## STAFF REPORT

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| **Agenda Item:** | 10 | **Name:** | Erin Auzins |
| **Proposed No**.: | 2016-0012 | **Date:** | March 1, 2016 |

**SUBJECT**

Proposed Ordinance 2016-0012 would update the County's surface water and stormwater management regulations.

**SUMMARY**

Proposed Ordinance 2016-0012 would adopt updates to the County's stormwater and surface water management code. These updates are proposed primarily to comply with the County's permit under the National Pollutant Discharge Elimination System (NPDES).

The committee was briefed on this legislation in January, and responses to questions from Councilmembers at that briefing are summarized later in this staff report. Council staff continues to work on a potential amendment with Councilmembers and Executive staff.

**BACKGROUND**

**NPDES Permit and the Clean Water Act**

The Clean Water Act, in its current form, was adopted in 1972 as a set of amendments to the 1948 Federal Water Pollution Control Act. As part of the Clean Water Act, the federal government made it illegal to discharge any pollutant from a point source into navigable waters, unless a permit is obtained.[[1]](#footnote-1) These NPDES permits control discharges from construction sites, industrial sites, local governments that have a stormwater system, and other facilities that discharge to surface water.

NPDES permits to local governments are issued by Washington State Department of Ecology, for a period of five years. The permit includes requirements for: 1) obtaining legal authority to comply with the permit and control discharges, 2) mapping the system, 3) coordination between agencies in a government and between governments to comply with the permit requirements, 4) public involvement and participation, 5) controlling runoff from development sites, 6) structural stormwater controls to prevent impacts by discharges, 7) source control program to reduce pollutants in runoff from existing development, 8) illicit connections and illicit discharges detection and elimination, 9) operation and maintenance program, and 10) education and outreach.[[2]](#footnote-2)

**King County Stormwater and Surface Water Program**

King County's current NPDES permit was issued in 2014, with an effective date of January 16, 2015. The County's Stormwater Services Section, within the Water and Land Resources Division (WLRD) in the Department of Natural Resources, is responsible for compliance with the NDPES, as well as the broader Surface Water Program. Stormwater Services issues a Stormwater Management Program Plan each year to outline actions to comply with the NPDES permit.[[3]](#footnote-3) The Plan outlines the ways the County complies with each requirement of the permit.

The County's Surface Water program is largely financed by the Surface Water Management (SWM) fee. The SWM fee is assessed to property owners in unincorporated King County, based on the amount of impervious surface on their property. The SWM fee pays for the County's work to comply with the NPDES permit, and also pays for other Surface Water activities, such as: constructing capital projects to improve drainage and water quality; providing assistance to farmers, rural landowners and forest landowners on best land management practices; completing small agricultural and residential drainage assistance capital projects; responding to drainage and water quality complaints; inspecting and maintaining more than 2,000 drainage facilities in unincorporated areas; and monitoring water quality in navigable waters in the County.

**ANALYSIS**

**Policy Changes**

The major policy changes proposed by this ordinance include the following (a full list of changes is shown in Attachment 4):

K.C.C. Chapter 9.04 – Surface Water Runoff Policy

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| **Type of Change** | **Proposed Change** |
| Definitions: | Noted changes to definitions:  *Impervious Surface:*  Includes permeable pavement, vegetated roofs and underdrained pervious surface are impervious surfaces  *Natural Hazards:*  Examples given include beaver dams, debris dam in a stream, severe base erosion, or stream displaced from original channel area |
| Drainage Review Types: | New "Simplified" drainage review, replaces "Small Project" drainage review. Simplified drainage review is for single-family residence and agricultural projects that meet certain criteria for impervious surfaces and soil type.  New "Directed" drainage review, which is for single-family residential projects and agricultural projects that doesn't meet the thresholds for Simplified drainage review but is smaller than projects that kick it into Full drainage review. |
| Core Requirements for Drainage Facilities: | New core requirement 9: Flow Control BMPs. Flow Control BMPs are also known as low impact development (LID) BMPs. These would be required for projects that require drainage review (2,000 square feet of new plus replaced impervious surfaces, or 7,000 square feet of land disturbing activity). |
| Natural Hazards Emergency Declaration/Entry: | Director allowed to declare an emergency for natural hazards, enter premises and take steps to abate or mitigate the imminent threat. If occupied, director shall first make reasonable effort to locate owner and seek permission to enter. |

K.C.C. Chapter 9.12 – Water Quality

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| **Type of Change** | **Proposed Change** |
| Violations/Entry: | Adds language allowing entry and inspections on sites where violations are occurring. If occupied, director shall first make reasonable effort to locate owner and seek permission to enter. |
| Penalty: | Modifies the civil penalties to allow up to $25,000 per violation per day (rather than up to $25,000) |

K.C.C. Chapter 9.20 – Fertilizers

This chapter is proposed to be repealed. Instead, use of fertilizers would be governed by RCW chapter 15.54. In 2011, amendments to state law became more restrictive than County requirements in this section. Some provisions, such as fertilizers on impervious surfaces and education and outreach are covered by other regulations and Water and Land Resources Divisions programs.

**Response to Councilmember Questions**

The Transportation, Economy and Environment Committee held a briefing on the proposed ordinance at its January 19, 2016, meeting. From that briefing and follow up conversations, Councilmembers had the following questions. Where the response is from Executive staff, it is so noted in the answers below.

Describe the levels of drainage review.

In the 2016 Draft Surface Water Design Manual, which can be found at <http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/surface-water-design-manual/Chapter%201%20Drainage%20Review%20&%20Requirements.pdf>, there is a description of which core requirements apply to each type of drainage review (see pages 1-13 and 1-14). These levels and their associated requirements are summarized below for both the current and proposed manuals.

| Current (2009 Manual) | | Proposed (2016 Manual) | |
| --- | --- | --- | --- |
| Type | Description | Type | Description |
| Small Project | ***Single family residential projects*** and ***agricultural projects*** that result in ≥2,000 sf of ***new*** and/or ***replaced impervious surface*** or ≥7,000 sf of ***land disturbing activity*** but do not exceed the total impervious surface and ***new pervious surface*** thresholds specified in Sec. 1.1.2.1 | Simplified | ***Single family residential projects*** and ***agricultural projects*** that result in ≥2,000 sf of ***new*** plus ***replaced impervious surface*** or ≥7,000 sf of ***land disturbing activity*** but do not exceed the total impervious surface, new plus replaced PGIS, new PGPS, and ***new pervious surface*** thresholds specified in Sec. 1.1.2.1 or is an agricultural project that qualifies for the “Impervious Impervious Surface Percentage Exemption For Agricultural Projects”. |
|  |  | Directed | ***Single family residential projects*** and ***agricultural projects*** that result in ≥2,000 sf of ***new*** plus ***replaced impervious surface*** or ≥7,000 sf of ***land disturbing activity*** that are not subject to Simplified Drainage Review or Large Project Drainage Review |
| Targeted | Projects that are not subject to Full or Large Project Drainage Review, AND have characteristics of **one or more** of the following categories of projects: 1. Projects containing or adjacent to a ***flood***, ***erosion***, or ***steep slope hazard area***; projects within a ***Critical Drainage Area*** or Landslide Hazard Drainage Area; or projects proposing ≥7,000 sf of ***land disturbing activity*** (1 ac if in Small Project Drainage Review).  2. Projects that ***construct or modify*** a drainage pipe/ditch that is 12" or larger or receive runoff from a 12" or larger drainage pipe/ditch.  3. ***Redevelopment projects*** with ≥$100,000 in improvements to a ***high-use site*** | Targeted | Projects that **are not** subject to Full or Large Project Drainage Review, AND have characteristics of **one or more** of the following categories of projects:  1. Projects containing or adjacent to a ***flood***, ***erosion***, or ***steep slope hazard area***; projects within a ***Critical Drainage Area*** or Landslide Hazard Drainage Area; or projects proposing ≥7,000 sf of ***land disturbing activity*** (1 ac if in Simplified Drainage Review).  2. Projects that ***construct or modify*** a drainage pipe/ditch that is 12" or larger or receive runoff from a 12" or larger drainage pipe/ditch.  3. ***Redevelopment projects*** with ≥$100,000 in improvements to a ***high-use site***( |
| Full | All projects that result in ≥2,000 sf of ***new*** and/or ***replaced impervious surface*** or ≥7,000 sf of ***land disturbing activity*** but are not subject to Small Project Drainage Review, OR ***redevelopment projects*** meeting drainage review threshold #7 in Section 1.1.1 | Full | All projects that result in ≥2,000 sf of ***new*** plus ***replaced impervious surface*** or ≥7,000 sf of ***land disturbing activity*** but are not subject to Simplified Drainage Review, Directed Drainage Review, OR Large Project Drainage Review. |
| Large Project | UPDs, OR projects that result in ≥50 acres of ***new impervious*** within a subbasin or multiple subbasins that are hydraulically connected, OR ***project sites*** ≥50 acres within a ***critical aquifer recharge area***. | Large Project | UPDs, OR projects that result in ≥50 acres of ***new impervious*** within a sub-basin or multiple sub- basins that are hydraulically connected, OR ***project sites*** ≥50 acres within a ***critical aquifer recharge area***. |

Was the threshold for code compliance lowered by the proposed code changes?

*Executive Staff Response:*

No, the threshold was not changed. In the definition of “full drainage review”, subsection 3 has been deleted. This subsection refers to a redevelopment project on one or more parcels where the total of new and replaced impervious surface is 5,000 square feet or more. This threshold is proposed for deletion because subsection 1, which already exists in the code, supersedes subsection 3, making it a redundant threshold. The proposed deletion changes nothing from existing code.

Do the code changes cover only the area proposed to be disturbed or land previously developed?

*Executive Staff Response:*

To the extent that the current code captures previously developed land, which it does for existing impervious surface added on or after January 2001 that has no stormwater controls, the ordinance's new LID requirements will apply to that previously developed land. As is done in the current code, the ordinance changes will apply the same LID requirements to this previously developed impervious surface as are applied to new developed impervious surface.

What is the incentive to use Low Impact Development (LID) under the new Code/Manual, with the change to definition of pervious surfaces?

*Executive Staff Response:*

There are two main incentives for the use of LID in the SWM fee code (KCC 9.08) – one is for commercial (nonresidential) parcels and one is for all parcels, commercial and residential.

1. Commercial parcels are eligible for up to a 20 percent discount in the parcel’s SWM fee for impervious surface that is served by flow control best management practices (a.k.a., LID BMPs) or infiltration facilities that meet County standards. LID BMPs such as rain gardens, permeable pavement, and infiltration trenches would qualify as flow control BMPs eligible for this discount. A “bioswale” is a water quality facility and would thus qualify for separate 20 percent discount.
2. Commercial parcels are eligible for an 80 percent discount, and residential a 50 percent discount, if the parcel contains at least 65 percent forest and no more than 20 percent impervious surface, the runoff from which is dispersed through the forested area to County standards, resulting in an effective impervious area of no more than 10 percent for the entire parcel.

There are other incentives for the use of LID in the Surface Water Design Manual. These include credits in the calculation of thresholds that trigger facility requirements as well credits in the sizing of flow control and water quality facilities.

Please describe outreach efforts to affected parties, public comment that was provided, and changes that were made to the manual as a consequence of the comments received.

*Executive Staff Response:*

In developing the stormwater code updates, DNRP sought input from: County agencies, tribes, Master Builders, environmental groups, King County Agriculture Commission, as well as other local governments, and community groups.

DNRP has solicited input on two major drafts of the Surface Water Design Manual (SWDM), Stormwater Pollution Prevention Manual (SPPM), and associated code changes. The first draft was submitted to Ecology in mid-2014 for its review for permit compliance. The second draft was made available for public review from November 25, 2015 to January 18, 2016 as part of the public rule-making process.

Below are the key comments and feedback received in 2014 and 2015 pertaining to the first major draft of the SWDM, SPPM, and associated code changes:

* The Ag Commission and King County DPER commented that the County’s stormwater regulations were too costly and inflexible for farmers because they applied stormwater controls more suited to urban land uses than rural land uses. In response to these comments, DNRP worked with Ag staff and DPER to create more flexibility such as allowing farmers to disperse runoff on fields rather than require flow control structures that displace arable land and incur the expense of hiring an engineer for design. DNRP also created a new type of drainage review that gives DPER greater flexibility to administer drainage requirements in a way that reduces engineering costs for farmers.
* King County Roads commented that the new LID requirements imposed by Ecology on new and replaced roadways were too inflexible and costly because they forced the use of permeable pavement if it is feasible to install. Roads had strong concerns about the pavement's durability and cost to maintain. DNRP worked with Ecology to develop alternative LID best management practices that are sufficiently durable and less costly to maintain.
* DNRP solicited feedback from stakeholders on the concept of requiring that incremental additions of impervious surface over time, each below the threshold of 2,000 square feet, would trigger mitigation requirements once they added up to 2,000 square feet or more. However, based on the feedback received from stakeholders and the fact that this change was not required by Ecology, DNRP decided against the change in this update of the County's stormwater regulations.
* DNRP solicited feedback from stakeholders on the concept of defining roofs as pollution-generating. Based on the feedback received from stakeholders and the fact that Ecology has not yet defined roofs as pollution-generating, DNRP decided against making this change.
* Ecology commented that DNRP’s proposed SWDM and code changes originally did not sufficiently emphasize the importance of LID. To address this comment, DNRP added a new Core Requirement 9, Flow Control BMPs, to set forth the County's LID requirements.

With regard to the second major draft of the SWDM, SPPM, and the code changes embodied in these manuals, DNRP received several comments on or just before January 18. These comments focus primarily on specific technical details in the draft manuals and will not require changes to the draft ordinance. DNRP is reviewing and responding to these comments.

What is the rationale for the change to the penalties section and what is the recent history of enforcement actions/penalties?

*Executive Staff Response:*

This change was made because the existing cap of $25,000 on fines is insufficient to cover what the County’s total costs could be to address a water quality problem caused by a violation (e.g., costs for clean-up, abatement, enforcement, appeal hearings, etc.). The proposed change brings the County more in line with the federal Clean Water Act, which has a $25,000 per day per violation penalty provision [see 33 U.S.C. 1319(1) & (2)]. It also brings the County more in line with State law (RCW 90.48.140 and 90.48.144) which has a $10,000 per day per violation provision on top of which additional costs can be added.

Executive staff notes that the Executive does plan to adopt a public rule later this year that lays out the proposed schedule of penalties and fines that will be based on the magnitude of the violation and costs necessary to enforce/abate. In most cases, the penalties would be less than $5,000 and the fines would be less than $500 per violation per day. With regards to the County's recent history of levying fines, the last time the County did that was over 10 years ago (2002).

How does the County's Surface Water Manual and code compare to the regulations adopted by the cities and towns?

At least nineteen cities and towns in King County use the County's Surface Water Design Manual as their own. Another fifteen use the DOE Manual. Executive staff report that the main difference between the two manuals is that King County's contains provisions to respond to the concerns from the agricultural community that are not contained in Ecology's manual. For example, additional drainage review types that simplify the review and requirements for agricultural and single-family residential projects are included in the County's Manual that are not in Ecology's Manual.

**AMENDMENTS**

Council staff continues to work on potential amendments with Councilmembers and Executive staff.

**ATTACHMENTS**

1. Proposed Ordinance 2016-0012
2. Transmittal Letter
3. Fiscal Note
4. Summary of proposed changes
5. Comment letter from Puget Soundkeeper dated February 12, 2016

**LINKS**

2016 Surface Water Design Manual Update:

<http://www.kingcounty.gov/environment/water-and-land/stormwater/documents/surface-water-design-manual.aspx>

**INVITED**

* Mark Isaacson, Division Director, Water and Land Resources, DNRP

1. For more information on the Clean Water Act, see the EPA's website summarizing the law: <http://www.epa.gov/laws-regulations/summary-clean-water-act>. For more information on NPDES permits, see this website: <http://www.epa.gov/npdes> [↑](#footnote-ref-1)
2. King County's NPDES permit can be viewed here: <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIpermit/phipermit.html> [↑](#footnote-ref-2)
3. The 2015 Stormwater Management Program Plan is available here: <http://www.kingcounty.gov/depts/dnrp/wlr/sections-programs/stormwater-services-section/stormwater-program.aspx> [↑](#footnote-ref-3)