



2020 NPDES STORMWATER MANAGEMENT PROGRAM PLAN

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CITY OF KIRKLAND

2020 STORMWATER MANAGEMENT PROGRAM PLAN

Prepared December, 2019

1. Introduction

1.1 The Purpose of the Stormwater Management Program Plan

This document constitutes the City of Kirkland 2020 Stormwater Management Program (SWMP) Plan as required under condition S5.A.2 of the Western Washington Phase II Municipal Stormwater Permit (the Permit). The purpose of the document is to detail actions that the City of Kirkland proposes to take between January 1, 2020 and December 31, 2020 to maintain compliance with conditions in the Permit.

1.2 The NPDES Program

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act with the intent of protecting and restoring water quality in lakes and streams so they can support “beneficial uses” such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government (Waters of the US) must obtain permits and comply with certain conditions or face fines and other penalties. NPDES permits have been written for discharges from construction sites, concentrated animal feeding operations, industrial activities, publicly-owned wastewater treatment plants, and municipal stormwater systems.

1.3 The Western Washington Phase II Municipal Stormwater Permit

In Washington State, the US Environmental Protection Agency has delegated the authority over NPDES permits to the Washington State Department of Ecology (Ecology). Ecology has issued several general permits for discharges from stormwater systems that apply to municipalities with different sizes of populations and are located in different regions of the State (Eastern and Western Washington). Phase I refers to municipalities with a population of greater than 100,000, and Phase II to those with a population of less than 100,000 according to the 1990 census.

Kirkland has been identified as a Phase II municipal stormwater permittee and therefore must establish a stormwater program that complies with conditions in the Western Washington Phase II Municipal Stormwater Permit. The Permit allows municipalities to discharge stormwater from systems it owns and operates into “waters of the state” such as rivers, lakes, streams, and ground water as long as they implement programs to reduce pollutants in stormwater to the “maximum extent practicable.” To do this, permittees must conduct programs and activities in the following program areas:

- » Stormwater Planning
- » Public Education and Outreach
- » Public Involvement and Participation
- » Stormwater System (MS4) Mapping and Documentation
- » Illicit Discharge Detection and Elimination
- » Controlling Runoff from New Development, Redevelopment, and Construction Sites
- » Municipal Operations and Maintenance
- » Source Control for Existing Development
- » Monitoring and Assessment

The SWMP Plan must be prepared and submitted annually and must contain the planned actions and activities that will be used in the reporting year to maintain compliance with the Permit. In addition, the Permit requires the City to submit an Annual Compliance Report by March 31st of each year that details actions taken in the previous year to achieve compliance. The full text of the Permit can be viewed at: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-Municipal-Stormwater>.

1.4 Permit History and Implementation

The original Permit was valid for 5 years, from February 17, 2007 to February 15, 2012, and allowed for phased implementation of stormwater management programs and actions. In 2012, Ecology reissued this Permit and extended the schedule to July 31, 2013 with no new permit conditions.

The second Permit was issued on August 1, 2012 and modified on January 16, 2015. It was originally effective until July 31, 2018 and was extended until July 31, 2019. It required continued compliance with the substantial conditions of the previous Permit. It also allowed for phased implementation of new requirements over the permit cycle.

1.5 Current and Planned Activities

The current Permit was issued on August 1, 2019 and is to be effective through July 31, 2024. As with past Permits, it requires continued compliance with the established substantial conditions. Table 1 provides an overall schedule timeline including implementation due dates. Kirkland continues to be in position to meet deadlines and maintain full Permit compliance.

The SWMP Plan describes a set of actions and activities implemented to maintain permit compliance. The Plan is organized to address the program components noted in Condition S5.C of the Permit.

1.6 City Coordination and Responsibilities

The following sections of the SWMP Plan describe requirements in the Permit, followed by the current and planned activities to meet each permit component. The subsection of Permit Condition S5.C associated with each section is noted in parentheses in the section on Permit Requirements.

Compliance with the Permit requires coordination and documentation of activities in several City departments. The Public Works Department Surface Water Utility staff will coordinate City efforts and will meet with staff from other departments regularly to verify that current and planned activities meet Permit requirements. Activities required for Permit compliance will be carried out by the Public Works, Information Technology, Planning and Building, Parks, City Manager's Office (City Attorney), Finance, Fire, and Police Departments.

1.7 The Surface Water Management Utility – Other Activities

This SWMP Plan details actions and activities that fall under the purview of the Permit. Stormwater management is one part of the City's overall surface water management strategy as coordinated by the Surface Water Utility.

The Surface Water Utility conducts a suite of related programs that reduce flooding, protect and improve water quality, and protect and restore aquatic habitat in the City's streams and lakes. Although not directly required, Kirkland's flood reduction and aquatic habitat restoration efforts further our stormwater management goals.

Kirkland's Surface Water Master Plan was updated in 2014. The Master Plan sets priorities and recommends project programs and rates to support the utility over the next 5-10 years. The update included extensive public involvement in the form of open houses, mailings, and web information.

For details on Surface Water Utility activities not addressed in this SWMP, contact the Public Works Department at (425) 587-3800, or visit the [City website here](#).

**Table 1: Stormwater Management Program Implementation Timeline
(Permit cycle 2019 - 2024)**

Permit Section	Year (by Qtr)		2019		2020				2021				2022				2023				2024		
	Requirements	Deadline	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	
S5.A.	Stormwater Management Program Plan																						
	Update SWMP Annually	3/31/2020			X				X					X				X				X	
	Continue to track SWMP costs	ongoing																					
S5.C.1.	Stormwater Planning																						
	Convene inter-disciplinary team	8/1/2020					X																
	Respond to Stormwater Annual Report questions for 2013-2019 permit cycle	3/31/2021							X														
	Respond to Stormwater Annual Report questions for current permit cycle	1/1/2023															X						
	Assess barriers to LID implementation	annually																					
	Complete Receiving Water Assessment	3/31/2022											X										
	Complete Receiving Water Prioritization	6/30/2022												X									
	Develop Stormwater Management Action Plan	3/31/2023															X						
S5.C.2.	Public Education and Outreach																						
	Continue education and outreach program	ongoing																					
	Evaluate existing program or adopt new program	7/1/2020					X																
	Evaluate program and use resulting measures to make changes to increase effectiveness	3/31/2024																			X		
	Create or partner with existing organizations to create stewardship	ongoing																					
S5.C.3	Public Involvement and Participation																						
	Ongoing public participation in SWMP development, post annual report and SWMP on Kirkland website (May 31st)	Annually post by May 31st				X				X				X				X				X	
S5.C.4	MS4 Mapping and Documentation																						
	Continue GIS-based mapping program. Collect additional data of outfall size and material (1/1/2020) and connections from MS4 to private systems. (8/1/2023)	ongoing																					
S5.C.5	Illicit Discharge Detection and Elimination (IDDE)																						
	Continue implementing the enforceable mechanism to prohibit illicit discharges.	ongoing																					
	Respond to spills and illicit connections into the MS4	ongoing																					
	Continue municipal staff training, IDDE response, and citizen reporting hotline	ongoing																					

Permit Section	Year (by Qtr)		2019		2020		2021		2022		2023		2024	
	Requirements	Deadline	3	4	1	2	3	4	1	2	3	4	1	2
S5.C.6.	Control Runoff from New Development, Redevelopment, and Construction Sites													
	Continue program addressing construction and post construction runoff controls	ongoing												
	Continue plan review, inspection, and enforcement of standards for new and redevelopment	ongoing												
	Adopt and implement revised stormwater development codes to reduce impervious surface, protect vegetation, and minimize stormwater runoff	6/30/2022									X			
S5.C.7	Municipal Pollution Prevention, Operation, & Maintenance													
	Continue to annually inspect all SW treatment and flow control BMPs/facilities. Inspect and, if needed, clean all catch basins every 2 years	ongoing												
	Update maintenance standards	6/30/2022									X			
	Document policies, procedures, and practices that reduce stormwater impacts from municipal lands.	12/31/2022										X		
S5.C.8	Source Control for Existing Development													
	Adopt and implement code that requires pollution prevention source control BMPs for pollution generating activities/lands	8/1/2022										X		
	Establish inventory of sites that have the potential to generate pollutants to the stormwater system	8/1/2022										X		
	Implement inspection program of these sites. Provide inspections equal to 20% of sites annually.	1/1/2023											X	
	Implement progressive enforcement policy to require sites to comply	1/1/2023											X	
S8	Monitoring and Assessment													
	Participate in and pay annually into Regional Monitoring efforts	Pay annually by August 15th	X			X			X			X		X
S9	Reporting													
	Submit 2019 Annual Report	3/31/2020			X									
	Submit 2020 Annual Report	3/31/2021						X						
	Submit 2021 Annual Report	3/31/2022								X				
	Submit 2022 Annual Report	3/31/2023										X		
	Submit 2023 Annual Report	3/31/2024												X

2. Stormwater Planning

2.1 Permit Requirements

The Permit (Section S5.C.1) requires implementation of a stormwater planning program designed to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters. The program is designed to:

- » Develop an inter-disciplinary team to inform and assist in the development, progress and influence of the Stormwater Planning Program.
- » Coordinate with long-range plan updates. Describe in a report how stormwater management needs and protection/improvement of receiving water health are informing the planning update processes and influencing policies and implementation strategies.
- » Continue to implement Low Impact Development (LID) code. LID shall remain the preferred and commonly used approach to site development as local development-related codes, rules, standards, and other enforceable documents are updated and revised.
- » Assess and document any newly identified administrative or regulatory barriers to implementation of LID Principles or LID BMPs.
- » Stormwater Management Action Planning (SMAP)
 - Assess receiving water bodies. Complete a watershed inventory that includes a brief description of the relative conditions of the receiving water and contributing areas. Identify which basins, based on stormwater influence, will or will not proceed to the Prioritization process.
 - Prioritize receiving water bodies. Develop and implement a prioritization method and process to determine which receiving water body will receive the most benefit from implementation of stormwater retrofits, tailored implementation of SWMP actions, and other land/development management actions. The actions shall be designed to conserve, protect, or restore receiving water through stormwater and land management strategies that act as water quality management tools, reduce pollutant loading, and address hydrologic impacts from existing development as well as planned for and expected future buildout conditions.
 - Create a Stormwater Management Action Plan (SMAP). The plan will describe stormwater facility retrofits needed for the area selected through the prioritization process including the Best Management Practice types and preferred locations, land management/development strategies and/or actions identified for water quality management, and targeted or enhanced implementation of stormwater management actions. Propose implementation schedule for the plan and sources for budget as well as a process and schedule for providing future assessment and feedback to improve the planning process.

2.2 Current City Activities

The Stormwater Planning section is new to the 2019-2024 permit. Kirkland will implement the new requirements through the actions listed in Table 2.1. Additionally, Kirkland will continue to require LID Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents.

2.3 Planned City Activities

Activities planned for compliance are shown in Table 2.1.

Table 2.1 Stormwater Planning Work Plan for 2020

Item ID	Item Description	Departments Involved	Schedule Notes
PLAN-1	Convene an inter-disciplinary team to support the implementation of this program.	Public Works, Planning	By August 1, 2020
PLAN-2	Develop report based on the series of Stormwater Planning Annual Report Questions found in Appendix 3 that describes coordination with long-range plans updates.	Public Works, Planning	By March 31, 2021
PLAN-3	Implement development code and standard revisions to maintain LID as the preferred and commonly used approach to stormwater management when sites are developed.	Public Works, Planning, Building, Fire	On-going
PLAN-4	Assess and document any newly identified administrative or regulatory barriers to implementation of LID Principles or LID BMPs. Take action to overcome barriers.	Public Works, Planning, Building	Annually
PLAN-5	Track activities, gather data, and summarize annual activities for "Stormwater Planning" portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021

3. Public Education and Outreach

3.1 Permit Requirements

The Permit (Section S5.C.2) requires implementation of a stormwater education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities. The program is designed to:

- » Educate target audiences about the stormwater problem and provide specific actions they can follow to minimize the problem.
- » Build general awareness for the public, including: overburdened communities, school age children, businesses (including home-based or mobile), engineers, contractors, developers, or land use planners.
- » Annually, at minimum, one target audience and one subject area will be selected for general awareness education.
- » Affect behavior change for the public, including: residents, landscapers, property managers/owners, developers, school age children, or businesses (including home-based or mobile). Encourage this behavior change by either evaluating an ongoing behavior change campaign, using resulting recommendations to develop and implement an improvement strategy or develop a new behavior change campaign with a strategy and schedule for implementation. The behavior change campaign will focus on at least one of the Best Management Practices listed in S5.C.2.a.ii(a) of the Permit.
- » Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.
- » Track and maintain records of public education and outreach activities and summarize these activities in the Annual Compliance Report.

3.2 Current City Activities

Kirkland meets the Permit requirements through a variety of tested outreach/education programs. Kirkland will continue to refine the public education and outreach program and will summarize the annual activities in the Annual Compliance Report.

- » Continue to implement general awareness programs for target audiences, including a school outreach program for K-12 students to increase awareness of stormwater impacts on surface waters, including impacts from impervious surfaces. Kirkland additionally increases general awareness through a variety of media including utility bill inserts, direct mail, direct outreach, social media, BMP cards, and fliers.
- » Coordinate with other permittees throughout Western Washington on education and outreach efforts via active participation in the regional group STORM (Stormwater Outreach for Regional Municipalities) and STORM's awareness campaign, Puget Sound Starts Here.
- » For behavior change programs, continue to assist homeowners in adopting yard care and low impact development techniques that are protective of water quality and that reduce stormwater runoff. Additionally, City of Kirkland works to affect behavior change via a variety of technical assistance programs, including a pollution prevention assistance (local source control) program.
- » Provide stewardship opportunities for residents through the Green Kirkland Partnership volunteer natural areas restoration program and through both a residential and business-focused storm drain marking program.

3.3 Planned City Activities

Kirkland has a Public Education and Outreach program but will continually update existing efforts in order to maintain compliance over the 5-year Permit term (2019-2024).

Table 3.2 is the work plan for the 2020 SWMP Public Education and Outreach activities. These tasks were developed through meetings with staff from affected City departments.

Table 3.1 Education and Outreach Work Plan for 2020

Item ID	Item Title	Departments Involved	Schedule Notes
EDUC-1	Continue to refine and implement Public E&O activities and programs as the new Permit's requirements are implemented. Identify / interact with new audiences.	Public Works, Information Technology, Parks, City Manager's Office	On-going
EDUC-2	Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.	Public Works, Information Technology, Parks, City Manager's Office	On-going
EDUC-3	Build general awareness about methods to address and reduce impacts from stormwater runoff or increase awareness of Low Impact Development principles and Best Management Practices. Annually, one target audience and one subject area will be selected for general awareness education.	Public Works	On-going
EDUC-4	Develop new behavior change campaign or conduct an evaluation of an existing behavior change campaign.	Public Works	If selected, Evaluation due July 1, 2020
EDUC-5	Track activities, gather data, and summarize annual activities for "Public Education and Outreach" portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021

4. Public Involvement and Participation

4.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate-structures or other similar activities. The SWMP Plan includes:

- » An opportunity for the public to participate in the decision-making processes involving the development, implementation and update of the SWMP.
- » Make the SWMP Plan and Annual Compliance Report available to the public upon request, and post on the City's website.
- » Track and maintain activities for public involvement and participation and summarize these activities for the Annual Compliance Report.

4.2 Current City Activities

Kirkland currently implements activities and programs meeting the Permit requirements. The City will continue to implement these programs and activities as new and/or increased requirements in the 2019-2024 Permit are implemented. Current compliance activities associated with the above Permit requirements include:

- » Posting of the draft NPDES SWMP Plan on the City's website along with an invitation to the public to submit comments on the document.
- » Kirkland makes the final NPDES SWMP Plan and Annual Compliance Reports available to the public on the City's website.

4.3 Planned City Activities

Activities planned for continued compliance are shown in the Table 4.1.

Table 4.1 Public Involvement Work Plan for 2020

Item ID	Item Title	Departments Involved	Schedule Notes
PUB-1	Conduct public involvement process for 2020 Stormwater Management Program Plan, including posting of Draft Plan on City website.	Public Works, City Manager's Office	To be completed by March 15, 2020.
PUB-2	Post Final 2020 Stormwater Management Program Plan and Annual Compliance Report on City website.	Public Works, Information Technology	To be completed by May 31, 2020.
PUB-3	Refine public involvement process for overall stormwater management program.	Public Works, City Manager's Office	On-going
PUB-4	Track activities, gather data, and summarize annual activities for "Public Involvement & Participation" portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021.

5. Stormwater System (MS4) Mapping and Documentation

5.1 Permit Requirements

The Permit (Section S5.C.4) requires an ongoing program for mapping and documenting the Municipal Separate Storm Sewer System (MS4). The program is designed to:

- » Continue mapping the municipal stormwater system, including attributes of stormwater system outfalls, discharge points, receiving waters (other than groundwater), stormwater treatment and flow control BMPs/facilities owned and operated by the City, tributary conveyances to all known outfalls and discharge points (24-inch diameter or larger), connections between other municipalities and public entities, and all connections authorized after February 16, 2007.
- » New mapping requirements include collecting data for size and material for all known MS4 outfalls and all known connections from the MS4 to a privately-owned stormwater system.

5.2 Current City Activities

Kirkland currently implements activities and programs meeting the Permit requirements. The City will continue to implement these programs and activities as new and/or increased requirements in the 2019-2024 Permit are implemented. Current compliance activities associated with the above Permit requirements include:

- » Maintain Kirkland maps and associated GIS database for the municipal and private stormwater systems. Standard procedures are in place for documenting new connections, changes/alterations to the existing system, and changes based on field verification. Drainage areas and land use have been used to identify outfalls 24 inches or greater in size. Size and material of outfalls and pipes is collected as standard procedure. Maps are available to Ecology and other permittees upon request in electronic format.

5.3 Planned City Activities

Activities planned for continued compliance are shown in Table 5.1

Table 5.1 Mapping and Documentation Work Plan for 2020

Item ID	Item Title	Departments Involved	Schedule Notes
MAP-1	Update maps and GIS database for the municipal stormwater system to indicate new connections and as inconsistencies are discovered.	Public Works, Information Technology	On-going
MAP-2	Verify data for size and material of outfall. Collect additional data as needed.	Public Works	Begin on January 1, 2020
MAP-3	Track activities, gather data, and summarize annual activities for "Stormwater System (MS4) Mapping and Documentation" portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021

6. Illicit Discharge Detection and Elimination

6.1 Permit Requirements

The Permit (Section S5.C.5) requires the City to have an ongoing program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into the municipal stormwater system. The program includes:

- » Implement a program for reporting and correcting or removing illicit connections, spills and other illicit discharges.
- » Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges.
- » Implement an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into the stormwater system, including procedures for conducting investigations and a field screening methodology.
- » Implement an ongoing program to characterize, trace the source, and eliminate illicit discharges, including spills and illicit connections, into the stormwater system.
- » Provide training for municipal field staff on the identification and proper response for reporting and responding to illicit discharges and/or illicit connections to the stormwater system. Provide follow up training as needed on changes in procedures, techniques, requirements, or staffing.
- » Implement a program to inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.
- » Implement an ordinance or other regulatory mechanism, which will include escalating enforcement procedures and actions, to effectively prohibit non-stormwater, illicit discharges into the stormwater system.
- » Track and maintain records of actions taken.

6.2 Current City Activities

Kirkland currently implements activities and programs meeting the Permit requirements. The City will continue to implement these programs and activities as new and/or increased requirements in the 2019-2024 Permit are implemented. Current compliance activities associated with the above Permit requirements include:

- » Continue Kirkland's ongoing program designed to characterize, trace the source, and eliminate illicit discharges, including spills and illicit connections, into the municipal stormwater system.
- » Kirkland has an on-going informal compliance strategy and strives to achieve compliance through public education and technical assistance. KMC 1.12 was updated in 2018 to support this program. When education, technical assistance, and voluntary correction agreements do not achieve compliance, KMC 1.12 and 15.52 provides for progressive enforcement actions and penalties.
- » Implement, and update when needed, Kirkland Municipal Code Chapter (KMC) 15.52 prohibiting illicit discharges to the stormwater system.
- » A phone number, 425-587-3900, is publicly listed for reporting of spills, water quality concerns, and other illicit discharges and is publicized as a reporting 24-hour hotline. Kirkland investigates all calls received. Records are kept of calls received and actions taken as a result of these calls.
- » Kirkland has an annual training program for city staff on the identification, reporting, and response to illicit discharges into the municipal stormwater system.
- » Kirkland educates public employees, businesses, and the general public about illicit discharges and the hazards associated with improper disposal of waste through the Department of Ecology Pollution Prevention Assistance Program, King County Local Hazardous Waste Management Program, and general awareness campaigns. Kirkland also provides spill kits to businesses.

6.3 Planned City Activities

Activities planned for continued Permit compliance are shown in Table 6.1.

Table 6.1 Illicit Discharge Detection and Elimination Work Plan for 2020

Item ID	Item	Additional Departments Involved	Schedule Notes
IDDE-1	Continue to implement and refine the IDDE field screening methodology for identification of potential sources of non-stormwater discharges and illicit connections. Field screen on average 12% of the MS4 each year. Annually track total percentage screened beginning August 1, 2019.	Public Works	On-going. Annually track total percent screened beginning on August 1, 2019.
IDDE-2	Continue training City field staff on the identification, response, and reporting of illicit discharges into the stormwater system.	Public Works, Police, Parks, Fire, Planning and Building	On-going.
IDDE-3	Continue to implement and refine the program to address illicit discharges and connections, including characterization, source tracing, and elimination.	Public Works	On-going
IDDE-4	Continue to implement and refine a progressive compliance strategy in support of ordinance to prohibit non-stormwater discharges to the storm system.	Public Works, Planning and Building	On-going
IDDE-5	Continue program to educate businesses and the general public about the hazards associated with improper disposal of waste.	Public Works	On-going
IDDE-6	Continue training IDDE response staff on the characterization, source tracing, and elimination of illicit discharges, including spills and illicit connections, into the stormwater system.	Public Works	On-going
IDDE-7	Track activities, gather data, and summarize annual activities for "Illicit Discharge Detection and Elimination" portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021.

7. Controlling Runoff from New Development, Redevelopment and Construction Sites

7.1 Permit Requirements

The Permit (Section S5.C.6) requires Kirkland to implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. The program applies to private and public development, including transportation projects. This program includes the following activities:

- » Implement and enforce an ordinance that addresses runoff from new development, redevelopment and construction sites. Make effective an updated program no later than June 30, 2022.
- » Adopt minimum stormwater design standards that are equivalent to the minimum technical requirements in Appendix 1 of the Permit.
- » Implement a program (permitting process) to review plans, inspect sites during construction, and to take enforcement action against those failing to follow approved guidelines or to provide facilities as required during plan review.
- » Provide copies of the “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” to representative of proposed new development and redevelopment.
- » Provide training for staff on new/revised regulations, standards, processes and procedures.
- » Track and maintain records of activities associated with the regulation of new development, redevelopment, and construction sites, and summarize these activities in the Annual Compliance Report.

7.2 Current City Activities

Kirkland currently implements activities and programs meeting the Permit requirements. The City will continue to implement these programs and activities as new and/or increased requirements in the 2019-2024 Permit are implemented. Current compliance activities associated with the above Permit requirements include:

- » Kirkland Municipal Code Chapter 15.52 addresses runoff from new development, redevelopment and construction sites.
- » Kirkland adopted the 2016 King County Surface Water Design Manual effective January 1, 2017. These stormwater design standards are equivalent to the minimum technical requirements in Appendix 1, as required by the Permit.
- » Kirkland has a program (permitting process) to review plans, inspect sites during construction, and take enforcement action against those failing to follow approved guidelines or to provide facilities as required during plan review.
- » Kirkland provides copies of the “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” to the applicants as part of the development permit process.
- » Staff continues to increase their knowledge by remaining current with new/revised stormwater regulations, along with attending trainings on erosion control, LID techniques, stormwater design models, standards, and practices.
- » Through the Developer’s Forum and associated listserv, Kirkland provides the development community and the public with information and updates on proposed changes to stormwater design requirements, codes, processes and procedures.

7.3 Planned City Activities

Activities planned for continued Permit compliance are shown in Table 7.1.

Table 7.1 Controlling Runoff from New Development, Redevelopment and Construction Sites Work Plan for 2020

Item ID	Item Title	Additional Departments Involved	Schedule Notes
CTRL-1	Continue to provide copies of the Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity to the applicants for development permits.	Public Works	On-going
CTRL-2	Provide training tools and resources to support implementation of the 2016 King County Surface Water Design Manual and City of Kirkland Addendum for site development applications.	Public Works, Planning and Building	On-going.
CTRL-3	Continue to provide training for staff and the development community to increase their knowledge of stormwater regulation, design, and construction.	Public Works	On-going.
CTRL-4	Continue to ensure proposed development projects comply with the 2016 King County Surface Water Design Manual.	Public Works	On-going
CTRL-5	Continue to implement and refine and program for Controlling Runoff from New Development, Redevelopment and Construction Sites.	Public Works	On-going.
CTRL-6	Summarize annual activities for “Controlling Runoff from New Development, Redevelopment and Construction Sites” portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021.

8. Municipal Operations and Maintenance

8.1 Permit Requirements

The Permit (Section S5.C.7) requires the City to implement an operations and maintenance (O&M) program that includes a training component and has the goal of preventing or reducing pollutant runoff from municipal operations. The program is required to:

- » Implement maintenance standards that are as protective as those noted in the *Stormwater Management Manual for Western Washington*. These will be updated no later than June 30, 2022.
- » Perform inspections of municipally owned and operated water quality treatment and flow control facilities annually and catch-basins within two years.
- » Implement program for maintenance of stormwater facilities regulated by Kirkland. Program will identify party responsible for maintenance, require inspection, and establish enforcement procedures. Program will verify adequate long-term operation and maintenance of water quality treatment and flow control facilities through annual inspections. Achieve 80% of required inspections and maintain records of all program actions taken.
- » Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by Kirkland and road maintenance activities under functional control of Kirkland.
- » Implement training program for staff addressing the importance of protecting water quality during maintenance operations.
- » Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities owned or operated by the City. Update as needed.
- » Track and maintain records of inspections, maintenance and repair activities, and summarize these activities in the Annual Compliance Report.

8.2 Current City Activities

Kirkland currently implements activities and programs meeting the Permit requirements. The City will continue to implement these programs and activities as new and/or increased requirements in the 2019-2024 Permit are required. Current compliance activities associated with the above Permit requirements include:

- » The City Operations and Maintenance (O&M) Program takes steps to minimize pollutants in runoff from City activities as noted in the ESA Regional Road Maintenance Program Guidelines and City Standard Operating Procedures.
- » Municipally owned and operated water quality treatment and flow control facilities and catch-basins are inspected, cleaned and repaired at the frequency required in the Permit, per maintenance standards established in the King County 2016 Surface Water Design Manual (Appendix A).
- » The City operates a program to inspect and require maintenance of private water quality treatment and flow control facilities regulated by Kirkland that discharge to the MS4 and were permitted after the initial Western Washington Phase II NPDES permit in 2007. Maintenance standards are established in the King County 2016 Surface Water Design Manual (Appendix A). KMC 15.52 establishes enforcement procedures. Records are kept of all actions taken through this program.
- » The City O&M Program implements practices, policies and procedures to reduce stormwater impacts associated with runoff from land owned or maintained by Kirkland and road maintenance activities. In addition, both Parks and Public Works Departments use Integrated Pest Management and other techniques to minimize pollutant discharge from landscaped areas on City property.
- » O&M staff receives training on the importance of protecting water quality during maintenance operations.
- » A SWPPP for City Maintenance Facilities that qualify as heavy equipment/material maintenance or storage yards is being implemented and updated as needed.

8.3 Planned City Activities

Activities planned for continued Permit compliance are shown in Table 8.1.

Table 8.1 Municipal Operations and Maintenance Work Plan for 2020

Item ID	Item Title	Additional Departments Involved	Schedule Notes
MUNI-1	Implement maintenance standards from the King County Surface Water Design Manual and Pollution Prevention Manual.	Public Works, Parks	On-going.
MUNI-2	Continue to implement and refine the O&M Program to meet permit requirements. Annually inspect all municipal stormwater treatment and flow control facilities/BMPs. Inspect all municipal stormwater catch basins and inlets within 2 years.	Public Works, Information Technology	On-going.
MUNI-3	Continue to provide training to O&M staff regarding pollutant reduction from runoff during maintenance activities.	Public Works, Parks	On-going
MUNI-4	Continue to implement and update the SWPPP for qualifying City Maintenance yards/facilities.	Public Works	On-going
MUNI-5	Continue to refine and implement Municipal O&M activities and programs.	Public Works, Facilities, and Parks	On-going
MUNI-6	Continue inspecting all private stormwater treatment and flow control BMPs/Facilities that discharge to the MS4 and were permitted after the initial Western Washington Phase II NPDES permit in 2007.	Public Works	On-going
MUNI-7	Track activities, gather data, and summarize annual activities for "Municipal Operations and Maintenance" portion of Annual report.	Public Works	To be completed by March 31, 2021.

9. Source Control Program for Existing Development

9.1 Permit Requirements

The Permit (Section S5.C.8) requires implementation of a new program designed to prevent and reduce pollutants in runoff from areas that discharge to the MS4. The program will require Kirkland to:

- » Implement and enforce an ordinance that requires source control Best Management Practices (BMPs) for pollutant generating sources on existing development that are identified in Appendix 8 of the permit.
- » Implement a progressive enforcement policy that requires sites to comply with stormwater regulations. (by January 1, 2023)
- » Use the Source Control BMPs in the Stormwater Management Manual for Western Washington or other Ecology approved program.
- » Establish an inventory that identifies institutional, commercial, and industrial sites that have the potential to generate pollutants to the stormwater system. (by August 1, 2022)
- » Implement an inspection program that supports these sites in applying operational and/or structural BMPs to prevent illicit discharges or violations for surface water, ground water, or sediment management standards. (by January 1, 2023)
- » Inform all sites with a business address about activities that may generate pollutants and the source control requirement applicable to those activities. (by January 1, 2023)
- » Annually complete the number of inspections equal to 20% of the businesses or sites listed in the inventory. (Begins January 1, 2023)
- » Maintain program records including documentation of each site visit, inspection records, denial of entry occurrences, warning letters, notices of violation, and other enforcement records that demonstrate an effort to bring sites into compliance.

9.2 Current City Activities

- » Kirkland Municipal Code Chapter (KMC) 15.52 addresses the requirement of source control BMPs for sites that have the potential to generate pollutants to the stormwater system (MS4).
- » Kirkland currently provides education to homeowners and businesses about appropriate source control BMPs to reduce pollution to the MS4 and other surface waters through the Illicit Discharge Detection and Elimination Program, Pollution Prevention Assistance Inspection Program, and general educational efforts.

9.3 Planned City Activities

Activities planned for continued compliance are shown in Table 9.1

Table 9.1 Source Control Work Plan for 2020

Item ID	Item Title	Departments Involved	Schedule Notes
SOURCE-1	Prepare for Program Development and Implementation	Public Works	On-going (see deadlines above)
SOURCE-2	Track activities, gather data, and summarize annual activities for "Source Control for Existing Development" portion of Annual Compliance Report	Public Works	Begin in 2020. To be completed by March 31, 2021

10. Monitoring

10.1 Permit Requirements

The Permit (Section S8) requires the City to:

- » Include a description of any stormwater monitoring or stormwater-related studies in the Annual Compliance Report.
- » Participate in the Stormwater Action Monitoring Consortium (SAM) for Status and Trends or implement an individual monitoring program.
- » Participate in the SAM for Effectiveness and Source Identification Studies or implement an individual monitoring program.
- » Provide information as requested for effectiveness and source identification SAM studies.
- » Track and maintain records of monitoring activities and summarize these activities in the Annual Compliance Report.

10.2 Current City Activities

Kirkland currently implements activities and programs meeting the Permit requirements. The City will continue to implement these programs and activities as new and/or increased requirements in the 2019-2024 Permit are implemented. Current compliance activities associated with the above Permit requirements include:

- » Kirkland participates in Stormwater Action Monitoring Consortium (SAM) for Status and Trends, Effectiveness Studies, and Source Identification and Diagnostic. Kirkland also participates in regional monitoring forums to develop feasible and effective monitoring studies and program outcomes. Kirkland provides data for regional SAM studies as requested.
- » Kirkland conducts bacteria sampling in Juanita creek and aquatic macroinvertebrate (bug) sampling in several creeks to evaluate stream health. While not required under the permit, these activities complement and inform other permit activities.

10.3 Planned City Activities

Activities planned for continued Permit compliance are shown in Table 10.1.

Table 10.1 Monitoring and Assessment Work Plan for 2020

Item ID	Item Title	Additional Departments Involved	Schedule Notes
MNTR-1	Participate in the Stormwater Action Monitoring Consortium (SAM) for Status and Trends, Effectiveness Studies, and Source Identification and Diagnostic.	Public Works	On-going
MNTR-2	Submit payments to Ecology to fund the SAM. Payments occur annually.	Public Works	Annual payment due August 15, 2020
MNTR-3	Participate in regional and state monitoring forums and future legislative actions as needed to ensure scientifically sound analysis and appropriate use of monitoring data in stormwater management and future Permits. Comply with data requests for regional SAM studies.	Public Works	On-going
MNTR-4	Continue to implement and refine additional monitoring activities and programs.	Public Works	On-going
MNTR-5	Track activities, gather data, and summarize annual activities for "Monitoring" portion of Annual Compliance Report.	Public Works	Begin in 2020. To be completed by March 31, 2021

Appendix A

Public Comment:

This document was open for public comment between January 21st and March 16th, 2020. No comments were received during this time period.

