

Kelso Low Impact Development

Issue #3 June 5, 2017

Find Out More

Kelso LID Web Page: http://www.kelso.gov/storm water/low-impactdevelopment-lid

Upcoming Events

City Council Hearing on June 6, 2017

City Council Hearing on June 20, 2017





Illustrations of ongoing stormwater facility maintenance (photos are courtesy of Department of Ecology and AHBL, Inc.)

Focus on the Stormwater Management Manual for Western Washington

As part of Kelso's effort to include Low Impact Development (LID) principles and best management practices in its development codes, the Kelso Engineering Design Manual (KEDM) will be updated.

In this issue, we focus on adopting the 2014 Stormwater Management Manual for Western Washington (SWMMWW) and on proposed changes to the KEDM: update the overall stormwater requirements, update and simplify submittals, and ensure long-term operations and maintenance of stormwater facilities.

General Design and Submittal Requirements

Several changes are proposed to the general requirements:

- Change the Site Grading Plan requirement and added a Permit requirement for projects with cut/fill of 50 cy of material or 7,000 sf of land disturbance. This is an increase from the previous threshold of 5,000 sf of disturbance.
- Add a Stormwater Submittals Guide.
- Exempt small sites from the KEDM for stormwater. Small sites use an Abbreviated Stormwater Site Plan worksheet.
- Reduce the Drainage Design Report requirement to a single submittal instead of a preliminary and final report submittal.
- Add a Long-Term Stormwater Site Management Plan requirement that ensures ongoing maintenance by facilities' owners.
- Add soil preservation and amendment language.

Why? These measures adopt the SWMMWW, simplify the submittal process and ensure facilities are maintained by their owners.

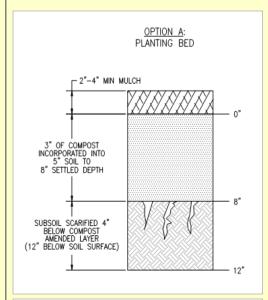
Storm Drainage, Grading, and Erosion Control

Several changes are proposed:

- Combine Chapter 4 "Storm Drainage" with Chapter 2 "Grading and Erosion Control."
- Adopt the storm drainage, grading and erosion control thresholds from the SWMMWW. (See illustration on page 2.)
- Eliminate the local stormwater management requirements, and replaced them with the SWMMWW requirements. This removes the local amenity and education requirements.
- Add a Stormwater Maintenance Bond requirement for the construction of public treatment and flow control facilities.

Why? These changes adopt the SWMMW, simplify the KEDM, and ensure new facilities function as designed.

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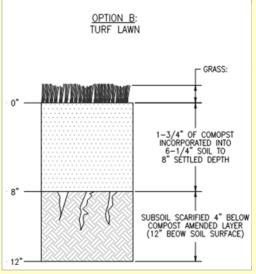


Illustration of Soil Amendments - Required on Most Construction Sites

Focus on SWMMWW (con't.)

Streets

Several changes are proposed to the street requirements that apply to driveways and commercial parking lots.

- Encourage LID techniques such as ribbon driveways and permeable pavement for driveways and commercial parking lots.
- Allow LID techniques in the right-of-way and parking lot landscaping.

Why? These measures reduce impervious surfaces and allow flexibility to manage stormwater runoff on private commercial/industrial property.

Flow Control Exemption

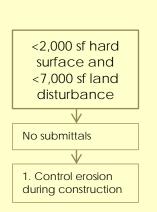
Many construction and development sites in Kelso are exempt from the requirement to use flow control facilities such as detention ponds. Sites in Drainage Improvement District No 1 (left) and Consolidated Diking Improvement District No. 3 (right) do not have to use detention ponds, bioretention, or permeable pavement to control runoff.



LID Update Process

To meet state stormwater requirements, Kelso is incorporating LID principles into its existing development standards and is adopting the 2014 Stormwater Management Manual for Western Washington. LID is a way of managing stormwater by slowing it down, spreading it out, and soaking it in.

Thresholds for Stormwater Requirements



>50 cy cut/fill or >7,000 sf land disturbance

Site grading plan and permit required

1. Control erosion during construction.

2. Amend soils

2,000-5,000 sf hard surface

Submit Abbreviated Stormwater Site Plan

- 1. Control erosion during construction 2. Use rain garden, permeable
- pavement, and downspout drywells on site to manage runoff
- 3. Amend soils

>5,000 sf hard surface

Submit engineered Stormwater Site Plan following KEDM

- 1. Control erosion during construction
- 2. Use bioretention, permeable pavement, and downspout drywells on site to manage runoff
- 3. Use swales and detention ponds for treatment and soil erosion
- 4. Amend soils