

Permit Topic	Permit Section	Summarized Changes	Why the change?	How does it impact Kirkland?
<i>Please note this table is formatted in order of highest impact changes to lower impact changes</i>				
Manual Changes	"New Development and Redevelopment Thresholds"	<p>1. Adopt updated (2024) manual by 6/30/2027. Projects in design before this due date and that start construction before July 1, 2032 will vest to the current stormwater design manual.</p> <p>2. Reduced thresholds for stormwater management on pavement addition and replacement that applies to both flow control and water quality treatment management techniques.</p>	<p>Municipal Stormwater Permits are required to meet the federal standard to reduce pollutants in stormwater discharges to the Maximum Extent Practicable (MEP), which is a flexible standard intended to acknowledge the complexity of managing a public stormwater system in an urban environment. Adapting over time also means adapting to new information about the impacts from development and road infrastructure to receiving waters. In light of new information on toxic tire wear pollutants such as 6PPD and 6PPD-Quinone, Ecology is proposing to reduce project thresholds to increase the amount of urban lands receiving treatment of stormwater runoff. Ecology required private development to manage stormwater under these thresholds in the 2013-2019 permit term. Ecology is asking public capital projects to comply with the same standards as private development.</p>	<p>This change will significantly impact Kirkland's transportation capital projects. More projects will require evaluation of stormwater flow control and water quality facilities. This will likely trigger more facilities and larger facilities. The cost of stormwater infrastructure for transportation will increase. Maintenance exemptions remain for pavement overlay and utility projects.</p>
Stormwater Management for Existing Development	"S5.C.7. Stormwater Management for Existing Development" p.41-42	<p>This program requires the City to implement stormwater facility retrofits or tailored Stormwater Management Plan actions. Every jurisdiction has a defined quantity of acres to manage based on population. Kirkland's is 9.2 acres.</p>	<p>Stormwater remains the predominant contributor to pollution and altered hydrology in our local waterbodies. Past NPDES Permits have focused management efforts on maintaining existing infrastructure and requiring new development projects to design and build stormwater infrastructure to modern standards. However, there has not yet been a requirement to go back and retrofit (build stormwater BMPs or facilities) development that occurred prior to modern standards (generally defined as post 2007). There was strong regional engagement to develop a program that was scaled to the variety of Phase II permittees in Western Washington. They decided on using population as the scaling factor for level of effort for each permittee.</p>	<p>This program will require capital projects to be constructed for stormwater treatment and/or flow control for areas of existing development. The stormwater vault at 132nd Square Park is a recent example of this type of facility that would meet the level of effort for a permit term. Kirkland has been successful in supporting these projects through grant funding; however, those grant funding options are expected to become more competitive as all permittees are required to implement projects.</p>
Street Sweeping- Operations and Maintenance	"S5.C.9 Operations and Maintenance" p.46-53	<p>Start street sweeping program by July 1, 2027. Sweep all Kirkland roads at least once between July and September each year and two additional times a year as determined by Kirkland to provide additional water quality benefits. Dispose of sweeper waste material in accordance with Appendix 6- Street Waste Disposal.</p>	<p>Recent street sweeping studies that have been conducted internationally, nationally, and locally, indicate that it is an effective stormwater management tool that provides water quality benefits in receiving waters. Sweepers help to address multiple pollutants by collecting the solids found on the roadway surfaces and preventing them from washing into storm drains. Street sweeping is known to be an effective source control BMP for Total Suspended Solids, trash, total phosphorous, total nitrogen, total metals, and tire wear particles (TWP), among others.</p>	<p>Kirkland will be required to street sweep all roads within the City. Our current street sweeping program conducts sufficient frequency of sweeping to meet the Permit requirements, however the timing of the sweeping will need to be modified. This transition may include staffing and budgetary impacts. The change in requirement for the management of liquid picked up by the sweeper on rainy days will require further investigation to understand full impacts, however, at minimum more time will be needed to street sweep during wet weather.</p>

Stormwater Planning	"S5.C.1.d Stormwater Management Action Planning"	Complete Stormwater Management Action Plan (SMAP) by December 31, 2026 for at least one new high priority catchment area or additional actions for an existing SMAP. This will include identification of stormwater retrofits needed.	The regional body that adjudicates permit appeals, the Pollution Control Hearings Board (PCHB), acknowledged in a past decision that a watershed-scale approach was needed in stormwater management. The PCHB directed Ecology to use Permit requirements to include watershed-scale planning as a water quality management tool to meet Maximum Extent Practicable (MEP) and All Known and Reasonable Techniques (AKART).	Kirkland staff developed the current SMAP for the Totem Lake Sub-basin in partnership with a contractor, Altaterra. One-time funding may need to be set aside for additional SMAP planning.
Trees	S5.C.1.c.iii. (Planning Section) p.24 S5.C.4.b.iii (Mapping Section) p. 31	Implement tree canopy goals and policies to support stormwater management and water quality improvement. Map City owned or operated properties with tree canopy.	The connection between trees and healthy ecosystems in Western WA has been long understood, however the direct impact of individual trees as well as urban forests on stormwater management has been the subject of many recent studies. In one long-term study, the lack of watershed and riparian canopy cover was found to be an important stressor to benthic invertebrates at the regional scale. This suggests that canopy cover protection and recovery (reducing impervious surface) could lead to substantial improvements benthic invertebrate scores, which are a key indicator of watershed health.	Kirkland already has tree goals and policies in place and meets the mapping requirement proposed. This change is identified as impactful because trees are an entirely new topic identified for NPDES permit compliance. Staff are concerned about the antidegradation standard as it relates to this topic. Basically, the requirements will only get more strict over time and as requirements are added, they may become significantly more challenging to comply with. The NPDES Stormwater permit may not be the appropriate place to regulate a complicated topic that is a broader land management issue.
Illicit Discharge Detection and Elimination Program	"S5.C.5.c Illicit Discharge Detection and Elimination: Conditionally Allowable Discharges" p. 33	Washdown of industrial, commercial, or multi-story residential buildings built or renovated between 1950 and 1980 that may contain PCBs shall be assessed for PCBs prior to routine building washdown. Structures confirmed or suspected to have PCBs shall not discharge washdown to the MS4.	PCBs are a group of 209 man-made compounds that generally occur as complex mixtures. PCBs are very persistent, lasting for decades in the environment. Like other persistent, bio accumulative, and toxic chemicals, PCBs move easily between air, water, and land. They are found throughout Washington, especially in commercial buildings built between 1950 and 1980. PCBs also accumulate in people and animals, becoming more concentrated in organisms at the top of the food chain, like orcas.	Staff expect to incorporate this modification to conditionally allowable discharges through a municipal code change. This may increase need for code enforcement related to new municipal code to enforce.
Authorized Discharged	"S2.B Authorized Discharges: Non-Stormwater Discharges" p. 14	No later than December 31, 2026, coordinate with firefighting agencies/departments that serve that areas that drain to the MS4 and develop a PFAS management plan which will implement measures to minimize discharges of PFAS via the MS4 during/after emergency firefighting activities. Implement plan to minimize discharges of PFAS during post-emergency activities, including clean-up in all situations where AFFFs have been used. (S2 – Authorized Discharges)	PFAS can enter soil, water, and air from various sources and is being detected in many areas including municipal and industrial stormwater effluent. Specifically, PFAS has been detected in the stormwater of urban industrial catchments and these discharges are considered to be a pathway for the uncontrolled release of PFAS into surface waters. PFAS being discharged from stormwater outfalls near sites with known discharges of Aqueous Firefighting Foam (AFFF) are a primary concern for Ecology when administering stormwater permits.	There is very little firefighting foam that contains PFAS that may be applied in Kirkland. However, it is possible, especially when regional partners support Kirkland Fire in emergency response. This planning effort will take significant staff time to coordinate and may pull them from their other on-going work.
Mapping	"S5.C.4 MS4 Mapping and Documentation" p. 31	Map and assess acreage of MS4 to outfalls or discharge points that have treatment or flow control by December 31, 2027.	This requirement is proposed for Ecology to gather additional information about the area of land that may be in need of additional stormwater controls.	This permit requirement involves a detailed desktop review exercise that would need to be performed by an engineer or engineer analyst. This will likely involve significant staff hours that would pull them from their other on-going work. Kirkland is partway through this exercise and sees value in having this information for our planning purposes as well.