interpretation of these data and how you are using them to inform your stormwater management program.* (Part 3.3)
76.	YES ☐ NO ☐	During this reporting year, was all sample collection, preservation and analysis conducted according to test procedures approved under 40 CFR Part 136, or another method approved by EPA? (Part 3.3.4)
77.	YES ☐ NO ☐	During this reporting year, have you complied with all elements of your Quality Assurance Program Plan (QAPP) developed pursuant to the requirements of part 3.3.9 of the Permit? (Part 3.3.9)
78.	Narrative	*In the Comments section, please summarize your activities as a participant with the Stormwater Action Monitoring Program.* (Part 3.4)
79.	Narrative	*In the Comments section, please summarize the results of all wet weather monitoring and evaluation undertaken for PFAS during this reporting year. Provide your interpretation of these data and how you are using them to inform your stormwater management program. (Part 3.5)*
80.	YES ☐ NO ☐	Are you complying with the record-keeping requirements of the Permit? (Part 3.7)
81.	YES ☐ NO ☐	During this reporting year have you ensured that an updated SWMP and all SWMP records are available to the public? (Part 3.8.2.2) *In the Comments section please discuss what records are available on your website, any requests you have received for records and your responses.*
82.	YES ☐ NO ☐	During this reporting year, have any boundary changes to your facilities resulted in either an increase or a decrease in the Permit Area? *If yes, please describe in the Comments section.* (Part 3.8.2.2.4)
83.	Narrative	*In the Comments section please provide an annotated list of any*

		attachments to this Annual Report. (Part 3.8.2.2.1)
84.	YES ☐ NO ☐	Are all monitoring data collected during this reporting year, as applicable, attached to this Annual Report? (Part 3.8.3)

Monitoring, Recordkeeping and Reporting Comments:

Section IV. Required Response to Exceedances of Water Quality Standards (Part 4)

85.	YES ☐ NO ☐	During this reporting year were any exceedances of water quality standards identified, per the terms of Part 4 of the Permit? (Part 4)
86.	Narrative	*If yes, please describe in the Comments section all measures that were taken to mitigate the water quality standards exceedance, including notifications, adaptive management measures undertaken, schedules for implementation, and a status of current conditions. Include details per the provisions in Part 4 of the Permit.*

Required Reponses to Violations of Water Quality Standards Comments:

APPENDIX C - Determining Construction Site Sediment Damage Potential

The following rating system allows objective evaluation of a particular development site's potential to discharge sediment. Permittees may use the rating system below or develop alternative process designed to identify site-specific features which indicate that the site must be inspected prior to clearing and construction. Any alternative evaluation process must be documented and provide for equivalent environmental review.

Step one is to determine if there is a sediment/erosion sensitive feature downstream of the development site. If there is such a site downstream complete step two, assessment of hydraulic nearness. If there is a sediment/erosion sensitive feature and it is hydraulically near the site, then go to step three to determine the construction site sediment transport potential.

STEP 1 – Sediment/Erosion Sensitive Feature Identification

Sediment/erosion sensitive features are areas subject to significant degradation due to the effect of sediment deposition or erosion. Special protection must be provided to protect them. Sediment/erosion sensitive features include but are not limited to:

i. Salmonid bearing fresh water streams and their tributaries or freshwater streams
ii. that would be Salmonid bearing if not for anthropogenic barriers;
iii. Lakes;
iv. Category I, II, and III wetlands;
v. Marine near-shore habitat;
vi. Sites containing contaminated soils where erosion could cause dispersal of
vii. contaminants; and
viii. Steep slopes (25% or greater) associated with one of the above features.

Identify any sediment/erosion sensitive features and proceed to step two. If there are none the assessment is complete.

STEP 2 – Hydraulic Nearness Assessment

Sites are hydraulically near a feature if the pollutant load and peak quantity of runoff from the site will not be naturally attenuated before entering the feature. The conditions that render a site hydraulically near to a feature include, but are not limited to, the following:

i. The feature or a buffer to protect the feature is within 200 feet downstream of the site
ii. Runoff from the site is tight-lined to the feature or flows to the feature through a channel or ditch.

A site is not hydraulically near a feature if one of the following takes place to provide attenuation before runoff from the site enters the feature: i. Sheet flow through a vegetated area with dense ground cover ii. Flow through a wetland not included as a sensitive feature iii. Flow through a significant shallow or adverse slope, not in a conveyance channel, between the site and the sensitive feature. Identify any of the sediment/erosion sensitive features from step one that are

hydraulically near the site and proceed to step three. If none of the sediment/erosion sensitive features are hydraulically near the site, the assessment is complete.

STEP 3 – Construction Site Sediment Transport Potential

Using the worksheet below, determine the total points for each development site. Assign points based on the most critical condition that affects 10% or more of the site.

If soil testing has been performed on site, the results should be used to determine the predominant soil type on the site. Otherwise, soil information should be obtained from the county soil survey to determine Hydrologic Soil Group (Table of Engineering Index Properties for step 1.D) and Erosion Potential (Table of Water Features for step 1.E)

When using the county soil survey, the dominant soil type may be in question, particularly when the site falls on a boundary between two soil types or when one of two soil types may be present on a site. In this case, the soil type resulting in the most points on the rating system will be assumed unless site soil tests indicate that another soil type dominates the site.

Use the point score from Step 3 to determine whether the development site has a high potential for sediment transport off of the site.

Total Score	**Transport Rating**
<100	Low
>100	High

A high transport rating indicates a higher risk that the site will generate sediment contaminated runoff.

Construction Site Sediment Transport Potential Worksheet

A. Existing slope of site (average, weighted by aerial extent): Points

2% or less 0
>2-5% 5
>5-10% 15
>10-15% 30
>15% 50

B. Site Area to be cleared and/or graded:

<5,000 sq. ft.....0
5,000 sq. ft – 1 acre.....30
>1 acre.. 50

C. Quantity of cut and/or fill on site:

5,000 – 10,000 cubic yards 10
>10,000 – 20,000 cubic yards 25
>20,000 cubic yards 40

D. Runoff potential of predominant soils (Natural Resources Conservation Service):

Hydrologic soil group A 0
Hydrologic soil group B ..... .10
Hydrologic soil group C ..... .20
Hydrologic soil group D 40

E. Erosion Potential of predominant soils (Unified Classification System):

GW, GP, SW, SP soils 0
Dual classifications (GW-GM, GP-GM, GW-GC, GP-GC,
SW-SM, SW-SC, SP-SM, SP-SC) 10
GM, GC, SM, SC soils 20
ML, CL, MH, CH soils 40

F. Surface or Groundwater entering site identified and intercepted[2]

Yes 0
No 25

G. Depth of cut or height of fill >10 feet:

Yes 25
No 0

H. Clearing and grading will occur in the wet season (October 1 – May 1):

Yes 50
No 0

TOTAL POINTS..... _____

[2] If no surface or groundwater enters site, give 0 points.

APPENDIX D - Street Waste Disposal

This Appendix contains requirements for street waste disposal, pursuant to Part 2.5.4 of this Permit. See also Part 5.13 (*Removed Substances*).

Appendix D.1 Street Waste Solids.
Appendix D.2 Street Waste Liquids.

D.1 Street Waste Solids

Soils generated from maintenance of the MS4 may be reclaimed, recycled or reused when allowed by local codes and ordinances. Soils that are identified as contaminated pursuant to Washington Administrative Code (WAC) Chapter 173-350 shall be disposed at a qualified solid waste disposal facility.

D.2 Street Waste Liquids

General Procedures:

a. **Street waste collection should emphasize retention of solids in preference to liquids.** Street waste solids are the principal objective in street waste collection and are substantially easier to store and treat than liquids.

b. **Street waste liquids require treatment before their discharge**. Street waste liquid usually contains high amounts of suspended and total solids and adsorbed metals. Treatment requirements depend on the discharge location.

c. **Discharges to sanitary sewer and storm sewer systems must be approved by the entity responsible for operation and maintenance of the system.** Prior to any liquid waste discharges to a sanitary or storm sewer system, written permission must be obtained from the operator of the relevant system.

d. **For disposal of catch basin decant liquid and water removed from stormwater treatment facilities, EPA recommends the following, in order of preference:**

   1. **Discharge of catch basin decant liquids to a municipal sanitary sewer connected to a Public Owned Treatment Works (POTW) or Navy Owned Treatment Works (NOTW) is the <u>preferred disposal option</u>**. Discharge to a municipal sanitary sewer requires the approval of the sewer authority. Approvals for discharge to a POTW or NOTW will likely contain pretreatment, quantity and location conditions to protect the system.

   2. **Discharge of catch basin decant liquids may be allowed into a Basic or Enhanced Stormwater Treatment BMP, if option 1 is not available**. Decant liquid collected from cleaning catch basins and stormwater treatment wet vaults may be discharged back into the storm sewer system under the following conditions:

      - The preferred disposal option of discharge to sanitary sewer is not reasonably available; and

- The discharge is to a Basic or Enhanced Stormwater Treatment Facility. If pretreatment does not remove visible sheen from oils, the treatment facility must be able to prevent the discharge of oils causing a sheen; and

- The discharge is as near to the treatment facility as is practical, to minimize contamination or recontamination of the collection system; and

- The storm sewer system owner/operator has granted approval and has determined that the stormwater treatment facility will accommodate the increased loading. Pretreatment conditions to protect the stormwater treatment BMP may be issued as part of the approval process. Following local pretreatment conditions is a requirement of this Permit.

- Flocculants for the pretreatment of catch basin decant liquids must be non-toxic under the circumstances of use and must be approved in advance by EPA.

The reasonable availability of sanitary sewer discharge will be determined by the Permittee, by evaluating such factors as distance, time of travel, load restrictions, and capacity of the stormwater treatment facility.

3. **Water removed from stormwater ponds, vaults and oversized catch basins may be returned to the storm sewer system**. Stormwater ponds, vaults and oversized catch basins contain substantial amounts of liquid, which hampers the collection of solids and pose problems if the removed waste must be hauled away from the site. Water removed from these facilities may be discharged back into the pond, vault or catch basin provided:

    - Clear water removed from a stormwater treatment structure may be discharged directly to a down gradient cell of a treatment pond or into the storm sewer system.

    - Turbid water may be discharged back into the structure it was removed from if:
        - The removed water has been stored in a clean container (eductor truck, Baker tank or other appropriate container used specifically for handling stormwater or clean water); and

        - There will be no discharge from the treatment structure for at least 24 hours.

        - If discharging to a pond, vault or catch basin that is not owned or operated by the Permittee, the discharge must be approved by the storm sewer system owner/operator.