2025 STORMWATER MANAGEMENT PROGRAM PLAN

National Pollutant Discharge Elimination System
Prepared December 2024

CITY OF KIRKLAND
WASHINGTON

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Introduction

The Purpose of the Stormwater Management Program Plan

This document constitutes the City of Kirkland (the "City", "Kirkland") 2025 Stormwater Management Program (SWMP) Plan, which is required to be updated annually 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, 2025, and December 31, 2025, to maintain compliance with conditions in the Permit.

The NPDES Program

The National Pollutant Discharge Elimination System (NPDES), created under the Federal Clean Water Act, is a program created to protect and restore 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.

The US Environmental Protection Agency has delegated the authority over Washington State's 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 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.

The Western Washington Phase II Municipal Stormwater Permit

The City of 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"). The Permit allows municipalities to discharge stormwater from systems it owns and operates into "waters of the state" such as rivers, lakes, streams, and groundwater 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
- Stormwater Management for Existing Development
- Municipal Operations and Maintenance
- Monitoring and Assessment

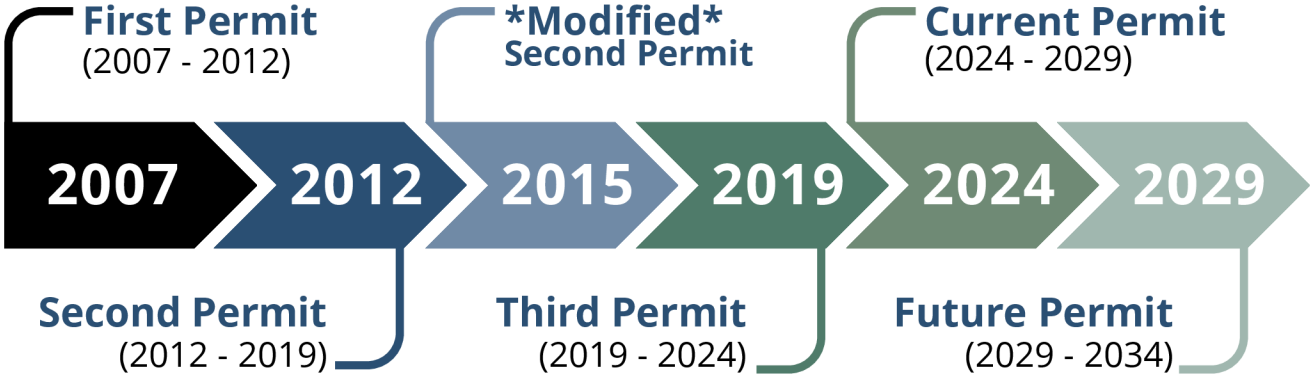
The Stormwater Management Program ("SWMP") Plan must be prepared and submitted annually. It must contain the planned actions and activities that will be used in the reporting year to maintain compliance with the Permit. In addition, the Permit requires the City to submit an Annual Compliance Report by March 31st of each year that details actions taken in the previous year to achieve compliance.

Full Text of the Permit:

https://ecology.wa.gov/Regulations-Permits/Permits-Certifications/Stormwater-General-Permits/Municipal-Stormwater-General-Permits/Western-Washington-Phase-II-Municipal-Stormwater

Permit History and Implementation

The Western WA Phase II Permit was originally issued in 2007 and has been reissued three times. Each permit required continued compliance with the previous permit's substantial conditions and phased implementation of new requirements over the permit cycle. The table on pages 36-40 provides implementation due dates for the current 2024-2029 Permit. Kirkland continues to be in a good position to meet deadlines and maintain full Permit compliance.



Current and Planned Activities

The following sections of the SWMP Plan describe how Kirkland is currently meeting the requirements of the Permit, and how the City plans to continue to meet those requirements in 2025. The Plan is organized to address the program components noted in Condition S5.C of the Permit.

Kirkland does not currently operate their stormwater system in a location where a Total Maximum Daily Load (TMDL) Plan has been approved, thus TMDL (S7) compliance requirements have not been included in this plan.

Coordination and Responsibilites Cont.

Compliance with the Permit requires coordination and documentation of activities in several City departments. The Public Works Department Surface Water Utility staff (Surface Water 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 and Community Services, City Manager's Office (including City Attorney), Finance, Fire, and Police Departments.

The Surface Water 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 staff.

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

Kirkland's most recent Surface Water Strategic Plan (Strategic Plan) was adopted in early 2023. The Strategic Plan sets priorities and recommends projects, programs, and rates to support the utility over the next 5-10 years.

750
City of Kirkland Staff

175
Public Works Staff

13
Surface Water Staff

Stormwater Planning

Stormwater Planning requires Kirkland to enhance its existing efforts and is designed to inform and assist in the development of policies and strategies that serve as water quality management tools in order to protect receiving waters. Receiving waters are defined as the natural or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, wetlands, or groundwater, to which stormwater flows. Kirkland has operated its stormwater system under a Strategic Plan since 1994. These Strategic Plans incorporate best available science, regulatory/permit requirements, staff expertise, and community input to direct the work of the City with regards to storm and surface water management. That plan is updated approximately every 5-10 years and is complementary to this SWMP Plan and the work of the Permit requirements.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Interdisciplinary Team:** Kirkland has formed an inter-disciplinary team to inform and assist in the development, progress and influence of the Stormwater Planning Program. This team is comprised of members from the Planning and Building Department, Transportation Division, Capital Improvement Program Division, Parks and Community Services Department, and Surface Water staff. Team members may vary based on current tasks of the team.
- **Coordination with Long Range Planning:** Kirkland staff actively coordinate during long-range plan updates. The City will describe how stormwater management and protection/improvement of receiving water health are informing the planning update processes as well as influencing policies and implementation strategies through a series of annual report questions. Responses for the current 2024-2029 Permit are due on March 31, 2027.
- **Low Impact Development:** Kirkland continues implementing Low Impact Development (LID) code. As local development-related codes, rules, standards, and other enforceable documents are updated and revised, LID shall remain the preferred, commonly used approach to site development.

- **Low Impact Development Cont.**
  - Kirkland staff will assess and document any newly identified administrative or regulatory barriers to the implementation of LID principles or LID Best Management Practices (BMPs) as well as the measures developed to address the barriers.
    - See our Low Impact Development website (in the link box below) for more details.
  - **Tree Canopy Goals:** Kirkland will adopt and implement tree canopy goals and policies that support stormwater management by December 31, 2028.
- **Stormwater Management Action Plan:** Kirkland completed a Stormwater Management Action Plan (SMAP) for the Totem Lake catchment area in the Juanita Creek Watershed in early 2023. Kirkland will add additional actions to this SMAP or develop a new SMAP by March 31, 2027.
  - The full plan can be found at the link box below.
- **Record Keeping:** Kirkland will continue to track and maintain records of stormwater planning activities and will summarize these activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works, Planning and Building, the City Manager's Office, Parks and Community Services

Low Impact Development Website:

https://www.kirklandwa.gov/Government/Departments/Development-Services-Center/Tools-and-Resources/Stormwater/LID

SMAP Full Text:

https://www.kirklandwa.gov/files/sharedassets/public/v/1/public-works/surface-water/surface-water-master-plan/appendix-n-smap.pdf

Public Education and Outreach

Kirkland provides and participates in a variety of stormwater education and outreach programs designed to build general awareness, reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts, and encourage the public to participate in stewardship activities.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Regional Participation:** Kirkland is an active participant and leader in regional education and outreach groups. Staff will continue to coordinate with other permittees in Western Washington through participation in the Stormwater Outreach for Regional Municipalities (STORM) and the North King County Stormwater Outreach Group (SOGgies).
  - Kirkland participates in STORM's awareness campaign, Puget Sound Starts Here (PSSH).
- **General Awareness Programs:** Kirkland will continue to provide general awareness education and outreach programs for a variety of target audiences, including program considerations for overburdened communities. Kirkland incorporates behavior change principles in its general awareness programs to promote not just education, but a change in ongoing behavior. Examples of programs include:
  - A K-12 school outreach program to increase awareness of stormwater impacts on surface waters, including impacts from impervious surfaces.
  - Pet waste stations and educational signage throughout the city at parks and other locations. The City supplies these stations with dog waste bags.
  - Natural yard care workshops to teach residents how to care for their yards in environmentally friendly ways that are protective of water quality and reduce stormwater runoff.
  - Education, technical assistance, and financial rebates to private property owners through the Yard Smart Rain Rewards program to control the flow of runoff from their property. These Green Stormwater Infrastructure (GSI) installations include rain gardens, cisterns, and native landscaping.

- **General Awareness Programs Cont.**
  - A rebate and voucher program that provides financial incentive for private property owners to plant trees that intercept/slow water runoff.
  - An online mapping portal for property owners to explore and discover the LID facilities built on their property as well as resources for maintenance support.
  - Promoting general awareness through a variety of communication channels including utility bill inserts, direct mail, direct outreach, social media, BMP cards, and fliers.
  - The translation of outreach materials into the top languages spoken in Kirkland. Examples of this includes: Kirkland's website that incorporates Google Translate, interpretation services are available to all City staff over the phone for improved communication with residents, and translation of program materials for non-English speaking audiences.
  - The "What You Can Do For Clean Water" section of our website offers helpful information and suggested activities to prevent pollution in our stormwater. See the box below for the link to learn more.
  - Promoting Kirkland's online watershed dashboard and interactive map of water quality and stream health data. This dashboard is focused on raising general awareness about local watershed health and how it is impacted by stormwater runoff and individual actions. See the box below for a link to the dashboard.

"What You Can Do For Clean Water" Web Page:

https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/Storm-Surface-Water/What-You-Can-Do-For-Clean-Water

Kirkland Water Quality Dashboard:

https://kirkland-watersheds-kirklandwa.hub.arcgis.com/pages/water-quality

- **Behavior Change Campaign:** Based on the results of the evaluation completed in 2024, Kirkland is preparing to develop a new behavior change campaign for the 2024-2029 Permit cycle by July 1, 2025. The new behavior change campaign will be implemented by September 1, 2025.
  - Dumpster management: Kirkland continues local implementation of the regionally developed dumpster management behavior change campaign, known as "Shut the Lid." This program, developed for the 2019-2024 permit cycle, promotes the consistent closing of dumpster lids after each use.
    - "Shut the Lid" is focused on commercial property owners/staff; and it utilizes promotional materials such as stickers, signage, and technical assistance. Kirkland prioritizes working with businesses that had lids consistently left open during baseline observations. In 2024, Kirkland continued observations on nearly 50 containers.

- **Stewardship Opportunities:** Kirkland will continue to provide stewardship opportunities for community members through various programs.
  - Labeling storm drains: Volunteers affix neighborhood storm drains with labels stating, "Puget Sound Starts Here – Only Rain Down the Drain." These markers raise awareness on the connection between our neighborhoods and local water bodies.

- **Stewardship Opportunities Cont.**
  - Green Kirkland Partnership stewardship events: The City of Kirkland, nonprofit partners, businesses, and the community work together to form the Green Kirkland Partnership. The Green Kirkland Partnership's mission is to restore and maintain healthy forested and natural parklands (totaling over 500 acres) by building a supportive community that works together to protect Kirkland's valuable natural resources for current and future generations. Achieving this involves training volunteers in restoration activities and providing support from restoration partners, contractors and skilled natural areas staff. The partnership's activities are primarily led by dedicated volunteers and include community-based restoration efforts such as replanting areas with native trees and invasive plant removal, as well as education, outreach, and engagement with the community.
  - Park pet waste stewards: A team of volunteers help keep existing pet waste stations stocked with bags and monitor un-scooped pet waste in potential "hot spot" parks to gather baseline data for future targeted education and outreach efforts.

  - Cross Kirkland Corridor Adopt-a-Trail: Local volunteer groups including Kirkland neighborhood associations, community service groups, businesses, and individuals can adopt quarter-mile segments of the Cross Kirkland Corridor, pledging to remove litter from the area twice a year. They also have the option to do a yearly removal of invasive plants found in their section. The up-to-date roster of adopted segments can be found on the City's volunteer webpage.

- **Stewardship Opportunities Cont.**
  - Water Watchers volunteers: Water Watchers is a community-based water monitoring program operated by the Sno-King Watershed Council. Water Watcher volunteers in Kirkland monitor physical and chemical indicators of stream health on local creeks. Data collected by the volunteers helps inform the Kirkland community on watershed health and supplements water quality data collected by City staff.

Above: Water Waters volunteers.

Above: Kirkland's Environmental Education & Outreach Specialist at a community event.

- **Record Keeping:** Kirkland will continue to track and maintain records of public education and outreach activities and will summarize these activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works, Parks and Community Services, the City Manager's Office

Public Involvement

Kirkland is committed to providing ongoing opportunities for the public to provide input on the development of this annual plan and on other initiatives/plans designed to improve water quality.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Opportunities for Public Input:** The City welcomes comments from the public throughout the year.
  - To facilitate public comment, the City provides a contact number for residents to call on the customer service portal, "Our Kirkland." The contact number is posted on Kirkland's stormwater webpage.
  - Public comment can also be provided to City Council members at twice a month City Council Meetings.
  - Kirkland invites the public to review and comment on the Stormwater Management Program Plan annually. As with prior years, this year's staff will post the draft plan to the City website. Feedback is solicited through a Press Release, City social media outlets, and via City e-newsletters.
  - Kirkland also seeks to involve the public in stormwater management and clean water related decisions outside of the SMWP Plan. Staff engage the community during the planning and construction of stormwater infrastructure projects and during development of stormwater-related policy and strategic plans.
- Kirkland will document methods used to identify overburdened communities by December 31, 2026. In the instance that Kirkland concludes the city doesn't have a specific geographic area that meets the Permit's definition of overburdened community, the City is committed to a safe, inclusive, and welcoming community for all people and strives to reach and seek involvement from vulnerable community members. This includes residents who are low-income, identify as a racial or ethnic minority, and English language learners amongst other identities.

- **Accessibility:** Kirkland contracts with a language translation service, "Language Line." Verbal interpretation services are available to all staff to improve communication with the public. Additionally, the City-wide website utilizes Google Translate and includes an intuitive and pictograph-based experience. Computers are available for public use at City Hall at no cost to the user. Kirkland provides hybrid access to public meetings, utilizing multiple virtual platforms for distribution.

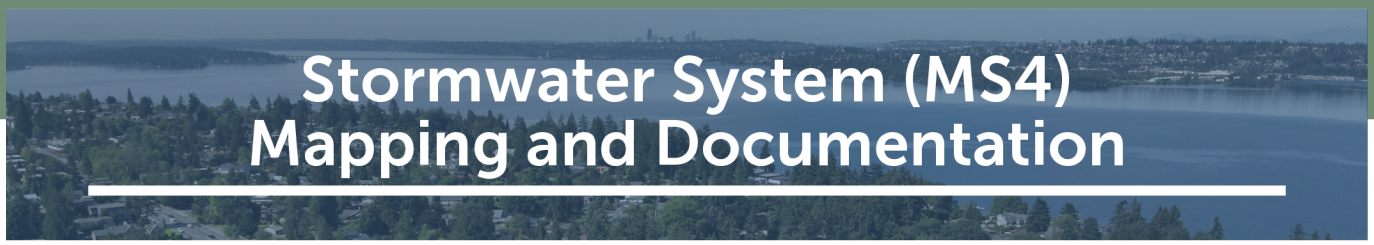
Above: "Shut the Lid" sign translated into 9 languages.

Left: Pollution prevention Business Outreach translated into Spanish.

- **Transparency:** Kirkland posts the annual Stormwater Management Program Plan and Annual Compliance Reports to our website by May 31st each year. These documents can be found at the link in the box below.
- **Record Keeping:** Kirkland will continue to track and maintain records of public involvement activities and will summarize these activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works, Planning and Building, the City Manager's Office

"Our Kirkland" Web Page:
https://kirklandwa.qscend.com/ourkirkland

Stormwater Policies and Regulations Web Page:
https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/Storm-Surface-Water/Stormwater-Policies-and-Regulations



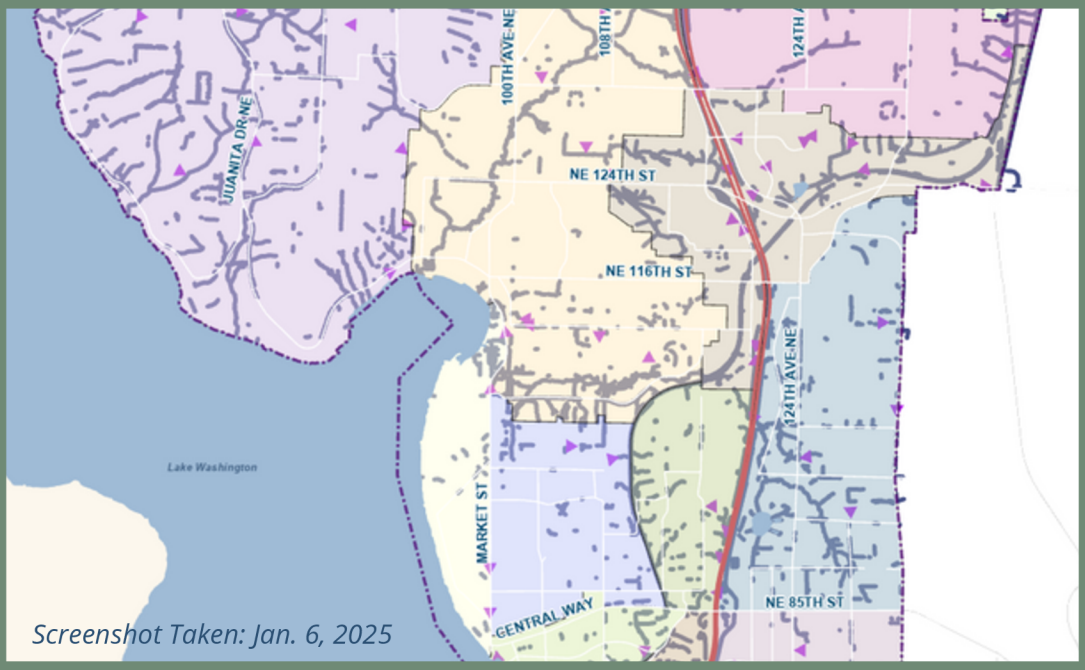
Stormwater System (MS4) Mapping and Documentation

Kirkland maintains an internal and external facing GIS-based map of the stormwater system.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Mapping:** Kirkland will continue to maintain and build on our existing map of the municipal stormwater system. This includes attributes of stormwater system outfalls with size and material, discharge points, receiving waters (other than groundwater), stormwater treatment and flow control BMPs/facilities owned and operated by the City, geographic areas that do not discharge stormwater to surface waters, tributary conveyances to all known outfalls and discharge points (24-inch diameter or larger), connections between other municipalities and public entities, all connections authorized after February 16, 2007, and all known connections from the MS4 to privately-owned stormwater systems.
  - Preparing to meet the following new mapping requirement deadlines for the 2024-2029 NPDES permit cycle:
    - Locations of all known MS4 outfalls, size, and materials by March 31, 2026.
    - Map tree canopy to support stormwater management on City-owned or operated property by December 31, 2026.
    - Map and assess acreage of MS4 tributary basins to outfalls, 24-inches in diameter or larger, by March 31, 2028.
    - Map overburdened communities in relation to stormwater treatment and flow control BMPs/facilities, outfalls, discharge points, and tree canopy by December 31, 2028.
  - Updating and managing GIS data is completed in alignment with documented procedures and quality control standards. Kirkland receives records drawings, including stormwater infrastructure, from development activities.

- **Mapping Cont.**
  - Record drawings are field verified by Public Works staff prior to being integrated into the online GIS map.
  - Improving and updating our maps by incorporating data gathered from field inspections (CCTV, catch basin inspection, IDDE, etc.) to progressively update and improve the accuracy of the stormwater system map.
  - Utilizing data to build flow control inspection lists and stormwater treatment lists for both public and private properties. The inspections are performed under the Operations and Maintenance section of this Plan.
- **Transparency:** Kirkland maintains a public facing GIS-based interactive map of the stormwater system. The map can be found on this website: http://maps.kirklandwa.gov. A screenshot of the map can be found below. Maps are available to Ecology/other permittees upon request in electronic format.
- **Record Keeping:** Kirkland will continue to track and maintain records of MS4 Mapping and Documentation activities and will summarize these activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works, Information Technology



Screenshot Taken: Jan. 6, 2025

Illicit Discharge Detection and Elimination (IDDE)

Kirkland's Illicit Discharge Detection and Elimination (IDDE) program is designed to prevent contamination of surface water and groundwater by monitoring, tracking, and removing non-stormwater discharges into the stormwater drainage system.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Ongoing IDDE program to detect and address non-stormwater discharges and illicit connections:** The City's ongoing IDDE program is designed to characterize, trace the source, and eliminate illicit discharges, spills, and illicit connections, into the municipal stormwater system.
  - The City responds to and investigates all calls and reports regarding environmental concerns such as illegal dumping, spills, illicit discharges, and illicit connections.
  - Spills Hotline: 425-587-3900, is Kirkland's hotline for reporting of spills, water quality concerns, and other illicit discharges. The hotline operates 24-hours, 7-days a week.
    - During regular business hours, calls are received and responded to by the Storm Operations and Maintenance crew of the Public Works and Surface Water Engineering staff.
    - After-hour calls are managed by Kirkland's emergency dispatch and standby maintenance crews.
    - Kirkland investigates all reports received. Records of all calls and the City's follow-up actions are maintained.
    - The hotline is publicized on the City's website, social media, annual winter preparedness utility bill inserts, BMP rack cards, the business pollution prevention guide, Kirkland's erosion and sedimentation control plans, business cards/email signatures of select staff, and Kirkland's public facing service request portal. The hotline is also promoted at presentations and educational events to the public…

- **Ongoing IDDE Program to Detect and Address Non-Stormwater Discharges and Illicit Connections Cont.**
    - ...and City staff, at discharge response outreach, and on stickers available at City Hall and public events.
  - Kirkland takes pride in our IDDE program response time. The Permit requires that all activities are performed at these minimum timelines:
    - Immediately respond to all illicit discharges which constitute a threat to human health, welfare, or the environment
    - Investigate within 7 days any potential illicit discharge
    - Initiate an investigation within 21 days for any suspected illicit connection
    - Use of a compliance strategy to eliminate illicit connections within 6-months
  - IDDE procedures are detailed in the City's IDDE Manuals, which have been adapted from 2020 Illicit Connection and Illicit Discharge Field Screening & Source Training Manual.
  - Kirkland educates public employees, businesses, and the general public about illicit discharges and the hazards associated with improper disposal of waste. Examples include the Department of Ecology's Pollution Prevention Assistance Program, King County Local Hazardous Waste Management Program, and general awareness campaigns. Kirkland also provides spill kits to businesses.
  - Kirkland is preparing to coordinate with firefighting agencies that respond to areas that discharge to the MS4. By December 31, 2026, a procedure will be in place to notify the Surface Water staff will be when PFAS-containing AFFFs are used. By January 1, 2027, Kirkland will update and implement procedures to minimize discharges of PFAS-containing AFFFs to the MS4.

- **Kirkland Municipal Code: 15.52.090 and 1.12.200: Illicit Discharge Detection and Elimination:**
  - Kirkland Municipal Code (KMC) 15.52.090 and 1.12.200 prohibits non-stormwater illicit discharges into Kirkland's stormwater system and provides the regulatory authority and framework for enforcement. Kirkland adopted the Permit definitions for allowable discharges and conditionally allowable discharges. These code sections are updated as needed to support the program. Code will be updated by July 1, 2027, to meet new requirements.

Above: Spill response material shed at Marina Park.

  - Code Implementation:
    - The ongoing IDDE strategy strives to achieve compliance through public education and technical assistance. When education, technical assistance, and voluntary correction agreements do not achieve compliance, KMC 1.12 and 15.52 provides guidance on progressive enforcement.
    - Pollution discharged into the municipal storm drain system and/or surface and ground waters (illicit discharges) violates KMC 15.52 and subjects the violator(s) to fines and/or cleanup costs imposed by City and/or State agencies (KMC 1.12). Enforcement is only pursued if education has been initially provided.

- **PCBs in Building Materials:** By July 1, 2027, Kirkland is preparing to implement code that prohibits routine external building washdown of commercial, industrial, and multi-story residential structures that were constructed or renovated between 1950 and 1980. Buildings confirmed or suspected to have PCB-containing materials will not be allowed to discharge washdown to the MS4.

- **PCBs in Building Materials Cont.** If a building was previously addressed for PCB-containing materials, it will be exempt from this rule.
- **MS4 Screening:** Kirkland has an ongoing program that screens the stormwater system for potential sources of non-stormwater discharges and illicit connections. Kirkland performs this screening through catch basin inspection. During each inspection, staff observe the structural integrity of the catch basin and adjoining pipes, sediment accumulation levels, and determine if there is any unusual flow, odor, color, or other visual indicators that suggest a pollutant is present. If there is a water quality concern, the staff will report a spill through the spill hotline. This results in a notification to the storm maintenance crew, who respond and maintain storm structures affected. The water quality team is also notified for further investigation/follow up.
  - The City field screens, at minimum, 12% of the municipal stormwater system each year.
- **Training:** Kirkland has an ongoing training program for staff, including field staff, on the identification, reporting, and response to illicit discharges into the municipal stormwater system. Additionally, Kirkland ensures that all IDDE response staff are trained on the characterization, source tracing, and elimination methods of illicit discharges, spills, and illicit connections into the stormwater system.
- **Record Keeping:** Kirkland will continue to track and maintain records of illicit discharge detection and elimination activities and will summarize these activities in the Annual Compliance Report and as required by Appendix 13 of the Permit.
  - Kirkland will maintain the internal data tracking system and will import data into Ecology's Water Quality Web IDDE portal as needed/requested.
- **Departments Engaged:** Public Works, Planning and Building, City Manager's Office, Information Technology, Parks and Community Services, Fire, Police

Controlling Runoff from New Development, Redevelopment, and Construction Sites

Kirkland reviews development plans and inspects development sites during the construction process to ensure erosion and sediment control best management practices are in place and that stormwater facilities are installed and maintained as designed. In addition, the City requires the use of Low Impact Development stormwater practices and principles. Kirkland plans to carry forward these policies and approaches in 2025.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Ongoing Program:** Stormwater Management Standards for Development, Redevelopment, and Construction Sites. This program applies to private and public development and includes transportation projects.
  - Kirkland Municipal Code Chapter 15.52 addresses runoff from new development, redevelopment, and construction sites; it also gives the City authority to inspect and enforce adopted standards.
  - As of July 1, 2022, Kirkland adopted the 2021 King County Surface Water Design Manual. These stormwater design standards are equivalent to the minimum technical requirements detailed in the Permit, Appendix 1.
  - By June 30, 2027, Kirkland will update the Surface Water Design Manual.
  - Kirkland has expanded on the King County Surface Water Design Manual, by adopting an addendum of pre-approved plans and policies for site development. These policies are reviewed and updated annually. They can be found at the link in the box below.
  - Kirkland does not grant exceptions or variances to the minimum requirements detailed in Appendix 1.

Pre-Approved Plans Web Page:

https://www.kirklandwa.gov/Government/Departments/Development-Services-Center/Tools-and-Resources/Pre-Approved-Plans/Storm-Drainage-Pre-Approved-Plans

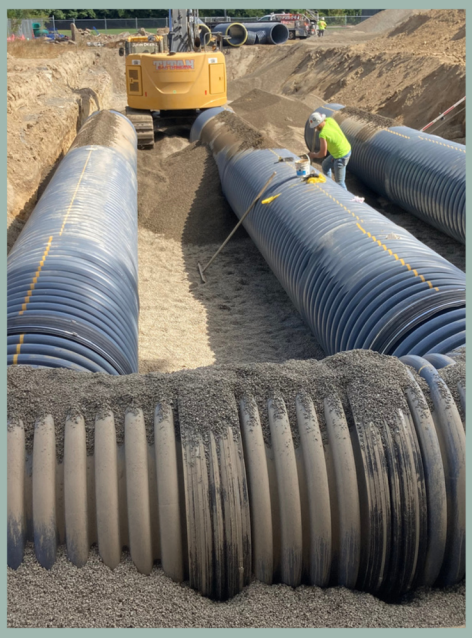
- **Ongoing Program Cont.**
  - In the instance an adjustment occurs, Kirkland will maintain a record of the adjustment.
- **Review Plans and Inspect Development/Redevelopment Sites:**
  - Kirkland has implemented a permitting process program to review development plans, inspect sites during construction, and take enforcement action against those failing to (1) follow approved guidelines or (2) provide facilities as required during plan review. This program ensures proposed development projects in Kirkland comply with the current Surface Water Design Manual.
  - The City's current cross-departmental permitting process includes civil/site plan review and approval process, inspection, and enforcement to meet standards established by the Permit for all qualifying sites (new and redeveloped). This approach will continue in 2025. The City's oversight of new and redevelopment projects occurs in phases.

Above: Stormwater vault construction.

Kirkland's Oversight Process New and Redevelopment

1. **Prior** to construction, during the plan review and acceptance process
2. **Before** the site is cleared during an initial site construction inspection
3. **During** construction via construction site inspections
4. **Post-construction** as part of the stormwater infrastructure acceptance inspection

- **Review Plans and Inspect Development/Redevelopment Sites Cont.**
  - Proposals for public and private projects are reviewed by City engineers or qualified engineering firms to ensure compliance with Kirkland's standards, including LID requirements. City staff inspect all qualifying public and private construction sites continuously to ensure that temporary erosion and sediment control measures have been selected, placed, and installed properly.
  - City staff also inspect the stormwater drainage system that may be impacted by private home construction. This occurs, at a minimum, twice per 12-month period, with at least four months between inspections, until 90% of the lots have been built out, or when construction has stopped, and the site is stabilized. In the event that facilities and stormwater conveyance do require cleaning during construction, the responsible parties must perform maintenance/cleaning.



Above: Storm detention at Rose Hill Elementary School.

  - Kirkland inspectors have the authority to enforce Kirkland Municipal Code 15.52 using corrective action notices and stop work orders to ensure the protection of receiving waters from construction impacts.
- **Notice of Intent:** As a part of the development and redevelopment permitting process, Kirkland will continue to provide applicants with physical/digital copies of the "Construction Stormwater General Permit Notice of Intent," the "Industrial Stormwater General Permit Notice of Intent," and the registration requirements for Underground Injection Control Wells.

Above: Erosion control at 132nd Square Park, Stormwater Park.

- **Training:**
  - Staff increases their knowledge base by staying up-to-date with new or revised stormwater regulations. Staff are also expected to attend internal and external 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.
- **Record Keeping:** Kirkland will continue to track and maintain records of actions related to controlling runoff from development, redevelopment, and construction sites and summarize these activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works, Planning and Building

Stormwater Management for Existing Development

Stormwater Management for Existing Development is a new section of the Permit (Section S5.C.7) that requires Kirkland to control or reduce stormwater discharges from existing development to receiving waters. Projects will focus on strategic stormwater investments over longer planning timeframes.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Planned Project List:** Kirkland will provide a list in the Annual Compliance Report of planned projects scheduled during the 2024-2029 Permit cycle term that meet the assigned equivalent acreage of 15 acres. Equivalent acres are calculated as described in Appendix 12 of the Permit.
  - Kirkland is considering all qualifying project types available:
    - Stormwater facility retrofits are projects that retrofit existing treatment or flow control facilities or install new treatment or flow control facilities.
    - Land management and development strategies to protect or conserve certain lands from impervious surface conversions or native vegetation removal.
    - Focused, enhanced, or customized stormwater management actions identified in the Stormwater Management Action Plan (SMAP).
    - Maintenance with capital construction costs of at least $25,000. This project type applies to maintenance or repair projects that improve the treatment performance of stormwater facilities.
    - Property acquisition for water quality and/or flow control benefits are property purchases of a site, likely to be developed, to permanently prevent it from being developed.
    - Restoration of riparian buffers are projects that restore riparian buffers above the ordinary high watermark by protecting and restoring hydrologic capacity.

Above: Construction of infiltration facility in residential area.

- **Planned Project List Cont.**
  - Restoration of forest cover are projects that restore forest cover by protecting or restoring hydrologic capacity.
  - Floodplain reconnection projects on water bodies that are not flow control exempt per Appendix 1 will provide flow reduction and runoff treatment benefits.
  - Permanent removal of impervious surfaces are projects that permanently remove impervious surfaces and replace with pervious, vegetated surfaces.
  - Sweeping and line cleaning of the public stormwater system in addition to the requirements identified in Permit section S5.C.9 Operation and Maintenance.
- **Timeline:** Kirkland is preparing to fund, start construction, or complete the planned projects by March 31, 2028.
- **Departments Engaged:** Public Works

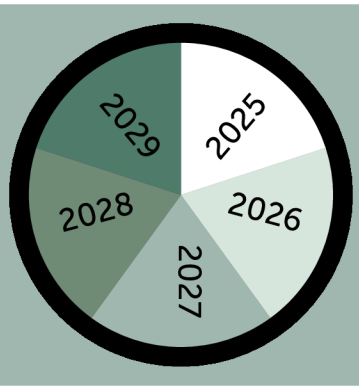
Source Control for Existing Development

Kirkland's Source Control Program is designed to prevent and reduce pollutants in runoff from areas of existing development that discharge to the stormwater system. This is accomplished by utilizing inspection and enforcement of best management practices at the source of potential pollution-generating activities.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Source Control Ordinance:** Kirkland has adopted KMC 15.52.100, which requires Best Management Practices (BMPs) for pollutant generating sources on existing development. The City has adopted King County's Pollution Prevention Manual for Source Control BMPs. Kirkland will adopt updated code for this program by August 1, 2027.
- **Source Control Program:** This program requires the activities listed below.
  - Maintain an inventory: This current inventory identifies institutional, commercial, and industrial sites that have the potential to generate stormwater system pollutants. The list of applicable activities is available in Appendix 8 of the NPDES Permit. Kirkland will continue to identify sites that have the potential to generate pollutants and will maintain the list with information gathered through inspections or outreach efforts. The inventory will be updated at least once during the Permit term.
  - Inform all Sites: Kirkland informs all sites on the inventory about activities that may generate pollutants and the source control requirements applicable to those activities. Kirkland expects to communicate with the site inventory throughout the permit cycle and will provide specific outreach applicable to either the site's geographic location or type of business.
  - Implement Inspection Program: Kirkland has implemented an inspection program that supports these sites in applying operational and/or structural BMPs to prevent illicit discharges or violations of surface water, ground water, or sediment management standards.

- **Souce Control Program Cont.**
  - The inspection program will also inform sites of methods to reduce pollution from the application of pesticides, herbicides, and fertilizers.
  - Annually, staff will complete the number of inspections equal to 20% of the businesses/sites listed in the inventory and 100% of sites identified via credible complaints.
- **Enforce the Program:** Any site that has failed to adequately implement BMPs will receive follow-up actions from the City. Kirkland prioritizes technical assistance and general support to achieve compliance. These actions may include phone calls, letters, emails, follow-up inspections, or enforcement.
- **Maintain Records:** Kirkland will 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.
- **Train Staff:** Kirkland will train all staff responsible for implementing the program. Training topics include the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures. Staff may receive training through Ecology's Pollution Prevention Assistance Program and/or through the Washington Stormwater Center's Source Control Training.
- **Departments Engaged:** Public Works



20%
of Sites Inspected per Year

Above: Kirkland business receives spill kits and informational signage.

Operations and Maintenance

Kirkland has a robust Operations and Maintenance (O&M) program that ensures the stormwater system is inspected and maintained to prevent or reduce potential impacts on stormwater drainage and receiving waters.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Maintenance Standards:** Kirkland adheres to maintenance standards from the 2021 King County Surface Water Design Manual (Appendix A) and proprietary system recommendations as necessary (i.e. Contech's Filterra and Modular Wetlands, Oldcastle's Biopod system). The City will adopt an updated manual by June 30, 2027.
- **Ongoing Program to Inspect and Maintain the MS4:**
  Public System -
  - Every two years Kirkland inspects all municipally owned catch basins and inlets. If the inspection indicates that cleaning or repair is needed, those activities are completed within the permit allowed timelines, generally within 6 months.
  - Kirkland inspects all municipally owned and operated water quality treatment and flow control facilities. If inspection indicates that cleaning or repair is needed, those activities are completed within the permit allowed timelines, generally within 1 year.
  - Kirkland spot check's multiple locations throughout the storm and surface water system, including stormwater treatment and flow control facilities, after storm events. In the event that these spot checks show widespread damage or maintenance needs, Kirkland will continue the investigation and take maintenance actions on affected areas/facilities.
  - Kirkland will continue to maintain compliance by achieving at least 95% of required inspections.

  Private System -
  - The City operates an annual inspection program of private water quality treatment and flow control facilities under our jurisdiction to determine if maintenance is required.

Private System Cont. -

- The inspected properties must meet the following guidelines: (1) they discharge to the MS4, and (2) were permitted after 2010. KMC 15.52 establishes enforcement procedures.
- Kirkland will continue to achieve, at minimum, 80% of required inspections and keep records of all actions taken through this program.

- **Practices, Policies, and Procedures to Reduce Stormwater Impacts of Municipal Operations:** The City O&M program implements practices, policies and procedures to reduce stormwater impacts caused by runoff from land owned or maintained by Kirkland and road maintenance activities performed by the City. These practices were documented in 2022 and will be updated by December 31, 2027.

Above: Crews performing maintenance on a structure with City vactor truck.

- **Street Sweeping Program:** Kirkland is preparing to develop and implement a municipal street-sweeping program by July 1, 2027. This program focuses on sweeping priority areas, such as high-traffic streets and streets that serve commercial or industrial land use areas, at least three times each year. One of the three sweeps will occur between July and September. At least 90% of the priority areas will be swept during each sweeping event. Kirkland will begin reporting on this program on March 31, 2028, and will proceed with annual reports.

At Least **90%** of Priority Areas Swept, 3x Annually

- **Training:** O&M staff receives training on the importance of protecting water quality during maintenance operations, inspection procedures, relevant water quality and operations and maintenance standards, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures to report water quality concerns. Training is conducted in meetings, in the field, and in workshops.
- **Record Keeping:** Kirkland will continue to track and maintain records of O&M activities and will summarize activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works, Parks and Community Services, Planning and Building

Monitoring and Assessment

An important part of understanding the impacts of management actions on the health of stormwater is to analyze their progress. The Permit allows for jurisdictions to undertake monitoring and assessment within their jurisdiction or contribute to a regional fund called the Stormwater Action Monitoring (SAM) Group, where studies are undertaken by consensus of the contributing members.

Kirkland's Plan to Meet the Requirements of the Permit:

- **Regional Participation:** Kirkland has opted to participate in the SAM Group for both (Permit section S8.A) Regional Status and Trends Monitoring and (Permit section S8.B) Effectiveness and Source Identification Studies. The City is an active member in the decision-making process and participates in SAM through several sub-committees. Staff also provide data for regional studies as requested. For information about SAM-sponsored monitoring projects, please visit their website: https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Stormwater-monitoring/Stormwater-Action-Monitoring
- Regional Status and Trends Monitoring: Kirkland contributes $23,393 annually to this SAM program and will pay by the required due date, August 15, 2025.
- Effectiveness and Source Identification Studies: Kirkland contributes $34,621 annually to SAM this program and will pay by the required due date, August 15, 2025.
- **Kirkland Monitoring Programs:** Kirkland conducts water quality sampling and aquatic macroinvertebrate (stream bug) sampling in several creeks to evaluate stream health. While not required under the permit, these activities complement and inform other permit activities.
- **Record Keeping:** Kirkland will continue to track and maintain records of Monitoring and Assessment activities and will summarize these activities in the Annual Compliance Report.
- **Departments Engaged:** Public Works

Underground Injection Control Wells (UIC) Program

The NPDES Permit does not authorize discharges to groundwater from any facility regulated under the Underground Injection Control (UIC) Wells Program. Kirkland, however, does operate an Underground Injection Control Wells Program according to Chapter 173-218 of the Washington Administrative Code and under a jurisdiction-wide Stormwater Management Program. Full details of our UIC program can be found in the link box below.

UIC Program Web Page:

https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/Storm-Surface-Water/Stormwater-Policies-and-Regulations

For details on Kirkland Surface Water Activities not addressed in this SWMP, contact the Public Works Department.

(425) 587-3800

stormwater@kirklandwa.gov

https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/Storm-Surface-Water

Appendix A: Permit Due Dates

Permit Section	Year (by QTR)		2024		2025				2026				2027				2028				2029	
	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**																					
	Provide annual estimated SWMP costs in annual report	Annually, starting 3/31/2027											■				■				■	
	Written description of internal coordination mechanisms among departments	3/31/2026							■													
S5.C.1.	**Stormwater Planning**																					
	Coordination with long-range plan updates	3/31/2027											■									
	Adopt and implement tree canopy goals and policies to support stormwater management	12/31/2028																		■		
	Develop new Stormwater Management Action Plan (SMAP), or additional actions for existing SMAP	3/31/2027											■									

Permit Section	Year (by QTR)		2024		2025				2026				2027				2028				2029	
	Requirements	Deadline	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
S5.C.2.	**Public Education and Outreach**																					
	Develop behavior change campaign	7/1/2025																				
	Implement behavior change campaign	9/1/2025																				
	Evaluate behavior change campaign and use resulting measure to make changes to increase effectiveness	3/31/2029																				
S5.C.3.	**Public Involvement and Participation**																					
	Document methods used to identify overburdened communities	12/31/2026																				
S5.C.4.	**MS4 Mapping and Documentation**																					
	Locations of all known MS4 outfalls, size, and materials	3/31/2026																				
	Map tree canopy to support stormwater management	12/31/2026																				

Permit Section	Year (by QTR)		2024		2025				2026				2027				2028				2029	
	Requirements	Deadline	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
S5.C.4.	**MS4 Mapping and Documentation *continued***																					
	Map and access acreage of MS4 tributary basins to outfalls	3/31/2028																				
	Map overburdened communities relative to stormwater treatment	12/31/2028																				
S5.C.5.	**Illicit Discharge Detection and Elimination (IDDE)**																					
	Update code to meet new requirements	7/1/2027																				
	Coordinate with firefighting agencies that respond in Kirkland to be notified when PFAS-containing AFFF firefighting foam is used	12/31/2026																				
	Update and implement procedures to minimize discharges of PFAS-containing AFFFs to the MS4	1/1/2027																				

Permit Section	Year (by QTR)		2024		2025				2026				2027				2028				2029	
	Requirements	Deadline	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
S5.C.6.	**Control Runoff from New Development, Redevelopment, and Construction Sites**																					
	Adopt and implement revised stormwater development codes to reduce impervious surface, protect vegetation, and minimize stormwater runoff	6/30/2027																				
S5.C.7.	**Stormwater Management for Existing Development**																					
	Provide list of planned projects scheduled that meet the assigned 15 equivalent acres	Annually																				
	Fund and implement stormwater retrofit projects	3/31/2028																				
S5.C.8.	**Source Control for Existing Development**																					
	Adopt updated manual	8/1/2027																				

Permit Section	Year (by QTR)		2024		2025				2026				2027				2028				2029	
	Requirements	Deadline	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
S5.C.9.	**Municipal Pollution Prevention, Operation, & Maintenance**																					
	Update maintenance standards	6/30/2027																				
	Document policies, procedures, and practices that reduce stormwater impacts from municipal lands.	12/31/2027																				
	Implement a municipal street sweeping program	7/1/2027																				
S8	**Monitoring**																					
	Participate in and pay into Regional Monitoring efforts	Annually by August 15																				
S9	**Reporting**																					
	Submit Annual Report	Annually by March 31																				

Appendix B: Public Comments

Hold for Public Comment

2025 Stormwater Management Program Plan

stormwater@kirklandwa.gov