



SNOHOMISH COUNTY

2021 STORMWATER MANAGEMENT PROGRAM PLAN

**Prepared in compliance with the 2019 Phase I Municipal Stormwater
National Pollutant Discharge Elimination System and State Waste
Discharge General Permit for Discharges from Large and Medium
Municipal Separate Storm Sewer Systems**

MARCH 2021



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Attachment 1 Snohomish County Executive Order 2019-01

**Attachment 2 Snohomish County 2020 NPDES Structural
Stormwater Controls Program**

Chapter 1 – The National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit

This Stormwater Management Program (SWMP) Plan describes the actions and programs implemented by Snohomish County to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Stormwater Permit, with specific emphasis on actions and programs to be implemented in 2021. This chapter summarizes the history and current status of the NPDES permit system, with a focus on the Phase I Municipal Stormwater Permit. Chapter 2 provides an overview of this document, and Chapters 3 through 5 contain descriptions of Snohomish County's actions and programs comprising the County's SWMP.

Federal law contains several statutes related to water pollution, including the federal Water Pollution Control Act (1972), the Clean Water Act (1977), and the Water Quality Act (1987). These laws are referred to collectively as the Clean Water Act (CWA).

The CWA contains a permit system, the National Pollutant Discharge Elimination System (NPDES), intended to control and reduce pollutants in discharges to waters of the United States. The NPDES permit system was developed initially to control pollutants in wastewater discharges from industries and municipalities. In 1987, amendments to the CWA expanded the scope of the NPDES permit system to include stormwater discharges from selected industries, construction sites over a certain size, and municipalities over a certain population.

The United States Environmental Protection Agency (EPA) is the federal agency responsible for administering the CWA. In 1990, EPA promulgated regulations for NPDES stormwater permits in Title 40 of the Code of Federal Regulations (CFR), at 40 CFR 122.26. Municipalities with a 1990 census population of 100,000 or more were designated as "Phase I" municipalities subject to requirements imposed by the 1990 regulations. Certain municipal dischargers not covered by the Phase I requirements fell within "Phase II" of the program.

The NPDES municipal stormwater permits regulate discharges of pollutants from "municipal separate storm sewer systems" (MS4s) to surface waters of the United States. An MS4 is defined in the Phase I Permit (and in the CFR) as:

a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade 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 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 State.

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- (ii) Designed or used for collecting or conveying stormwater.*
- (iii) Which is not a combined sewer.*
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.*
- (v) Which is defined as “large” or “medium” or “small” or otherwise designated by Ecology pursuant to 40 CFR 122.26.*

Washington is one of the states to which EPA has delegated the authority to implement the NPDES permit system. The Washington State Legislature has assigned this implementing authority to the Washington State Department of Ecology (Ecology).

In 1995, Ecology issued the first Phase I Municipal Stormwater Permit (Phase I Permit) – a combined NPDES permit and State Waste Discharge General Permit – to regulate stormwater discharges to groundwater as well as surface water. The municipalities covered by the Phase I Permit are Snohomish County, King County, Pierce County, Clark County, Seattle, and Tacoma.

In January 2007, Ecology reissued the Phase I Permit, and issued for the first time the Western Washington Phase II and Eastern Washington Phase II Municipal Stormwater Permits, which cover over 100 cities and counties in Washington. The 2007 permits were appealed to the Washington State Pollution Control Hearings Board (PCHB), and subsequently were modified by Ecology in 2009 pursuant to PCHB rulings. Ecology further modified the Phase I Permit in 2010.

On August 1, 2012, Ecology reissued the Phase I and Western Washington Phase II Permits with limited changes, effective September 1, 2012 through July 31, 2013. Ecology subsequently reissued the Phase I and Western Washington Phase II Permits, each with an effective date of August 1, 2013 and an expiration date of July 31, 2018. The 2013 permits were appealed to the PCHB, and Ecology modified the Phase I and Western Washington Phase II Permits effective January 16, 2015, in response to PCHB rulings. On August 19, 2016, Ecology modified Appendix 10 of the Phase I Permit, approving stormwater regulations developed by permittees to meet the requirements of Permit Special Condition S5.C.5.a.

On July 1, 2019, Ecology reissued the Phase I and Phase II Permits, each with an effective date of August 1, 2019 and an expiration date of July 31, 2024.

Additional information about current and past permits can be found at:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits>.

Chapter 2 – Overview of Snohomish County Stormwater Management Program

The Phase I Permit requires permittees to implement a Stormwater Management Program (SWMP), which is a set of actions and activities comprising the following components listed in Special Condition S5 of the Phase I Permit:

1. Legal Authority
2. MS4 Mapping and Documentation
3. Coordination
4. Public Involvement and Participation
5. Controlling Runoff from New Development, Redevelopment and Construction Sites
6. Stormwater Planning
7. Structural Stormwater Controls
8. Source Control Program for Existing Development
9. Illicit Connections and Illicit Discharges Detection and Elimination
10. Operation and Maintenance Program
11. Education and Outreach Program

In addition, the SWMP must contain additional actions specified in Special Condition S7 (Compliance with Total Maximum Daily Load Requirements) and Special Condition S8 (Monitoring and Assessment).

Each permittee must prepare annually a document called the “SWMP Plan” which describes the actions the permittee will take to meet the SWMP requirements listed above. Specifically, Special Condition S5.A.1 states:

Each Permittee shall prepare written documentation of their SWMP, called the SWMP Plan. The SWMP Plan shall be organized according to the program components in S5.C, or a format approved by Ecology, and shall be updated at least annually for submittal with the Permittee’s Annual Report to Ecology (S9 - Reporting Requirements). The SWMP Plan shall be written to inform the public of the planned SWMP activities for the upcoming calendar year, and shall include a description of:

a. Planned activities for each of the program components included in S5.C.

b. Any additional planned actions to meet the requirements of applicable TMDLs pursuant to S7 - Compliance with TMDL Requirements.

c. Any additional planned actions to meet the requirements of S8 - Monitoring and Assessment.

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Prior to January 30, 2021, the County departments and divisions listed below were primarily responsible for implementing the requirements of the Phase I Permit, either through custodial management of County properties that have MS4 elements, statutory authority over basic functions required by the Phase I Permit, or by assignment of such responsibilities through executive order.

- Department of Public Works (Public Works), including the following divisions:
 - Surface Water Management (SWM)
 - Road Maintenance
 - Engineering Services
 - Transportation and Environmental Services (TES)
 - Solid Waste
- Department of Planning and Development Services (PDS)
- Department of Parks, Recreation and Tourism (Parks)
- Snohomish County Airport – Paine Field (Airport)
- Department of Facilities and Fleet (Facilities)

On February 3, 2021, SWM and Parks were incorporated into a new Department of Conservation and Natural Resources (DCNR). SWM and Parks are separate divisions of DCNR, so after February 3, 2021, the corrected list of departments and divisions is:

- Department of Public Works (Public Works), including the following divisions:
 - Road Maintenance
 - Engineering Services
 - Transportation and Environmental Services (TES)
 - Solid Waste
- Department of Planning and Development Services (PDS)
- Department of Conservation and Natural Resources (DCNR), including the following divisions:
 - Parks, Recreation and Tourism (Parks)
 - Surface Water Management (SWM)
- Snohomish County Airport – Paine Field (Airport)
- Department of Facilities and Fleet (Facilities)

The respective assigned NPDES-related activities of SWM and Parks will not change in 2021, so this SWMP Plan will continue to refer to 'SWM' and 'Parks' for many actions. DCNR will also contain the County's existing Agricultural Coordinator and the Office Energy and Sustainability, which have no direct responsibilities under the Phase 1 Permit.

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In addition to the departments and divisions listed above, the following departments and offices have field employees who do not perform specific actions under the Phase I Permit, but who may observe illicit discharges or illicit connections to the MS4 and thus receive general awareness training as required under Special Condition S5.C.9.c.iii:

- Sheriff
- Finance
- Assessor
- Treasurer
- Auditor
- Emergency Management
- Human Services
- Medical Examiner

This SWMP Plan details Phase I Permit requirements, the departments and divisions with responsibilities under the requirements, and the actions each agency takes or plans to take to meet those responsibilities. Chapter 3 addresses Special Conditions S5.C.1 – S5.C.11 of the Phase I Permit, Chapter 4 addresses Special Condition S8 (Monitoring) of the Phase I Permit, and Chapter 5 addresses Special Condition S7 (TMDLs) of the Phase I Permit.

Chapter 3 – Stormwater Management Program

3.1 Legal Authority

3.1.1 Permit requirements

S5.C.1 Legal Authority

Minimum performance measures:

a. Each Permittee shall be able to demonstrate that they can operate pursuant to legal authority which authorizes or enables the Permittee to control discharges to and from MS4s owned or operated by the Permittee.

b. This legal authority, which may be a combination of statute, ordinance, permit, contracts, orders, interagency agreements, or similar means, shall authorize or enable the Permittee, at a minimum, to:

i. Control through ordinance, order, or similar means, the contribution of pollutants to MS4s owned or operated by the Permittee from stormwater discharges associated with industrial activity, and control the quality of stormwater discharged from sites of industrial activity;

ii. Prohibit through ordinance, order, or similar means, illicit discharges to the MS4 owned or operated by the Permittee;

iii. Control through ordinance, order, or similar means, the discharge of spills and disposal of materials other than stormwater into the MS4s owned or operated by the Permittee;

iv. Control through interagency agreements among co-applicants, the contribution of pollutants from one portion of the MS4 to another portion of the MS4;

v. Require compliance with conditions in ordinances, permits, contracts, or orders; and,

vi. Within the limitations of state law, carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with permit conditions, including the prohibition on illicit discharges to the MS4 and compliance with local ordinances.

3.1.2 Responsible County departments

Snohomish County departments primarily responsible for establishing, implementing, and enforcing legal authority that authorizes and enables the County to control discharges to and from its MS4 are Conservation and Natural Resources (DCNR), Public Works, and Planning and Development Services (PDS). Airport, and Facilities have more limited responsibilities under Special Condition S5.C.1, ensuring compliance with Phase I Permit terms largely through departmental policies and procedures and through contracts with tenants and vendors. Legislation establishing legally enforceable

regulatory standards is adopted by the Snohomish County Council following public notice and at least one public hearing.

3.1.3 Program description

Snohomish County's legal authority to meet the requirements of Special Condition S5.C.1 is established primarily in chapters of the Snohomish County Code (SCC) and related documents adopted by departmental rule pursuant to those codes, specifically:

- Chapter 7.53 SCC – Water Pollution Control
- Chapter 7.54 SCC – Maintenance of Constructed Stormwater Control Facilities
- Chapter 30.63A SCC – Drainage
- Chapter 30.63B SCC – Land Disturbing Activity
- Chapter 30.85 SCC – Enforcement Procedures
- Snohomish County Engineering Design and Development Standards (EDDS), adopted by Public Works pursuant to authority in Chapter 30.63A SCC
- Snohomish County Drainage Manual, adopted pursuant to authority in Chapter 30.63A SCC

Also, Title 13 SCC, Roads and Bridges, generally controls actions in the County road right-of-way. Title 13 SCC contains prohibitions on a broad range of potentially polluting actions, and further controls actions by a system of right-of-way use permits and franchise agreements.

In addition to these regulations, Snohomish County has contractual agreements with numerous entities related to County non-right-of-way properties. For example, Parks, and Airport have lease agreements with tenants located on County properties, and Parks allows other entities to engage in activities on Parks property through contract. Airport leases and Parks contracts state that tenants must comply with all applicable federal, state, and local regulations. Parks agreements contain requirements related to pollution prevention and/or best management practice (BMP) implementation.

The County's progressive enforcement of its codes and regulations is discussed in more detail in Sections 3.5.3, 3.8.3, and 3.9.3 of this SWMP Plan.

3.1.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Snohomish County will continue to control discharges to and from its MS4 based on the legal authority described above.
- ◆ By July 1, 2021, Snohomish County will adopt and make effective revisions to its stormwater regulations that are compliant with Special Conditions S5.C.5, S5.C.8, S5.C.9, and S5.C.10.

3.2 Municipal Storm Sewer Mapping and Documentation

3.2.1 Permit requirements

S5.C.2 MS4 Mapping and Documentation

The SWMP shall include an ongoing program for mapping and documenting the MS4.

Minimum performance measures:

- a. Ongoing Mapping. Each Permittee shall maintain mapping data for the features listed below.*
 - i. Known MS4 outfalls and known MS4 discharge points.*
 - ii. Receiving waters, other than groundwater.*
 - iii. Stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee, including all connections between these BMP/facilities and tributary conveyances (mapped in accordance with this Section) and all associated emergency overflows.*
 - iv. Geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface water.*
 - v. Tributary conveyances to all known outfalls and discharge points with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. For counties, this requirement applies to urban/higher density rural sub-basins. For cities, this requirement applies throughout the city. The following features or attributes (or both) shall be mapped:*
 - (a) Tributary conveyance type, material, and size where known*
 - (b) Associated drainage areas*
 - (c) Land uses*
 - vi. Connections between the MS4 owned or operated by the Permittee and other municipalities or other public entities.*
 - vii. All connections to the MS4 authorized or allowed by the Permittee after February 16, 2007. ¹*
 - viii. Existing, known connections greater than or equal to 8 inches in nominal diameter to tributary conveyances mapped in accordance with S5.C.2.a.v. For Counties, this requirement applies to the area of the county within urban/higher density rural sub-basins mapped under the previous Permit. For cities, this requirement applies throughout the city.*

¹ Permittees do not need to map the following residential connections: individual driveways, sump pumps, or roof downspouts.

b. New Mapping. Each Permittee shall:

i. No later than January 1, 2020, begin to collect size and material for all known MS4 outfalls during normal course of business (e.g. during field screening, inspection, or maintenance) and update records.

ii. No later than August 1, 2023, complete mapping of all known connections from the MS4 to a privately-owned stormwater system.

iii. No later than December 31, 2023, counties shall complete mapping tributary conveyances, as described in S5.C.2.a.v, for 50% of the areas outside the previously mapped urban/higher density rural sub-basins.

c. The required format for mapping is electronic with fully described mapping standards.

d. To the extent consistent with national security laws and directives, each Permittee shall make available to Ecology, upon request, available maps depicting the information required in S5.C.2.a and b, above.

e. Upon request, and to the extent appropriate, Permittees shall provide mapping information to federally recognized Indian Tribes, municipalities, and other Permittees. This Permit does not preclude Permittees from recovering reasonable costs associated with fulfilling mapping information requests by federally recognized Indian Tribes, municipalities, and other Permittees.

3.2.2 Responsible County departments

All County departments and divisions are responsible to ensure qualifying drainage assets located on their custodial property are inventoried and mapped. Inventory consists of using GPS equipment in the field to collect spatial and attributional information on qualifying drainage assets. Mapping consists of uploading GPS point data, processing data and producing distinct feature classes that demonstrate compliance with Special Condition S5.C.2. The County's primary mapping system currently resides in a central geographic information system (GIS) geodatabase known as ArcSDE (SDE for Spatial Database Engine), which is managed by Surface Water Management (SWM) and maintained by the County's Information Technology (IT) Department. In this document, the Drainage Inventory Master Dataset (DIMD) refers to the distinct feature classes that are stored in an ArcSDE.

In order to standardize processes, County departments and divisions utilize the following options:

1. Coordinate with SWM to provide both drainage inventory and mapping services;
2. Coordinate with SWM to provide mapping services only (data provided shall use the standard drainage dictionary and be compatible with an ArcSDE);
3. Independently inventory and map drainage assets and produce the distinct feature classes required to demonstrate compliance with Special Condition S5.C.2.

SWM is the primary County entity inventorying, mapping and producing the feature classes required to demonstrate compliance with Special Condition S5.C.2.

Public Works and its divisions use option 1, as does Parks and Facilities. Airport utilizes option 2, as they are using outside professional services to collect all drainage inventory data and have contracted with SWM to process and merge that information into the drainage ArcSDE. .

Planning and Development Services (PDS) authorizes connections to the MS4 from private new development and redevelopment and is responsible for ensuring the mapping requirement in Special Condition S5.C.2.a.vii is performed for those activities. Since PDS is not a custodial property owner, most other mapping requirements are not applicable to their department. For mapping responsibilities under Special Condition S5.C.2.a.vii, PDS utilizes option 2.

3.2.3 Program description

Snohomish County has a program to map the MS4 and many related surface water features needed to comply with other program sections within the Phase I permit. The drainage inventory program was initiated prior to 1995 when the Phase I NPDES permit went into effect, and has evolved in complexity with the continued advancement of technologies for data gathering, storage, and analysis.

The Phase I Permit requires “mapping” of various information and objects related to the County’s MS4, but the Phase I Permit does not define the term “mapping.” The process of “mapping” an element of the MS4 involves collecting information (e.g., location and physical attributes) in the field using Global Positioning System (GPS) equipment, followed by processing the raw data from the GPS receiver in a file geodatabase and uploading the processed data into the County’s enterprise ArcSDE. In addition, “mapping” includes analysis that, at a minimum, attaches or confirms non-physical attributes to the data such as ownership. In this SWMP Plan, the County uses the term “inventory” to refer to the collection of data in the field. The term “mapping” is used to mean the process of uploading or updating the “inventoried” data into County’s enterprise ArcSDE, processing the vector data (points, lines, and polygons), and performing analyses as needed. For example, the end of a pipe is inventoried, meaning spatial coordinates and attributional data is collected using a GPS receiver. This raw data is first uploaded into the file geodatabase, processed to create vector flow lines, and analyzed. The processed data is then uploaded into the County’s enterprise ArcSDE.

The SWM Inventory program consists of a team of engineering field technicians and GIS Analysts. Using Trimble R10 global navigation satellite systems (GNSS), the team collects high-accuracy spatial coordinates for each asset, including, for example, point locations and rim and invert elevations of the pipe inlets and outlets. The spatial and attributional data is stored in Trimble controllers, for each data point, using the set data dictionaries for each asset type. The data is uploaded weekly.

After inventory data is collected by or transmitted to SWM, SWM’s GIS group performs the final “mapping” tasks needed for the production, management, and distribution of the DIMD. Mapping occurs on a continual basis and work is

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performed by GIS Analysts. The field-inventoried data is initially uploaded from the controllers to a file geodatabase. The raw data requires post-processing work, including auto-calculating and populating data-attribute fields using Python programming language, Phase I Permit analysis, manual line work connections, extracting data to certain feature classes, live-joining tables and datasets, and quality control checks. Post-processing work is necessary before the data is transferred into final versions of the DIMD, Cartegraph OMS and the web mapping service. The DIMD is available for download and is also viewable in an interactive web map at <http://snohomishcountywa.gov/1129/Drainage-GIS>. This data is available in an electronic format with fully described mapping standards.

Although SWM is responsible for inventorying and maintaining mapping data for the majority of the County's MS4 features, other County departments are responsible for inventorying or transmitting information regarding their custodial properties or mapping various aspects of those properties.

The Airport manages, in coordination with SWM, an ongoing program for mapping and documenting the MS4 located within the Airport property boundary. The primary focus of the program is to maintain detailed maps and an associated database describing all known MS4 outfalls, discharge points, receiving waters, stormwater treatment and flow control BMPs/facilities, and tributary conveyances that are owned, operated, or maintained by the Airport. The most current maps are maintained and stored in the Airport Engineer's Office. The Airport works in coordination with SWM to have consistent mapping standards and compatible datasets. Mapping efforts were initiated in response to the formal mapping requirements included in the 2007 Phase I Municipal Stormwater Permit. As part of conducting this mapping, the Airport completed an inventory of all known stormwater treatment and flow control BMPs/facilities owned, operated, or maintained by the Airport. These include stormwater ponds, bioswales, stormwater vaults, oil/water separators, shutoff valves, and weirs. These BMPs/facilities along with catch basins (including inlets) and conveyance piping are shown on the maps and are predominantly in AutoCAD format. Converting data from an AutoCAD format to an ArcGIS format is an ongoing project. Mapping the existing MS4 at the Airport is an ongoing effort as Paine Field is routinely being redeveloped, which requires adding data to capture spatial updates and new attributional information. Maps are updated following preparation of as-built drawings that document new construction. As development/redevelopment occurs, existing data will be revised to document new, replaced, or decommissioned MS4 features.

Parks currently maintains site plans and as-builts that include MS4 features for properties under Parks' custodial care. Some of these drainage assets are in the DIMD. Under the newly created DCNR, SWM and Parks are developing a strategy for SWM to inventory and map drainage features on Parks' custodial property. SWM also maps newly constructed drainage facilities on Parks' custodial properties as part of the permitting process with PDS.

Facilities maintains site plans that note MS4 facilities for properties not in custodial control of another County department, including downtown campus buildings, the Denney Juvenile Justice Center, the Multi Service Center, the Records Building, the Department of Emergency Management building, the Medical Examiner's Office, the

Evaluation and Treatment Center, the Natural Resources building in Marysville, the County surface parking lot, South District Court, Evergreen District Court, and Cascade District Court. Site maps and as-built records exist for these sites, but not all drainage assets currently are in the DIMD. Facilities and SWM developed a strategy for migrating this data into the DIMD and determined which information will be field verified versus digitized from existing site plans.

PDS is responsible for collecting data related to new development and redevelopment projects as part of the permit application and review process. Project data are managed and stored in an electronic permit tracking system called AMANDA. Project data includes as-built engineering drawings for stormwater treatment and flow control stormwater facilities, stormwater site plans and construction stormwater pollution prevention plans that identify stormwater facilities, and BMPs and connections to the MS4 associated with new development or redevelopment. PDS provides this information to SWM on a regular basis through an established workflow of plan transfers. SWM receives the plan sets from PDS and tracks, prioritizes, and executes the required inventory and mapping. All of the collected inventory data is loaded into the DIMD and routinely processed and analyzed. This process focuses on plats and short plats, capturing the vast majority of new and existing connections. There is a small subset of data that is not transferred through this process. Smaller connections not associated with a plat or short plat are permitted through right-of way-permits. That information is logged into AMANDA, exported to Excel, uploaded as a point shapefile and merged into the DIMD. If necessary, inventory crews will field-collect data on specific infrastructure components. Currently SWM and PDS have an established workflow that includes recording and mapping drainage features from all subdivision plats and short plats. Subdivision plats and short plats constitute the vast majority of MS4 connections, an average of 50 new connections per year. PDS staff review site plans from individual residential building permits (D6 permits) to determine if mapping connections to the MS4 are required, as many residential connections are exempt from mapping as described in Special Condition S5.C.2.a.vii.1. If mapping is required, connections to the MS4 associated with a D6 permit are captured in a GIS feature class and uploaded to the DIMD each year.

Finally, consistent with Special Condition S.5.C.2.d-e, the County makes available to Ecology upon request maps depicting the information required in Special Condition S5.C.2.a-b, and makes available mapping information to Indian Tribes, municipalities, and other permittees upon request. The DIMD is available in an electronic format with fully described mapping standards. The DIMD can be downloaded or viewed using in an interactive web map from the County's website.

3.2.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Continue to ensure the DIMD is synced with Cartegraph OMS. GIS staff, the SWM Inventory team and Public Works Tech Support Specialists communicate and troubleshoot issues. This allows for missing asset data to be recognized and added onto the Inventory tasks list.

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- ◆ Continue ongoing mapping program for inclusion of data into DIMD to identify the features listed in Special Condition S5.C.2.a.
- ◆ Continue to inventory all new drainage assets that qualify as a required mapping feature.
- ◆ Continue to prioritize the mapping of new drainage facilities and conveyance systems that require annual inspection and maintenance.
- ◆ Continue to upload all drainage inventory data weekly into an ArcSDE, process datasets, analyze datasets, and upload final data into the public data interfaces. An NPDES specific webmap was created and is currently available online through the drainage inventory web portal.
- ◆ Continue live joining data from the DIMD ESRI to Cartegraph, Public Works' asset management software. This software program integrates GIS data with inspection and maintenance records.
- ◆ Continue to track low impact development (LID) implementation data including number and type of stormwater LID systems constructed and acreage treated by those systems. Use this information in the Annual LID Implementation Report.
- ◆ The size and material for all known MS4 outfalls is now collected during normal course of business as required by Special Condition S5.C.2.b.i. Instead of all drainage data being collected with high-accuracy GPS equipment, trained Public Works field staff who encounter outfalls and other drainage assets manually add attributional data to the record sets via Cartegraph OMS.
- ◆ SWM continues to develop a plan to identify and map all known connections from the MS4 to privately-owned stormwater systems as required by Special Condition S5.C.2.b.ii. These connections will be stored in a new feature class.
- ◆ SWM has scoped the level of effort required to complete mapping the tributary conveyances for 50% of the areas outside the previously mapped urban/higher density rural sub-basins by December 31, 2023, as required by Special Condition S5.C.2.b.iii. The majority of this mapping requirement has been completed. Efforts this year will focus on determining a prioritization and schedule to collect the remainder.

3.3 Coordination

3.3.1 Permit requirements

S5.C.3 Coordination

The SWMP shall include coordination mechanisms among departments within each jurisdiction to eliminate barriers to compliance with the terms of this Permit.

The SWMP shall also include coordination mechanisms among entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs, and projects within a watershed. Permittees shall document their efforts to establish the required coordination mechanisms.

Minimum performance measures:

a. Update, if needed, and implement an intra-governmental (internal) coordination agreement(s) or Executive Directive(s) to facilitate compliance with the terms of this Permit. Permittees shall include a written description of internal coordination mechanisms in the Annual Report, due no later than March 31, 2020.

b. The SWMP shall include, when needed, coordination mechanisms among entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs and projects within adjoining or shared areas, including:

i. Coordination mechanisms clarifying roles and responsibilities for the control of pollutants between physically interconnected MS4s covered by a municipal stormwater permit.

ii. Coordinating stormwater management activities for shared water bodies, or watersheds among Permittees to avoid conflicting plans, policies, and regulations.

c. Implement; and within 2 years following the addition of a new Secondary Permittee, establish and implement:

i. Coordination mechanisms clarifying roles and responsibilities for the control of pollutants between physically interconnected MS4s of the Permittee and any other Permittee covered by a municipal stormwater permit.

ii. Coordinating stormwater management activities for shared waterbodies, among Permittees and Secondary Permittees, as necessary to avoid conflicting plans, policies, and regulations.

3.3.2 Responsible County departments

The Snohomish County Executive's Office is responsible for overall administration of County actions under the Phase I Permit, including interdepartmental communication

and cooperation and external coordination. Through an Executive Order the Directors of Public Works, PDS, Parks, Airport, and Facilities are charged with the responsibility to communicate, collaborate, and coordinate with each other and with the Executive's Office regarding Permit-related actions.

3.3.3 Program description

Internal coordination

Executive Order 2019-01 – Executive Office Administration of the National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Stormwater Permit, “requires all Snohomish County departments to fully comply with and implement all applicable provisions of the Permit issued to Snohomish County. It is the intent of this Executive Order that all Snohomish County departments coordinate, implement, track, and report all specific action required by the Permit, as related to the scope of responsibilities of those respective departments.”

Executive Order 2019-01 (Attachment 1 to this SWMP Plan) establishes the following:

- 1. The Snohomish County Executive's Office shall be responsible for overall administration of and compliance with the Permit. The County Executive's Special Projects Director is appointed as the lead official for administration of the Permit. The County Executive's Office shall develop Permit-related policy, procedural and administrative guidelines, ensure interdepartmental communication and cooperation, as well as standards to ensure Permit compliance and consistency among all departments in fulfillment of all Permit requirements. The Executive's Office shall, as needed, make final determinations regarding permit compliance, in coordination with the department directors listed below.*
- 2. The County Executive's Special Projects Director shall be responsible for ensuring performance of Permit required actions that are inherently interdepartmental or that reside at the level of the Executive Office. The Special Projects Director may delegate performance of any of these tasks to one or more department leads named below.*
- 3. The Directors of the Departments of Public Works, Planning and Development Services, Parks, Recreation, and Tourism, Airport, and Fleet and Facilities Management shall serve as the departmental leads (Permit leads) and the primary point of contact for their respective departments. Department directors may assign performance of NPDES-related tasks to their staffs, but the department directors retain responsibility as departmental leads. Permit leads are responsible for assisting the Executive's Office in meeting all compliance requirements of the NPDES Permit, and for ensuring their respective departments perform all actions required for Permit compliance as related to the scope of their departmental responsibilities. Permit leads shall also communicate, collaborate, and coordinate with each other and with the Executive's Office regarding Permit related actions.*
- 4. Each county department that manages assets or conducts actions regulated under the Permit, including Department of Public Works, Planning and*

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Development Services, Airport, Parks, Recreation, and Tourism, and Fleet and Facilities Management, shall be responsible for understanding and fully implementing the requirements of the Permit, for complying with Permit-related policy, procedural and administrative guidelines, and standards established by county code and the Executive's Office, as well as integrating compliance activities into departmental plans, operations, and programs.

5. *Each county department having assets or activities regulated by the Permit shall coordinate with the Executive's Office and other County departments, as appropriate, and fully respond to reports, records, policies, and procedural inquiries conducted by the Executive Office in fulfilling its duties as the lead official of Permit administration for Snohomish County.*
6. *Each county department responsible for implementation of Permit requirements will ensure that staff training is conducted covering each element of the Permit pertinent to that department's work, document the training provided and submit such documentation as necessary to meet annual reporting requirements.*

The County has adopted Countywide NPDES Policies documenting the procedures for:

- Determining whether a violation of the permit has occurred, thus triggering the need for notification to Ecology under Permit General Condition G20;
- Determining whether a discharge from the County's MS4 may have violated water quality standards, thus triggering the need for notification to Ecology under Permit Special Condition S4.F;
- County staff communications with Ecology regarding NPDES permit issues;
- Investigation and cleanup of discharges, including spills, to the County's MS4 and to County property; and
- Stormwater pollution prevention on County property.

Policies on other topics have been queued up for 2021.

To facilitate interdepartmental coordination, the County has established two forums that meet regularly. The first is the NPDES Steering Committee, which is composed of the Executive Office Special Projects Director, department directors, and other staff. The Steering Committee meets monthly to discuss high-level issues and receive direction from the Special Projects Director. The second is a staff-oriented coordination group, which meets quarterly and serves as a forum for interdepartmental discussions, problem solving, and compiling issues to be taken to departmental management and the Steering Committee.

External coordination

There are no Secondary Permittees within or adjacent to Snohomish County. Snohomish County's MS4 interconnects with the MS4s of the following NPDES municipal stormwater permittees: Arlington, Bothell, Brier, Edmonds, Everett, Granite Falls, Lake Stevens, Lynnwood, Marysville, Mill Creek, Monroe, Mountlake Terrace, Mukilteo, Snohomish, Shoreline, Kenmore, Lake Forest Park, Woodinville, King County, and WSDOT. All of these municipalities have essentially the same roles and responsibilities for controlling pollution between their interconnected MS4s. Snohomish County communicates as needed with these municipalities in the event of a discharge

for which there are shared responsibilities, such as a sewage spill or discharge to the MS4 in an area near the boundary with another municipality.

SWM represents Snohomish County at the North Sound NPDES Municipal Permit Coordinators meeting and the Phase I NPDES Municipal Stormwater Permit Coordinators meeting, both of which occur quarterly. These meetings are intended specifically for permittees to discuss permit implementation, a primary part of which is developing and implementing stormwater plans, policies, and regulations.

3.3.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Snohomish County will perform any actions needed to ensure implementation of Executive Order 2019-01.
- ◆ Snohomish County will continue to review Phase I Permit-related policy, procedural and administrative guidelines and standards to ensure Phase I Permit compliance and consistency among departments in the fulfillment of Phase I Permit requirements.
- ◆ The County will continue to hold internal coordination meetings and attend external coordination meetings.

3.4 Public Involvement and Participation

3.4.1 Permit requirements

S5.C.4 – Public Involvement and Participation

Permittees shall provide ongoing opportunities for public involvement and participation in the Permittee’s SWMP and implementation priorities.

Minimum performance measures:

a. Permittees shall create opportunities for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and update of the Permittee’s SWMP and SMAP (SMAP applies to counties).

b. Each Permittee shall post on their website their SWMP Plan, and the Annual Report required under S9.A no later than May 31 each year. All other submittals shall be available to the public upon request.

3.4.2 Responsible County departments

Surface Water Management (SWM) is primarily responsible for providing opportunities for the public to participate in decision-making processes involving the development, implementation, and update of actions included in the SWMP Plan. The Snohomish County Council also plays an important role in providing opportunities for public input on programming decisions through the budget adoption process.

3.4.3 Program description

Opportunities for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and update of the County’s SWMP and SMAP per Special Condition S5.C.4.a

Special Condition S5.A of the Phase I Permit defines the SWMP as “a set of actions and activities comprising the components listed in S5, and additional actions necessary, to meet the requirements of applicable TMDLs pursuant to S7 Compliance with TMDL Requirements, and S8 Monitoring and Assessment.” The SWMP Plan is the document that describes these actions.

The 2019 Phase I Permit added language to Special Condition S5.C.4.a that specifically requires the County to provide opportunities for overburdened communities, as defined in the Permit, to participate in the development, implementation, and update of the SWMP and the Stormwater Management Action Plan (SMAP) required by Special Condition S5.C.6.d.

Special Condition S5.C.6.d. creates a new requirement in the 2019 Phase I Permit for the County to develop a SMAP for a single sub-basin or catchment area located within the geographic areas for which watershed-scale stormwater plans were developed in the 2013 Permit or for some alternative watershed by December 31, 2022.

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In 2019, the County began an internal assessment of County programs that are specifically intended to serve overburdened communities, or for which a basic element is the identification of overburdened communities. The two County departments that primarily implement such programs are Human Services and Emergency Management. Additionally in June 2020, the County Executive formed an Office of Social Justice to implement policies and develop a culture focused on social justice. Through Executive Proclamation dated June 12, 2020, the County Executive committed to pursue a number of policy goals and actions, including to prioritize continuing outreach and engagement efforts to marginalized communities as part of the 2021 budget, as well as to collaborate with partners to invest in communities of color and social services which promote equity and health.

In 2020, County staff began developing a spreadsheet and a GIS-based webmap utilizing Washington State Department of Health, Environmental Health Disparities (EHD) Data, which is available at a census tract-level. An objective of these new tools is to help the County identify and engage overburdened communities that may be impacted by SWMP actions. The spreadsheet is an Excel workbook and provides an easy-to-use platform to view the EHD dataset. The spreadsheet also includes the Limited English Proficiency (LEP) dataset, consisting of the top five languages spoken per census tract along with the percentage of the population speaking each language. The GIS webmap can spatially depict the EDH datasets, along with the County's drainage inventory, subbasins, and other data layers that may be helpful to County staff.

In 2021, the County will finalize the tools, continue to assess its overall public involvement process for the SWMP and will revise the process as needed. The County will ensure that a public participation process, including for overburdened communities, exists for the new SMAP requirement.

Opportunities for the public to participate in decision-making processes involving the development, implementation, and update of the actions composing the County's SWMP are provided primarily in conjunction with public events hosted by the Department of Conservation and Natural Resources and other departments that are related to specific actions or programs.

The most comprehensive process in decisions regarding all actions and programs contained in the SWMP is the County's annual budget process. Funds for all actions taken by Snohomish County are allocated by the Snohomish County Council through adoption of the annual County budget.

No later than 75 days before the end of the year, the County Executive presents to the County Council a complete proposed budget and budget message, including a budget ordinance which identifies proposed operating and capital appropriations and estimated revenues and reserves necessary to balance the budget. This presentation is open to the public. The County Executive also presents proposed tax and revenue ordinances that may be necessary to generate additional resources not being collected in the current year, and a proposed capital improvement program (CIP) for the next six fiscal years. Copies of the proposed budget, budget message, and ordinances are available to the public.

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Following the Executive's budget presentation, the County Council discusses the budget at its regularly scheduled meetings, which are open to the public. Meeting agendas and minutes are posted on the County Council website.

No later than 30 days before the end of the year, the County Council adopts budget, tax and revenue ordinances for the next fiscal year. Prior to the adoption of any budget ordinance for the next fiscal year, the County Council conducts a public hearing process to consider the proposed budget presented by the County Executive. In considering the budget ordinance proposed by the County Executive, the County Council may delete or add items, may reduce or increase the proposed appropriations, and may add provisions restricting the expenditure of certain appropriations, provided that the County Council shall adopt a six (6) year CIP as an adjunct to the budget, including a balance of proposed expenses and potential revenue sources.

For more details about the budget process, see Article 6 of the Snohomish County Charter at <http://www.codepublishing.com/WA/SnohomishCounty/>.

The County provides public meetings and hearings for the operations and capital construction programs during the budget process, and also provides public notice for all County construction projects that require permits, at a minimum through the public notification and comment process required by the State Environmental Policy Act (SEPA). Further, development permits issued under the Snohomish County Code are appealable, which provides another level of potential public involvement in the decision process.

The County Council also provides opportunities for public input when amending County Code as required by the Phase I Permit.

On-line posting of SWMP Plan and other NPDES documents per S5.C.4.b

The County maintains an NPDES website at <https://snohomishcountywa.gov/1180/>. This page contains links to annual reports, SWMP Plans, and related documents. It also contains a "Get Involved" link with information about how the public can become involved in SWMP actions.

3.4.4 Current and planned activities

Opportunities for public involvement and participation in the SWMP actions and activities planned for 2021 include:

- ◆ Continue to refine the spreadsheet and GIS webmap tools.
- ◆ Publish the draft 2021 SWMP Plan on the County's NPDES website, which has a means for the public to submit comments electronically.
- ◆ Continue to assess the overall SWMP public involvement process to ensure opportunities for overburdened communities are provided.
- ◆ As appropriate, include information about the SWMP Plan in 2021 public in-person and digital events sponsored by County departments.
- ◆ Continue to provide for public involvement and participation on the County's 2022 budget.

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- ◆ Continue to provide opportunities for public comment on any amendments to the Snohomish County Code that are required under the Phase I Permit.
- ◆ Continue to provide any required public notice and comment process for County capital projects and private development projects for which the County issues development permits.
- ◆ Develop a SMAP outreach plan including the identification of overburdened communities in the study area.

3.5 Controlling Runoff from New Development, Redevelopment, and Construction Sites

3.5.1 Permit requirements

The SWMP shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. Refer to Appendix 10 for a list of approved manuals and ordinances. The program shall apply to private and public development, including transportation projects.

Minimum performance measures:

a. Each Permittee shall continue to implement existing programs approved under the 2013 Phase I Municipal Stormwater Permit until the program required in S5.C.5.b.iv applies. The program required in S5.C.5.b.iv applies to applications² submitted prior to July 1, 2021, which have not started construction³ by July 1, 2026, and:

i. For Clark County, applications submitted prior to January 8, 2016, which have not started construction by July 1, 2021.

ii. For Pierce County, applications submitted prior to December 5, 2015, which have not started construction by July 1, 2021.

iii. For King County, applications submitted prior to April 24, 2016, which have not started construction by July 1, 2021.

iv. For Snohomish County, applications submitted prior to January 22, 2016, which have not started construction by July 1, 2021.

v. For the City of Seattle, applications submitted prior to January 1, 2016, which have not started construction by July 1, 2021.

vi. For the City of Tacoma, applications submitted prior to November 24, 2015, which have not started construction by July 1, 2021.

² *In this context, “application” means, at a minimum a complete project description, site plan, and, if applicable, SEPA checklist. Permittees may establish additional elements of a completed application.*

³ *In this context “started construction” means the site work associated with, and directly related to the approved project has begun. For example: grading the project site to final grade or utility installation. Simply clearing the project site does not constitute the start of construction. Permittees may establish additional requirements related to the start of construction.*

b. Site and subdivision scale requirements

i. The minimum requirements, thresholds, and definitions in Appendix 1, or minimum requirements, thresholds, and definitions determined by Ecology to be equivalent to Appendix 1, for new development, redevelopment, and construction sites shall be included in ordinances or other enforceable documents adopted by the local government. Adjustment and variance criteria equivalent to those in Appendix 1 shall be included. More stringent requirements may be used, and/or certain requirements may

be tailored to local circumstances through the use of Ecology-approved basin plans or other similar water quality and quantity planning efforts. Such local requirements and thresholds shall provide equal or similar protection of receiving waters and equal or similar levels of pollutant control as compared to Appendix 1.

ii. The local requirements shall include the following requirements, limitations, and criteria that, when used to implement the minimum requirements in Appendix 1, will protect water quality, reduce the discharge of pollutants to the MEP, and satisfy the State requirement under Chapter 90.48 RCW to apply AKART prior to discharge:

- (a) Site planning requirements*
- (b) BMP selection criteria*
- (c) BMP design criteria*
- (d) BMP infeasibility criteria*
- (e) LID competing needs criteria*
- (f) BMP limitations*

Permittees shall document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy the state AKART requirements.

Permittees who choose to use the requirements, limitations, and criteria in the Stormwater Management Manual for Western Washington (SWMMWW), or an equivalent manual approved by Ecology, may cite this choice as their sole documentation to meet this requirement.

iii. Ecology review and approval of the local manuals and ordinances is required. The Permittee shall submit draft enforceable requirements, technical standards, and manuals that correspond to updates identified in Appendix 10, Part 2 to Ecology no later than July 1, 2020. Ecology will review and provide written response to the Permittee. If Ecology takes longer than 120 days to provide a written response, the required deadline for adoption and effective date will be automatically extended by the number of calendar days that Ecology exceeds a 120-day period for written response.

(a) The Permittee shall submit the required significant changes to the local programs as required in Appendix 10, Part 2, and in the format described in Table 3.

(b) Additional significant changes shall be submitted for equivalency review with the rationale, and any tests, or documentation to demonstrate that the proposal meets AKART and MEP. Incomplete submittals will not be reviewed. Permittees shall follow the submittal format in Appendix 10, Part 2, Table 4.

iv. No later than July 1, 2021, each Permittee shall adopt and make effective a local program that meets the requirements in S5.C.5.b.i through ii, above. Manuals and ordinances approved under this Section will be listed in Appendix 10, Part 3, following a permit modification.

(a) In the case of circumstances beyond the Permittee's control, such as litigation or administrative appeals that may result in noncompliance with the requirements of this

Section, the Permittee shall promptly notify Ecology and submit a written request for an extension.

v. The program shall include the legal authority to inspect private stormwater facilities and enforce maintenance standards for all new development and redevelopment approved under the provisions of this Section.

vi. The program shall include a permitting process with site plan review, inspection, and enforcement capability to meet the following standards for both private and public projects, using qualified personnel:

(a) Review all stormwater site plans submitted to the Permittee for proposed development that meet the thresholds in S5.C.5.b.i, above.

(b) Inspect prior to clearing and construction, all permitted development sites that meet the thresholds in S5.C.5.b.i, and that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7. As an alternative to evaluating each site according to Appendix 7, Permittees may choose to inspect all construction sites that meet the minimum thresholds in S5.C.5.b.i.

(c) Inspect all permitted development sites that meet the thresholds in S5.C.5.b.i, above, during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.

(d) Each Permittee shall manage maintenance activities to inspect all permanent stormwater treatment and flow control BMPs/facilities, and catch basins, in new residential developments every six months, until 90% of the lots are constructed (or when construction has stopped and the site is fully stabilized), to identify maintenance needs and enforce compliance with maintenance standards as needed.

(e) Inspect all permitted development sites that meet the thresholds in S5.C.5.b.i upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. Verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities. Enforce as necessary based on the inspection.

(f) Compliance with the inspection requirements in (b)-(e) above shall be determined by the presence of an established inspection program designed to inspect all sites that meet the thresholds in S5.C.5.b.i and ii. Compliance during this Permit term shall be determined by achieving at least 80% of required inspections. The inspections may be combined with other inspections provided they are performed using qualified personnel.

(g) The program shall include a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be maintained.

(h) The program shall include an enforcement strategy to respond to issues of non-compliance.

vii. The program shall make available, as applicable, the link to the electronic Construction Stormwater General Permit Notice of Intent (NOI) form for construction activity and, as applicable, a link to the electronic Industrial Stormwater General Permit

NOI form for industrial activity to representatives of proposed new development and redevelopment. Permittees shall continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

viii. Each Permittee shall ensure that all staff whose primary job duties are implementing the program to Control Stormwater Runoff from New Development, Redevelopment, and Construction Sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. As determined necessary by the Permittee, follow-up training shall be provided to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

3.5.2 Responsible County departments

The Phase I Permit requires that Snohomish County have adequate legal authority to control discharges to and from MS4s owned or operated by the County. This authority resides primarily in the form of County codes, rules, and interlocal agreements with other municipalities. Such legal instruments are adopted or approved by the Snohomish County Council, and as such have legal requirements for public notice, comment, meeting, hearing, and appeal that are independent of the Phase I Permit. The Departments of Planning and Development Services (PDS), Public Works (Public Works), and Conservation and Natural Resources (DCNR) are primarily responsible for developing and administering regulations required under the Phase I Permit.

3.5.3 Program description

Regulatory authority required under Special Condition S5.C.5.a

Special Condition S5.C.5.a requires the County to continue to implement its existing program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities approved under the 2013 Phase I Municipal Stormwater Permit until the program required in Special Condition S5.C.5.b.iv applies. The updated program required in Special Condition S5.C.5.b.iv applies to applications submitted prior to July 1, 2021, which have not started construction by July 1, 2026, as well as to applications submitted prior to January 22, 2016, which have not started construction by July 1, 2021.

The County submitted draft stormwater regulations to Ecology before July 1, 2020 as required by Special Condition S5.C.5.b.iii. Those regulations contained the implementation requirements under Special Condition S5.C.5.a. The County anticipates adopting final stormwater regulations with an effective date of no later than July 1, 2021.

Regulatory authority required under Special Condition S5.C.5.b.i-iv

Special Condition S5.C.5.b.i-iv requires the County to adopt revisions to its stormwater regulations to make those regulations equivalent to the requirements contained in the Phase I Permit, Appendix 1, and Ecology's *Stormwater Management Manual for Western Washington*. Ecology's 2012 *Stormwater Management Manual for Western Washington as Amended in December 2014* has been updated and superseded by the 2019 *Stormwater Management Manual for Western Washington*. The Phase I Permit

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Appendix 10, Part 2 contains a list of “significant changes” that were made to the Phase I Permit and the *2019 Stormwater Management Manual for Western Washington*. The County’s stormwater regulations must be updated to incorporate these significant changes listed in Appendix 10, Part 2 of the Phase I Permit. The County must submit draft regulations to Ecology by July 1, 2020, and must adopt final regulations with an effective date no later than July 1, 2021.

Snohomish County’s current enforceable stormwater regulations related to Special Condition S5.C.5 are contained in Chapter 30.63A SCC (Drainage), Chapter 30.63B SCC (Land Disturbing Activity), the Snohomish County Engineering Design and Development Standards (EDDS), and the Snohomish County Drainage Manual. The code chapters are available at <http://www.codepublishing.com/WA/SnohomishCounty/>. The EDDS is available at <https://snohomishcountywa.gov/492/Design-Standards-EDDS>. The Drainage Manual is available at <https://snohomishcountywa.gov/1130/Drainage-Manual>.

In June 2020, the County submitted draft regulations intended to meet the requirements of Special Condition S5.C.5.b. After further discussion and revision of these regulations, Ecology sent a letter dated November 19, 2020, giving them preliminary approval. The County anticipates adopting final stormwater regulations with an effective date of no later than July 1, 2021.

Regulatory authority required under Special Condition S5.C.5.b.v

Special Condition S5.C.5.b.v requires the County to have legal authority to inspect private stormwater facilities and enforce maintenance standards for all new development and redevelopment approved by the County. These regulatory requirements are contained in Chapter 7.54 SCC – Maintenance of Constructed Stormwater Control Facilities. Chapter 7.54 SCC is available at <http://www.codepublishing.com/WA/SnohomishCounty/>.

Program of permits, site plan review, inspections, and enforcement capability under Special Condition S5.C.5.b.vi

The County stormwater regulations containing the required content of the Phase I Permit are Chapter 30.63A SCC (Drainage), Chapter 30.63B SCC (Land Disturbing Activity), the Snohomish County Engineering Design and Development Standards (EDDS), and the Snohomish County Drainage Manual. These regulations contain the detailed process requirements for site plan review, inspection, and enforcement capability.

Chapters 30.63A and 30.63B SCC assign responsibility to PDS for administering and ensuring compliance with the regulations for all private projects and for public projects from all County departments except Public Works and DCNR-SWM Division. Aside from Public Works and DCNR-SWM Division, the County departments that act as “developers” in new development or redevelopment projects are DCNR-Parks Division, Airport and Facilities. Public projects submitted to PDS by these departments are subject to the same administrative requirements applicable to private development projects. PDS is responsible for reviewing the project submittals, issuing permits,

inspecting construction, taking corrective action as needed, and issuing final construction acceptance for projects proposed by these departments.

The process followed by Public Works and DCNR-SWM Division under SCC 30.63B.100 to oversee and ensure compliance with the County's stormwater regulations for Public Works projects and SWM projects is discussed in further detail below.

PDS administration of permits, site plan review, inspections, and enforcement capability under Special Condition S5.C.5.b.vi

PDS administers and ensures compliance with the County's stormwater regulations for all private development proposals and for all County development proposals, with the exception of project of Public Works and DCNR-SWM Division. Development projects begin either with a conceptual design where applicants seek informal consultation with PDS at the customer service center, or applicants independently review the code and submittal requirements without informal consultation with PDS. In either case, applicants are advised to consider drainage requirements and use of low impact development (LID) principles and facilities during the conceptual design process. Applicants can access materials from PDS including submittal checklists, assistance bulletins, and example stormwater pollution prevention plans, as well as the drainage code and stormwater manual for guidance during the initial design of their projects. These materials emphasize the benefits of using LID and describe requirements to employ LID techniques in accordance with the drainage manual. Once an applicant has a conceptual project in mind, the PDS permitting procedures are as follows:

- Step 1. The permitting process begins with an optional but recommended pre-application conference. In this step, a PDS land use planner meets with the potential applicant to identify unique or particular issues associated with the proposed project. The pre-application conference covers the applicable development standards, what types of permits the project will require, permit application submittal requirements, and what the permit process will entail. This meeting also provides an opportunity to discuss stormwater management principles and LID as the preferred approach to site development.
- Step 2. The applicant prepares a submittal package including a site plan and a stormwater pollution prevention plan (SWPPP), along with other documentation as may be required. The site plan depicts where the structure(s) and BMPs will be located, the amount of new and replaced impervious surfaces that will result, the general topography of the site, and the existing level of street and alley improvements in the rights-of-way abutting the site. The SWPPP identifies the BMPs to be used for stormwater control during construction.

Depending on the project proposal, other documentation may be required. For projects meeting or exceeding clearing, grading and/or impervious surface thresholds (as established in SCC 30.63A.300 for new development, or SCC 30.63A.310 for redevelopment) a Land Disturbing Activity (LDA) permit and a drainage plan is required. Development of the drainage plan requires consideration of LID BMP feasibility for stormwater management, including retention of native vegetation and minimizing impervious surfaces. An Operation

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and Maintenance (O&M) manual is required for all projects proposing to install stormwater management facilities.

For projects with high-erosion soils identified, a geotechnical report is required as part of the application submittal package. Erosion or landslide hazard mitigation measures identified in the geotechnical report is included as special conditions on the approved LDA permit consistent with requirements in Chapter 30.62B SCC.

Any private development that triggers permanent improvements in the County's public right-of-way requires a Right-of-Way Permit. Examples of these kinds of improvements are driveway access, street drainage facilities and connections, curbs and sidewalks, trees and street or alley paving. All construction within the right-of-way must conform to the most current edition of the EDDS. The permittee must keep the road right-of-way in a condition that is safe to the public and further, will not adversely impact the environment with debris, dirt, dust, or other pollutants, or cause erosion (SCC 13.60.030).

- Step 3. After an LDA permit is issued for projects with ground disturbance, but prior to any ground disturbance occurring, the applicant is required to schedule a pre-construction meeting on site with a PDS site inspector under SCC 30.63A.860. The purpose of this inspection is for the applicant and inspector to confirm existing site conditions, including steep slopes, sensitive areas, and clearing limits; identify potential erosion control issues that may be encountered during construction; and map out BMPs that are acceptable to prevent sediment from leaving the site in accordance with the approved SWPPP. After an LDA permit is issued, a PDS inspector checks to ensure work is done according to code and approved construction drawings.
- Step 4. Site development occurs in two basic phases: 1) initial site preparation where clearing limits are established and erosion control BMPs are installed; vegetation is removed from development sites; grading is completed; retention, utilities, structural stormwater facilities and roads/curbs/sidewalks are installed; and the site is stabilized in anticipation of phase two; 2) construction of buildings occurs then driveways, walkways, patios and landscaping can be installed. It is during the final steps of this second phase that it is anticipated that LID BMPs such as soil amendments, rain gardens and permeable pavements can be installed. Inspections are conducted by PDS throughout both phases of development. Site inspectors are primarily responsible for phase one and building inspectors cover phase two; however, there is often some overlap in inspection coverage. Inspections are explained in greater detail below.
- Step 5. Once construction is complete but prior to obtaining final approval or a certificate of occupancy, stormwater easements and maintenance covenants must be recorded with the Snohomish County Auditor. In addition, when drainage facilities are constructed within any portion of County road right-of-way, PDS requires the applicant for such construction to obtain commercial general liability insurance coverage against personal injury, property damage,

or loss resulting from activities related to the construction. The policy must be maintained continuously for the duration of the work undertaken pursuant to the permit or approval, and for an additional three years after the County has given final approval of the construction shown on the stormwater site plan or has accepted the stormwater facilities after construction is completed and approved.

There are several types of inspections that occur after a permit is issued.

1. *Pre-site disturbance inspection:* PDS site inspectors conduct a site visit prior to ground disturbance to determine erosion potential and review and tailor construction stormwater erosion and sediment control measures to the site. This inspection typically includes the contractor, and if applicable, geotechnical special inspector. The purpose of this inspection is for the applicant and inspector to identify potential erosion control issues that may be encountered during construction and map out BMPs that are acceptable to prevent sediment from leaving the site. Inspection of the installed stormwater pollution prevention measures and BMPs identified as necessary in the stormwater pollution prevention plan (SWPPP) occurs at this time.
2. *Erosion and sediment control inspection:* This inspection occurs several times during both the site preparation and building construction phases. Construction BMPs, permanent stormwater treatment, flow control facilities, and LID BMPs are inspected during this inspection.
3. *Special inspection:* This type of inspection is both applied to structural work and for geotechnical for special grading, excavation and filling involved with ground disturbance. Complex projects may be required to hire a special inspector to monitor development activities and report to County inspectors.
4. *Site final inspection:* Permanent erosion control and stormwater facilities, including LID BMPs are inspected during this inspection.
5. *Final inspection:* After successful completion of all inspections, the permittee is granted final approval and the permit is “closed.” When new buildings have been constructed and successfully pass this final inspection, a certificate of occupancy is issued. For single-family residential structures, a signed final permit constitutes the certificate of occupancy.

Table 1 below lists the specific stormwater management-related inspections completed by the County during new development and redevelopment. The inspection of new stormwater treatment and flow control BMPs/facilities, including nearby catch basins, are inspected regularly (and at least once every six months) during all phases of the active development/construction process. The inspections are broken out by construction phase: initial site preparation and building construction. Inspections are conducted by site inspectors and building inspectors respectively.

Table 1 - Stormwater Management-related Inspections

Stormwater Management-related PDS Inspections for New Development and Redevelopment	
Inspections during initial site preparation	Inspections during building construction
Pre-construction meeting on site	Storm drain trench / connections
Erosion and sediment control	Footing drains
Storm drainage	Downspout drains
Temporary construction access	Drainage
Soil amendments	Erosion and sediment control
Detention - retention	Special conditions
Special conditions	
Maintenance security released*	

* The inspection for maintenance security release is conducted post-construction per Step 5 above.

The inspections outlined here are focused on stormwater-related issues and this discussion does not address the full range of inspections conducted during construction. For example, each house receives approximately twelve construction-related inspections, and sometimes more, to review various aspects of construction such as foundation, framing, insulation, under-floors, dry wall, and plumbing. This means that County inspectors are on-site frequently, and in large developments they may be on-site nearly every day depending on the pace of construction. This gives inspectors the opportunity to observe drainage and erosion controls on a regular basis throughout the construction process. This also provides inspectors the opportunity to observe potential illicit connections and discharges discussed in greater detail in section 3.9.3 of this SWMP Plan.

PDS staff enforces the stormwater code that governs construction, land use, environmental protection and long-term maintenance of stormwater facilities. Enforcement can take the form of notices, fines, and legal action. Enforcement officers use written warnings, citations, and stop work orders, and can revoke a permit if compliance is not achieved. This process is set forth in Chapter 30.85 SCC, available at <http://www.codepublishing.com/WA/SnohomishCounty/>.

Enforcement of the County's stormwater permitting requirements occurs during different phases of County review and authority for new development and redevelopment:

1. The project planning and drainage plan review phase: During project planning and permit review, the stormwater code requirements are upheld and enforced by the County's drainage engineers and project managers as part of the review process for required drainage plans. Permit conditions are applied to manage stormwater

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and mitigate impacts and to alert site and building inspectors of drainage or erosion issues.

2. The site construction phase: The site and building inspectors enforce conditions per the approved SWPPP and drainage plans during the site disturbance and construction phase. If stormwater treatment and flow control BMPs/facilities are not functioning properly, corrections are required. Once construction of the stormwater facilities is complete, the facilities are inspected and if functioning properly, the performance bond is released and replaced with a maintenance bond. A maintenance bond must be in place for two years post-construction. Prior to the release of the maintenance bond, the facilities are inspected jointly by PDS, SWM, and Road Maintenance in order to ensure any required maintenance is completed.
3. When complaints are filed with the County or when development activities are conducted without permits, PDS code enforcement officers investigate in accordance with the procedures codified in Chapter 30.85 SCC. The primary goal of progressive enforcement is to achieve code and permit compliance. Public health, safety, and environmental integrity concerns are prioritized. If compliance is not achieved within the specified timeframes, notices, citations, fines, and legal action may be invoked. For additional details regarding enforcement, see Section 3.8.3 of this SWMP Plan.

Records related to new development and redevelopment are managed electronically in the AMANDA database system. Intake staff, project managers, subject matter experts (drainage and road engineers, plans examiners, biologists, etc.) and inspectors regularly, if not daily, input data and update project status. Hard copies and microfiche are also maintained and available for public review in PDS's records room. The AMANDA system and the records room store parcel-based data related to development projects, including application submittal materials, correspondence, inspection reports and enforcement records.

There is a substantial amount of permit data available to the public on the County's website for tracking new development and redevelopment. Web users can select individual parcels on an interactive map, the *Permit, Planning and Zoning Map*, to see a description of the project, identify contact names, see the project's current status in the review or inspection process, and determine what inspections will be required, the date they were completed and the outcome (approved, partially approved or disapproved).

This map can be accessed at the following address:

<https://snohomishcountywa.gov/1279/PDS-GIS/>

Public Works administration of Public Works projects to achieve and document compliance with the substantive requirements of the County's stormwater regulations under SCC 30.63B.100

SCC 30.63B.100 provides the Director of Public Works authority to oversee and ensure compliance with the County's stormwater regulations for Public Works projects. Public Works retains the option to submit a project to PDS for permitting and administration.

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Under SCC 30.63B.100, the Public Works Director is required to adopt a rule, consistent with the process established in Chapter 30.82 SCC, that establishes administrative procedures and tools by which Public Works will achieve and document compliance with the substantive requirements of the regulations. These substantive requirements include stormwater site planning, design, environmental review, construction, and final construction acceptance.

To this end, Public Works adopted Department of Public Works (DPW) Rule 5001, which provides:

- The Public Works Director or the County Engineer may assign responsibility for implementation of the rule to Public Works division directors or appropriately trained or licensed department staff. Public Works division directors may in turn assign this responsibility to appropriately trained or licensed division staff, in concurrence with the Public Works Director or the County Engineer.
- The Public Works Director, the County Engineer, or Public works staff with assigned responsibilities shall determine which substantive requirements of Chapter 30.63A SCC, Chapter 30.63B SCC, and other provisions of Title 30 SCC apply to projects performed under their authority, and shall ensure and document compliance with each applicable code requirement. This includes all actions or their functional equivalents that would be performed by the PDS Director related to project planning, design, review, environmental review to include critical areas review, construction inspection, construction acceptance, County administration and regulation, final project documentation, and related actions set forth in Chapters 30.63A and 30.63B SCC.
- The Public Works Director must adopt, by departmental policy and procedure, checklists or other tools that must be used by assigned staff to ensure and document compliance with the code requirements described above.
- Documentation used pursuant to this rule must be retained in the project records.

Pursuant to Rule 5001, the Public Works Director has assigned responsibility for implementation of the rule to the division directors of Engineering Services, Solid Waste, and Transportation and Environmental Services, who in turn may assign such responsibility to appropriately trained or licensed staff.

The Public Works Director also adopted DPW Policy and Procedure 9020 (Drainage/LDA/LID Compliance for Public Works Projects) and Policy and Procedure 4340 (Critical Areas Regulations (CAR) Compliance, Review, Certification, Inspection and Mitigation Acceptance), which set forth the details of the procedures and tools per DPW Rule 5001.

The County Engineer issued a memorandum describing those land disturbing activities for which Chapters 30.63A or 30.63B SCC provide exemptions. All other land disturbing activities performed by Public Works divisions are evaluated to determine applicability of code requirements by Public Works staff to whom such responsibility has been assigned per DPW Rule 5001. Each such activity is performed consistent with applicable code requirements and consistent with the procedures and tools set forth in DPW Policy and Procedure 9020.

SWM administration of SWM projects to achieve and document compliance with the substantive requirements of the County's stormwater regulations under SCC

30.63B.100

Under SCC 30.63B.100, DCNR is authorized to adopt a rule, consistent with the process established in Chapter 30.82 SCC, that establishes administrative procedures and tools by which SWM will achieve and document compliance with the substantive requirements of the County's stormwater regulations. These substantive requirements include stormwater site planning, design, environmental review, construction, and final construction acceptance.

On February 23, 2021 DCNR adopted an emergency rule under SCC 30.82.050 to establish comparable administrative procedures and tools to those used by Public Works under Rule 5001 for the SWM Division. The emergency rule mirrors the existing DPW Rule 5001. The emergency rule allows SWM to continue to administer its projects now that it has transitioned to a division within the new DCNR. Upon expiration of the emergency rule, DCNR will prepare a non-emergency rule consistent with the rulemaking process established in Chapter 30.82 SCC. That rule will be adopted in 2021.

Making available the Notice of Intent for NPDES construction stormwater permit and NPDES industrial stormwater permit as required under Special Condition S5.C.5.b.vii

PDS makes the "Notice of Intent for Construction Activity" and the "Notice of Intent for Industrial Activity" available to applicants on the County's website. Website access is preferred because Ecology accepts only electronic applications (eNOI) or submittal of a waiver for submittal of a paper copy. The links to Ecology's and to EPA's eNOI webpages are prominently displayed with the County's NPDES application submittal materials: <http://www.snohomishcountywa.gov/1489/NPDES-Permit-Reissue-Project>.

Training for staff as required under Special Condition S5.C.5.b.viii

PDS, DCNR, and Public Works conduct formal and on-the-job training for all staff whose primary job duties relate to implementing the County's program to control stormwater runoff from new development, redevelopment, and construction sites. Training is provided to staff who perform permitting, plan review, County project design and engineering, construction site inspections, and enforcement tasks. Not all staff are trained in all subject matter. Depending on assigned tasks, a County employee might receive training that covers one or more of the following subjects: stormwater regulation content and updates; application submittal and permitting processes; procedures for design of County projects; plan review; construction site inspections; erosion and sedimentation control; LID BMPs; reporting; and enforcement procedures.

Training strategies used by PDS, DCNR, and Public Works include, as appropriate to the tasks assigned:

- Initial training for new employees
- Updates as needed to address changes in procedures and techniques
- Presentations and Q&A sessions at staff meetings

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- Special topic-specific training meetings, courses, and workshops
- In-field training for site and building
- Interdepartmental coordination meetings
- Educational assistance bulletins, forms and checklists
- Webinars and conferences
- Certified Erosion and Sediment Control Lead (CESCL) training

PDS, DCNR, and Public Works maintain records of training provided and the staff who have received training.

3.5.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Snohomish County will continue to implement the actions described above.
- ◆ Snohomish County plans to adopt and make effective updated stormwater regulations by July 1, 2021 as required by Special Condition S5.C.5.b.iv
- ◆ The new DCNR will establish appropriate rules and policies to continue to allow DCNR-SWM Division to administer its own development-related permits.

3.6 Stormwater Planning

3.6.1 Permit requirements

S5.C.6 Stormwater Planning

Each Permittee shall implement a Stormwater Planning program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters.

Minimum performance measures:

a. By August 1, 2020, each Permittee shall convene an inter-disciplinary team to inform and assist in the development, progress, and influence of this program.

b. Coordination with long-range plan updates.

i. Each Permittee shall describe how stormwater management needs and protection/improvement of receiving water health are (or are not) informing the planning update processes and influencing policies and implementation strategies in their jurisdiction. The reporting shall describe the water quality and watershed protection policies, strategies, codes, and other measures intended to protect and improve local receiving water health through planning, or taking into account stormwater management needs or limitations.

(a) On or before March 31, 2021, the Permittee shall respond to the series of Stormwater Planning Annual Report questions that describe how anticipated stormwater impacts on water quality were addressed, if at all, during the 2013-2019 permit term in updates to the Comprehensive Plan (or equivalent) and in other locally initiated or state-mandated long-range land use plans that are used to accommodate growth or transportation.

(b) On or before March 31, 2022, the Permittee shall submit a report, responding to the same questions included in (a) above, describing how water quality is being addressed, if at all, during this permit term in updates to the Comprehensive Plan (or equivalent) and in other locally initiated or state-mandated, long-range land use plans that are used to accommodate growth or transportation.

c. Low impact development code-related requirements

i. Permittees shall continue to require LID Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents, as needed.

The intent shall be to make LID the preferred and commonly-used approach to site development. The local development-related codes, rules, standards, or other enforceable documents shall be designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations, where feasible.

(a) Annually, each Permittee shall assess and document any newly identified administrative or regulatory barriers to implementation of LID Principles or LID BMPs

since local codes were updated in accordance with the 2013 Permit, and the measures developed to address the barriers. If applicable, the report shall also describe mechanisms adopted to encourage or require implementation of LID Principles or LID BMPs.

d. Stormwater Management Action Planning

i. Each county Permittee shall describe in their SWMP how the watershed-scale stormwater plans developed during the 2013 Permit term are being used to inform their S5.C.7 project prioritization and selection.

ii. No later than December 31, 2022, each county Permittee shall develop a Stormwater Management Action Plan (SMAP) for a single sub-basin or catchment area located within the geographic areas for which watershed-scale stormwater plans were developed in the 2013 Permit. The required SMAP content is described in the Stormwater Management Action Planning Guidance (Ecology, 2019. Publication 19-10-010). The SMAP shall identify:

(a) Specific short-term actions (i.e., actions or projects to be accomplished within six years).

(b) Specific long-term actions (i.e., actions or projects to be accomplished within seven to 20 years).

(c) Land management/development strategies and/or actions needed for water quality management, if these were not articulated in the watershed-scale stormwater plans. Include these in (a) and (b).

(d) Targeted, enhanced, or customized implementation of stormwater management actions related to permit sections within S5, including:

- IDDE field screening,*
- Prioritization of Source Control inspections,*
- O&M inspections or enhanced maintenance, or*
- Public Education and Outreach behavior change programs*

Identified actions shall support other specifically identified stormwater management strategies and actions for the basin overall, or for the catchment area in particular.

(e) A revised and updated implementation schedule and budget sources.

(f) A county Permittee may choose to prepare a SMAP for a catchment area in an alternative watershed by conducting a similar process and considering the range of issues outlined in S5.C.6.d.iii-v and as described in the Stormwater Management Action Planning Guidance (Ecology, 2019. Publication 19-10-010).

iii. This Section applies only to a county Permittee that is selecting an alternative watershed pursuant to S5.C.6.d.ii.(f).

Receiving Water Assessment. The Permittee shall document and assess existing information related to their local receiving waters and contributing area conditions to identify which receiving waters are most likely to benefit from stormwater

management planning. By March 31, 2022, the Permittee shall submit a watershed inventory and include a brief description of the relative conditions of the receiving waters and the contributing areas. The watershed inventory shall be submitted as a table with each receiving water name, its total watershed area, the percent of the total watershed area that is in the Permittee's jurisdiction, and the findings of the stormwater influence assessment for each basin. Indicate which receiving waters will be included in the S5.C.6.d.iv prioritization process. Include a map of the delineated basins with references to the watershed inventory table.

(a) Identify which basins are expected to have a relatively low expected Stormwater Management Influence for SMAP. See the guidance document for definition and description of this assessment.

Basins having relatively low expected Stormwater Management Influence for SMAP do not need to be included in S5.C.6.d.iv-v.

iv. This Section applies only to a county Permittee that is selecting an alternative watershed pursuant to S5.C.6.d.ii.(f).

Receiving Water Prioritization. Informed by the assessment of receiving water conditions in (iii), above, and other local and regional information, the Permittee shall develop and implement a prioritization method and process to determine which receiving waters will receive the most benefit from implementation of stormwater facility retrofits, tailored implementation of SWMP actions, and other land/development management actions (different than the existing new and redevelopment requirements). The retrofits and actions shall be designed to: 1) conserve, protect, or restore receiving waters through stormwater and land management strategies that act as water quality management tools, 2) reduce pollutant loading, and 3) address hydrologic impacts from existing development as well as planned and expected future buildout conditions.

No later than June 30, 2022, document the prioritized and ranked list of receiving waters.

(a) The Permittee shall document the priority ranking process used to identify high priority receiving waters. The Permittee may reference existing local watershed management plan(s) as source(s) of information or rationale for the prioritization.

(b) The ranking process shall include the identification of high priority catchment area(s) for focus of the Stormwater Management Action Plan (SMAP) in S5.C.6.d.v.

v. This Section applies only to a county Permittee that is selecting an alternative watershed pursuant to S5.C.6.d.ii.(f).

Stormwater Management Action Plan (SMAP). No later than December 31, 2022, the Permittee shall develop a SMAP for at least one high priority catchment area from S5.C.6.d.iv that identifies all of the following:

(a) A description of the stormwater facility retrofits needed for the area including the BMP types and preferred locations.

(b) Land management/development strategies and/or actions identified for water quality management.

(c) Targeted, enhanced, or customized implementation of stormwater management actions related to permit sections within S5, including:

- IDDE field screening,*
- Prioritization of Source Control inspections,*
- O&M inspections or enhanced maintenance, or*
- Public Education and Outreach behavior change program.*

Actions identified shall be used to support other specifically identified stormwater management strategies and actions for the basin overall, or for the catchment area in particular.

(d) Identification of needed changes to local long-range plans to address SMAP priorities, if applicable.

(e) A proposed implementation schedule and budget sources for:

- Short-term actions (i.e., actions to be accomplished within six years), and*
- Long-term actions (i.e., actions to be accomplished within seven to 20 years).*

(f) A process and schedule to provide future assessment and feedback to improve the planning process and implementation of procedures or projects.

vi. Permittees selecting an alternative watershed pursuant to S5.C.6.d.ii.(f) may rely on another jurisdiction to meet all or part of SMAP requirements at a watershed scale, provided a SMAP is completed for at least one priority catchment located within the Permittee's jurisdiction.

3.6.2 Responsible County departments

Planning and Development Services (PDS) has primary responsibility for convening an interdisciplinary team for stormwater planning, reporting on coordination efforts between stormwater planning and long-range plan updates, and completing low impact development (LID) code-related requirements. Surface Water Management (SWM) has the primary responsibility for developing the Stormwater Management Action Plan (SMAP).

3.6.3 Program description

Convening an interdisciplinary team

The County convened an interdisciplinary team to inform and assist in the development, progress, and influence of the S5.C.6 program in 2020.

Coordination with long-range planning updates

Under S5.C.6.b, the County must report, by responding to a series of annual report questions due by March 31, 2021, and March 31, 2022, how stormwater management needs and protection or improvement of receiving water health are or are not informing the County's planning update processes and influencing policies and implementation strategies in Snohomish County. The County's reporting due March 31, 2021, must

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describe how anticipated stormwater impacts on water quality were addressed, if at all, during the 2013-2019 Permit term in updates to the County Comprehensive Plan (or equivalent) and in other locally initiated or state-mandated long-range land use plans that are used to accommodate growth or transportation. The County's reporting due March 31, 2022, poses the same questions related to updates to the Comprehensive Plan during the 2019-2024 Permit term.

PDS forms interdepartmental teams comprised of management and key staff from the Executive's Office, Public Works, Conservation and Natural Resources (DCNR), Airport, Human Resources, Prosecuting Attorney, and other County departments as appropriate to subject matter, to provide data, resources, input and guidance for long range planning efforts, including the update of the County Comprehensive Plan by 2023, as mandated by the GMA. Interdepartmental coordination for the Comprehensive Plan update began in spring 2018. The Comprehensive Plan work timeline has multiple tasks that are executed semi-independently by participating agencies that contribute to the overall flow and development of the various plan components: land use, transportation, capital facilities, parks, housing, etc. The Comprehensive Plan update work is done in coordination with Snohomish County Tomorrow, comprised of elected officials from municipal jurisdictions in Snohomish County, and the County Planning Commission, which is comprised of citizen volunteers appointed by the County Council.

In 2019, PDS completed the Southwest UGA Boundary Planning Study (SWUGA BPS) to explore opportunities and constraints for development of a large unincorporated area east of Mill Creek and Bothell. The SWUGA BPS was not a Comprehensive Plan update per se, but a background study in preparation for future planning. A large portion of the SWUGA BPS study area overlapped the Little Bear Creek watershed. SWM had completed the Little Bear Creek Basin Plan in fulfillment of the County's 2013 NPDES S5.C.6 permit requirements. Little Bear Creek Basin planning data were important to the analyses, findings, and conclusions of the Southwest UGA Boundary Planning Study. Urban growth scenarios were explored. High-level land management concepts were developed for protection of stream corridors and riparian area in the Little Bear Creek basin, in response to environmental concerns and considerations identified in the study. SWM staff provided extensive data and support.

Low impact development code-related requirements

PDS is the lead agency for this regulatory review and revision process, with assistance provided by Public Works and Surface Water Management.

The County continues to review and, if necessary, revise development-related codes, rules, standards, and other enforceable documents to incorporate and require LID principles and LID Best Management Practices (BMPs). The intent of the required revisions was to make LID the preferred and commonly used approach to site development. The documents were reviewed from the perspective of the Phase I Permit goals to minimize impervious surface, native vegetation loss, and stormwater runoff. The review was conducted in 2014 and 2015 and utilized the document *Integrating LID into Local Codes: A Guidebook for Local Governments* (Puget Sound Partnership, 2012). The County utilized Ecology's template to report a summary of the results of the review and revision process in its 2015 Annual Report (submitted in 2016).

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Prior to January 22, 2016, Title 30 SCC contained Chapter 30.63C SCC (Low Impact Development). The purpose of chapter 30.63C SCC was to facilitate, and in some cases require – in the urban growth area portion of the Little Bear Creek basin – the use of LID BMPs. Chapter 30.63C SCC was added to County code through the adoption of Ordinance No. 10-024 in June 2010. Subsequently, the County amended the LID policies contained in the Comprehensive Plan through Amended Ordinance No. 14-070. These revised policies included the requirement that the County adopt drainage and land disturbing activity regulations requiring LID techniques where feasible.

Effective January 22, 2016, the County adopted new stormwater and land disturbing activity regulations consistent with the Phase I Permit and the new Comprehensive Plan policies. The ordinances adopting those regulations, Ordinance Nos. 15-102 and 15-103, repealed the optional LID provisions contained in Chapter 30.63C SCC, and added new regulations requiring the use of LID BMPs where feasible. Additional code amendments adopted through Ordinance No. 15-103 enhanced other provisions in Title 30 SCC that facilitate or encourage use of LID BMPs.

On November 1, 2017, the County further amended Title 30 SCC to present LID more prominently and consistently throughout Title 30 SCC with the intent of further promoting LID as the commonly used approach for stormwater management (Ordinance No. 17-070). The proposed changes can generally be characterized as new language that:

- Calls attention to LID BMPs and encourages consideration of LID principles and LID BMPs early in the project planning and design phase;
- Provides incentives, or removes barriers, to use of LID BMPs; and
- Clarifies that the feasibility of use of LID BMPs is to be determined by reference to the Snohomish County Drainage Manual.

Similar changes were made to the Snohomish County Drainage Manual and to the Engineering Design and Development Standards to further promote the use of LID and to highlight the multi-functionality and benefits of LID stormwater management options.

Stormwater Management Action Planning

SWM has the primary responsibility for developing the Stormwater Management Action Plan (SMAP). As noted in Section 3.6.3 Program Description/Coordination with Long Range Planning Updates, the Public Works Department and SWM are integral participants in long range planning. SWM has provided data, resources, staff support and policy feedback on environmental and surface water conditions and concerns. SWM management is involved in interdepartmental coordination with PDS on the update of the County's Comprehensive Plan. In 2018-2019, SWM provided staff support and data for the SWUGA Boundary Planning Study (BPS), the study area for which significantly overlapped the Little Bear Creek watershed, the subject of the watershed-scale stormwater planning effort conducted under Section S5C.6 of the 2013 NPDES Phase I permit. Data and insights gained from the Little Bear Creek Basin Planning Project informed and guided the methods, findings and conclusions of the SWUGA BPS project and report.

3.6.4 Current and planned activities

The following is a list of 2020 highlights and activities planned for 2021:

- ◆ In 2020 the County continued project planning and initiated preliminary design efforts for a bioswale project in the upper Little Bear Creek watershed, and an instream project on Cutthroat Creek at the Carousel Ranch park site.
- ◆ The County has begun route and operations planning for high efficiency street sweeping (HE sweeping) in the County to ensure the biggest positive gain for water quality
- ◆ The County continues its current program of stormwater-related activities including development review, O&M, source control, education and outreach, drainage and water quality investigation.
- ◆ The County continues to search for grant funding for CIP and instream projects, including coordination with WSDOT, WRIA 8, and other agencies.
- ◆ The following work is planned to continue or begin in 2021:
 - Grant funding search and coordination for CIP and instream projects, including outreach to partner agencies and the community.
 - Continue project planning and design for CIP and instream projects.
 - A portion of the Little Bear Creek watershed with subdivision development is a priority as an area in the LBC Basin plan for further study as a target area for HE sweeping, to begin in late 2021 or early 2022. HE sweeping is one of the SSC program project types (Project type 11) under Special Condition S5.C.7.d and Appendix 12 of the Phase I Permit.
 - Identification of long-term actions in the Little Bear Creek watershed.
 - Identification of additional implementation of permit sections in S5 specific to the Little Bear Creek watershed.
 - Revision and update of the implementation schedule and budget for the Little Bear Creek Basin Plan.

3.7 Structural Stormwater Controls

3.7.1 Permit requirements

S5.C.7 Structural Stormwater Controls

Each Permittee shall implement a Structural Stormwater Control Program to prevent or reduce impacts to waters of the State caused by discharges from the MS4. Impacts that shall be addressed include disturbances to watershed hydrology and stormwater pollutant discharges.

The program shall consider impacts caused by stormwater discharges from areas of existing development; including runoff from highways, streets and roads owned or operated by the Permittee; and areas of new development, where impacts are anticipated as development occurs.

Minimum performance measures:

a. The program shall address impacts that are not adequately controlled by the other required actions of the SWMP.

i. The program shall consider the following projects:

(a) New flow control facilities.

(b) New treatment (or treatment and flow control) facilities.

(c) New LID BMPs.

(d) Retrofit of existing treatment and/or flow control facilities.

(e) Property acquisition for water quality and/or flow control benefits (not associated with future facilities).

(f) Maintenance with capital construction costs \geq \$25,000.

ii. Permittees should consider other projects to address impacts, such as:

(a) Restoration of riparian buffers

(b) Restoration of forest cover.

(c) Floodplain reconnection projects on water bodies that are not flow control exempt per Appendix 1.

(d) Permanent removal of impervious surfaces.

(e) Other actions to address stormwater runoff into or from the MS4 not otherwise required in S5.C.

iii. Permittees may not use in-stream culvert replacement or channel restoration projects for compliance with this requirement.

iv. The Structural Stormwater Control Program may also include a program designed to implement small-scale projects that are not planned in advance.

b. Each Permittee's SWMP Plan shall describe the Structural Stormwater Control Program, including the following:

i. The Structural Stormwater Control Program goals.

ii. The planning process used to develop the Structural Stormwater Control Program, including:

(a) The geographic scale of the planning process.

(b) Issues and regulations addressed.

(c) Steps in the planning process.

(d) Types of characterization information considered.

(e) Amount budgeted for implementation.

(f) The public involvement process.

(g) A description of the prioritization process, procedures and criteria used to select the Structural Stormwater Control projects.

c. With each Annual Report, each Permittee shall provide a list of planned, individual projects scheduled for implementation during this Permit term for the purpose of meeting S5.C.7.d. This list shall include at a minimum the information and formatting specified in Appendix 12.

d. No later than December 31, 2022, each Permittee shall achieve 300 SSC Program Points, calculated per Appendix 12, as follows:

i. 225 design-stage retrofit incentive points, and

ii. 75 complete or maintenance stage incentive points.

A minimum of 75 incentive points is required for complete or maintenance stage projects, additional incentive points for complete or maintenance stage projects may substitute for design-stage incentive points.

3.7.2 Responsible County departments

Multiple departments may be involved in planning and constructing projects within the Structural Stormwater Control (SSC) Program in order to achieve the required SSC Program Points.

3.7.3 Program description

The County has a Structural Storm Control Program that includes the program goals and a planning process under Special Condition S5.C.7.b that will allow the County to achieve 300 SSC Program Points by December 31, 2022, as required under Special Condition S5.C.7.d.

The County's SSC Program combines activities and projects performed by Surface Water Management (SWM) and Road Maintenance. These activities and projects include enhanced sweeping, new capital stormwater improvements, structural retrofits to existing stormwater systems, riparian buffer work, and riparian buffer acquisition. In

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2020, the County completed a large stormwater facility retrofit for the residential area, Meadow Creek Park, located near Swamp Creek in Bothell, as well as a pervious pavement retrofit of the Logan Park parking lot. In addition, the County has been developing a High Efficiency (HE) street sweeping program and acquiring several Elgin Waterless Eagle HE street sweepers to remove pollutants from road surfaces that would otherwise wash into the drainage system. Implementation of the HE sweeping program is anticipated in late 2021 or 2022.

In accordance with Special Condition S5.C.7.c, with each Annual Report the County will provide a list of planned, individual projects scheduled for implementation during the Permit term for the purpose of meeting the SSC Program Points requirement. A copy of the County's 2021 Structural Stormwater Program per S5.C.7.b, which contains a full description of the program, is presented in Appendix 2 of this SWMP Plan.

3.7.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ The County plans to pursue the following projects as part of its Structural Stormwater Control Program:
 - Sweeping Up Snohomish County (Project Number WM656, ROSWP)

3.8 Source Control Program for Existing Development

3.8.1 Permit requirements

S5.C.8 Source Control Program for Existing Development

a. The Permittee shall implement a program to reduce pollutants in runoff from areas that discharge to the MS4. The program shall include:

i. Application of operational source control BMPs, and if necessary, structural source control BMPs or treatment BMPs/facilities, or both, to pollution generating sources associated with existing land uses and activities.

ii. Inspections of pollutant generating sources at publicly and privately owned institutional, commercial, and industrial sites to enforce implementation of required BMPs to control pollution discharging into the MS4.

iii. Application and enforcement of local ordinances at sites, identified pursuant to S5.C.8.b.ii, including sites with discharges authorized by a separate NPDES permit. Permittees that are in compliance with the terms of this Permit will not be held liable by Ecology for water quality standard violations or receiving water impacts caused by industries and other Permittees covered, or which should be covered under an NPDES permit issued by Ecology.

iv. Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizers from the sites identified in the inventory.

b. Minimum performance measures

i. Permittees shall enforce ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities.

Permittees shall update and make effective the ordinance(s), or other enforceable documents, as necessary to meet the requirements of this Section no later than August 1, 2021.

The requirements of this subsection are met by using the source control BMPs in Volume IV of the Stormwater Management Manual for Western Washington, or a functionally equivalent manual approved by Ecology. In cases where the manual(s) lack guidance for a specific source of pollutants, the Permittee shall work with the owner/operator to implement or adapt BMPs based on the best professional judgement of the Permittee.

Applicable operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or

both, shall be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with S5.C.8.b.iv, below.

ii. Permittees shall implement a program to identify publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4. The Permittee shall update the inventory at least once every 5 years. The program shall include a source control inventory which lists:

(a) Businesses and/or sites identified based on the presence of activities that are pollutant generating (refer to Appendix 8).

(b) Other pollutant generating sources, based on complaint response, such as home-based businesses and multifamily sites.

iii. Permittees shall implement an inspection program for sites identified pursuant to S5.C.8.b.ii, above.

(a) All identified sites with a business address shall be provided, by mail, telephone, electronic communications, or in-person information about activities that may generate pollutants and the source control requirements applicable to those activities. This information may be provided all at one time or spread out over the permit term to allow for some tailoring and distribution of the information during site inspections.

(b) The Permittee shall annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The Permittee may count follow up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.

(c) Each Permittee shall inspect 100% of sites identified through credible complaints.

(d) Permittees may count inspections conducted based on complaints, or when the property owner denies entry, to the 20% inspection rate.

iv. Each Permittee shall implement a progressive enforcement policy to require sites to come into compliance with stormwater requirements within a reasonable time period as specified below:

(a) If the Permittee determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s), which may include: phone calls, letters, emails, or follow-up inspections.

(b) When a Permittee determines that a site has failed to adequately implement BMPs after a follow-up inspection(s), the Permittee shall take enforcement action as established through authority in its municipal code or ordinances, or through the judicial system.

(c) Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring sites into compliance. Each Permittee shall also maintain records of sites that are not inspected because the property owner denies entry.

(d) A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.

v. Permittees shall train staff who are responsible for implementing the Source Control Program to conduct these activities. The ongoing training program shall cover the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.

3.8.2 Responsible County departments

Under Chapter 7.53 SCC, each County department or division that manages custodial properties or performs actions that may cause polluted discharges to the County's MS4 is responsible for implementing pollution source control best management practices (BMPs) in accordance with the Snohomish County Drainage Manual.

Surface Water Management (SWM) is primarily responsible for implementing the requirements of Special Condition S5.C.8. Planning and Development Services (PDS) acts in a support capacity to process any code enforcement issues identified by SWM during source control inspections.

3.8.3 Program description

Regulatory authority to require application of source control BMPs per Special Condition S5.C.8.a and S5.C.8.b.i

The regulatory requirements to implement stormwater pollution source control BMPs per S5.C.8.a and S5.C.8.b.i are contained in Chapter 7.53 SCC (Water Pollution

Control), Chapter 30.85 SCC (Enforcement Procedures), and Volume IV of the Snohomish County Drainage Manual.

SCC 7.53.120 requires any person storing or using materials containing contaminants in any manner that may result in a prohibited discharge to implement the source control BMPs described in Volume IV, Chapter 2 of the Drainage Manual, and requires any person operating a facility or performing an activity described in Chapter 3, Volume IV of the Drainage Manual to implement the source control BMPs set forth therein.

The 2019 Phase I Permit requires the County to revise Volume IV of the Snohomish County Drainage Manual to contain additional BMPs, with a required effective date of August 1, 2021. The County included these revisions in the revised regulations for which Ecology has given conditional approval (see Chapter 3.5 of this SWMP Plan).

Program to identify publicly and privately-owned institutional, commercial and industrial sites which have the potential to generate pollutants to the MS4 per Special Condition S5.C.8.b.ii

SWM identifies publicly and privately owned institutional, commercial, and industrial sites (properties or parcels) which have the potential to generate pollutants to the County's MS4. Properties identified consistent with Appendix 8 of the Permit, are included in SWM's source control inventory. Institutional, commercial and industrial properties with permitted allowable discharges authorized by a separate NPDES permit, identified using Ecology's database Permit and Reporting Information System (PARIS), are also included in the inspection inventory. The source control inventory list is cross-referenced with the commercial ratepayer list for unincorporated Snohomish County to ensure the inclusion of properties that have a potential to pollute the County's MS4. Additional pollutant generating sources, including mobile or home-based businesses and multifamily properties, that are identified based on complaint response also are included in the inventory. The County updates the source control inventory at least once every five years. The source control inventory list was last updated in 2016 and will be updated again in 2021.

SWM's inventory includes all qualifying commercial animal handling areas and commercial composting facilities in the TMDL areas of the Stillaguamish River, Snohomish Tributaries, North Creek, Swamp Creek, and Little Bear Creek, per Appendix 2 of the Phase I Permit. The inspection efforts related to these facilities are discussed in Chapter 5 (TMDL Requirements) of this SWMP Plan.

Inspection program per Special Condition S5.C.8.b.iii

SWM inspects businesses located on parcels from the source control inventory to determine compliance with Chapter 7.53 SCC and 7.54 SCC, as well as Volume IV of the Snohomish County Drainage Manual. SWM provides education and technical assistance on stormwater pollution prevention BMPs and requirements of Chapter 7.53 SCC and 7.54 SCC regarding stormwater pollution at businesses and inspection and maintenance obligations. Educational materials and supplies are distributed during site inspections. These materials and supplies include targeted brochures, factsheets, handouts, spill plan templates, and spill kits. Any businesses on parcels included in the inventory that are not visited during the Phase I Permit cycle will receive information by

mail about activities that may generate pollution and applicable source control requirements by the end of the Permit term.

At a minimum, SWM business inspection program is designed to annually conduct the number of inspections equal to 20% of the business parcels listed in the source control inventory to assure BMP effectiveness and compliance with source control requirements. In 2020, the source control program was required to make needed program adaptations in response to the COVID-19 pandemic (refer to section 3.8.4 for further information). During the COVID-19 pandemic, due to safety, access and ownership issues, source control inspections were more concentrated on public properties. Generally, SWM prioritizes the inspection of parcels based on a variety of criteria including the potential to pollute, prior complaints, proximity to surface waters, urban or rural location, inspection history, business sector, pollutant types, and correlation with current public outreach campaigns. SWM investigates all businesses and properties associated with a legitimate complaint.

Progressive enforcement program per Special Condition S5.C.8.b.iv

If a business fails to adequately implement required BMPs, the County takes follow-up actions until issues are resolved. Those actions may include verbal coaching/phone calls, deficiency letters, follow-up inspections, and enforcement actions (including monetary penalties and/or criminal prosecution) under Chapter 7.53 SCC.

SWM maintains records for each site visit. Records include an activity log of correspondences, inspection reports, warning letters, notices of violations, and any enforcement records. SWM also maintains records of any sites that are not inspected because the property owner denies entry. All records are stored electronically in Cartegraph OMS.

SWM's progressive enforcement steps are as follows.

- Verbal Coaching: Verbal coaching is employed when an inspection reveals minor issues with a current business practice or procedure, such as failing to keep dumpster lids closed or failing to sweep work or storage areas as needed. These minor concerns do not represent an immediate threat to health, human safety or the environment. At this step it is uncommon for a follow-up inspection to occur. Depending on the issue identified during the inspection, phone calls or emails may be used to communicate with the business to ensure that corrective actions were implemented. Such communication is documented as a follow-up action in Cartegraph OMS.
- Deficiency Letter: An official letter is sent to a business when an inspection reveals deficiencies in behavioral, operational or structural BMPs. The deficiencies must be addressed by the business. The letter indicates a timeframe for a follow-up inspection (typically 30-60 days from the date the letter is mailed), unless other arrangements are coordinated with SWM staff and the business. Follow-up inspection dates and times may be extended at the discretion of SWM staff based on the significance of the deficiencies, the nature

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of any extension request, or demonstration of the business's progress toward meeting compliance objectives.

- Follow-up Inspection: SWM staff performs follow-up inspections of businesses to which a deficiency letter was sent. The purpose of these inspections is to assess the level of progress made by each business to correct deficiencies identified in the deficiency letter. SWM staff review deficiency items with the business representative. SWM staff determine the level of compliance the business has achieved as of the date of the follow-up inspection and inform the business either that it has successfully addressed deficiencies or not. Compliance status is communicated in person and recorded in the electronic tracking system, Cartegraph OMS. If SWM staff observe new deficiencies during the follow-up inspection, an additional letter is sent to the business.
- Final Deficiency Letter: A final deficiency letter is issued by SWM after an initial deficiency letter and follow-up inspections have not prompted adequate progress by the business to address required corrections. The letter serves to offer the business a final chance to correct deficiencies prior to initiating a formal enforcement action.
- Enforcement Action: When SWM staff determines that a business has failed to adequately implement BMPs after one or more follow-up inspections, the matter is referred to PDS for enforcement action. SWM inspectors and PDS code enforcement officers coordinate on matters of non-compliance to determine the appropriate course of action, which can include a warning notice, a notice of violation (NOV), and penalties. PDS manages the enforcement process, including correspondence, recordkeeping, the hearing if the NOV is appealed, and final resolution of the matter. SWM inspectors support PDS's efforts by providing subject matter expertise in identifying the deficiencies, determining the remedies, providing expert testimony when a matter goes to hearing, and assisting with the final inspection to determine compliance. If the County cannot secure compliance through this progressive enforcement program, SWM staff will refer the case to Ecology.

In addition to enforcement through the business inspection process described above, enforcement of stormwater control requirements may also be initiated through other means. Observations by other County field staff, members of the public, or by Ecology staff may prompt the County to initiate an investigation into drainage problems. Resolution of the drainage issue depends on the underlying cause as shown in Table 2 below.

The public can submit a drainage investigation request to SWM by an online process available through the County's website. If a complaint is received by SWM in this manner, SWM may follow the process outlined above unless it is determined to be a violation of an active development permit or it is the result of unpermitted development activities. If the drainage issue is a result of a development permit violation, the case will be referred to PDS code enforcement, or to a site or building inspector if the permit is active (i.e. currently being developed or stabilized waiting for final construction to begin).



PDS may receive stormwater complaints directly, in which case a determination is made by code enforcement. Source control facility maintenance issues are forwarded to SWM inspectors for initial compliance actions, with any necessary subsequent enforcement actions following the process outlined above. Drainage issues on sites with active permits are forwarded to the site and building inspectors. Drainage issues resulting from unpermitted development activities are referred to PDS permit staff for the necessary permits.

In any of these cases, Code Enforcement may be called upon for further action if the situation is not resolved through the County's initial efforts. When necessary, other agencies may be involved if state or federal permit compliance is required.

Code enforcement provisions are codified in Chapters 7.53, 7.54 and 30.85 SCC. These code chapters outline criteria and procedures for the issuance warning notices, notices of violation, citations, stop work orders, monetary penalties, appeals hearings, compliance timelines, emergency orders, suspension or revocation of permits, abatement and liens. Table 2 below summarizes the progressive code enforcement strategy used by the County depending on the drainage issue to be resolved and the applicable code enforcement provisions used.

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Table 2 - Summary of Progressive Code Enforcement Process for Drainage Issues and Complaints.

CE = PDS Code Enforcement Division

Drainage issue has been identified by:	Initial investigation determines that the drainage issue is a result of: (Codified enforcement procedures followed)		
	Stormwater facility maintenance issue (SCC 7.53 and 7.54)	Violation of permit conditions/SWPPP (SCC 30.85)	Unpermitted development activities (SCC 30.85)
SWM inspection of stormwater facility	SWM works with facility owner to resolve issue; if unsuccessful, forwards to CE for further processing.	SWM refers directly to CE; CE forwards to site/bldg. inspectors	SWM refers directly to CE; CE works with owner to obtain necessary permits; further enforcement if necessary.
PDS site or building inspector	Inspector will refer the drainage issue to SWM.	Inspector will provide guidance to project field staff for corrective action; follow-up may include correction notice, assistance from CE, and possible involvement of Ecology or other state or federal agency. May also require involvement of project engineer, County engineer and County building official	Inspector will advise of permit requirements; compliance may necessitate referral to CE.
Complaints:			
Drainage Investigation Request Form (received by SWM)	SWM works with facility owner to resolve issue; if unsuccessful, forwards to CE for further processing.	SWM refers directly to CE; CE forwards to site/bldg. inspectors.	SWM refers directly to CE; CE works with owner to obtain necessary permits; further enforcement if necessary.
Complaint Investigation Request Form (received by PDS)	CE refers to SWM for initial processing; may be referred back to CE by SWM if issues remain unresolved.	CE forwards to site/bldg. inspectors.	CE works with owner to obtain necessary permits; further enforcement if necessary.
Citizen complaint forwarded to County by Ecology (widely distributed by Ecology to multiple County divisions and to external agencies)	SWM works with facility owner to resolve issue; if unsuccessful, forwards to CE for further processing. Depending on specific issues/magnitude of violation, Ecology may take enforcement action.	CE forwards to site/bldg. inspectors. Depending on specific issues/magnitude of violation, Ecology may take enforcement action.	CE works with owner to obtain necessary permits; further enforcement if necessary. Depending on specific issues/magnitude of violation, Ecology may take enforcement action.

For every code enforcement case, an electronic folder is created in the electronic tracking system, AMANDA, to keep track of all site and ownership data, inspection notes and photos, communications and correspondence, and enforcement actions (notices, citations, etc.). The case data is maintained in AMANDA and is linked to the property record for future reference and access if needed for follow-up or future site development proposals or applications.

Program staff training per Special Condition S5.C.8.b.v

New SWM staff executing Source Control Program requirements receive training as part of their new hire orientation. Professional training, conferences, and regional stormwater group meetings – such as Hazardous Waste Operations and Emergency Response, Certified Stormwater Inspector (CSI), and Stormwater Outreach for Regional Municipalities (STORM) – are part of ongoing professional development. Webinars, agency-hosted trainings, and other learning, training, and networking opportunities are encouraged and provided by SWM. All trainings are approved by a supervisor and recorded in a training database called “Training Manager” for tracking purposes.

Additionally, SWM Source Control Program staff hold regular meetings to discuss all aspects of program implementation, including site inspections, program strategies and plans, source control BMPs, priority areas, target audiences, and recommended follow-up actions. These team meetings provide consistency in how sites are inspected and source control requirements are enforced. The SWM inspectors range in years of experience and education and routinely learn from each other as they share and discuss their field experiences.

PDS code enforcement officers receive on-board training and work cooperatively within the division, gaining support from colleagues. Division staff meetings provide opportunities to share knowledge and troubleshoot cases. Code enforcement officers also receive in-office training on code updates, including the drainage and land disturbing activity code chapters, formal Certified Erosion and Sediment Control Lead (CESCL) training, and training on recognizing and reporting of illicit discharges and source control violations. When enforcing provisions of the stormwater source control provisions, code enforcement officers rely on technical expertise from SWM staff. Each code enforcement officer is provided a “Code Enforcement Manual” covering code content and procedures for enforcement actions. The manual also includes record-keeping procedures and data entry instructions for using the electronic tracking system, AMANDA.

PDS tracks formal training requested and attended by staff using the “Training Manager” electronic database. “Training Manager” allows staff to request training and provides an official means to approve training requests, manage registration to events, and document the distribution of PDS’s training budget.

3.8.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Continue to perform source control inspections at institutional, commercial, and industrial properties, providing technical assistance, ensuring proper BMP implementation, distributing educational materials, distributing free spill kits, and working closely with owners and implementers to ensure surface water protection.
- ◆ Continue to prioritize inspections of essential and outdoor businesses, implement a phased inspection approach and review the experience of other programs with developing adaptive management approaches for the Source Control Program in 2021.
- ◆ Provide staff training on Source Control Program implementation.
- ◆ Participate in STORM and STORM sub-groups to share with and learn from other municipal NPDES Permittees.
- ◆ Provide source control programmatic guidance to Phase II jurisdictions.
- ◆ Continue to develop an inspection and educational implementation strategy that focuses on businesses that have a potential to generate polluted runoff from the application of pesticides, herbicides, and fertilizers.
- ◆ The County plans to adopt revisions to Volume IV of the Snohomish County Drainage Manual as part of the stormwater regulation updates by July 1, 2021.
- ◆ Identify opportunities for the public to participate, including overburdened communities, in decision-making processes involving the source control program for existing development in accordance with Section 3.4.
- ◆ Update the source control inventory for businesses that have a potential to generate polluted runoff per the 2019 Phase I General Municipal Permit. Leverage GIS mapping to identify business parcels that draining to the MS4.

3.9 Illicit Connections and Illicit Discharges Detection and Elimination

3.9.1 Permit requirements

S5.C.9 Illicit Connections and Illicit Discharges Detection and Elimination

The SWMP shall include an ongoing program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4.

Minimum performance measures:

a. The program shall include procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges when they are suspected or identified. The program shall also include procedures for addressing pollutants entering the MS4 from an interconnected, adjoining MS4.

Illicit connections and illicit discharges shall be identified through field screening, inspections, complaints/reports, construction inspections, maintenance inspections, source control inspections, and/or monitoring information, as appropriate.

b. Permittees shall continue to implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges, including spills, into the Permittee's MS4.

*i. **Allowable Discharges:** The ordinance or other regulatory mechanism does not need to prohibit the following categories of non-stormwater discharges:*

(a) Diverted stream flows

(b) Rising groundwaters

(c) Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(b)(20))

(d) Uncontaminated pumped groundwater

(e) Foundation drains

(f) Air conditioning condensation

(g) Irrigation water from agricultural sources that is commingled with urban stormwater

(h) Springs

(i) Uncontaminated water from crawl space pumps

(j) Footing drains

(k) Flows from riparian habitats and wetlands

(l) Non-stormwater discharges authorized by another NPDES or State Waste Discharge permit

(m) Discharges from emergency firefighting activities in accordance with S2 – Authorized Discharges

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

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

(b) Discharges from lawn watering and other irrigation runoff. These discharges shall be minimized through, at a minimum, public education activities (see S5.C.11) and water conservation efforts.

(c) Dechlorinated swimming pool, spa, and hot tub discharges. The discharges shall be dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4. Discharges shall be thermally controlled to prevent an increase in temperature of the receiving water. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.

(d) Street and sidewalk wash water, water used to control dust, and routine external building washdown that does not use detergents. The Permittee shall reduce these discharges through, at a minimum, public education activities (see S5.C.11) and/or water conservation efforts. To avoid washing pollutants into the MS4, Permittees shall minimize the amount of street wash and dust control water used.

(e) Other non-stormwater discharges shall be in compliance with the requirements of a pollution prevention plan reviewed by the Permittee which addresses control of such discharges.

iii. The Permittee shall further address any category of discharges in S5.C.9.b.i or ii, above, if the discharges are identified as significant sources of pollutants to waters of the State.

c. Each Permittee shall implement an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into the Permittee's MS4. The program shall include the following components:

i. Procedures for conducting investigations of the Permittees MS4, including field screening and methods for identifying potential sources. These procedures may also include source control inspections.

The Permittee shall implement a field screening methodology appropriate to the characteristics of the MS4 and water quality concerns. Screening for illicit connections may be conducted using the Illicit Connection and Illicit Discharge

Field Screening and Source Tracing Guidance Manual (*Herrera Environmental Consultants, Inc., May 2013.*); or another method of comparable or improved effectiveness. The Permittee shall document the field screening methodology in the Annual Report.

(a) Each Permittee shall implement an ongoing field screening program of, on average, 12% of the Permittee's known MS4 each year. Permittees shall annually track the total percentage of the MS4 screened beginning August 1, 2019.

ii. A publicly-listed and publicized hotline or other telephone number for public reporting of spills and other illicit discharges.

iii. An ongoing training program for all municipal field staff, who, as part of their normal job responsibilities might come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4, on the identification of an illicit discharge and/or connection, and on the proper procedures for reporting and responding to the illicit discharge and/or connection. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of the trainings provided and the staff trained.

d. Each Permittee shall implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the Permittee's MS4. The program shall include:

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

ii. 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.

iii. Procedures for eliminating the discharge; including notification of appropriate owners or operators of interconnected MS4s; notification of the property owner; technical assistance; follow-up inspections; and use of the compliance strategy developed pursuant to S5.C.9.d.iv, including escalating enforcement and legal actions if the discharge is not eliminated.

iv. Compliance with the provisions in S5.C.9.d.i, ii, and iii, above, shall be achieved by meeting the following timelines:

(a) Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment consistent with General Condition G3.

(b) Investigate (or refer to the appropriate agency with authority to act) within 7 days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge.

(c) Initiate an investigation within 21 days of any 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.

(d) Upon confirmation of an illicit connection, use enforcement authority in a documented effort to eliminate the illicit connection within 6 months. All known illicit connections to the MS4 shall be eliminated.

e. Permittees shall train staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills and illicit connections, to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.

f. Each Permittee shall either participate in a regional emergency response program, or develop and implement procedures to investigate and respond to spills and improper disposal into the MS4 owned or operated by the Permittee.

g. Recordkeeping: Each Permittee shall track and maintain records of the activities conducted to meet the requirements of this Section. In the Annual Report, each Permittee shall submit data for all of the illicit discharges, spills, and illicit connections, including those that were found by, reported to, or investigated by the Permittee during the previous calendar year. The data shall include the information specified in Appendix 14 and WQWebIDDE. Each Permittee may either use their own system or WQWebIDDE for recording this data. Final submittals shall follow the instructions, timelines, and format as described in Appendix 14.

3.9.2 Responsible County departments

All County departments with custodial properties are responsible for identifying and eliminating illicit connections and illicit discharges on those properties. For some departments and Public Works divisions, Surface Water Management (SWM) provides some or all of these services. SWM is responsible for investigating and eliminating illicit connections and illicit discharges to the County's MS4 that originate on private property. SWM and Planning and Development Services (PDS) coordinate on matters requiring progressive enforcement. All County field staff that might observe illicit discharges or connections while carrying out non-Phase I Permit duties receive training intended to provide a basic understanding of illicit discharges and illicit connections.

3.9.3 Program description

Regulatory authority pursuant to Special Condition S5.C.9.b

Special Condition S5.C.9.b requires the County to continue to implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater illicit discharges, including spills, into the County's MS4.

Chapter 7.53 SCC (Water Pollution Control) is the code by which the County prohibits or otherwise regulates pollution discharges into the County's MS4 and receiving water bodies. This code chapter contains prohibitions or other requirements governing such discharges, and it also requires implementation of stormwater source control BMPs set forth in Volume IV of the Snohomish County Drainage Manual for any use or storage of materials in a manner that may result in a prohibited discharge. Chapter 7.53 SCC does not require revision to meet the 2019 Phase I Permit requirements. The County included revisions to Volume IV of the Drainage Manual to incorporate additional BMPs as part of the revised stormwater regulations for which Ecology has given conditional approval (see Chapter 3.5 of this SWMP Plan).

Program to detect and identify non-stormwater discharges and illicit connections into the County MS4 per Special Condition S5.C.9.c

SWM is primarily responsible for administering the program to detect and identify non-stormwater discharges and illicit connections into the County MS4 that are generated from non-County properties or sources other than County operations. This program has the following basic elements:

1. Field screening per Special Condition S5.C.9.c.i;
2. Operation of a water quality hotline for public reporting of spills and illicit discharges per Special Condition S5.C. 9.c.ii;
3. Responding to reports of potential illicit connections and discharges from field inspections, complaints/reports, construction inspections, maintenance inspections, source control inspections, and/or monitoring information per Special Condition S5.C.9.a; and
4. Broad-spectrum field staff training per Special Condition S5.C.9.c.iii.

Field screening

SWM uses a variety of methods to screen the MS4 for illicit connections and discharges, including dry weather outfall screening, business inspections, catch basin inspections, video inspections, and targeted source identification and elimination projects. These methodologies are described in the *Snohomish County Dry Weather Outfall Screening Manual*, the *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual* (prepared for Ecology by King County, Washington Stormwater Center, and Herrera Environmental Consultants in May 2013), and Snohomish County Drainage Manual Volumes IV and V. Targeted source identification and elimination methodologies for individual projects are described in *Microbial Water Quality Assessment for Fecal Coliform Bacteria – Contaminant Survey Protocols* (Britsch, et al., 2015).

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Although SWM employs a range of methods to screen the MS4, historically the primary field screening method used by SWM is a dry weather outfall screening program. This program screens the MS4 when there should not be flow within the system. If flow is observed, SWM characterizes the nature of the flow (e.g., groundwater seepage, allowed or conditionally allowed discharges) and where necessary, traces the flow to determine the source.

In 2021, all field screening and water quality investigation activities will be recorded in Cartegraph.

The County is required to field screen an average of 12% of its known MS4 annually. Cartegraph and GIS are the primary tools used to determine if the County is meeting this requirement. The County will annually track the total percentage of the MS4 screened beginning August 1, 2019. Total percentage tracked is based on the percentage of circuits screened divided by total circuits. A circuit is defined as all of the stormwater infrastructure that drains to one outfall.

The Airport annually inspects the MS4 located within Airport property boundaries for illicit connections and discharges during operations and maintenance inspections of stormwater management facilities and catch basins. Similar inspections are also conducted during routine inspections of stormwater discharge points and outfalls in response to requirements of the Airport's Industrial Stormwater General Permit.

Operation of a water quality hotline for public reporting of spills and illicit discharges

SWM has a stand-alone water quality hotline phone number, 425-388-6481, that can be used by the public to report water quality problems or concerns. Further, Snohomish County operates a website at <https://snohomishcountywa.gov/1185/Report-Pollution> that includes an online water quality complaint form the public can use to electronically submit a water quality concern or complaint for investigation.

Responding to reports of potential illicit connections and discharges per Special Condition S5.C.9.a

The SWM water quality investigation program responds to reports of possible illicit connections and discharges, regardless of the source of the report. Reports are submitted by numerous entities, including County field staff (such as site inspectors, building inspectors, source control inspectors, drainage inventory mapping crews, and drainage inspectors), Ecology through its Environment Report Tracking System (ERTS), and other agencies including cities and the Snohomish Health District.

Broad-spectrum field staff training per Special Condition S5.C.9.c.iii

In addition to County staff whose primary responsibilities include field screening and illicit discharge and connection identification and elimination, other County field staff might observe illicit discharges or connections while carrying out non-Phase I Permit duties, such as Sheriff's deputies, park rangers, and medical examiners. These employees are additional "eyes and ears" for SWM. Snohomish County distributes annual "all-hands" e-mail messages from the directors of the following departments: Public Works, PDS, Conservation and Natural Resources (DCNR), Facilities, Airport, Sheriff, Finance, Assessor, Treasurer, Auditor, Emergency Management, Human Services, and the Medical Examiner. The messages, prepared by SWM, contain

information and photos related to pollution problems that might constitute or be caused by illicit discharges or illicit connections, with information about how to report such problems. The County retains records of these communications.

In addition to the basic training described above, SWM's water quality investigation program offers annual training across County departments upon request. Records of each training are maintained.

Program to address illicit discharges, including spills and illicit connections, into the Permittee's MS4 per Special Condition S5.C.9.d

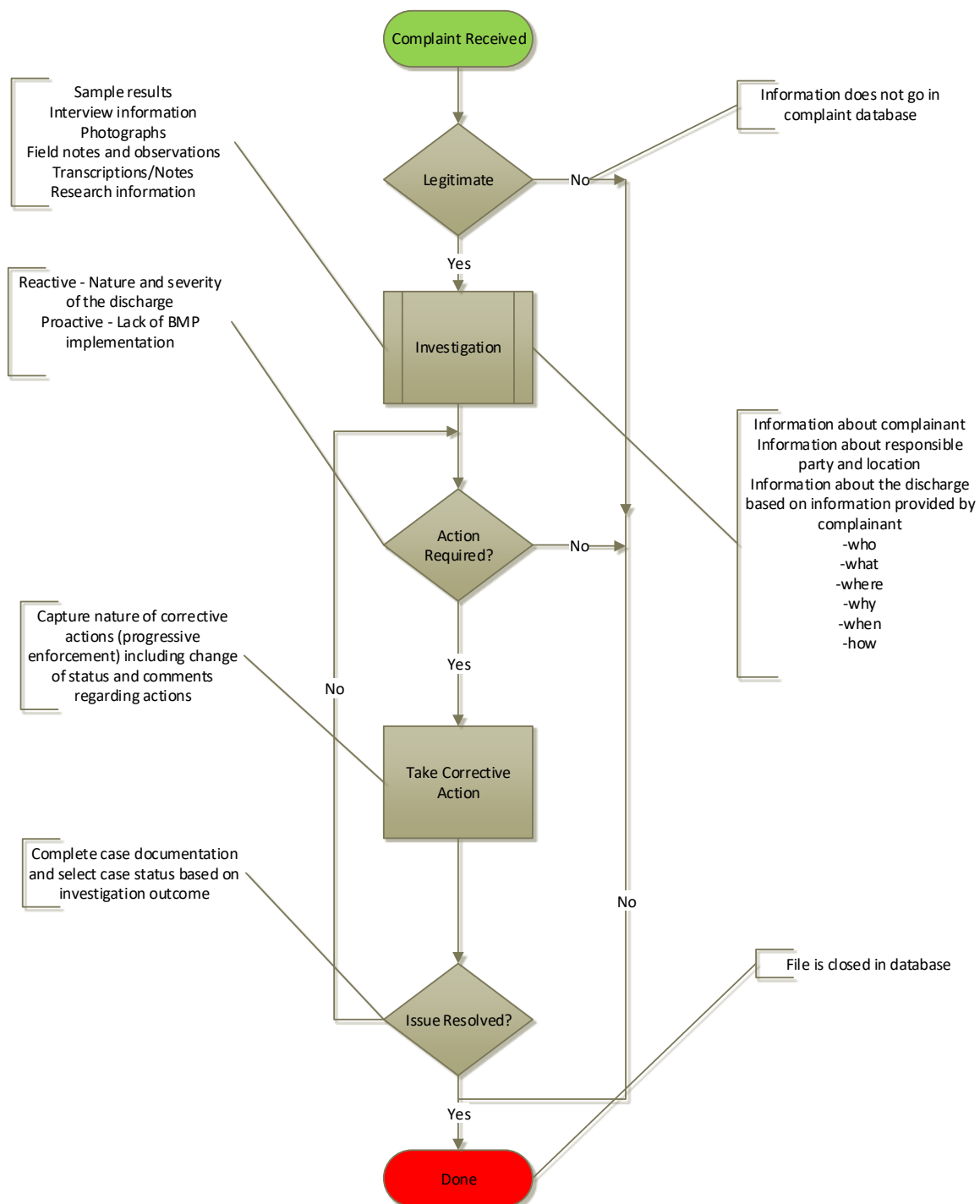
Each County department and division with custodial responsibility for properties is responsible for addressing illicit discharges and illicit connections to the MS4 on those properties. In February 2020, the County's Special Projects Director in charge of NPDES approved NPDES policy 2020-01 "Investigation and Cleanup Responsibilities for Spills and Discharges to the County MS4 and County property." This policy describes the roles and responsibilities for each department with custodial property. Departments and divisions with such responsibilities are SWM, Parks, Road Maintenance, Engineering Services, Solid Waste, Airport, and Facilities. Illicit connections and discharges are often addressed through the implementation of property-specific Stormwater Pollution Prevention Plans, property management plans, or property use contracts. In some cases, a department or division will enlist the service of another department or division to assist in the elimination of an illicit discharge. For example, a Road Maintenance field crew may encounter a non-standard connection to the MS4 and notify SWM of a potential illicit connection, triggering a water quality investigation.

The majority of the program to address illicit discharges into the County's MS4 is implemented by SWM. That program contains four parts:

1. Characterization of the nature and potential level of threat posed by an illicit discharge or illicit connection per Special Condition S5.C.9.d.i;
2. Procedures for tracing the source of an illicit discharge per Special Condition S5.C.9.d.ii;
3. Procedures for eliminating the discharge per Special Condition S5.C.9.d.iii; and
4. Program for ensuring compliance with the provisions in Special Condition S5.C.9.d.i, ii, and iii, in accordance with the requirements set forth in Special Condition S5.C.9.d.iv.

Figure 1 shows the process SWM uses to address illicit discharges. Once a report of a potential illicit discharge is received, SWM determines if it is legitimate. The most common reason a report is deemed to not be legitimate is because it is not within unincorporated Snohomish County.

Figure 1 – Water quality investigation flow chart



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For legitimate reports, SWM uses the methods outlined in the *Snohomish County Dry Weather Outfall Screening Manual* to characterize and trace the discharge. Generally, discharges are easy to characterize and trace as the source is known. The most common discharges are oil, sediment (turbidity), and wastewater from human or animal sources. If the source is not known, visual clues and analytical data are used to determine the likely source.

Once SWM identifies, characterizes, and traces an illicit discharge, it utilizes a progressive enforcement program to eliminate the discharge. If outreach, education, and technical assistance efforts prove ineffective at gaining compliance, SWM refers the case to PDS for code enforcement under the provisions of Chapter 7.53 SCC. Additionally, SWM works with partner agencies such as the Snohomish Health District and Ecology to provide regulatory enforcement where overlap of jurisdictional authority occurs.

PDS's role in the elimination of illicit connections and discharges to the MS4 occurs during new development or redevelopment activities. Site inspectors and building inspectors verify that all drainage connections and discharges occur in accordance with the approved drainage plans and/or the SWPPP for temporary stormwater controls during the construction process. Illicit connections or discharges are corrected during this inspection process. In the course of day-to-day operations in the field, if illicit connections or discharges not related to new or redevelopment are observed, PDS staff will alert SWM. When a report of a discharge from a construction site is received, SWM notifies PDS site inspectors for follow-up.

If an Airport observation indicates a potential illicit connection or discharge, a follow-up field investigation is conducted which may include water quality sampling or camera inspection.

The County follows the timing requirements established in Special Condition S5.C.9.d.iv for addressing illicit discharges. Figures A and A-2 illustrate the process of reporting. Figure A depicts the notification process for discharges from the MS4 owned or operated by the County. Figure A-2 illustrates the notification process for discharges to the MS4 owned or operated by the County.

Figure A

**Notification flow chart for discharges from the municipal storm sewer
owned or operated by Snohomish County**

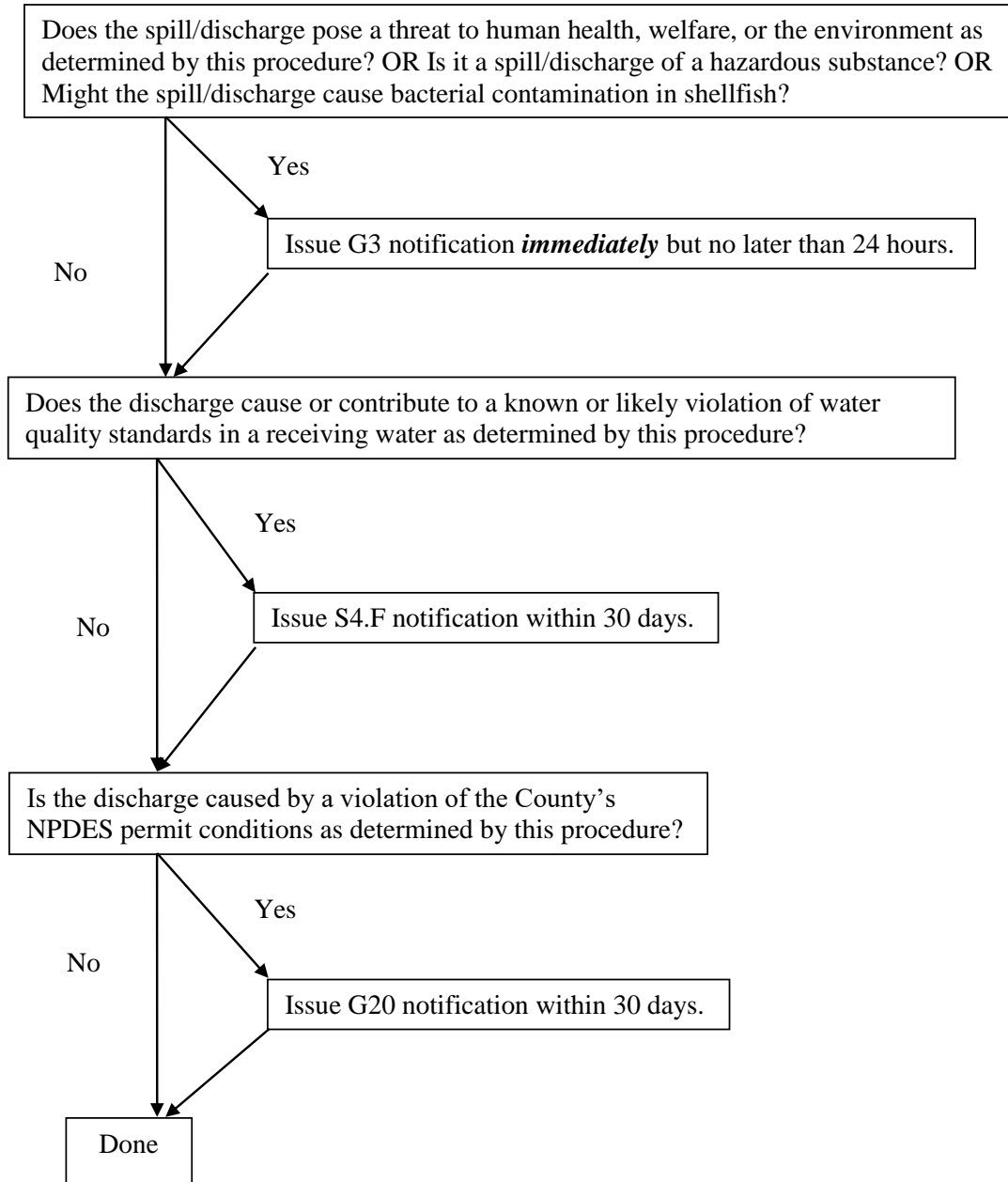
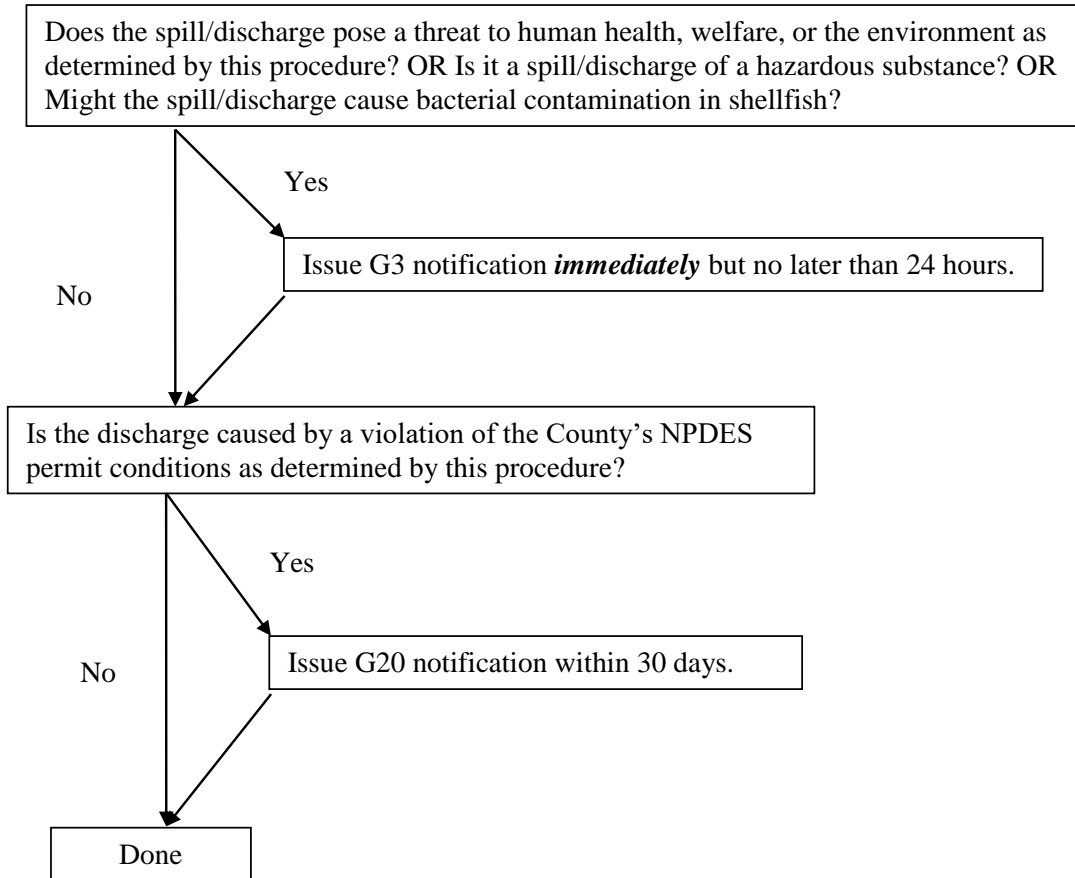


Figure A-2

**Notification flow chart for discharges to the municipal storm sewer
owned or operated by Snohomish County**



Training for program staff per Special Condition S5.C.9.e

County staff responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills and illicit connections, are trained to perform these duties in a manner specific to their task assignments. Training includes, as appropriate, how to identify illicit discharges or connections that they may encounter as part of normal job responsibilities, how to properly select and implement BMPs, and how to report potential illicit discharges. In addition, training may include classes such as EPA basic inspector training, Hazardous Waste Operations and Emergency Response (HAZWOPER), Certified Sediment and Erosion Control Lead (CESCL) training, any training required by a property-specific Stormwater Pollution Prevention Plan under the Phase I Permit, and other professional development training as needed. Airport staff receive training during the annual training provided to staff responsible for implementing the inspection requirements of the Washington Industrial Stormwater

General Permit, as the Airport is covered under both permits and both permits require inspections for illicit discharges.

Program to investigate and respond to spills and improper disposal into the County MS4 per Special Condition S5.C.9.f

Snohomish County, through the Department of Emergency Management, participates in a regional emergency response program that is described in the Snohomish County Comprehensive Emergency Management Plan (CEMP). The plan designates the Washington State Patrol and the Snohomish County Fire District 1 Hazardous Materials Response Team as the primary agencies responsible for responding to spills of hazardous materials. The Snohomish County Public Works Department is identified as a supporting agency in hazardous material spill response implementation.

SWM's water quality investigation program discussed in the preceding subsections is also used to investigate spills and improper disposals into the MS4. SWM is responsible for responding to spills and discharges that originate on private property and enter the MS4. For County-owned property, NPDES policy 2020-01 "Investigation and Cleanup Responsibilities for Spills and Discharges to the County MS4 and County property" describes the roles and responsibilities for each department with custodial property. Departments and divisions have the option of investigating and responding to spills and improper disposal by training department/division staff or coordinating with SWM to provide the services. Public Works, Airport, and DCNR generally train department staff to investigate and respond to spills while Facilities and PDS coordinate with SWM.

To clean up spills and discharges, departments have the option of using departmental staff or the County's on-call spill contractor, who provides 24-hour spill response services.

Recordkeeping per Special Condition S5.C.9.g

The County tracks and maintains records of the activities conducted to meet the requirements of Special Condition S5.C.9. SWM uses Cartegraph, the County's asset management system, to document all of the illicit discharges (including spills) and illicit connections, including those that were found by, responded to, or investigated by SWM. Other County departments and divisions use SharePoint to keep those records. In addition, other recordkeeping systems are used to store records such as training records. In combination, these systems will be used to meet the annual reporting requirements specified in Special Condition S5.C.9.g and Appendix 14 of the Phase I Permit.

3.9.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Continue to implement the programs described in this section of the SWMP Plan.
- ◆ Continue to field screen, on average, 12% of the known MS4 each year.
- ◆ Ensure recordkeeping requirements of Special Condition S5.C.9.g and Appendix 14 are met through the use of Cartegraph and an electronic form available to all County departments on SharePoint.

3.10 Operation and Maintenance Program

3.10.1 Permit requirements

S5.C.10 Operation and Maintenance Program

Each Permittee shall implement and document a program to regulate maintenance activities and to conduct maintenance activities by the Permittee to prevent or reduce stormwater impacts.

Minimum performance measures:

a. Maintenance Standards. Each Permittee shall implement maintenance standards that are as protective, or more protective, of facility function than those specified in the Stormwater Management Manual for Western Washington (SWMMWW) or a Phase I program approved by Ecology. For facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard. No later than July 1, 2021⁴ each Permittee shall update their maintenance standards as necessary to meet the requirements in this Section.

i. The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facility's required condition at all times between inspections. Exceeding the maintenance standard between inspections and/or maintenance is not a permit violation.

ii. Unless there are circumstances beyond the Permittee's control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:

(a) Within 1 year for typical maintenance of facilities, except catch basins.

(b) Within 6 months for catch basins.

(c) Within 2 years for maintenance that requires capital construction of less than \$25,000.

Circumstances beyond the Permittee's control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedance of the required timeframe, the Permittee shall document the circumstances and how they were beyond the Permittee's control.

⁴ If Ecology takes longer than 120 days to provide a written response as outlined in S.5.C.5.b.3, the required deadline for adoption and effective date will be automatically extended by the number of calendar days that Ecology exceeds a 120-day period for written response.

b. Maintenance of stormwater facilities regulated by the Permittee

i. Each Permittee shall evaluate and, if necessary, update existing ordinances or other enforceable documents requiring maintenance of all stormwater treatment and flow control BMPs/facilities regulated by the Permittee (including catch basins that are part of the facilities regulated by the Permittee), in accordance with maintenance standards established under S5.C.10.a, above.

ii. Each Permittee shall implement an on-going inspection program to annually inspect all stormwater treatment and flow control BMPs/facilities regulated by the Permittee to enforce compliance with adopted maintenance standards as needed based on inspection. The inspection program is limited to facilities to which the Permittee can legally gain access, provided the Permittee shall seek access to all stormwater treatment and flow control BMPs/facilities regulated by the Permittee. Permittees may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 – Certification and Signature.

iii. Compliance with the inspection requirements of S5.C.10.b.ii, above, shall be determined by the presence of an established inspection program designed to inspect all facilities, and achieving at least 80% of required inspections.

iv. The Permittee shall require cleaning of catch basins regulated by the Permittee if they are found to be out of compliance with established maintenance standards in the course of inspections conducted at facilities under the requirements of S5.C.8 – Source Control Program for Existing Development, and S5.C.9 – Illicit Connections and Illicit Discharges Detection and Elimination, or if the catch basins are part of the stormwater facilities inspected under the requirements of S5.C.10 – Operation and Maintenance Program.

c. Maintenance of stormwater facilities owned or operated by the Permittee

i. Each Permittee shall implement a program to annually inspect all stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee. Permittees shall implement appropriate maintenance action(s) in accordance with adopted maintenance standards. Permittees may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 – Certification and Signature.

ii. Each Permittee shall implement a program to conduct spot checks of potentially damaged stormwater treatment and flow control BMPs/facilities after major storm events (24-hour storm event with a 10-year or greater recurrence

interval). If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control BMPs/facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established under S5.C.10.a, above, based on the results of the inspections.

iii. Compliance with the inspection requirements of S5.C.10.c.i, and ii, above, shall be determined by the presence of an established inspection program designed to inspect all sites and achieving at least 95% of required inspections.

d. Maintenance of Catch Basins Owned or Operated by the Permittee

i. Each Permittee shall annually inspect all catch basins and inlets owned or operated by the Permittee, or implement alternatives below. Alternatives to the standard approach of inspecting all catch basins annually: Permittees may apply the following alternatives to all or portions of their system.

(a) The annual catch basin inspection schedule may be changed as appropriate to meet the maintenance standards based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records for catch basins, the Permittee may substitute written statements to document a specific, less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 – Certification and Signature.

(b) Annual inspections may be conducted on a “circuit basis” whereby 25% of catch basins and inlets within each circuit are inspected to identify maintenance needs. Include an inspection of the catch basin immediately upstream of any MS4 outfall, discharge point, or connections to public or private storm systems if applicable. Clean all catch basins within a given circuit for which the inspection indicates cleaning is needed to comply with maintenance standards established under S5.C.10.a, above.

(c) The Permittee may clean all pipes, ditches, catch basins, and inlets within a circuit once during the permit term. Circuits selected for this alternative shall drain to a single point.

ii. The disposal of decant water shall be in accordance with the requirements in Appendix 6 – Street Waste Disposal.

iii. Compliance with the inspection requirements of S5.C.10.d.i, above, shall be determined by the presence of an established inspection program designed to inspect all catch basins and inlets, or implemented alternative, and achieving at least 95% of required inspections.

e. Each Permittee shall implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. No later than December 31, 2022, document the practices, policies, and procedures. Lands owned or maintained by the Permittee include, but are not limited to: parking lots, streets, roads, highways, buildings, parks, open

space, road right-of-way, maintenance yards, and stormwater treatment and flow control BMPs/facilities. The following activities shall be addressed:

- i. Pipe cleaning*
 - ii. Cleaning of culverts that convey stormwater in ditch systems*
 - iii. Ditch maintenance*
 - iv. Street cleaning*
 - v. Road repair and resurfacing, including pavement grinding*
 - vi. Snow and ice control*
 - vii. Utility installation*
 - viii. Maintaining roadside areas, including vegetation management*
 - ix. Dust control*
 - x. Pavement striping maintenance*
 - xi. Application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts*
 - xii. Sediment and erosion control*
 - xiii. Landscape maintenance and vegetation disposal*
 - xiv. Trash and pet waste management*
 - xv. Building exterior cleaning and maintenance*
- f. Implement an ongoing training program for employees of the Permittee who have primary construction, operations, or maintenance job functions that may impact stormwater quality. The training program shall address the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of the training provided. The staff training records to be kept include dates, activities or course descriptions, names and positions of staff in attendance.*
- g. Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that authorizes stormwater discharges associated with the activity. As necessary, update SWPPPs no later than December 31, 2022, to include the following information. The SWPPP shall include periodic visual observation of discharges from the*

facility to evaluate the effectiveness of BMPs. At a minimum, the SWPPP shall include:

- i. A detailed description of the operational and structural BMPs in use at the facility and a schedule for implementation of additional BMPs when needed. BMPs selected shall be consistent with the Stormwater Management Manual for Western Washington, or Phase I program approved by Ecology. The SWPPP shall be updated as needed to maintain relevancy with the facility.*
- ii. At the minimum, annual inspections of the facility, including visual observations of discharges, to evaluate the effectiveness of the BMPs, identify maintenance needs, and determine if additional or different BMPs are needed. The results of these inspections shall be documented in an inspection report or check list.*
- iii. An inventory of the materials and equipment stored on-site, and the activities conducted at the facility which may be exposed to precipitation or runoff and could result in stormwater pollution.*
- iv. A site map showing the facility's stormwater drainage, discharge points, and areas of potential pollutant exposure.*
- v. A plan for preventing and responding to spills at the facility which could result in an illicit discharge.*
- vi. A training plan for all personnel responsible for implementing any components of the SWPPP.*
- h. Maintain records of the activities conducted to meet the requirements of this Section.*

3.10.2 Responsible County departments

The departments that have responsibilities under Special Condition S5.C.10 are Public Works, Planning and Development Services (PDS), Conservation and Natural Resources (DCNR), Airport, and Facilities. Each department is responsible for operation and maintenance activities on properties for which it has custodial responsibility. Departments may engage the services or assistance of each other in carrying out these responsibilities.

3.10.3 Program description

Adoption of maintenance standards under Special Condition S5.C.10.a

Special Condition S5.C.10.a requires the County to implement stormwater facility maintenance standards that are as protective, or more protective, of facility function than those specified in Ecology's *2019 Stormwater Management Manual for Western Washington (2019 SWMMWW)* or a Phase I program approved by Ecology. The County's maintenance standards are now contained in Volume VI of the Snohomish County Drainage Manual. The County included all needed revisions to the maintenance standards in the revised stormwater regulations for which Ecology has given conditional approval (see Chapter 3.5 of this SWMP Plan).

In addition, Road Maintenance utilizes the *Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines* in combination with the County's Drainage Manual, which provides BMPs that reduce stormwater impacts associated with road maintenance activities.

Adoption of stormwater regulations under Special Condition S5.C.10.b.i

Special Condition S5.C.10.b.i requires the County to have regulatory authority to require maintenance of all regulated permanent stormwater treatment and flow control BMPs/facilities and associated catch basins, in accordance with maintenance standards established under Special Condition S5.C.10.a. This regulatory authority is contained in Chapter 7.54 SCC (Maintenance of Constructed Stormwater Control Facilities), which was adopted by Amended Ordinance No. 13-022 on April 17, 2013 and reenacted under Ordinance No. 19-009 on April 10, 2019. Chapter 7.54 SCC references the maintenance standards in the Snohomish County Drainage Manual. The Snohomish County Drainage Manual is promulgated by rule and does not require code enactment.

Inspection and maintenance of stormwater facilities/BMPs regulated by the County under Special Condition S5.C.10.b.ii

Surface Water Management (SWM) identifies and tracks new stormwater facilities/BMPs regulated by the County through record transfers from PDS and efforts conducted under the mapping requirements. SWM inspects regulated facilities on a two-year cycle. In 2021, the County submitted a notification letter to Ecology as required by Special Condition S5.C.10.b.ii to support a reduction in inspection frequency from annually to every two years. SWM documents required and recommended maintenance items according to the established maintenance standards in the Snohomish County Drainage Manual. Most new facilities grant the County access for inspection and maintenance by means of a Stormwater Facility Easement or Drainage Facility Maintenance Covenant, an enforceable document recorded with the Snohomish County Auditor. For facilities without easements or covenants, County staff seek verbal or written permission to access the private property to perform inspections. All facilities for which legal access is obtained are inspected.

SWM provides mapping, inspection and validation services and implements progressive enforcement to ensure compliance with maintenance standards per Chapter 7.54 SCC - Drainage Facility Maintenance. SWM requests proof of maintenance actions when inspectors cannot determine whether required maintenance activities were performed, which normally is when maintenance activities occur in confined spaces (e.g., vaults and tanks).

Determination of compliance with inspection requirements under Special Condition S5.C.10.b.iii

As part of the annual reporting process, SWM reviews inspection records and determines whether the County achieved at least 80% of required inspections.

Cleaning catch basins regulated by the County under Special Condition S5.C.10.b.iv

If an inspection performed pursuant to Special Conditions S5.C.8, S5.C.9, or S5.C.10 identifies regulated catch basins for which cleaning is required, SWM staff follow an

established workflow. That workflow was reviewed in 2018 to ensure that the process is effective at requiring actions to be performed by parcel owners. The process includes conducting follow-up site inspections, maintenance validation inspections, and progressive enforcement. As appropriate, SWM provides technical assistance, drainage standards and guidance, and maintenance reminder cards to property owners.

Inspection and maintenance of stormwater facilities/BMPs owned or operated by the County under Special Condition S5.C.10.c

The four departments with custodial responsibility for stormwater facilities/BMPs (as distinct from conveyance system catch basins) are Public Works, DCNR, Facilities and the Airport.

Again in 2021, SWM inspects County stormwater treatment and flow control BMPs/facilities serving the County road right-of-way and other Public Works properties on a two-year cycle pursuant to Chapter 7.54 SCC and the Snohomish County Drainage Manual. In 2021, the County submitted a notification letter to Ecology as required by Special Condition S5.C.10.c.i to support a reduction in inspection frequency from annually to every two years. Maintenance on County stormwater treatment and flow control BMPs/facilities serving the County road right-of-way and other Public Works properties is performed by Road Maintenance. Airport and Parks annually inspect and, as needed, maintain their stormwater facilities/BMPs directly or obtain those services from private contractors.

After each significant storm, SWM uses rainfall data to determine whether the storm meets the definition of a “major storm” under the Phase I Permit, which is a 24-hour storm event with a 10-year or greater recurrence interval. Using rain gauges located throughout the County, SWM further determines in which parts of the County a major storm occurred. Using GIS and Cartegraph OMS, SWM determines which facilities to spot check. The basis for choosing which facilities to spot check include evaluating characteristics of each facility such as proximity to the storm area, prominence and significance, size, proximity to major arterials, homes and schools, and past drainage complaints and maintenance history. Parks and the Airport inspect facilities within their custodial control. Based on the results of these inspections, the County conducts repairs or takes appropriate maintenance action consistent with the standards established in Chapter 7.54 SCC.

As part of the annual reporting process, SWM reviews inspection records and determines whether the County achieved at least 95% of required inspections.

Inspection and maintenance of catch basins owned or operated by the County under Special Condition S5.C.10.d

The departments and divisions with responsibility to inspect and maintain County catch basins are SWM, Road Maintenance, Solid Waste, Parks, Airport, and Facilities. Each agency inspects and maintains catch basins for which it has custodial responsibility in accordance with standards meeting or exceeding those set forth in the 2016 Snohomish County Drainage Manual, Volume VI, or the agency obtains those services, typically from SWM, Road Maintenance, or contracted vendors.

In general, responsible County departments and divisions individually implement programs designed to the standard approach of inspecting catch basins annually and maintaining them according to the adopted standards. However, the County also implements alternatives to the standard approach for portions of the public drainage system consistent with Special Condition S5.C.10.d.i.(a). SWM applies an alternative approach to its custodial catch basins that are not associated with drainage facilities and are designed to provide conveyance function only. Those conveyance-only catch basins are inspected on a two-year cycle, with inspections occurring in odd years. Another alternative approach is applied by Road Maintenance to the majority of its custodial catch basins. The Road Maintenance program is designed to inspect all known catch basins in the County road right-of-way, on a two-year cycle, with half of the total number of known catch basins inspected each year. Catch basins under the custodial control of SWM and Road Maintenance that are designed to function as a part of a stormwater facility, whether in the right-of-way or not, are also inspected on a two-year cycle.

As part of the annual reporting process, each responsible department or division informs SWM of the total number of catch basin inspections it performed. From those reported numbers, SWM calculates the percentage of all required catch basin inspections for that reporting year and determines whether the County inspected at least 95%, pursuant to Special Condition S5.C.10.d.iii. The calculation factors in the total number of catch basins required to be inspected under both the standard approach and the alternative approaches for that reporting year.

Reduction of stormwater impacts on lands owned or maintained by the County under Special Condition S5.C.10.e

The Phase I Permit requires the County to develop and implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the County, and road maintenance activities under the functional control of the County. Lands owned or maintained by the County to which this requirement applies include, but are not limited to parking lots, streets, roads, highways, buildings, parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control BMPs/facilities.

The County's practices, policies, and procedures mentioned above must address the following activities: pipe cleaning; cleaning of culverts that convey stormwater in ditch systems; ditch maintenance; street cleaning; road repair and resurfacing, including pavement grinding; snow and ice control; utility installation; maintaining roadside areas, including vegetation management; dust control; pavement striping maintenance;

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application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts; sediment and erosion control; landscape maintenance and vegetation disposal; trash and pet waste management; and building exterior cleaning and maintenance. The County must document its practices, policies, and procedures no later than December 31, 2022.

The departments and divisions that each have custodial property responsibility related to the activities above are SWM, Engineering Services, Road Maintenance, Solid Waste, Parks, Airport, and Facilities. Each department or division is responsible for operation and maintenance actions on properties for which it has custodial responsibility. Each department or division is discussed separately below.

The County's program to reduce stormwater impacts on lands owned or maintained by the County under Special Condition S5.C.10.e includes actions taken on those lands to ensure implementation of pollution source control BMPs under Special Condition S5.C.8. These actions pertain to operations and activities conducted by County staff and also to people not employed by the County who perform the operations or activities on County property.

Surface Water Management

SWM implements best management practices that apply to all SWM custodial properties. These practices also address activities conducted by SWM staff on custodial properties of other departments or divisions.

These practices include:

- Policies, and procedures for activities listed in Special Condition S5.C.10.e performed by or for SWM;
- Applicable source control BMPs from the Snohomish County Drainage Manual Volume IV for any associated activity performed by SWM staff at properties listed in the SWM PMP; and
- Stormwater Pollution Prevention Plans (SWPPPs) developed for SWM activities, as required by Special Condition S5.C.10.g or by any other applicable NPDES stormwater permit.

Engineering Services

Engineering Services acquires property for capital road improvement projects. For each project, Engineering Services is the custodial agency from the purchase of the property through the completion of construction. During the construction phase, the construction site is managed in accordance with the requirements of Special Condition S5.C.5.b. Upon completion of a construction project, Engineering Services transfers custodial responsibility for the property to Road Maintenance.

Road Maintenance

Road Maintenance is responsible for maintaining parking lots, streets, and roads under its custodial maintenance responsibility or in response to interagency service requests. These facilities are maintained using the County Drainage Manual, the Regional Road

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Maintenance ESA program, and site-specific SWPPPs which help reduce stormwater impacts associated with Road Maintenance activities.

Road Maintenance is also responsible for its facilities at the Cathcart Way Operations Center (CWOC), including material storage yards, parking lots, and equipment storage areas. Work at these facilities is performed in accordance with the site-specific SWPP.

Solid Waste

Solid Waste is responsible for operating the following properties:

- The closed landfill, transfer station and vector decant facility at the Cathcart Way Operations Center (CWOC), Snohomish, Washington
- Airport Road Transfer Station (ARTS), Everett, Washington
- Southwest Transfer Station (SWRTS), Mountlake Terrace, Washington

CWOC was formerly operated under an NPDES Industrial Stormwater Permit. However, because the landfill and transfer station are no longer operational, CWOC is exempt from the Industrial Stormwater Permit pursuant to a Condition of No Exposure. Property management is performed in accordance with the requirements of site-specific SWPPPs. ARTS and SWRTS are operated under NPDES Industrial Stormwater Permits.

Parks

Parks implements procedures developed to reduce stormwater impacts associated with park related activities, pursuant to source control BMPs contained in the Snohomish County Drainage Manual for activities including ditch and culvert maintenance, installation of utilities and other ground disturbing maintenance, and swimming pool maintenance. In addition, Parks performs street sweeping on a recurring basis of paved parking lots within Parks custodial control to remove leaves, dust, and debris. Parks trash management policy includes "Pack it in and Pack it out" or large enclosed dumpsters for higher-use Parks. Vehicle washing occurs at Cathcart with vehicle maintenance performed at the Parks Maintenance Yard consistent with the Stormwater Pollution Prevention Plan prepared for that facility.

Parks maintains an Integrated Vegetation Management Plan that addresses application of fertilizers, pesticides and management of fields and other landscaped areas and lawns. Pesticide applicators are required to be licensed or under the supervision of a licensed applicator.

Airport

The Airport operates under an NPDES Industrial Stormwater General Permit and an associated Stormwater Pollution Prevention Plan. The Airport implements a number of practices to reduce stormwater impacts associated with runoff from paved areas. Examples include stormwater conveyance cleaning, cleaning of culverts, and ditch maintenance to remove obstructions to stormwater flow to avoid flooding and subsequent erosion and downstream deposition of adjacent material. The Airport conducts an intensive street, parking lot, and taxiway sweeping operation to remove

foreign object debris that could impact airplane safety. This sweeping operation also improves stormwater quality by removing potential pollutants to stormwater.

Facilities

Facilities has custodial responsibility for a variety of properties, with responsibilities that include catch basin inspection and maintenance, trash management, building washing and maintenance, landscape management, and pest management. These actions are performed pursuant to *Facilities Management Department NPDES Compliance Procedure*. In addition, Facilities repairs and maintains heavy equipment at shared locations in Arlington, the CWOC, and a third property in Everett. All work at these properties is performed in accordance with site-specific SWPPPs.

Program staff training under Special Condition S5.C.10.f

All County employees with primary operations or maintenance job functions that may impact stormwater quality are trained in the subject matter relevant to their job descriptions under Special Condition S5.C.10. Not all staff are trained in all subject matter. Depending on assigned tasks, a County employee might receive training that covers one or more of the following subjects:

- The importance of protecting water quality;
- Stormwater regulations content and updates;
- Construction site inspections;
- Erosion and sedimentation control;
- Operation and maintenance standards;
- SWPPP implementation;
- Drainage system inspection and maintenance procedures;
- Selecting BMPs that are appropriate to the activity performed;
- Pesticide and fertilizer application;
- Ways to perform specific job activities to prevent or minimize impacts to water quality;
- Procedures for reporting water quality concerns; and
- Progressive enforcement strategies.

Training received related to Special Condition S5.C.5 may also be relevant to compliance with Special Condition S5.C.10. Training is provided through formal and on-the-job training. Training strategies include, as appropriate to the tasks assigned, such as:

- Certified Erosion and Sediment Control Lead (CESCL) training;
- Certified Stormwater Inspector- National Stormwater Center;
- Washington Stormwater Center- LID trainings;

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- Initial training for new employees;
- Field training;
- Follow-up training as needed to address changes in procedures and techniques;
- Presentations and Q&A sessions at staff meetings;
- Special topic specific training meetings, courses, and workshops;
- Interdepartmental coordination meetings;
- Educational assistance bulletin, forms, and checklists; and
- Webinars and conferences.

Each department and division maintains records for its employees of formal training provided and the staff who have received training. Staff training records include dates, activities or course descriptions, names, and positions of staff in attendance.

Stormwater Pollution Prevention Plans (SWPPPs) for equipment maintenance or storage yards and material storage facilities under Special Condition S5.C.10.g

Pursuant to Special Condition S5.C.10.g, the County has SWPPPs for heavy equipment maintenance or storage yards, as well as material storage facilities owned or operated by the County in areas subject to the Phase I Permit that are not required to have coverage under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that authorizes stormwater discharges associated with the activity. SWPPPs prepared for County custodial properties include, but are not limited to:

- Parks Maintenance Base
- Cathcart Way Operations Center
- McDougall Fleet Services
- Darrington Forest Service property
- Kidling Road Maintenance property
- Machias Pit
- Trafton Road Maintenance property

The custodial agency for each custodial property ensures the property is operated and maintained consistent with the applicable SWPPP.

By December 31, 2022, SWPPPs will be reviewed and updated as needed to include the information listed in S5.C.10.g.i – S5.C.10.g.vi.

Records of inspections and maintenance or repair activities per Special Condition S5.C.10.h

Each department and division is responsible for maintaining records of inspection, maintenance, and repair activities conducted under Special Condition S5.C.10.h. Currently, each department records information using their operating systems and databases.

Public Works implemented Cartegraph OMS and records all operations and maintenance-related data in it, including inspections. Cartegraph allows Public Works to maintain detailed records for transportation and drainage networks tracking actions, activities, and costs associated with fixed capital assets. The system is designed for asset management and provides a centralized mechanism for staff to record data, send work requests, create assignments, and monitor and evaluate the condition of infrastructure assets. Field staff access Cartegraph using tablets and record information digitally from the field. SWM will continue to utilize Cartegraph and the same processes and procedures described above now that it is part of DCNR .

Each department and division is responsible for maintaining operation and maintenance records, including practices, policies and procedures, and training records. The County's Asset Management System is used to maintain records for the majority of stormwater facilities and catch basins owned or operated by the County.

3.10.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ The County will continue to implement the operations and maintenance program described in this SWMP Plan.
- ◆ The County reassessed its criteria for stormwater treatment and flow control BMPs/facilities consistent with updated Permit definitions. The County identified some facilities that do not have associated maintenance standards and the County has, consistent with S5.C.10.a, developed maintenance standards.
- ◆ SWM will continue to oversee the implementation of an alternative inspection frequency for stormwater treatment and flow control BMPs/facilities regulated by the County and owned or operated by the County and in the custodial control of Public Works. SWM will adjust program implementation design as needed.
- ◆ Update SWPPPs described in S5.C.10.g to reflect new Permit requirements in work plans, to be completed by December 31, 2022.
- ◆ Include review and, if necessary, update of documented practices, policies, and procedures in work plans, to be completed by December 31, 2022.
- ◆ Adopt required revisions to Snohomish County Drainage Manual to be equivalent to Ecology's 2019 *Stormwater Management Manual for Western Washington* (SWMMWW).

3.11 Education and Outreach Program

3.11.1 Permit requirements

S5.C.11 Education and Outreach Program

The SWMP shall include an education and outreach program designed to:

- *Build general awareness about methods to address and reduce stormwater runoff.*
- *Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.*
- *Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff.*

Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration on general awareness or behavior change programs, or both, includes Permittees developing a consistent message, determining best methods for communicating the message, and when appropriate, creating strategies to effect behavior change. If a Permittee chooses to adopt one or more elements of a regional program, the Permittee should participate in the regional group and shall implement the adopted element(s) of the regional program in the local jurisdiction

Minimum performance measures:

a. Each Permittee shall implement an education and outreach program for the area served by the MS4. The program design shall be based on local water quality information and target audience characteristics to identify high priority target audiences, subject areas, and/or BMPs. Based on the target audience's demographic, the Permittee shall consider delivering its selected messages in language(s) other than English, as appropriate for the target audience.

*i. **General awareness:** To build general awareness, Permittees shall target the following audiences and subject areas:*

(a) Target Audiences: General Public (including school age children and overburdened communities), and businesses (including home-based and mobile business)

Subject areas:

- *General impacts of stormwater on surface waters, including impacts from impervious surfaces and of the hazards associated with illicit discharges and improper disposal of waste.*

- *LID principles and LID BMPs.*

(b) Target audiences: Engineers, contractors, developers, and land use planners.

Subject areas: Technical standards for stormwater site and erosion control plans.

- *LID principles and LID BMPs.*
- *Stormwater treatment and flow control BMPs/facilities.*

(c) Permittees shall provide subject area information to the target audience on an ongoing or strategic schedule.

*ii. **Behavior change:** To effect behavior change, Permittees shall select, at a minimum, one target audience and one BMP:*

(a) Target audiences: Residents, landscapers, and property managers/owners, school-age children, and businesses (including home-based and mobile businesses).

BMPs

- *Use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps, and other hazardous materials.*
- *Prevention of illicit discharges.*
- *Yard care techniques protective of water quality.*
- *Use and storage of pesticides and fertilizers and other household chemicals.*
- *Carpet cleaning.*
- *Repair and maintenance BMPs for vehicles, equipment, and/or home buildings.*
- *Pet waste management and disposal.*
- *LID principles and LID BMPs.*
- *Stormwater facility maintenance, including LID facilities*
- *Dumpster and trash compactor maintenance.*
- *Litter and debris prevention.*
- *(Audience specific) Source Control BMPs.*
- *(Audience specific) Locally important, stormwater-related subject area.*

iii. No later than July 1, 2020, each Permittee shall conduct a new evaluation of the effectiveness of the ongoing behavior change program (required under S5.C.10.a.ii of the 2013 Permit). Permittees shall document lessons learned and recommendations for which option to select from S5.C.11.a.iv.

Permittees that select option S5.C.11.a.iv.c, below, may forgo this evaluation if it will not add value to the overall behavior change program.

iv. Based on the recommendation from S5.C.11.a.iii, by February 1, 2021, each Permittee shall follow social marketing practices and methods, similar to Community-Based Social Marketing, and develop a campaign that is tailored to

the community, including the development of a program evaluation plan. Each Permittee shall:

(a) Develop a strategy and schedule to more effectively implement the existing campaign, or

(b) Develop a strategy and schedule to expand the existing campaign to a new target audience or BMPs, or

(c) Develop a strategy and schedule for a new target audience and BMP behavior change campaign.

v. No later than April 1, 2021, begin to implement the strategy developed in S5.C.11.a.iv.

vi. No later than March 31, 2024, evaluate and report on:

(a) The changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy; and

(b) Any changes to the campaign in order to be more effective; describe the strategies and process to achieve the results.

vii. Permittees shall use results of the evaluation to continue to direct effective methods for implementation of the ongoing behavior change program.

b. Each Permittee shall provide and advertise stewardship opportunities and/or partner with existing organizations (including non-permittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.

3.11.2 Responsible County departments

The County agencies primarily responsible for public education and outreach activities under Special Condition S5.C.11 are Surface Water Management (SWM) and Planning and Development Services (PDS). In addition, SWM performs actions related to the TMDL public education and outreach requirements set forth in Appendix 2 of the Phase I Permit, as discussed in Chapter 5 of this SWMP Plan.

3.11.3 Program description

Snohomish County has an ongoing program that uses a variety of education and outreach campaigns to engage and educate citizens on the impacts of stormwater runoff and actions they can follow to address, reduce, or eliminate runoff and its impacts at their home, business, or within the community.

The County implements campaigns locally – by the County either directly or through contract with local organizations – and regionally. Regional collaborations include campaign partnerships with NPDES Permittees within Snohomish County as well as partnerships with Stormwater Outreach for Regional Municipalities (STORM) NPDES permittee jurisdictions. Whenever collaborating regionally, the County implements adopted elements of respective campaigns locally.

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The County's ongoing program is based upon local water quality information and local target audience characteristics. Individual campaigns are strategically developed and implemented using social marketing practices and methods. Social marketing practices and methods have helped the County identify the priority target audience(s) and best management practices (BMPs) for each campaign. Each campaign is designed to build awareness and/or effect behavior change.

Build General Awareness under S5.C.11.a.i.

S5.C.11.a.i.(a) – Target audiences: General Public (including school age children and overburdened communities)

When targeting the general public, messages and activities are used that engage school age children.

The County is using a new mapping tool utilizing Washington Environmental Health Disparities Data (discussed in Section 3.4.3) to help identify overburdened communities within unincorporated Snohomish County. During 2021, County staff will reach out to key leaders of identified communities in order to listen to and learn how to best build general awareness within their communities. Awareness will be built on general impacts of stormwater on surface waters, including impacts from impervious surfaces and of the hazards associated with illicit discharges and improper disposal of waste and on low impact development (LID) and LID best management practices (BMPs).

The County also continues to conduct demographic analysis in order to reach limited English proficiency communities when conducting its ongoing education and outreach programs. In doing so, the County follows internal guidelines to ensure that programs comply with the Title VI of the Civil Rights Act of 1964.

Latinx communities are 9% of the overall population in Snohomish County. In 2021 the County will develop outreach materials in the Spanish language for the Natural Yard Care and Scoop the Poop outreach campaigns.

Local campaigns targeting the general public on general impacts of stormwater on surface waters and on LID principles and LID BMPs is limited during 2021 to online offerings due to restrictions on in-person gatherings during the pandemic.

Local participation for 2021 includes a virtual Beach Walk first quarter.

Regional campaigns implemented locally to build general awareness of stormwater on surface waters and on LID principles and LID BMPs.



The County participates locally in the regional STORM's (Stormwater Outreach for Regional Municipalities) Puget Sound Starts Here (PSSH) campaigns. PSSH campaigns are designed to build awareness on general impacts of stormwater on surface waters, including impacts from impervious surfaces and of the hazards associated with illicit discharges and improper disposal of waste, and on LID principles and LID BMPs. Planned for 2021 is participation in the PSSH Month (September). While not yet finalized, the plan is to build upon the successful 2020 advertising campaign which translated existing videos into Spanish, Korean,

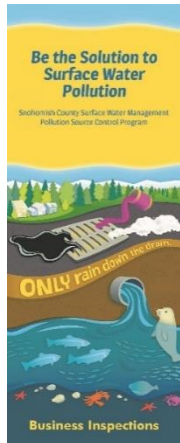
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Vietnamese and Mandarin Chinese languages and posting them on culturally relevant social media.



Regionally, the County participates locally in the Our Urban Watershed sign map displays (upper portion of the display shown to the right) by strategically sponsoring placement in County Parks within the Cedar-Sammamish watershed portion of unincorporated Snohomish County. New sites were added for 2020-2022 to bring the total number of County park sites to eight (8): Lake Stickney, Logan Park, Martha Lake Park, McCollum Park, Miner's Corner, North Creek Park, and Tambark Creek Park. . The Logan Park site features low impact development (LID) elements and best management practices (BMPs) to manage their stormwater onsite. The Our Urban Watershed sign map complements the site's LID interpretive signs and displays geared to the general public.

These durable sign maps build general awareness through its Pollution Prevention message shown in the upper right portion of the sign. This message includes actions the public can take including fixing vehicle leaks, using a commercial car wash, proper disposal of pet waste, proper disposal of trash, and minimizing the use of pesticides and commercial fertilizers.



S5.C.11.a.i.(a) – Target audiences: *Businesses*

The Source Control Program is designed to provide general awareness to the target audience, businesses, which include home-based and mobile businesses within the County's Source Control Inventory required by Special Condition S5.C.8. During source control inspections, educational materials such as brochures and spill plan templates are provided. All businesses in the source control inventory will receive some level of communication, whether it was an on-site inspection or information letter, during the permit term.

S5.C.11.a.i.(b) – Target audiences: *Engineers, contractors, developers, and land use planners*

PDS increases awareness of stormwater issues among members of the general public, engineers, contractors, developers and land use planners by doing the following:

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- Working to update and improve stormwater webpages, checklists and assistance bulletins.
- Holding informal meetings with permit applicants and homeowners on general awareness of stormwater regulations and compliance, as well as methods to address and reduce stormwater runoff for their proposed projects including LID principles and LID BMPS.
- Holding informal meetings with engineers, contractors, developers, and land use planners on technical standards for stormwater and erosion control plans, LID principles and LID BMPS, and stormwater treatment and flow control BMPs/facilities.

S5.C.11.a.i.(c) – Ongoing or strategic schedule

The County strategically continues its ongoing schedule in 2021 to build awareness with the general public, businesses and residents through online and activity-based educational opportunities. Until in-person gatherings are deemed safe to resume, education and outreach activities for the general public and residents will take place virtually during the pandemic. Ongoing and strategic scheduling is addressed within specific campaigns listed in S5.C.11.a.i.(a) above.

Education for target audiences about stormwater and specific actions to minimize stormwater problems under Special Condition S5.C.11.a.i.

Table 3 presents the actions and programs described above that the County provides to target audiences, listed in Special Condition S5.C.11.a.i., that are designed to build general awareness about the required subject areas listed for each respective audience.

**Table 3 – Build General Awareness Actions / Campaign Programs
Related to Special Condition S5.C.11.a.i**

General public (including school age children and overburdened communities) and businesses (including home-based and mobile businesses)	
Subject area	Build Awareness Campaign Programs / Activity
General impacts of stormwater on surface waters, including impacts from impervious surfaces and of the hazards associated with illicit discharges and improper disposal of waste	<p>LakeWise</p> <p>Natural Yard Care (NYC) programs:</p> <ul style="list-style-type: none"> • Natural Lawn Care online workshops • WSU Master Gardener online trainings <p>Our Urban Watershed sign maps *</p> <p>Puget Sound Starts Here (PSSH) Month (September) *</p> <p>Scoop the Poop outreach through local veterinary clinics</p> <p>Septic System Care online workshops</p> <p>"Virtual" Beach Walk online event *</p> <p>SWM's Drainage Facility Inspection Program (S5.C.10.)</p> <p>SWM's Pollution Source Control Program (S5.C.8.)</p> <p>SWM's Water Quality & Pollution Prevention webpages, https://snohomishcountywa.gov/2146/Water-Quality</p> <p>Use and Storage of Household Chemicals materials and webpage, https://snohomishcountywa.gov/2478/Use-and-Storage-of-Household-Products</p> <p>WSU Beach Watcher online training</p> <p><i>*Regional campaign implemented locally</i></p>
LID principles and LID BMPs	<p>LakeWise, www.LakeWise.org</p> <p>Natural Yard Care, www.naturalyard.surfacewater.info</p> <p>RainScaping, www.RainScaping.info</p> <p>"Virtual" Beach Walk online event *</p> <p>SWM's Drainage Facility Commercial Inspection Program (S5.C.10.)</p> <p>SWM's Pollution Source Control Program (S5.C.8.)</p> <p><i>*Regional campaign implemented locally</i></p>
Engineers, contractors, developers, and land use planners	
Subject area	Education action or program
Technical standards for stormwater site and erosion control plans	PDS trainings and presentations
LID principles and LID BMPs	PDS trainings and presentations
Stormwater treatment and flow control BMPs/facilities	PDS trainings and presentations

Effect Behavior Change under S5.C.11.a.ii through S.5.C.11.a.vii.

For 2021 the following behavior change campaigns will continue to be offered in the County's residential education and outreach program:

- **LakeWise** (a campaign incorporates several subject areas: yard care techniques protective of water quality, proper management of pet waste, proper operation and maintenance of onsite septic systems, and LID principles and LID BMPs.)
- **Natural Yard Care** (focused on yard care techniques protective of water quality which was evaluated under S5.C.10.a.ii. of the 2013 Permit)
- **RainScaping** (new campaign on LID principles and LID BMPs)
- **Scoop the Poop** (campaign on proper management of pet waste)
- **Septic System Care** (campaign on repair and maintenance BMPs for residential onsite septic systems within the County's TMDL basins)

LakeWise (www.LakeWise.org) is the County's campaign which addresses the locally important, stormwater-related subject area of phosphorus reduction within lake watersheds. Targeting residents within high-priority lake watersheds (upland and shoreline alike), the campaign encourages residents to voluntarily achieve LakeWise certification for their property by completing the LakeWise checklist of specific actions to reduce phosphorus runoff pollution from their property. LakeWise Certification is achieved by attending live, online (in 2021) workshops (Septic System Care and Natural Lawn Care), requesting and participating in a site visit by County staff to their property, and committing to take actions in the areas of lawns and yards (Natural Yard Care, Pet Waste, and RainScaping best practices) and septic systems. Lakeshore landowners can achieve an additional certification by replacing lakeshore lawn with non-lawn vegetation – a stewardship opportunity to restore and enhance riparian buffers.



Natural Yard Care (NYC) (www.naturalyard.surfacewater.info) – The County's NYC campaign targets residents of single family properties less than an acre in size. Yard care techniques protective of water quality are the focus of this behavior change campaign and covers use and storage of pesticides and fertilizers. Local water quality issues related to conventional yard care practices include excessive nutrients (phosphorus in lakes, nitrogen in marine waters) and pesticides.

The NYC campaign's programs include live, online (in 2021) educational workshops, how-to topical publications, a website, and WSU Master Gardener volunteers who conduct live, online plant diagnostic clinics. All aspects of the campaign intend to effect behavior change toward yard care techniques protective of water quality. The campaign includes introductory and in-depth live training conducted virtually for WSU's Snohomish County Master Gardener volunteers.

During 2021 the NYC campaign will continue implementation of the 2018-2019 Enhanced NYC program. Planned activities include live, online workshops on the topic of Natural Lawn Care and a popular series of six topical Natural Yard Care workshops that for 2021 will target "new" residents -- those who have purchased a property within

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the past three years. For properties within lake watersheds, attendance at a Natural Lawn Care workshop is necessary for landowners to achieve LakeWise Certification.

New for 2021 will be completion and posting of Spanish language versions of two Natural Yard Care publications. Originally written for and distributed in the City of Seattle, the County has permission from Seattle to adapt these publications for Snohomish County's use. The Spanish language publications will be posted on the NYC webpage, www.naturalyard.surfacewater.info, and hard copies printed and made available for distribution at future in-person workshops and events including those conducted on behalf of the County by WSU Master Gardeners.

WSU Master Gardeners are a trusted gardener resource for residents and are excited to encourage residents to practice natural yard care. The County's collaborative partnership with WSU Master Gardeners continues in 2021 by providing in-depth training to the Master Gardener volunteers who afterward are qualified to participate in local virtual and in-person events on behalf of the County. Master Gardener volunteers help build general awareness and effect behavior change in the general public by helping them learn and apply yard care practices protective of water quality when responding to questions from residents. In addition to addressing questions from residents at County-held workshops, in 2021 WSU Master Gardeners will extend the reach by conducting five (5) online education events of their own (classes, presentations or Q&A clinics) in which they incorporate natural yard care practices.

RainScaping (www.RainScaping.info) is the behavior change program, required by Special Condition S5.C.11.a.iv., which the County selected to develop under option S5.C.11.a.iv.c. The campaign strategy was developed following social marketing practices and methods in 2020. Implementation of the strategy began in January 2021.

Stormwater impacts from impervious surfaces are a known issue in Snohomish County (Little Bear Creek Basin Plan 2017). And despite current economic uncertainty created by the pandemic, residents continue to express increasing interest in learning how they can use practices that manage stormwater onsite. Their requests increasingly seek information and technical assistance that offers the know-how and confidence for them to apply it.

The RainScaping campaign purposes to reduce the amount of stormwater runoff flowing from residential properties built prior to stormwater controls in order to reduce water pollution in Snohomish County waterways. The campaign focus is to encourage homeowners to use landscape features – rainscapes - that allow stormwater to soak into the soil rather than running off. The behavior objective is to divert roof and/or driveway runoff into landscaped areas. And do-it-yourself residents of single family properties are the priority audience that the campaign will be developed to target.

Building upon lessons learned in notable findings of the County's limited prior similar efforts (2004-2009 Integrated Stormwater Management grant and two public events in 2018), the County developed its RainScaping behavior change campaign following social marketing practices and methods as required in S5.C.11.a.iv.(c). The January 29, 2021 RainScaping Campaign strategy and schedule, which includes a program evaluation plan. By February 1, 2021, the County began to implement the strategy ahead of the April 1, 2021 requirement set forth in S5.C.11.a.v.

Elements of the RainScaping program will be incorporated into the County's LakeWise, Streamside Landowner and Drainage Investigation outreach programs.

Scoop the Poop (www.petwaste.surfacewater.info) is the County's campaign focused on preventing pollution through proper pet waste management. The campaign's primary audience are dog-owners residing in the County's TMDL basins. The campaign is strategically implemented in partnership with veterinary clinics.

During 2021 the County's Scoop the Poop program materials will be translated in Spanish and made available to Latinx residents: new puppy kits, vet clinic posters and County webpage.

The County participates regionally in STORM's Scoop the Poop program by distributing the Scoop the Poop garbage can sticker locally.

Veterinary clinics are a trusted resource for pet owners. During 2021, the County will continue to partner with local veterinary clinics within its TMDL basins and with WSU Beach Watcher volunteers. Participating clinics share the Scoop the Poop message by providing their dog owning clients County-supplied kits. Typically, kits are given to owners of new puppies and whenever a dog's illness requires testing related to potential fecal coliform illnesses.

Kits are assembled by WSU Beach Watcher volunteers and delivered by WSU staff to each participating clinic every-other-month during 2021. Each kit contains a roll of pet waste disposal bags, a Scoop the Poop garbage can sticker, and a "Poop Problem/Poop Solution" information card customized with the individual clinic's contact information. Pictured here is the "Be a Part of the Solution" poster created by the County and distributed for clinics to post in exam and waiting rooms.



During the pandemic, the County has paused use of its popular Poop Toss Game. When in-person events can safely resume and local events are scheduled, the game will be made available to play at local and regional events by municipal NPDES Permittees and non-profit organizations.

Septic System Care (www.septicsystems.surfacewater.info) campaign focuses on care and maintenance workshops targeting owners of residential onsite septic systems (OSS) located in the County's TMDL basins. Residents learn about their specific OSS, choosing wisely what goes into it, maintaining the tank and protecting the drainfield. Emphasis is placed on getting systems inspected on a regular and routine basis. Workshops are coordinated on behalf of County programs that seek to prevent pollution in surface waters, such as LakeWise, Streamside Landowner, Savvy Septic,



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Pollution Identification and Correction (PIC), and TMDL public education and outreach. For properties within lake watersheds, attendance is necessary for landowners to achieve LakeWise Certification.

For 2021, four live online septic care workshops are planned: two in late winter and two in mid-summer. An invitation to join a workshop is issued twice to each residential OSS owner in a TMDL subbasin during the NPDES Permit cycle, and once to every residential OSS owner whose property is outside a TMDL subbasin within Surface Water Management's Utility District. Workshop notices are sent via postcard to owners, listed on Surface Water Management's (SWM) Events webpage, posted in NextDoor posts, and included in the quarterly SWM News email.

Table 4 presents the actions and programs listed above that the County provides to the target audiences selected by the County in Special Condition S5.C.11.a.ii (to effect the County's respective selected behavior change BMPs).

Table 4 – Effect Behavior Change Actions / Programs Related to Special Condition S5.C.11.a.ii

Target Audience	BMP(s)	Behavior Change Campaign Program / Activities
Residents in lake watersheds (upland and shoreline)	Yard care techniques protective of water quality LID principles and LID BMPs Pet waste management and disposal Septic system care and maintenance	LakeWise Natural Yard Care RainScaping Scoop the Poop Septic System Care
Residents of Single Family Residential properties less than 1-acre	Yard care techniques protective of water quality Use and storage of pesticides and fertilizers	Natural Yard Care programs <ul style="list-style-type: none"> • NYC workshop series • Natural Lawn Care workshops • Spanish language version of publications • WSU Master Gardener trainings • Use & Storage information flyers and webpage
Residents of Single Family Residential properties built prior to when stormwater controls were required	LID principles & LID BMPs	RainScaping
Dog owners in TMDL basins, including school age children	Pet waste management and disposal	Scoop the Poop's outreach program through veterinary clinics <ul style="list-style-type: none"> • Spanish language materials • WSU Beach Watcher training
Owners of residential onsite septic systems within TMDL basins	Prevent of illicit discharges Repair and maintenance BMPs for equipment and/or home buildings	Septic System Care <ul style="list-style-type: none"> • LakeWise • Streamside Landowner • Savvy Septic • PIC-3 • TMDL basins

Provide and Promote Stewardship Opportunities under S5.C.11.b.

Snohomish County strategically provides and promotes its stewardship opportunities through two of WSU Extension's volunteer programs, WSU Beach Watchers and WSU Master Gardeners. The County sponsors in-depth specialized topical training of the volunteers in each of these programs. The respective trained program volunteers then conduct and/or participate in online educational activities that are aligned with the County's ongoing education and outreach program.

In 2021, WSU Beach Watcher volunteers will again receive live online training on the general impacts of stormwater on freshwater and marine surface waters, including impacts from impervious surfaces and of the hazards associated with improper disposal

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of waste, and LID principles and LID BMPs. Stewardship opportunities planned within the community involving Beach Watcher volunteers include:

- Live, Virtual Beach Walk (<https://www.eventbrite.com/e/starlight-beach-walk-webinar-tickets-140191062241?aff=ebdsoporgprofile#>) an educational activity conducted by Beach Watchers, will invite the general public to “come virtually” to the beach on a winter evening at low tide. Volunteers engage and interact virtually with the general public. The event is coordinated as a regional event between a local city, WSU and the County.
- Scoop the Poop program partnership with veterinary clinics (discussed under S5.C.11.a.ii). The County initiates and coordinates the program with partnering veterinary clinics. WSU Beach Watchers assemble kits, customized to each clinic, for their dog owning clients. During the pandemic, supplies of the customized kits are delivered to each clinic by WSU staff.

In 2021, the County’s collaborative partnership with WSU Master Gardeners continues into its eleventh year. Master Gardeners are a trusted resource for County residents. Plans include the County providing and promoting stewardship opportunities to and through these volunteers. For 2021 these opportunities include:

- New in 2021 is a stormwater-focused introductory training for veteran Master Gardeners. The training is under development and will cover yard care practices protective of water quality (natural yard care) and low impact development at a residential scale. A stormwater mapping exercise is planned for Master Gardeners to map the path that runoff takes from their home to Puget Sound.
- Introductory training will be planned in 2021 to be conducted in early 2022 to new Master Gardener Trainees on yard care practices protective of water quality. This training is conducted by County staff and is done in collaboration with WSU staff who provide introductory training on LID principles and LID BMPs. The Master Gardener Trainees apply what they have learned to a yard design charette.
- In-depth training to existing Master Gardener volunteers. This year the training focuses on Soils and will bridge the BMPs of yard care practices protective of water quality and low impact development. The live training takes place online during the fall and is collaboratively planned by the County and WSU, sponsored by the County and co-promoted by the County and WSU directly to Master Gardener volunteers.
- WSU’s Natural Yard Care Mentors will conduct NYC educational activities on behalf of the County at the following 2021 online workshops and events.
 - Online diagnostic clinics in conjunction with the County’s Natural Lawn Care workshops (spring) and Natural Yard Care workshop series (fall)

Table 5 – Actions / Programs Related to Special Condition S5.C.11.b.

Subject area and/or BMP	Stewardship Opportunity Programs / Activity
General impacts of stormwater on surface waters, including impacts from impervious surfaces and of the hazards associated with illicit discharges and improper disposal of waste	Virtual Beach Walk event WSU Beach Watcher training WSU Master Gardener training
LID principles and LID BMPs Yard care techniques protective of water quality Use and storage of pesticides and fertilizers	WSU Master Gardener training WSU Master Gardener volunteers provide diagnostic clinics in conjunction with County online Natural Yard Care programs <ul style="list-style-type: none"> • NYC workshop series • Natural Lawn Care workshops

3.11.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ The County will continue to offer ongoing programs outlined in Tables 3, 4 and 5 and described above.
- ◆ The County will direct education and outreach resources most effectively in the continued development and implementation of the following targeted subject areas and targeted audiences:
 - Build general awareness of the general public (including school age children and overburdened communities) and businesses about methods to address and reduce stormwater runoff.
 - Effect behavior change to reduce or eliminate residential behaviors and practices that cause or contribute to adverse stormwater impacts. The BMPs the County has selected to target include: yard care techniques protective of water quality, use and storage of pesticides and fertilizers, proper pet waste management and disposal, septic system care and maintenance, and LID principles and practices. The County selected to develop a RainScaping campaign strategy and schedule that includes development of a program evaluation plan. Development of the campaign strategy was finalized in January 2021 following social marketing practices and methods. Implementation of the strategy began in January 2021.
 - Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff. This will be accomplished by the County under contract with WSU Extension's volunteer programs. Stewardship opportunities will align with the County's selected targeted BMPs mentioned above. All stewardship opportunities will be conducted online.
- ◆ The County will continue to meet quarterly with the Snohomish County PUD to share information about utility projects in the right-of-way; in particular, permit requirements and information about the location of LID features in the right-of-way so that these features are either undisturbed or are replaced in kind.

Chapter 4 – Monitoring and Assessment

4.1 Permit requirement as applicable to Snohomish County

S8. Monitoring and Assessment

A. Regional Status and Trends Monitoring

1. King and Snohomish Counties, the Cities of Seattle and Tacoma, and the Ports of Seattle and Tacoma chose S8.B Status and Trends Monitoring, Option #1 in the Phase I Municipal Stormwater Permit, August 1, 2013 – July 31, 2018 (extended to July 31, 2019). These Permittees shall make a one-time payment into the collective fund to implement regional small streams and marine nearshore areas status and trends monitoring in Puget Sound. This payment is due on or before December 1, 2019. Submit payment according to Section S8.D.
2. King, Pierce, and Snohomish Counties, the Cities of Seattle and Tacoma, and the Ports of Seattle and Tacoma shall notify Ecology in writing which of the following two options for regional status and trends monitoring (S8.A.2.a or S8.A.2.b) the Permittee chooses to carry out during this Permit term. The written notification with G19 signature is due to Ecology no later than December 1, 2019.
 - a. Make annual payments into a collective fund to implement regional receiving water status and trends monitoring of small streams and marine nearshore areas in Puget Sound. The annual payments into the collective fund are due on or before August 15 each year beginning in 2020. Submit payments according to Section S8.D.

Or

- b. Conduct stormwater discharge monitoring per the requirements in S8.C.

Either option will fully satisfy the Permittee's obligations under this Section (S8.A.2). Each Permittee shall select a single option for this permit term.

B. Stormwater Management Program Effectiveness and Source Identification Studies

1. Clark, King, Pierce, and Snohomish Counties, the City of Seattle, and the Ports of Seattle and Tacoma chose S8.C Effectiveness Studies, Option #1 or Option #3 in the Phase I Municipal Stormwater Permit August 1, 2013 – July 31, 2018 (extended to July 31, 2019). These Permittees shall pay into the collective fund to implement effectiveness studies and source identification studies. The payment is due before on or before December 1, 2019. Submit payment according to Section S8.D.
2. Clark, King, Pierce, and Snohomish Counties, the Cities of Seattle and Tacoma, and the Ports of Seattle and Tacoma shall notify Ecology in writing which of the following three options (S8.B.2.a or S8.B.2.b or S8.B.2.c) for

effectiveness and source identification studies the Permittee chooses to carry out during this permit term.

- a. Make annual payments into a collective fund to implement effectiveness and source identification studies. The annual payments into the collective fund are due on or before August 15 each year beginning in 2020. Submit payments according to Section S8.D.*

Or

- b. Conduct stormwater discharge monitoring per the requirements in S8.C.*

Or

- c. **Both:** make annual payments into a collective fund to implement regional effectiveness and source identification studies **and** independently conduct a Stormwater Management Program (SWMP) effectiveness study approved by Ecology.*

- i. Permittees selecting this option shall make payments equal to one-half of the amounts listed in Appendix 11 for S8.B. The annual payments are due on or before August 15 each year beginning in 2020. Submit payments according to Section S8.D.*

- ii. The SWMP effectiveness study shall be conducted in accordance with the requirements below:*

- (a) Write a detailed proposal describing: the purpose, objectives, design, and methods of the independent effectiveness study; anticipated outcomes including the question that will be answered; expected modifications to the Permittee's SWMP; relevance to other Permittees; and plans for sharing the findings with other Permittees. The proposal shall be prepared in accordance with the SWMP Effectiveness Study Proposal and QAPP Template (July 1, 2019, version 1.0) and submitted no later than February 2, 2020, to Ecology for review and approval.*

- (b) Within 120 days of Ecology's approval of the detailed proposal, submit a draft QAPP to Ecology. The QAPP shall be prepared in accordance with the SWMP Effectiveness Study Proposal and QAPP template (July 1, 2019, version 1.0). Within 60 days of receiving Ecology's comments, submit a final QAPP to Ecology for review and approval.*

- (c) Implement the study in accordance with the schedule in the approved final QAPP. Data and analyses shall be reported annually in accordance with the Ecology-approved QAPP.*

Any of these three options (S8.B.2.a or S8.B.2.b or S8.B.2.c) will fully satisfy the Permittee's obligations under this Section (S8.B.2). Each Permittee shall select a single option for this permit term.

- 3. All Permittees shall provide information as requested for effectiveness and source identification studies that are under contract with Ecology as active Stormwater Action Monitoring (SAM) projects. These requests will be limited to records of SWMP activities and associated data tracked and/or maintained in accordance with S5 – Stormwater Management Program and/or S9 –**

Reporting Requirements. A maximum of three requests during the permit term from the SAM Coordinator will be transmitted to the Permittee's permit coordinator via Ecology's regional permit manager. The Permittee shall have 90 days to provide the requested information.

D. Payments into the Collective Funds

- 1. This Section applies to all Permittees who choose to make annual payments into the collective funds for S8.A Regional Status and Trends Monitoring and/or S8.B Effectiveness and Source Identification Studies.*
- 2. Each Permittee's S8.A and S8.B payment amounts are listed in Appendix 11.*
 - a. For the S8.B.1 payment due on December 1, 2019, Clark County and the City of Seattle shall pay half the amount indicated for S8.B in Appendix 11.*
 - b. For annual payments for S8.B.2 due on August 15, 2020 and thereafter, Permittees that choose option S8.B.2.c shall pay half the amount indicated for S8.B in Appendix 11.*
- 3. Mail payments according to the instructions in the invoice sent to the Permittee approximately three months in advance of each payment due date, or via United States Postal Service to:*

Department of Ecology Cashiering Unit

P.O. Box 47611

Olympia, WA 98405-7611

4.2 Responsible County departments

Surface Water Management (SWM) is responsible for performing all monitoring or making payments required by Special Condition S8.

4.3 Program description

The County complies with Special Condition S8.A, Regional Status and Trends Monitoring, through the pay-in option. The County made the one-time payment required under S8.A.1 by December 1, 2019. The County provided written notification with G19 signature to Ecology by December 1, 2019, stating the County's selection of option S8.A.2.a.

The County complies with Special Condition S8.B, Stormwater Management Program Effectiveness and Source Identification Studies, through the pay-in option. The County made the one-time payment required under S8.B.1 by December 1, 2019. The County provided written notification to Ecology stating the County's selection of option S8.B.2.a.

The County complies with Special Condition S8.D by providing payments in the amounts and manner required under S8.D.

4.4 Current and planned activities

The County will make payments required in S8.A.2.a and S8.B.2.a by August 15, 2021, in the amounts specified in S8.D and Appendix 11. Additional monitoring is performed as required by Phase I Permit Appendix 2 pursuant to TMDLs. Reports of this monitoring are provided in annual reports.

Chapter 5 – Total Maximum Daily Load (TMDL) Requirements

5.1 Compliance with Total Maximum Daily Load Requirements

5.1.1 Permit requirements (general)

S.7 Compliance with Total Maximum Daily Load Requirements

The following requirements apply if an applicable Total Maximum Daily Load (TMDL) is approved for stormwater discharges from MS4s owned or operated by the Permittee. Applicable TMDLs are TMDLs which have been approved by EPA on or before the issuance date of this Permit, or prior to the date that Ecology issues coverage under this permit, whichever is later.

A. For applicable TMDLs listed in Appendix 2, affected Permittees shall comply with the specific requirements identified in Appendix 2. Each Permittee shall keep records of all actions required by this Permit that are relevant to applicable TMDLs within their jurisdiction. The status of the TMDL implementation shall be included as part of the annual report submitted to Ecology. Each annual report shall include a summary of relevant SWMP and Appendix 2 activities conducted in the TMDL area to address the applicable TMDL parameter(s).

B. For applicable TMDLs not listed in Appendix 2, compliance with this permit shall constitute compliance with those TMDLs.

C. For TMDLs that are approved by EPA after this permit is issued, Ecology may establish TMDL-related permit requirements through future permit modification if Ecology determines implementation of actions, monitoring or reporting necessary to demonstrate reasonable further progress toward achieving TMDL waste load allocations, and other targets, are not occurring and shall be implemented during the term of this permit or when this permit is reissued. Permittees are encouraged to participate in development of TMDLs within their jurisdiction and to begin implementation.

For Snohomish County, Appendix 2 of the Phase I Permit contains requirements pertinent to fecal coliform bacteria in the following areas of North Creek, Swamp Creek, Little Bear Creek, Snohomish River Tributaries, and the Stillaguamish River basin, and dissolved oxygen in the following area of the Stillaguamish River basin.

- Stillaguamish River: Requirements apply in all areas regulated under the County's Phase I Permit and draining to fresh or marine waters within Water Resource Inventory Area (WRIA) 5.
- Snohomish River Tributaries: Requirements apply in all areas regulated under the County's Phase I Permit and draining to the Washington Surface Water Information System (WASWIS) segment number, and all upstream tributaries within the jurisdiction of the County and within the geographic area

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covered by the Phase I Permit contributing to waterbodies: Allen Creek, YT94RF: Quilceda Creek, TH58TS: French Creek, XZ24XU: Woods Creek, FZ74HO: Pilchuck River, NF79WA: Marshland Watershed, XW79FQ.

- North Creek: Requirements apply in all areas regulated under the County's Phase I Permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the North Creek segment of WASWIS SM74QQ.
- Swamp Creek: Requirements apply in all areas regulated under the County's Phase I Permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the Swamp Creek segment of WASWIS GJ57UL.
- Little Bear Creek: Requirements apply to areas served by MS4s within the TMDL coverage area.

5.1.2 Responsible County departments (general)

Surface Water Management (SWM) is primarily responsible for compliance with the TMDL requirements set forth in Special Condition S7 and Appendix 2. Parks is responsible for compliance with the Operations & Maintenance activities of Appendix 2 as they apply to park custodial property, and Planning and Development Services (PDS) acts in a support capacity to process code enforcement issues as identified.

5.1.3 Program description (general)

The County integrates its TMDL actions, to the extent possible, into its existing program structures. The TMDL requirements are, for the most part, area-specific and pollutant-specific actions related to the programs or types of actions performed under Special Condition S5.C.8 (Source Control Program for Existing Development), Special Condition S5.C.9 (Illicit Connections and Illicit Discharges Detection and Elimination), Special Condition S5.C.10 (Operation and Maintenance Program), Special Condition S5.C.11 (Education and Outreach Program), and Special Condition S8 (Monitoring and Assessment). For example, commercial composting facilities, which are specifically targeted in the Appendix 2 TMDL business inspection requirement, are within the business inventory required under Special Condition S5.C.8; the Appendix 2 TMDL business inspection requirement includes actions and deadlines specific to that type of business in the applicable TMDL area. The requirement for Targeted Source Identification and Elimination (TSIE) is a synthesis of elements from the Special Condition S5.C.9 (IDDE) and Special Condition S8 (Monitoring) programs.

With the exception of TSIE, records for actions performed pursuant to TMDL requirements are kept as part of the records for the associated programs. For example, records for business inspections performed pursuant to the Appendix 2 TMDL requirement are kept with the records for the Special Condition S5.C.8 business inspection program. Records for TSIE will be stored in Cartegraph or independently maintained by SWM.

This chapter is organized according to the type of programmatic requirement (e.g., business inspections), since in many cases the same programmatic requirement applies to all TMDL areas. Table 5 cross-references the types of programmatic requirements with the TMDL areas for which Snohomish County is responsible in this permit.

5.1.4 Current and planned activities (general)

The County will continue to keep records of all actions required by the Phase I Permit relevant to applicable TMDLs within Snohomish County and to include the status of TMDL implementation, including a summary of relevant SWMP and Appendix 2 activities conducted in the TMDL area to address the applicable TMDL parameter(s), as part of each annual report submitted to Ecology.

A detailed discussion of each Appendix 2 TMDL requirement applicable to Snohomish County is provided in the remainder of this chapter.

Table 5 – Cross-reference for TMDL areas and programmatic requirements

TMDL requirement	Stillaguamish River	Snohomish River Tributaries	North Creek	Swamp Creek	Little Bear Creek
Business inspections	X	X	X	X	X
Public education and outreach	X			X	X
Operations and maintenance	X			X	X
IDDE field screening	X		X	X	
Surface water monitoring	X	X	X	X	
Targeted source identification and elimination		X	X	X	

5.2 Business Inspections

5.2.1 Permit requirements

Appendix 2 contains the following business inspection requirements for Snohomish County in the Stillaguamish River TMDL, Snohomish River Tributaries TMDL, North Creek TMDL, Swamp Creek TMDL, and Little Bear Creek TMDL areas.

[Each Permittee shall] inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. Commercial animal handling areas are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered composting facilities (definition in accordance with Chapter 173-350 WAC). Permittees shall continue to implement an ongoing inspection program to re-inspect facilities with bacteria source control problems [a minimum of] every three years.

5.2.2 Responsible County departments

Surface Water Management (SWM) is primarily responsible for implementing these Appendix 2 business inspection requirements. PDS acts in a support capacity to process any code enforcement issues identified by SWM during inspections.

5.2.3 Program description

The current program was set up under the 2013 NPDES Phase I Permit, Appendix 2 requirements. SWM generated a list of possible commercial animal handling areas and commercial composting facilities within the Stillaguamish, Snohomish River Tributaries, North Creek, Swamp Creek, and Little Bear Creek TMDL areas based on Standard Industrial Code (SIC) designations, Washington State Department of Revenue data, or other information. All qualifying facilities within the TMDL areas were identified by SWM in 2016 and included in the inventory required by Special Condition S5.C.7.b.ii of the 2013 Permit.

The inventory of commercial animal handling areas and commercial composting facilities will be updated in 2021 per the requirements of Special Condition S5.C.8.b.ii of the 2019 Phase I Permit.

The intent of the TMDL business inspection effort is to leverage outreach and coordination with partner agencies to ensure successful implementation. The Snohomish Conservation District (SCD), which specializes in outreach to the agricultural sector, educates on BMP implementation, and assists in farm planning, is a key partner with SWM. SWM has coordinated with SCD on animal handling BMPs, implementation strategies, and possible code enforcement scenarios, and SCD field technical staff have periodically acted as a resource and liaison between SWM inspectors and business owners. SWM and SCD established a referral process to encourage animal handling businesses to use all available SCD services. SWM also

coordinates closely with the Snohomish County Agricultural Advisory Board to inform and educate the Board and the agricultural community on the business inspection effort.

SWM mails to potential qualifying facilities a pre-inspection notice, which sets forth information about the business inspection program and BMPs, and enables a business owner to preschedule his or her inspection. In addition, SWM leaves door hangers and program materials at sites where no person is available to meet with the inspector, requesting access and inspection scheduling and providing additional information about BMPs.

SWM conducts the site inspections and any follow-up, including progressive enforcement, utilizing the same protocols established and described in Section 3.8 of this SWMP Plan for the S5.C.8 Source Control Program. All inspection information and compliance statuses are documented in Cartegraph OMS. SWM queries that database each year to determine if any particular qualifying facility should be included in the inspection rotation for that year. Facilities with documented bacteria source control problems are re-inspected at least once every three years.

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5.2.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Review of commercial animal handling inventory for additional business types for inclusion and adjustments, if needed, to the inspection process. Update of inventory to be completed in 2021.
- ◆ Continue inspecting qualifying businesses in TMDL areas as required.
- ◆ Inform the Snohomish County Agriculture Advisory Board and collaborate with the Agricultural Coordinator on communications with qualifying commercial animal handling and composting facilities.

5.3 Public Education and Outreach

5.3.1 Permit requirements

Appendix 2 contains the following public education and outreach requirements for Snohomish County in the Stillaguamish River TMDL, Swamp Creek TMDL, and Little Bear Creek TMDL areas.

[Each Permittee shall] conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.

5.3.2 Responsible County departments

Surface Water Management (SWM) is responsible for performing actions to meet this requirement.

5.3.3 Program description

The following programs or actions performed by the County under Special Conditions S5.C.8 and S5.C.11 are implemented in each of the TMDL areas listed above, and are designed to increase awareness of bacterial pollution problems and promote proper pet waste management behavior:

- LakeWise program
- Scoop the Poop, the pet waste management campaign program of outreach through veterinary clinics
- Septic System Care workshops
- SWM Source Control
- WSU Beach Watcher volunteers

Descriptions of each of these programs are provided in Sections 3.8 and 3.11 of this SWMP Plan.

5.3.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Snohomish County will continue to perform the actions and programs described above.

5.4 Operations & Maintenance

5.4.1 Permit requirements

Appendix 2 contains the following operations and maintenance requirements for Snohomish County in the Stillaguamish River TMDL, Swamp Creek TMDL, and Little Bear Creek TMDL areas.

[Each Permittee shall] install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

5.4.2 Responsible County departments

Parks is responsible for performing Appendix 2 Operations & Maintenance actions in the TMDL areas listed above. There are currently no parks in the Little Bear Creek TMDL area that have been determined to have substantial domestic animal use with the potential for pollution of stormwater runoff.

5.4.3 Program description

Waste receptacles and/or signs specific to animal waste polluting waterways and posters/signs with code citations directing the proper disposal of animal waste are located in parks that have been identified as meeting the criteria set forth in this Phase I Permit requirement. Parks inspects these facilities annually and updates or replaces posters or signage as required. Parks also annually reviews the parks custodial property inventory to determine if any new properties meeting the criteria have been added and seeks input from rangers regarding whether uses at existing properties have changed.

5.4.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Snohomish County will perform the actions and program described above in the Stillaguamish River TMDL, Swamp Creek TMDL, and Little Bear Creek TMDL areas.
- ◆ Snohomish County will continue to assess whether existing parks or future parks meet the criteria of substantial domestic animal use in the Stillaguamish River TMDL, Swamp Creek TMDL, and Little Bear Creek TMDL areas.

5.5 IDDE Field Screening

Appendix 2 contains IDDE field screening requirements for Snohomish County in the Stillaguamish River TMDL, Swamp Creek, and Little Bear Creek TMDL areas.

5.5.1 Stillaguamish River

5.5.1.1 Permit requirements

Appendix 2 contains the following IDDE field screening requirements for Snohomish County in the Stillaguamish River TMDL area.

Permittees conducting IDDE-related field screening under S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, shall screen for bacteria sources in any screened MS4 sub-basins which discharge to surface waters in the TMDL area.

Snohomish County shall screen previously unscreened rural MS4 basins in the TMDL area by the expiration date of the Permit unless the option to combine this requirement with the surface water monitoring requirement is selected below. Permittees shall implement the schedules and activities identified in S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found.

5.5.1.2 Responsible County departments

Surface Water Management (SWM) is responsible for Appendix 2 IDDE Field Screening in the Stillaguamish River TMDL area.

5.5.1.3 Program description

SWM will include screening for bacteria sources when implementing field screening per S5.C.9. SWM screened all but one of the rural MS4 subbasins in the Stillaguamish River TMDL area in 2020 and will complete screening of the final subbasin before permit expiration.

5.5.1.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Perform field screening required by Special Condition S5.C.9.c.i.
- ◆ Conduct water quality investigations required by Special Condition S5.C.9.d.

5.5.2 Swamp Creek

5.5.2.1 Permit requirements

Appendix 2 contains the following IDDE field screening requirements for Snohomish County in the Swamp Creek TMDL.

Permittees conducting IDDE-related field screening under S5.C.9 of the Phase I permit or S5.C.5 of the Western Washington Phase II permit shall screen for bacteria sources in any screened MS4 subbasins which discharge to surface waters in the TMDL area.

5.5.2.2 Responsible County departments

SWM is responsible for Appendix 2 IDDE Field Screening in the Swamp Creek TMDL area.

5.5.2.3 Program description

SWM will include screening for bacteria sources when implementing field screening per S5.C.9.

5.5.2.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Perform field screening required by Special Condition S5.C.9.c.i.
- ◆ Conduct water quality investigations required by Special Condition S5.C.9.d.

5.5.3 Little Bear Creek

5.5.3.1 Permit requirements

Appendix 2 contains the following IDDE field screening requirements for Snohomish County in the Little Bear Creek TMDL.

When conducting IDDE-related field screening under S5.C.9 of the Phase I Permit, Snohomish County shall screen for bacteria sources in any screened MS4 sub-basins which discharge to surface waters in the TMDL area. Implement the schedules and activities identified in S5.C.9 of the Phase I Permit for response to any illicit discharges found.

5.5.3.2 Responsible County departments

SWM is responsible for Appendix 2 IDDE Field Screening in the Little Bear Creek TMDL area.

5.5.3.3 Program description

Little Bear Creek

SWM will include screening for bacteria sources when implementing field screening per S5.C.9.

5.5.3.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Perform field screening required by Special Condition S5.C.9.c.i.
- ◆ Conduct water quality investigations required by Special Condition S5.C.9.d.

5.6 Surface Water Monitoring

5.6.1 Permit requirements

Appendix 2 contains the following surface water monitoring requirements for Snohomish County in the Stillaguamish River TMDL, Snohomish River Tributaries TMDL, North Creek TMDL, and Swamp Creek TMDL areas.

Each Permittee shall conduct surface water monitoring for characterization and long term trends evaluation of fecal coliform in accordance with the QAPP approved under the 2013 Permit. If changes to surface water monitoring locations or other updates are needed, each Permittee shall submit a draft revised QAPP to Ecology for review and approval. At a minimum, the monitoring program shall:

** Collect 12 samples taken in at least one location per calendar year. For the reporting year of 2019, samples taken any time between January 01, 2019 through December 31st, 2019 may be included.*

** Submit available data to the Environmental Information Management (EIM) database by May 31 of each year.*

** Provide a data summaries and narrative evaluation of the data in each annual report's TMDL summary*

** Be documented in a QAPP which follows Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, July 2004, Ecology Publication No. 04-03-030.*

Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology. Permittees subject to multiple bacteria TMDL monitoring requirements may conduct an integrated monitoring program in accordance with an Ecology-approved QAPP.

5.6.2 Responsible County departments

Surface Water Management (SWM) is responsible for Appendix 2 surface water monitoring as required above and described in the Ecology-approved QAPP.

5.6.3 Program description

During 2020, SWM conducted surface water monitoring for characterization and long-term trends evaluation of fecal coliform bacteria in accordance with the QAPP approved under the 2013 Phase I Permit. The QAPP is available at

<https://www.snohomishcountywa.gov/DocumentCenter/View/26502/Bacteria-Total-Maximum-Daily-Load-Monitoring--Quality-Assurance-Project-Plan?bidId>

Data are submitted to the Environmental Information Management System (EIM) by May 31 under the study name Snohomish County Surface Water Management Fecal Coliform Bacteria TMDL Monitoring:

<https://apps.ecology.wa.gov/eim/search/Detail/Detail.aspx?DetailType=Study&SystemProjectId=66789673>

A data summary and narrative evaluation of data collected during 2020 are provided in the 2020 Annual Report.

On Jan 23, 2019, Ecology adopted amendments to Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington. This rulemaking updated fresh and marine water quality standards for the protection of water contact recreation uses in state waters. Changes include phasing out the use of fecal coliform in exchange for E.coli as the freshwater indicator beginning January 2021. To implement changes, the rule provides a transition period between February 23, 2019 and December 31, 2020 when fecal coliform is allowed for continued use.

Given the transition period allowances, in 2020, SWM continued to collect up to 12 samples for analysis of fecal coliform in accordance with the QAPP approved under the 2013 Phase I Permit.

To align with use of E.coli as the freshwater indicator, SWM updated its QAPP to propose sampling of both fecal coliform and E.coli beginning in January 2021. In addition to including E.coli, SWM proposed changes to monitoring locations. Once approved by Ecology, SWM will post the updated QAPP on its webpage to replace the QAPP approved under the 2013 permit.

5.6.4 Current and planned activities

Sampling results from 2020 indicated initial and potentially ongoing illicit connections or discharges upstream of the Douglas Creek sampling location. The County continues to work with Ecology to review water quality and water level monitoring data, isolate sources and work with responsible parties to correct issues.

Pending Ecology approval of the updated QAPP, the following is a list of activities planned for 2021:

- ◆ Add E.coli to the list of parameters for all locations.
- ◆ Continue monthly monitoring at the Allen Creek and Silver Creek sampling locations.
- ◆ Replace the Douglas Creek sampling location with one on Greenwood Creek.
- ◆ Replace the Swamp Creek sampling location with a different location on Swamp Creek.
- ◆ Provide a narrative summary and evaluation of the 2020 fecal coliform monitoring data in the 2020 Annual Report.
- ◆ Submit 2020 monitoring data to Ecology's EIM system by May 31, 2021.

5.7 Targeted Source Identification and Elimination

5.7.1 Permit requirements

Appendix 2 contains the following targeted source identification and elimination requirements for Snohomish County in the Snohomish River Tributaries TMDL, North Creek, and Swamp Creek TMDL areas.

By January 1, 2021, each Permittee shall review the fecal coliform data collected per approved QAPPs under the 2013 Permit, and may include any other relevant and available bacteria data. The purpose of this review is to identify a minimum of one new high priority area (such as a tributary or a stream segment) that will be the focus of source identification and elimination efforts during calendar years 2021 through 2023. Each Permittee shall prepare written documentation of this review and the identified high priority area; documentation shall be submitted with the Annual Report for 2020. Permittees shall begin to implement source identification and elimination efforts in the MS4 sub-basins discharging to the identified high priority area no later than May 1, 2021. For Permittees with more than one TMDL containing this Targeted Source Identification and Elimination requirement, those Permittees shall begin to implement Source Identification and Elimination efforts in at least one of the sub-basins discharging to the identified high priority area no later than May 01, 2021. Permittees have the flexibility to stagger the implementation of the remaining sub-basin IDDE efforts, provided all have been completed by the end of the calendar year in 2023.

Permittees are encouraged to address potential bacteria pollution sources not associated with the MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source identification and elimination effort. For the purposes of Targeted Source Identification and Elimination efforts, stormwater quality sampling is defined as obtaining grab samples of stormwater discharging to or from the MS4 or receiving waters during a storm event. Permittees shall implement the schedules and activities identified in S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found. Each annual report's TMDL summary shall include qualitative and quantitative information about the source identification and elimination activities, including procedures followed and sampling results, implemented in the selected high priority area(s).

5.7.2 Responsible County departments

Surface Water Management (SWM) is responsible for performing the Appendix 2 Targeted Source Identification & Elimination (TSIE) actions in the Snohomish River Tributaries, North Creek, and Swamp Creek TMDL areas.

5.7.3 Program description

SWM will continue to implement the TSIE requirements consistent with Permit requirements. In 2020, SWM used fecal coliform sampling results, source maps, and other data to identify high priority areas in Swamp, North and the Snohomish

Tributaries. The next step is to implement TSIE in one of the three TMDL areas. To do this, a phased approach, as outlined below, will be used:

- Plan and implement field surveys and stormwater sampling;
- Review and analyze data to identify likely source(s); and
- Coordinate with internal partners and external partners to eliminate source(s).

5.7.4 Current and planned activities

The following is a list of activities planned for 2021:

- ◆ Collect stormwater samples and complete appropriate follow-up actions in the Snohomish River Tributaries TMDL area.

Attachment 1

Snohomish County Executive Order 2019-01



EXECUTIVE ORDER 2019-01

**EXECUTIVE OFFICE ADMINISTRATION OF THE NATIONAL
POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE I
MUNICIPAL STORMWATER PERMIT**

PURPOSE:

To ensure full compliance with and implementation of all applicable provisions of the NPDES Phase I Municipal Stormwater Permit ("Permit") issued to Snohomish County, and described in the County's Stormwater Management Program Plan, and to affirm Snohomish County's commitment to protect the surface and groundwater resources within the county and establish Snohomish County as a regional leader in efforts to preserve and protect water quality in the Puget Sound Region.

DISCUSSION:

Since 1995, Snohomish County has been required to operate under a National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Stormwater Permit. The NPDES permit system is established by the federal Clean Water Act. The County's Permit, which is a combined NPDES permit and State Waste Discharge General Permit, is issued by the Washington State Department of Ecology. The Permit requires Snohomish County to implement actions and programs to control discharges to or from the County's municipal separate storm sewer system (MS4).

This Executive Order requires all Snohomish County departments to fully comply with and implement all applicable provisions of the Permit issued to Snohomish County. It is the intent of this Executive Order that all Snohomish County departments coordinate, implement, track, and report all specific actions required by the Permit, as related to the scope of responsibilities of those respective departments.

ACTION:

1. The Snohomish County Executive's Office shall be responsible for overall administration of and compliance with the Permit. The County Executive's Special Projects Director is appointed as the lead official for administration of the Permit. The County Executive's Office shall develop Permit-related policy, procedural and administrative guidelines, ensure interdepartmental communication and cooperation, as well as standards to ensure Permit compliance and consistency among all departments in fulfillment of all Permit requirements. The Executive's Office shall, as needed, make final determinations regarding permit compliance, in coordination with the department directors listed below.
2. The County Executive's Special Projects Director shall be responsible for ensuring performance of Permit required actions that are inherently interdepartmental or that reside at the level of the Executive Office. The Special Projects Director may delegate performance of any of these tasks to one or more department leads named below.

3. The Directors of the Departments of Public Works, Planning and Development Services, Parks, Recreation, and Tourism, Airport, and Fleet and Facilities Management shall serve as the departmental leads and the primary point of contact for their respective departments. Department directors may assign performance of NPDES-related tasks to their staffs, but the department directors retain responsibility as departmental leads. Departmental leads are responsible for assisting the Executive's Office in meeting all compliance requirements of the NPDES Permit, and for ensuring their respective departments perform all actions required for Permit compliance as related to the scope of their departmental responsibilities. Departmental leads shall also communicate, collaborate, and coordinate with each other and with the Executive's Office regarding Permit related actions.
4. Each county department that manages assets or conducts actions regulated under the Permit, including Department of Public Works, Planning and Development Services, Airport, Parks, Recreation, and Tourism, and Fleet and Facilities Management, shall be responsible for understanding and fully implementing the requirements of the Permit, for complying with Permit-related policy, procedural and administrative guidelines, and standards established by county code and the Executive's Office, as well as integrating compliance activities into departmental plans, operations, and programs.
5. Each county department having assets or activities regulated by the Permit shall coordinate with the Executive's Office and other County departments, as appropriate, and fully respond to reports, records, policies, and procedural inquiries conducted by the Executive Office in fulfilling its duties as the lead official of Permit administration for Snohomish County.
6. Each county department responsible for implementation of Permit requirements will ensure that staff training is conducted covering each element of the Permit pertinent to that department's work, document the training provided and submit such documentation as necessary to meet annual reporting requirements.

CANCELLATION:

This Executive Order will remain in effect until cancelled or superseded.

Dated this 6th day of March, 2019.



Dave Somers
County Executive

Attachment 2

Snohomish County 2021 NPDES Structural Stormwater Controls Program

Phase I Permit Requirement S5.C.7. Structural Stormwater Controls

Each Permittee shall implement a Structural Stormwater Control Program to prevent or reduce impacts to waters of the State caused by discharges from the MS4. Impacts that shall be addressed include disturbances to watershed hydrology and stormwater pollutant discharges.

The program shall consider impacts caused by stormwater discharges from areas of existing development; including runoff from highways, streets and roads owned or operated by the Permittee; and areas of new development, where impacts are anticipated as development occurs.

County Stormwater Management Program

The requirements of S5.C.7 state the need to address stormwater impacts not otherwise addressed in the County's Stormwater Management Program. The County's Stormwater Management Program, or SWMP, follows the requirements and guidelines of the Phase I NPDES Permit, and includes the following elements:

1. Legal Authority
2. Municipal Separate Storm Sewer System Mapping and Documentation
3. Coordination
4. Public Involvement and Participation
5. Controlling Runoff from New Development, Redevelopment and Construction Sites
6. Stormwater Planning
7. Structural Stormwater Controls
8. Source Control Program for Existing Development
9. Illicit Connections and Illicit Discharges Detection and Elimination
10. Operation and Maintenance Program
11. Education and Outreach Program

Along with the above elements, the County is required to implement the water quality monitoring, outreach, and other measures for the TMDLs in the North Creek, Swamp Creek, Snohomish River Tributaries, Little Bear Creek, and the Stillaguamish River. The TMDLs are summarized in Table 1 below:

Table 1: Snohomish County TMDL Water Bodies Noted in Phase I NPDES Permit (for Snohomish County only)

Water Body	TMDL Parameter	Watershed
Little Bear Creek	Fecal Coliform	Cedar-Sammamish
North Creek	Fecal Coliform	Cedar-Sammamish
Swamp Creek	Fecal Coliform	Cedar-Sammamish
Snohomish River Tributaries	Fecal Coliform	Snohomish River
Stillaguamish River	Fecal Coliform, Dissolved Oxygen	Stillaguamish River

Briefly, the SWMP provides for a broad range of activities that are largely of a programmatic nature:

- Element 1 deals with the legal framework for administering the SWMP.
- Element 2 maps out the MS4.
- Element 3 is oriented toward inter- and intra-agency relationships and coordination on the SWMP.
- Elements 4 and 11 concern working with the community for public involvement and participation (element 4) and education and outreach (element 11).
- Element 5 concerns regulatory functions and tools to effect stormwater pollution control in development and redevelopment, including construction pollution prevention.
- Element 6 concerns stormwater planning, including inter-disciplinary team formation, coordination with long range planning, LID, and stormwater management action planning.
- Element 8 uses non-structural controls initially, then structural controls if needed, for source control of pollution.
- Element 9 involves field screening and source tracing, investigation, then enforcement and corrective action if needed, to stop illicit discharges and remove illicit connections.
- Element 10 uses inspection, operations and maintenance procedures to ensure proper function of county stormwater control facilities, roads and properties to control stormwater pollution.

Appendix 2 of the Phase I NPDES permit has TMDL program requirements that address Little Bear, North and Swamp Creeks, the tributaries of the Snohomish River, the Stillaguamish River, and the Bear-Evans Watershed. These water bodies and watershed have impaired water quality due to fecal coliform. The Stillaguamish River also has water quality impairment due to low dissolved oxygen. Program requirements for these water bodies generally include:

- Stillaguamish River (WRIA 5): business inspection, public education and outreach, operations and maintenance, illicit discharges detection and elimination (IDDE), and monitoring.

- Snohomish River Tributaries (WRIA 7): business inspection, targeted source identification and elimination, and monitoring.
- North Creek (WRIA 8): business inspection, targeted source identification and elimination, and monitoring.
- Swamp Creek (WRIA 8): business inspection, public education and outreach, operations and maintenance, targeted source identification and elimination, and monitoring.
- Little Bear Creek (WRIA 8): bacteria screening with any IDDE screening; inspection of commercial animal handling and composting areas, public education and outreach, and animal waste collection and/or education stations at parks and certain other County owned and operated lands.

Additionally, Snohomish County is required by its Phase I NPDES permit to support water quality monitoring, through payment of assessments into certain regional monitoring programs, with assessment reductions allowed for conducting some of its own monitoring programs.

The remaining element of the SWMP, Element 7, requires a structural stormwater control program to address water quality problems from MS4 discharges that other parts of the SWMP do not address. The following are types of stormwater impacts that are not specifically addressed by the NPDES Phase I municipal permit, and are targeted by the structural stormwater control program.

Stormwater Impacts Not Addressed by Other Required SWMP Elements

1. The Phase I MS4 permit requires the SWMP to address water bodies with TMDLs active at the time of permit adoption. However, there are numerous 303(d) listed water bodies, meaning they have impaired water quality, that do not have TMDLs in Snohomish County, and hence have no long term protective measures for specific locations established yet through the NPDES Phase I MS4 permit. Figure 1 shows the 2014 303(d) listed water bodies in Snohomish County (Category 5 in the water quality assessment classification system, current listing as of 2020, approved by EPA in 2016). The complete list of 2014 303(d) water bodies is given in Appendix B.

Some of the water bodies have TMDLs that do not yet appear in the NPDES Permit. Table 2 below lists these TMDLs, water bodies, and pollutants (parameters) of concern. Pending TMDLs where water bodies have TMDL activity are also included.

Table 2: Snohomish County Water Bodies with TMDLs or TMDL Activity (Not Noted in Phase I NPDES Permit*)

Water Body	TMDL Parameter
Ballinger Lake	Total Phosphorus
Bear-Evans Creek Basin	Fecal Coliform
Bear-Evans Creek Basin	Temperature and Dissolved Oxygen
French and Pilchuck Creeks	Dissolved Oxygen, Temperature
Lake Ketchum	Total Phosphorus**
Lake Loma	Total Phosphorus**
Old Stillaguamish Channel	Dissolved Oxygen***
Snohomish River	Dioxin
Snohomish River: Estuary	Dissolved Oxygen
Snoqualmie River	Ammonia-N, Fecal Coliform, pH, Dissolved Oxygen
Snoqualmie River	Temperature
Stillaguamish River	Arsenic, Dissolved Oxygen, Fecal Coliform, Mercury, pH, Temperature

*Only those parameters separate from those listed with the water bodies in Table 1 are given. For example, fecal coliform is omitted from the listing with the Snoqualmie River in Table 2 because the Snoqualmie River is covered for fecal coliform as a tributary of the Snohomish River (listed in Table 1). **TMDL under development. *** TMDL on hold.

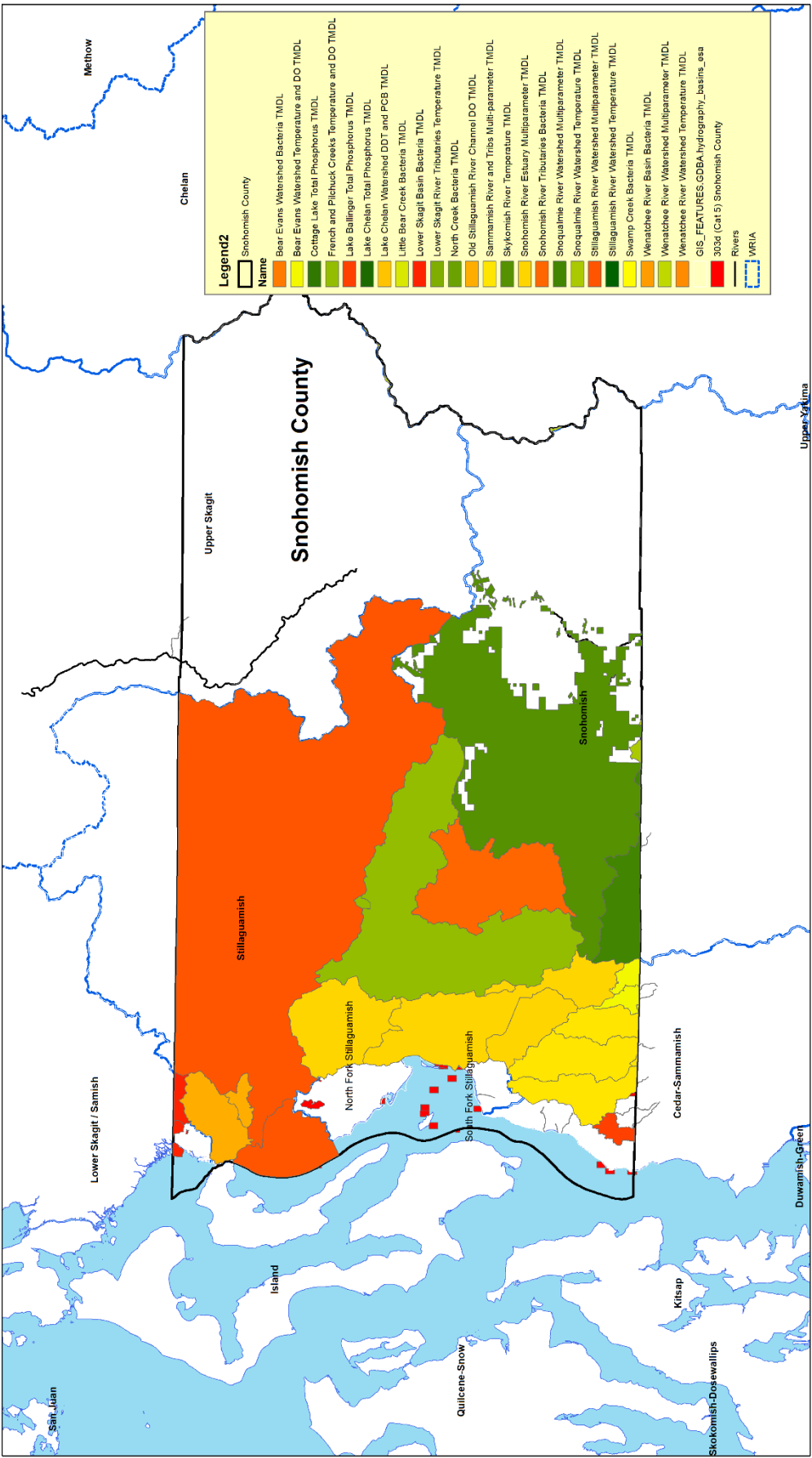


Figure 1 2014 303(d) Listed Water Bodies (Category 5)

(Source: Dept of Ecology, 2020)

2. The Phase I permit does not require the SWMP to address protection for streams that serve as natural drainage ways, but are vulnerable to thermal pollution due to lack of tree cover, riparian erosion from high flows of stormwater runoff, damage from livestock activity, or other cause, with the exception of conditionally allowable dechlorinated discharge from pools, spas or hot tubs.
3. The Phase I permit does not address stormwater management needs for river basins subject to instream flow rules. All basins in Snohomish County are subject to instream flow rules.
4. While there are some source control provisions in Appendix 2, the Phase I permit does not directly address structural controls for runoff to water bodies subject to TMDLs or that have water quality concerns.

Structural Stormwater Control Program

The Structural Stormwater Control Program addresses stormwater impacts that are not adequately controlled by other required actions of the SWMP. Prioritization process, procedures and criteria used to select the structural stormwater control projects are described below.

Goals of the Structural Stormwater Control Program

The Stormwater Structural Control Program is intended to address stormwater impacts that are not addressed by other elements of the SWMP program, as previously described. Specifically, the goals are to provide structural stormwater controls in the following areas:

1. Stormwater treatment or other best management practices (BMPs) in the watersheds of the 303(d) listed water bodies in Snohomish County that are not addressed by other BMPs in the SWMP.
2. Retrofit of existing stormwater facilities to improve water quality treatment and/or flow control.
3. Improved stream riparian buffers that would otherwise be vulnerable to the effects of runoff from development or modified land, whether directly through the riparian area, or from collected stormwater runoff in the stream, such as lack of tree or vegetative cover which would moderate or mitigate thermal pollution due to lack of cover, reduced wetland areas that could provide biofiltration treatment of instream runoff, riparian erosion from high flows of stormwater runoff, damage from livestock activity due to access, or other cause.
4. Low impact development and infiltration BMPs to promote groundwater recharge and stream flow.
5. Improved stormwater treatment in urbanized and urbanizing areas of the County.

Allowable BMPs

Pursuant to the Phase I permit, the Structural Stormwater Control program “shall consider impacts caused by stormwater discharges from areas of existing development, including runoff from highways, streets and roads owned or operated by the Permittee, and areas of new development, where impacts are anticipated as development proceeds.” (Phase I permit, S5.C.7)

Also,

- i. The program shall consider the following projects:*
 - (a) New flow control facilities.*
 - (b) New treatment (or treatment and flow control) facilities.*
 - (c) New LID BMPs.*
 - (d) Retrofit of existing treatment and/or flow control facilities.*
 - (e) Property acquisition for water quality and/or flow control benefits (not associated with future facilities).*
 - (f) Maintenance with capital construction costs \geq \$25,000.*
- ii. Permittees should consider other projects to address impacts, such as:*
 - (a) Restoration of riparian buffers.*
 - (b) Restoration of forest cover .*
 - (c) Floodplain reconnection projects on water bodies that are not flow control exempt per Appendix 1.*
 - (d) Permanent removal of impervious surfaces.*
 - (e) Other actions to address stormwater runoff into or from the MS4 not otherwise required in S5.C.*
- iii. Permittees may not use in-stream culvert replacement or channel restoration projects for compliance with this requirement.*
- iv. The Structural Stormwater Control program may also include a program designed to implement small scale projects that are not planned in advance.*

(Phase I permit, S5.C.7)

Structural Stormwater Control Program Priorities

The Structural Stormwater Control Program extends to the entire county: all major basins in Snohomish County have 303(d) listed waters and instream flow rules. Given the limitations on county resources, however, at least the following will be considered in evaluating project priority:

- Location in areas of existing development or new development, including land modified for agriculture or other use.
- Concentration of potential pollutant sources, indicating higher potential return for investment in water quality improvements.

- Leveraging existing project to install or increase structural control measures, so that water quality treatment can be bundled at incremental cost, taking advantage of economy of scale, and making a more cost-effective capital project. This would include County stormwater facilities needing repair or other work that might otherwise be too small to be labeled as an individual “project”.
- Logistical feasibility, including secured funding, land development/access rights, permits, etc. to provide the structural control improvement(s).
- Support of watershed-scale stormwater planning, including the Little Bear Creek Basin Plan.

Structural Stormwater Control Program

The Structural Stormwater Control Program combines activities and projects from several Surface Water Management (SWM) and Road Maintenance work areas, including new capital stormwater improvements, structural retrofits to existing stormwater systems, riparian buffer work, riparian buffer acquisition, or other. The County also plans to acquire several high efficiency street sweepers to remove pollutants from road surfaces that would otherwise wash into the drainage system. Because of the varied nature of these activities and projects, the types of characterization information to be considered will also vary, such as the nature of the benefit area, impact being addressed, environmental and water quality benefits being achieved, etc. The type and level of agency coordination and public involvement will also vary.

Examples:

Project WC8882-Stormwater Facility Retrofit -Meadow Creek Park

This project started design in 2019, , and was constructed in 2020. Water quality factors include:

- Project provides additional live storage to moderate stormwater flows from the 64 acre, medium-density, residential development.
- Dead storage and the constructed wetland are provided to improve water quality of the runoff prior to it being released into Swamp Creek.

Project WM656, ROSWP – Sweeping Up Snohomish County

This project will use high efficiency (HE) sweepers in order to reduce and remove road pollutant loads that would otherwise enter the County drainage system. Sweeping operations are anticipated to begin in 2021. The water quality analysis of the best routes and places to do the additional sweeping has been completed and included the factors below.

- Development density, where greater impacts to water quality of nearby waterbodies can be expected from the urbanization and impervious cover within a watershed.
- Sensitivity of receiving waters, such as TMDL areas and urban streams that receive a range of pollutant loads, including TSS, metals, and fecal coliform.

Road segment feasibility for treatment (pavement condition, barriers, etc.)

Grants and other funding sources will be used as allowable to leverage SWM funding.

Table 3 lists the Structural Stormwater Controls initial projects for the County's NPDES Phase I MS4 permit. The table will be populated with more calculated values as design information becomes available.

The projects are considered to comply with MEP (maximum extent practicable) and AKART (all known, available and reasonable methods of prevention, control and treatment) requirements for their respective project development processes and as a whole because: (1) they reflect what Snohomish County is best able to implement within its available funding and demands for surface water projects; and (2) they address stormwater impacts not adequately controlled by other permit-required actions, which basically complies with permit condition S5.C.7. By complying with this condition together with all other applicable permit requirements, compliance with MEP and AKART is said to be achieved as set forth in Snohomish County's NPDES Municipal Stormwater Permit condition S4.E.

Specific Project Planning and Selection Process

The planning and selection process for specific projects in the Structural Stormwater Control Program will vary by project type, funding, watershed, water quality benefit, and public participation opportunity. Projects may take several years to plan, fund and develop due to permitting, funding, and coordination needs. Projects will be selected to ensure that sufficient size and complexity are involved to achieve by December 31, 2022 the incentive point requirements of part S5.C.7 of the Phase I NPDES permit, regarding the Structural Stormwater Control Program.

Projects are initially conceptualized and planned by the Surface Water Management and Road Maintenance Divisions, and eventually are subject to County Council budget review, public hearing, and decision. Projects with grant funding or multi-government participation may have separate Council review for inter-governmental agreements.

Projects may have varied participation processes. For example, the County conducted a multi-year watershed scale stormwater planning effort under the previous permit term (Little Bear Creek Basin Planning Project). Development of the Little Bear Creek Basin Plan included extensive stakeholder and community outreach and participation. Planning level studies for drainage and instream capital improvement projects were conducted in 2018-19 on several potential public and private sites, and involved interagency coordination with internal and external agencies.

Public Involvement for Structural Stormwater Control Program

This document, which represents the master Structural Stormwater Control Program, is attached to the County's Stormwater Management Plan (SWMP), and undergoes public review as per special condition S5.C.4.

The individual projects and project types/options that comprise the Structural Stormwater Control Program, as noted above, may also have project or program-specific public involvement, which may include some or all of the following:

- Neighborhood notification of potential project
- Neighborhood meetings to gain feedback on priority areas or project types

- Coordination with neighborhood or other groups on specific project construction

In addition, Snohomish County goes through an extensive public input process for its yearly Annual Construction Program (ACP) and 6-year Capital Improvement Program (CIP) development and approval. This process includes updating and having formal public meetings for the County Planning Commission and, afterwards, the County Council, who has the responsibility of approving the yearly budget. Projects in this Program will be part of the public process because they will be included in the County's ACP and 6-year CIP.

Table 3: Appendix 12 Project Listing

Snohomish County Structural Stormwater Controls Project List (Pursuant to APPENDIX 12 of NPDES Phase I Permit)

Revised:

12/28/2020

The annual reporting requirement described in S5.C.7.c follows the format and instructions provided in Appendix 12 to the NPDES Phase I Permit.

#	Project Name	Project Type	Status	Cost Estimate (\$K)	Basin Area (ac)	LID Equivalent Area	LID Point Factor	RT Equiv. Area	RT Point Factor	FC Equiv. Area	FC Point Factor	Other Project Area - ac. or mi.	Other Point Factor	Total SSC Points	Lat/Long (X,Y) ^(a)	Receiving water body name	Comments
1	WC8882-Stormwater Facility Retrofit -Meadow Creek Park	4	Design	\$ 1250	64.0			20.68	1	1.90	1			22.58	47.781 N / 122.257 W	Swamp Creek/ Lake Washington	Costs includes projected construction cost
2	WM656, ROSWP-Sweeping Up Snohomish County ^(b)	11	Design											0.00			
TOTAL				\$ 1,250										22.58			
Notes: (a) Lat/Long coordinates in this table are for nearest street location or subdivision centroid. (b) Further information to be provided once HE Sweeping operations begin, anticipated in 2021.																	

**APPENDIX A: POTENTIAL CATEGORIES OF STRUCTURAL STORMWATER
CONTROL PROJECTS**

Potential Categories of Structural Stormwater Control Projects: Approximately \$250,000 per year, funds may be augmented with grants when available.

Drainage facility retrofits

- Program synopsis

SWM has an annual construction program (ACP) and a 5-year capital improvement program (CIP) for drainage improvements. Projects in the 5-year CIP will be evaluated periodically for water quality retrofit opportunities as standalone projects, or that can be added to drainage improvement projects. Projects tend to be located in urban growth areas, and derive information from the Drainage Needs Report (DNR), Drainage Rehabilitation and Implementation (DRI) program, and other sources.

Water quality related projects in recent years have included swale improvements, pipe slope drains, and detention pond retrofits. Future projects may include similar or other improvements, such as water quality catch basins, vaults, low impact development BMPs, or other.

Water quality facility improvements (e.g., water quality inlets, detention pond retrofit, etc.) will allow performance improvements for removal of certain pollutants (nutrients, total suspended solids). Benefits from drainage improvements such as slope drains improvements will prevent erosion of hillsides and removal of earth, and the water quality benefit may be typically estimated in terms of linear feet protected or other descriptive measure.

This program may eventually merge with the Water Quality Facilities Management Plan (described below) for more comprehensive and integrated capital program development for water quality facilities.

Public involvement with individual projects will vary. The Lake Stevens projects, which included the Crestline Estates detention pond retrofit, had extensive public involvement, as described previously, including meetings, hearings, agency coordination, homeowner association communications, etc. This arose from the development of the Lake Stevens Urban Growth Area Plan and the Lake Stevens Master Drainage Plan in 2000 and 2001, respectively. Water quality related improvements have included detention pond retrofits, bioswale improvements, and other improvements.

In the Eastmont area program, public involvement included massive mail outs to the community to identify drainage problems, discussions with property owners, and correspondence, in a direct, interactive form of public involvement.

Water Quality Facilities

- Project synopsis

The County conducted a multi-year watershed scale stormwater planning effort under the previous permit term (Little Bear Creek Basin Planning Project). Development of the Little Bear Creek Basin Plan included extensive stakeholder and community outreach and participation. Planning level studies for drainage and instream capital improvement projects were conducted in 2018-19 on several potential public and private sites, and involved interagency coordination with internal and external agencies.

In a further development of water quality facilities planning, a Water Quality Facilities Strategic Plan (WQFSP) has been developed to provide a strong, documentable, multi-scale,

data-driven approach to identify, prioritize, and implement water quality facility projects in ways that improve the cost-effectiveness of the stormwater retrofit and drainage management programs. This process is intended to improve and protect receiving waters from Municipal Separate Storm Sewer System (MS4) discharges, and to reduce flooding through implementation of Best Management Practices (BMPs).

Riparian planting/restoration

- Program synopsis

SWM is active in riparian area restoration. One component of its riparian restoration activities is the Native Plant Program. Utilizing community volunteers and with the support of a Washington Conservation Corps crew, the Native Plant Program installs between 5,000 to 10,000 plants per year in riparian (streamside) zones throughout Snohomish County. Native Plants improve air quality, prevent flooding and erosion, improve water quality, create fish habitat, and play a crucial role in stream ecology. Measurements are typically noted in terms of numbers of plants, linear feet of riparian zone, or acres of riparian buffer. Restoration work has ranged from several hundred square feet of planting area to several acres at a time, with plants ranging from wetland plants, to grasses, to shrubs and bushes, to conifers and deciduous trees. The program has a strong community outreach component, training volunteers in riparian restoration, and providing community participation opportunities. The Native Plant Program has an ongoing program for monitoring all installation projects.

- Five potential instream projects have been identified in the Little Bear Creek Basin. Implementation of these projects will depend on funding, and the County is currently actively seeking grants. The instream project with the highest priority is located along Cutthroat Creek, on the site of the future Carousel Ranch park. Along with riparian and instream improvements, the project will include a strong public education and outreach element.

Public involvement on some of the larger projects, Carousel Ranch instream project, may include review and coordination with the local boards, committees and agencies.

Monitoring may vary depending on project size and needs..

**APPENDIX B: CURRENT (2014) 303(d) LISTED WATER BODIES IN SNOHOMISH
COUNTY WRIAS
(CATEGORY 5)**

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
70858	3	Lower Skagit / Samish	BIG DITCH / MADDOX SLOUGH	pH
6343	3	Lower Skagit / Samish	KETCHUM LAKE	Total Phosphorus
42075	4	Upper Skagit	PRAIRIE CREEK	Bacteria
72516	4	Upper Skagit	SAUK RIVER	Temperature
22587	5	Stillaguamish	ARMSTRONG LAKE	Total Phosphorus
40901	5	Stillaguamish	CHURCH CREEK	pH
40901	5	Stillaguamish	CHURCH CREEK	pH
70251	5	Stillaguamish	GLADE BEKKEN (TRIB 30)	Bioassessment
7240	5	Stillaguamish	JORGENSEN SLOUGH (CHURCH CREEK)	Dissolved Oxygen
7240	5	Stillaguamish	JORGENSEN SLOUGH (CHURCH CREEK)	Dissolved Oxygen
9250	5	Stillaguamish	MILLER CREEK	Dissolved Oxygen
9250	5	Stillaguamish	MILLER CREEK	Dissolved Oxygen
14559	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Dissolved Oxygen
47603	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Dissolved Oxygen
47603	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Dissolved Oxygen
47603	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Dissolved Oxygen
14559	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Dissolved Oxygen
15559	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Temperature
15560	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Temperature

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
15560	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Temperature
15560	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Temperature
15559	5	Stillaguamish	OLD STILLAGUAMISH CHANNEL	Temperature
63344	5	Stillaguamish	PORT SUSAN	Chrysene
66370	5	Stillaguamish	PORT SUSAN	Dissolved Oxygen
10123	5	Stillaguamish	PORT SUSAN	Dissolved Oxygen
22593	5	Stillaguamish	RILEY LAKE	Total Phosphorus
14556	5	Stillaguamish	STILLAGUAMISH RIVER	Dissolved Oxygen
14556	5	Stillaguamish	STILLAGUAMISH RIVER	Dissolved Oxygen
14595	5	Stillaguamish	STILLAGUAMISH RIVER	Temperature
14595	5	Stillaguamish	STILLAGUAMISH RIVER	Temperature
15912	5	Stillaguamish	STILLAGUAMISH RIVER, N.F.	Turbidity
40865	5	Stillaguamish	SUNDAY LAKE	Total Nitrogen
8637	5	Stillaguamish	SUNDAY LAKE	Total Phosphorus
66370	6	Island	PORT SUSAN	Dissolved Oxygen
504392	6	Island	POSSESSION SOUND (NORTH)	Sediment Bioassay
47499	7	Snohomish	ALLEN CREEK	Dissolved Oxygen
7260	7	Snohomish	ALLEN CREEK	Dissolved Oxygen
7259	7	Snohomish	ALLEN CREEK	Dissolved Oxygen
7392	7	Snohomish	ALLEN CREEK	pH

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
35163	7	Snohomish	BEAR CREEK	Temperature
35166	7	Snohomish	BEAVER CREEK	Temperature
35166	7	Snohomish	BEAVER CREEK	Temperature
22463	7	Snohomish	BEECHER LAKE	Total Phosphorus
6312	7	Snohomish	BLACKMANS LAKE	Bacteria
22465	7	Snohomish	CASSIDY LAKE	Total Phosphorus
7394	7	Snohomish	CATHERINE CREEK	Dissolved Oxygen
7394	7	Snohomish	CATHERINE CREEK	Dissolved Oxygen
7394	7	Snohomish	CATHERINE CREEK	Dissolved Oxygen
40930	7	Snohomish	CATHERINE CREEK	pH
40930	7	Snohomish	CATHERINE CREEK	pH
40930	7	Snohomish	CATHERINE CREEK	pH
7395	7	Snohomish	CATHERINE CREEK	Temperature
7395	7	Snohomish	CATHERINE CREEK	Temperature
7395	7	Snohomish	CATHERINE CREEK	Temperature
74323	7	Snohomish	CEMETERY CREEK	Bacteria
22612	7	Snohomish	CHAIN LAKE	Total Phosphorus
50742	7	Snohomish	CHERRY CREEK	pH
7400	7	Snohomish	DUBUQUE CREEK	Dissolved Oxygen
7401	7	Snohomish	DUBUQUE CREEK	Temperature

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
9798	7	Snohomish	EBEY SLOUGH	Bacteria
40743	7	Snohomish	FRENCH CREEK	Dissolved Oxygen
7276	7	Snohomish	FRENCH CREEK	Dissolved Oxygen
7272	7	Snohomish	FRENCH CREEK	Dissolved Oxygen
7276	7	Snohomish	FRENCH CREEK	Dissolved Oxygen
40743	7	Snohomish	FRENCH CREEK	Dissolved Oxygen
7272	7	Snohomish	FRENCH CREEK	Dissolved Oxygen
40748	7	Snohomish	FRENCH CREEK	pH
7282	7	Snohomish	FRENCH CREEK	pH
40748	7	Snohomish	FRENCH CREEK	pH
7282	7	Snohomish	FRENCH CREEK	pH
9273	7	Snohomish	FRENCH CREEK	Temperature
7275	7	Snohomish	FRENCH CREEK	Temperature
9273	7	Snohomish	FRENCH CREEK	Temperature
7275	7	Snohomish	FRENCH CREEK	Temperature
75640	7	Snohomish	GOODWIN LAKE	Hexachlorobenzene
78920	7	Snohomish	GOODWIN LAKE	Polychlorinated Biphenyls (PCBs)
77215	7	Snohomish	GOODWIN LAKE	Toxaphene
40964	7	Snohomish	KAYAK LAKE	Total Phosphorus
47421	7	Snohomish	KISSEE CREEK	Dissolved Oxygen

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
50735	7	Snohomish	KISSEE CREEK	pH
70217	7	Snohomish	LITTLE PILCHUCK CREEK	Bioassessment
40911	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
40911	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
9274	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
40911	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
40911	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
9274	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
9274	7	Snohomish	LITTLE PILCHUCK CREEK	Dissolved Oxygen
40817	7	Snohomish	LITTLE PILCHUCK CREEK	pH
40817	7	Snohomish	LITTLE PILCHUCK CREEK	pH
40817	7	Snohomish	LITTLE PILCHUCK CREEK	pH
9275	7	Snohomish	LITTLE PILCHUCK CREEK	Temperature
9275	7	Snohomish	LITTLE PILCHUCK CREEK	Temperature
9275	7	Snohomish	LITTLE PILCHUCK CREEK	Temperature
6350	7	Snohomish	LOMA LAKE	Total Phosphorus
71192	7	Snohomish	MCCOY CREEK	pH
23014	7	Snohomish	MEADOW LAKE	Total Phosphorus
35167	7	Snohomish	OLNEY CREEK	Temperature
35167	7	Snohomish	OLNEY CREEK	Temperature

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
35297	7	Snohomish	PEKOLA CREEK	Temperature
35297	7	Snohomish	PEKOLA CREEK	Temperature
10621	7	Snohomish	PILCHUCK RIVER	Dissolved Oxygen
7291	7	Snohomish	PILCHUCK RIVER	pH
14725	7	Snohomish	PILCHUCK RIVER	Temperature
72567	7	Snohomish	PILCHUCK RIVER	Temperature
7295	7	Snohomish	PILCHUCK RIVER	Temperature
7295	7	Snohomish	PILCHUCK RIVER	Temperature
7295	7	Snohomish	PILCHUCK RIVER	Temperature
14725	7	Snohomish	PILCHUCK RIVER	Temperature
72567	7	Snohomish	PILCHUCK RIVER	Temperature
10620	7	Snohomish	PILCHUCK RIVER	Temperature
504342	7	Snohomish	PORT GARDNER AND INNER EVERETT HARBOR	Sediment Bioassay
504391	7	Snohomish	PORT GARDNER AND INNER EVERETT HARBOR	Sediment Bioassay
504390	7	Snohomish	PORT GARDNER AND INNER EVERETT HARBOR	Sediment Bioassay
504390	7	Snohomish	PORT GARDNER AND INNER EVERETT HARBOR	Sediment Bioassay
64447	7	Snohomish	POSSESSION SOUND (NORTH)	2,3,7,8-TCDD (Dioxin)
64441	7	Snohomish	POSSESSION SOUND (NORTH)	2,3,7,8-TCDD (Dioxin)
64441	7	Snohomish	POSSESSION SOUND (NORTH)	2,3,7,8-TCDD (Dioxin)
64441	7	Snohomish	POSSESSION SOUND (NORTH)	2,3,7,8-TCDD (Dioxin)

ListingNum	WRIA_Nr	WRIA_NM	ListingWat	ParameterN
64441	7	Snohomish	POSSESSION SOUND (NORTH)	2,3,7,8-TCDD (Dioxin)
9839	7	Snohomish	POSSESSION SOUND (NORTH)	Bacteria
60259	7	Snohomish	POSSESSION SOUND (NORTH)	Bacteria
63266	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(a)anthracene
63240	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(a)anthracene
63266	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(a)anthracene
63266	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(a)anthracene
63266	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(a)anthracene
63241	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(a)pyrene
63268	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(b)fluoranthene
63242	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(b)fluoranthene
63268	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(b)fluoranthene
63268	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(b)fluoranthene
63268	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(b)fluoranthene
63269	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(k)fluoranthene
63243	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(k)fluoranthene
63269	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(k)fluoranthene
63269	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(k)fluoranthene
63269	7	Snohomish	POSSESSION SOUND (NORTH)	Benzo(k)fluoranthene
63321	7	Snohomish	POSSESSION SOUND (NORTH)	Chrysene

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
63270	7	Snohomish	POSSESSION SOUND (NORTH)	Chrysene
63244	7	Snohomish	POSSESSION SOUND (NORTH)	Chrysene
63270	7	Snohomish	POSSESSION SOUND (NORTH)	Chrysene
63270	7	Snohomish	POSSESSION SOUND (NORTH)	Chrysene
63270	7	Snohomish	POSSESSION SOUND (NORTH)	Chrysene
10155	7	Snohomish	POSSESSION SOUND (NORTH)	Dissolved Oxygen
66373	7	Snohomish	POSSESSION SOUND (NORTH)	Dissolved Oxygen
63778	7	Snohomish	POSSESSION SOUND (NORTH)	Polychlorinated Biphenyls (PCBs)
63259	7	Snohomish	POSSESSION SOUND (NORTH)	Polychlorinated Biphenyls (PCBs)
504482	7	Snohomish	POSSESSION SOUND (NORTH)	Sediment Bioassay
504392	7	Snohomish	POSSESSION SOUND (NORTH)	Sediment Bioassay
504483	7	Snohomish	POSSESSION SOUND (NORTH)	Sediment Bioassay
504482	7	Snohomish	POSSESSION SOUND (NORTH)	Sediment Bioassay
78305	7	Snohomish	POWDER MILL CREEK	Copper
78484	7	Snohomish	POWDER MILL CREEK	Zinc
7302	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
7302	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
78097	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
78097	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
78097	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
78097	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
78097	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
78097	7	Snohomish	QUILCEDA CREEK	Dissolved Oxygen
72089	7	Snohomish	QUILCEDA CREEK	pH
72089	7	Snohomish	QUILCEDA CREEK	pH
72089	7	Snohomish	QUILCEDA CREEK	pH
72089	7	Snohomish	QUILCEDA CREEK	pH
72089	7	Snohomish	QUILCEDA CREEK	pH
72089	7	Snohomish	QUILCEDA CREEK	pH
7299	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
47502	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
47502	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
78098	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
7299	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
78098	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
78098	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
78098	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
78098	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
78098	7	Snohomish	QUILCEDA CREEK, W.F.	Dissolved Oxygen
71213	7	Snohomish	QUILCEDA CREEK, W.F.	pH

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
71215	7	Snohomish	QUILCEDA CREEK, W.F.	pH
71215	7	Snohomish	QUILCEDA CREEK, W.F.	pH
71213	7	Snohomish	QUILCEDA CREEK, W.F.	pH
71213	7	Snohomish	QUILCEDA CREEK, W.F.	pH
50753	7	Snohomish	RILEY SLOUGH	pH
50750	7	Snohomish	RILEY SLOUGH	pH
50749	7	Snohomish	RILEY SLOUGH	pH
50750	7	Snohomish	RILEY SLOUGH	pH
50749	7	Snohomish	RILEY SLOUGH	pH
73886	7	Snohomish	RILEY SLOUGH	Temperature
73890	7	Snohomish	RILEY SLOUGH	Temperature
73886	7	Snohomish	RILEY SLOUGH	Temperature
73890	7	Snohomish	RILEY SLOUGH	Temperature
9296	7	Snohomish	SKYKOMISH RIVER	Dissolved Oxygen
78961	7	Snohomish	SKYKOMISH RIVER	Polychlorinated Biphenyls (PCBs)
6569	7	Snohomish	SKYKOMISH RIVER	Temperature
64445	7	Snohomish	SNOHOMISH RIVER	2,3,7,8-TCDD (Dioxin)
64445	7	Snohomish	SNOHOMISH RIVER	2,3,7,8-TCDD (Dioxin)
51584	7	Snohomish	SNOHOMISH RIVER	2,3,7,8-TCDD (Dioxin)
51584	7	Snohomish	SNOHOMISH RIVER	2,3,7,8-TCDD (Dioxin)

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
51584	7	Snohomish	SNOHOMISH RIVER	2,3,7,8-TCDD (Dioxin)
51584	7	Snohomish	SNOHOMISH RIVER	2,3,7,8-TCDD (Dioxin)
3756	7	Snohomish	SNOHOMISH RIVER	Bacteria
3756	7	Snohomish	SNOHOMISH RIVER	Bacteria
3756	7	Snohomish	SNOHOMISH RIVER	Bacteria
621072	7	Snohomish	SNOHOMISH RIVER	Butyl benzyl phthalate
614094	7	Snohomish	SNOHOMISH RIVER	Fluoranthene
52699	7	Snohomish	SNOHOMISH RIVER	Polychlorinated Biphenyls (PCBs)
52699	7	Snohomish	SNOHOMISH RIVER	Polychlorinated Biphenyls (PCBs)
52699	7	Snohomish	SNOHOMISH RIVER	Polychlorinated Biphenyls (PCBs)
52699	7	Snohomish	SNOHOMISH RIVER	Polychlorinated Biphenyls (PCBs)
619429	7	Snohomish	SNOHOMISH RIVER	Sediment Bioassay
608191	7	Snohomish	SNOHOMISH RIVER	Sediment Bioassay
608191	7	Snohomish	SNOHOMISH RIVER	Sediment Bioassay
7312	7	Snohomish	SNOHOMISH RIVER	Temperature
7312	7	Snohomish	SNOHOMISH RIVER	Temperature
47423	7	Snohomish	SORGENFREI CREEK	Dissolved Oxygen
76309	7	Snohomish	STEVENS LAKE	Dieldrin
75636	7	Snohomish	STEVENS LAKE	Hexachlorobenzene
78970	7	Snohomish	STEVENS LAKE	Polychlorinated Biphenyls (PCBs)

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
76548	7	Snohomish	STEVENS LAKE	Toxaphene
9298	7	Snohomish	SWAN TRAIL SLOUGH	Ammonia-N
74192	7	Snohomish	SWIFTY (FERGUSON) CREEK	Bacteria
74193	7	Snohomish	SWIFTY (FERGUSON) CREEK	Bacteria
74192	7	Snohomish	SWIFTY (FERGUSON) CREEK	Bacteria
74193	7	Snohomish	SWIFTY (FERGUSON) CREEK	Bacteria
74193	7	Snohomish	SWIFTY (FERGUSON) CREEK	Bacteria
17494	7	Snohomish	SWIFTY (FERGUSON) CREEK	Dissolved Oxygen
17495	7	Snohomish	SWIFTY (FERGUSON) CREEK	Temperature
71193	7	Snohomish	UNNAMED CREEK (TRIB TO CARPENTER CREEK)	pH
79779	7	Snohomish	UNNAMED CREEK (TRIB TO EVANS CREEK)	Mercury
78027	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78028	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78026	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78025	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78028	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78026	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78025	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
78025	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Dissolved Oxygen
71227	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
71228	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71222	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72080	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72081	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71220	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71225	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72080	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72081	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71228	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72080	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72081	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71222	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72080	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72081	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71220	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72080	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72081	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71220	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
71225	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
72080	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
72081	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	pH
73913	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Temperature
73913	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Temperature
73913	7	Snohomish	UNNAMED CREEK (TRIB TO FRENCH CREEK)	Temperature
35168	7	Snohomish	UNNAMED CREEK (TRIB TO OLNEY CREEK)	Temperature
35168	7	Snohomish	UNNAMED CREEK (TRIB TO OLNEY CREEK)	Temperature
47441	7	Snohomish	UNNAMED CREEK (TRIB TO PILCHUCK RIVER)	Dissolved Oxygen
47441	7	Snohomish	UNNAMED CREEK (TRIB TO PILCHUCK RIVER)	Dissolved Oxygen
71217	7	Snohomish	UNNAMED CREEK (TRIB TO PILCHUCK RIVER)	pH
47492	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK)	Dissolved Oxygen
47512	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
47512	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
47512	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
71212	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK, W.F.)	pH
71212	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK, W.F.)	pH
71212	7	Snohomish	UNNAMED CREEK (TRIB TO QUILCEDA CREEK, W.F.)	pH
47439	7	Snohomish	UNNAMED CREEK (TRIB TO SKYKOMISH RIVER)	Dissolved Oxygen
50754	7	Snohomish	UNNAMED CREEK (TRIB TO SKYKOMISH RIVER)	pH
78029	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	Dissolved Oxygen
79781	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	Mercury

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
79781	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	Mercury
79781	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	Mercury
71230	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	pH
71224	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	pH
71224	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	pH
71224	7	Snohomish	UNNAMED CREEK (TRIB TO SNOHOMISH RIVER)	pH
47506	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
78107	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
78107	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
78107	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
78107	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
47506	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
78107	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
78107	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	Dissolved Oxygen
71221	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
72090	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
72090	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
72090	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
72090	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
71221	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
72090	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
72090	7	Snohomish	UNNAMED DITCH (TRIB TO QUILCEDA CREEK, W.F.)	pH
22923	7	Snohomish	WAGNER LAKE	Total Phosphorus
14726	7	Snohomish	WOODS CREEK, W.F.	Dissolved Oxygen
51543	8	Cedar-Sammamish	BALLINGER LAKE	2,3,7,8-TCDD (Dioxin)
74442	8	Cedar-Sammamish	BALLINGER LAKE	Bacteria
52014	8	Cedar-Sammamish	BALLINGER LAKE	Dieldrin
52646	8	Cedar-Sammamish	BALLINGER LAKE	Polychlorinated Biphenyls (PCBs)
70205	8	Cedar-Sammamish	BEAR CREEK	Bioassessment
47990	8	Cedar-Sammamish	CRYSTAL CREEK	Dissolved Oxygen
47990	8	Cedar-Sammamish	CRYSTAL CREEK	Dissolved Oxygen
73138	8	Cedar-Sammamish	CRYSTAL CREEK	Temperature
73138	8	Cedar-Sammamish	CRYSTAL CREEK	Temperature
71239	8	Cedar-Sammamish	DANIELS CREEK	pH
22675	8	Cedar-Sammamish	ECHO LAKE	Total Phosphorus
47992	8	Cedar-Sammamish	FILBERT CREEK	Dissolved Oxygen
47992	8	Cedar-Sammamish	FILBERT CREEK	Dissolved Oxygen
73137	8	Cedar-Sammamish	FILBERT CREEK	Temperature
73137	8	Cedar-Sammamish	FILBERT CREEK	Temperature
72252	8	Cedar-Sammamish	HALL CREEK	Bacteria

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
45386	8	Cedar-Sammamish	HOWELL CREEK	Mercury
45386	8	Cedar-Sammamish	HOWELL CREEK	Mercury
70200	8	Cedar-Sammamish	LITTLE BEAR CREEK	Bioassessment
70201	8	Cedar-Sammamish	LITTLE BEAR CREEK	Bioassessment
70200	8	Cedar-Sammamish	LITTLE BEAR CREEK	Bioassessment
70201	8	Cedar-Sammamish	LITTLE BEAR CREEK	Bioassessment
70201	8	Cedar-Sammamish	LITTLE BEAR CREEK	Bioassessment
40786	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40785	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40786	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40786	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40785	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40785	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40786	8	Cedar-Sammamish	LITTLE BEAR CREEK	Dissolved Oxygen
40878	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature
40877	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature
40878	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature
40878	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature
40877	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature
40877	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
40878	8	Cedar-Sammamish	LITTLE BEAR CREEK	Temperature
70219	8	Cedar-Sammamish	LUNDS GULCH	Bioassessment
13122	8	Cedar-Sammamish	LYON CREEK	Bacteria
13122	8	Cedar-Sammamish	LYON CREEK	Bacteria
70135	8	Cedar-Sammamish	LYON CREEK	Bioassessment
70135	8	Cedar-Sammamish	LYON CREEK	Bioassessment
12665	8	Cedar-Sammamish	LYON CREEK	Dissolved Oxygen
12665	8	Cedar-Sammamish	LYON CREEK	Dissolved Oxygen
15485	8	Cedar-Sammamish	LYON CREEK	Temperature
15485	8	Cedar-Sammamish	LYON CREEK	Temperature
13135	8	Cedar-Sammamish	MCALEER CREEK	Bacteria
13135	8	Cedar-Sammamish	MCALEER CREEK	Bacteria
70134	8	Cedar-Sammamish	MCALEER CREEK	Bioassessment
70134	8	Cedar-Sammamish	MCALEER CREEK	Bioassessment
12681	8	Cedar-Sammamish	MCALEER CREEK	Dissolved Oxygen
12681	8	Cedar-Sammamish	MCALEER CREEK	Dissolved Oxygen
4819	8	Cedar-Sammamish	MCALEER CREEK	Temperature
4819	8	Cedar-Sammamish	MCALEER CREEK	Temperature
7450	8	Cedar-Sammamish	NORMA CREEK	Bacteria
70220	8	Cedar-Sammamish	NORTH CREEK	Bioassessment

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70202	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70220	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70121	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70220	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70202	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
70220	8	Cedar-Sammamish	NORTH CREEK	Bioassessment
47991	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
78031	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7455	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
78031	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
47991	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7457	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
78031	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
78031	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
7455	8	Cedar-Sammamish	NORTH CREEK	Dissolved Oxygen
40791	8	Cedar-Sammamish	NORTH CREEK	pH
40791	8	Cedar-Sammamish	NORTH CREEK	pH
73141	8	Cedar-Sammamish	NORTH CREEK	Temperature
72587	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
72587	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
73141	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
72587	8	Cedar-Sammamish	NORTH CREEK	Temperature
7031	8	Cedar-Sammamish	NORTH CREEK	Temperature
72587	8	Cedar-Sammamish	NORTH CREEK	Temperature
70224	8	Cedar-Sammamish	PICNIC CREEK	Bioassessment
606270	8	Cedar-Sammamish	PUGET SOUND (CENTRAL)	Sediment Bioassay
514586	8	Cedar-Sammamish	PUGET SOUND (N-CENTRAL) AND USELESS BAY	Sediment Bioassay
514585	8	Cedar-Sammamish	PUGET SOUND (N-CENTRAL) AND USELESS BAY	Sediment Bioassay
42488	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Bacteria
42487	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Bacteria
63188	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Benzo(a)anthracene
63189	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Benzo(a)pyrene
63190	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Benzo(b)fluoranthene
63191	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Benzo(k)fluoranthene
63192	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Chrysene
63207	8	Cedar-Sammamish	PUGET SOUND (NORTH-CENTRAL)	Polychlorinated Biphenyls (PCBs)
22474	8	Cedar-Sammamish	RUGGS LAKE	Total Phosphorus
70236	8	Cedar-Sammamish	SCRIBER CREEK	Bioassessment
70236	8	Cedar-Sammamish	SCRIBER CREEK	Bioassessment

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
70236	8	Cedar-Sammamish	SCRIBER CREEK	Bioassessment
6368	8	Cedar-Sammamish	SCRIBER LAKE	Total Phosphorus
70238	8	Cedar-Sammamish	SILVER CREEK	Bioassessment
70238	8	Cedar-Sammamish	SILVER CREEK	Bioassessment
70238	8	Cedar-Sammamish	SILVER CREEK	Bioassessment
6322	8	Cedar-Sammamish	SILVER LAKE	Bacteria
52693	8	Cedar-Sammamish	SILVER LAKE	Polychlorinated Biphenyls (PCBs)
70237	8	Cedar-Sammamish	SWAMP CREEK	Bioassessment
70237	8	Cedar-Sammamish	SWAMP CREEK	Bioassessment
70119	8	Cedar-Sammamish	SWAMP CREEK	Bioassessment
70119	8	Cedar-Sammamish	SWAMP CREEK	Bioassessment
70119	8	Cedar-Sammamish	SWAMP CREEK	Bioassessment
70119	8	Cedar-Sammamish	SWAMP CREEK	Bioassessment
78046	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
78047	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
78047	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
78047	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
7463	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
7462	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
7463	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
7463	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
7462	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
78046	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
78047	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
7463	8	Cedar-Sammamish	SWAMP CREEK	Dissolved Oxygen
40805	8	Cedar-Sammamish	SWAMP CREEK	pH
40805	8	Cedar-Sammamish	SWAMP CREEK	pH
73158	8	Cedar-Sammamish	SWAMP CREEK	Temperature
73158	8	Cedar-Sammamish	SWAMP CREEK	Temperature
73158	8	Cedar-Sammamish	SWAMP CREEK	Temperature
7461	8	Cedar-Sammamish	SWAMP CREEK	Temperature
7466	8	Cedar-Sammamish	SWAMP CREEK	Temperature
7461	8	Cedar-Sammamish	SWAMP CREEK	Temperature
7461	8	Cedar-Sammamish	SWAMP CREEK	Temperature
7466	8	Cedar-Sammamish	SWAMP CREEK	Temperature
73158	8	Cedar-Sammamish	SWAMP CREEK	Temperature
7461	8	Cedar-Sammamish	SWAMP CREEK	Temperature
71237	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO COTTAGE LAKE)	pH
40810	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO LITTLE BEAR CREEK)	Dissolved Oxygen
40810	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO LITTLE BEAR CREEK)	Dissolved Oxygen

ListingNum	WRIA_NR	WRIA_NM	ListingWat	ParameterN
47988	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO NORTH CREEK)	Dissolved Oxygen
47988	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO NORTH CREEK)	Dissolved Oxygen
70242	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO SCRIBER CREEK)	Bioassessment
70252	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO SWAMP CREEK)	Bioassessment
70252	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO SWAMP CREEK)	Bioassessment
48005	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO SWAMP CREEK)	Dissolved Oxygen
78038	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO SWAMP CREEK)	Dissolved Oxygen
73136	8	Cedar-Sammamish	UNNAMED CREEK (TRIB TO SWAMP CREEK)	Temperature
73145	8	Cedar-Sammamish	WOOD CREEK	Temperature
73145	8	Cedar-Sammamish	WOOD CREEK	Temperature