



Snohomish County
*Planning and Development
 Services*

Visit us at :

2nd Floor Robert J. Drewel Bldg.
 3000 Rockefeller Avenue
 Everett, WA 98201

425-388-3311
 1-800-562-4367, ext. 3311



PERMIT SUBMITTAL

Appointment
 425.388.3311
 Ext. 2790



This Assistance Bulletin only applies to property within unincorporated Snohomish County and does not apply to property within incorporated city limits.

Low Impact Development (LID) Best Management Practices (BMPs)

Assistance Bulletin

22

Effective September 30, 2010

WWW.SNOCO.ORG

Keyword: Assistance Bulletins

Q: Why do we need Low Impact Development (LID)?

A: Stormwater runoff is a significant cause of water quality problems in the state of Washington. Stormwater runoff from roofs, paved and graveled roadways, highways, parking lots, lawns, playfields and other surfaces is often polluted with toxic metals, organic compounds, and bacterial and viral pathogens that can harm human health, drinking water, and fish habitat. LID is a stormwater management and land development strategy that can be applied to projects at the individual parcel or subdivision scale. This strategy emphasizes conservation and the use of on-site natural features combined with engineered, small-scale hydrologic controls to closely mimic pre-development hydrology.

LID BMPs provide stormwater management alternatives that may be used instead of or in conjunction with conventional stormwater management techniques to meet stormwater management regulations. They may be used on single-family developments, commercial or industrial developments.

The use of LID stormwater management options can help prevent measurable harm to streams, lakes, wetlands and other natural aquatic systems resulting from commercial, residential, or industrial development. The goal of LID is to prevent measurable harm to streams, lakes, wetlands and other natural aquatic systems from commercial, residential or industrial development sites.

In order to comply with the County's Phase I Municipal Stormwater Permit, Chapter 30.63A SCC (Drainage) requires the use of LID site planning principles and on-site management BMPs that could be considered LID for all projects that must meet minimum requirements 1-5 in Chapter 30.63A SCC. The on-site stormwater infiltration and dispersion BMPs set forth in Volumes III and V must be implemented in certain projects according to requirements in Chapter 30.63A SCC (Drainage).

Q: Where can I find the County's LID regulations?

A: Chapter 30.63C SCC contains the County's LID regulations. The purpose of Chapter 30.63C SCC is to facilitate or require the use of LID BMPs and applies to projects vested after September 30, 2010 as a water quality management tool necessary to meet the requirements of chapter 30.63A SCC (Drainage). The Chapter is applicable to all projects that are required or designed using LID BMPs.

This bulletin is intended only as an information guide. The information may not be complete and is subject to change. For complete legal information, refer to Snohomish County Code.

Q: Where can I find the County's LID BMPs?

A: Chapter 30.63C SCC allows the use of LID best management practices (BMPs) contained in the Snohomish County Drainage Manual Volume I, Appendix I-A Low Impact Development BMPs and other BMPs approved by the Washington State Department of Ecology and PDS that are adopted through a rulemaking process.

Q: Are LID BMPs ever required?

A: Use is not generally mandatory. LID is required when feasible in Little Bear Creek urban growth area expansion areas (SCC 30.63C.040) and in rural cluster subdivisions (SCC 30.42C.050).

Q: What categories of LID BMPs are there?

A: There are three categories of Low Impact Development BMPs in Volume 1, Appendix I-A of the Snohomish County Drainage Manual. They are:

- LID BMPs for which implementation is required by Chapters 30.63A and 30.63C SCC
- LID BMPs for which implementation is not required by County Code
- Other LID BMPs for which implementation is not required by County Code which are not drainage facilities, but qualify as LID BMPs for the purposes of Chapter 30.63C SCC

Q: Which LID BMPs are required by Chapters 30.63A and 30.63C SCC?

A: The following drainage facility LID BMPs are required to meet certain minimum requirements in Chapter 30.63A SCC:

Snohomish County Drainage Manual Volume III

- Non-Pollution-Generating Surface (NPGIS) infiltration systems
- NPGIS dispersion systems
- NPGIS perforated stub-out connections

Snohomish County Drainage Manual Volume V

- Pollution-generating impervious surface (PGIS) concentrated flow dispersion
- PGIS sheet flow dispersion
- Soil quality and depth

Q: Which LID BMPs are not required to meet the requirements of Chapters 30.63A and 30.63C SCC?

A: Drainage facility LID BMPs

Snohomish County Drainage Manual Volume III

- Bioretention facilities (basins, swales, and slopes)

Snohomish County Drainage Manual Volume V

- Full dispersion

WSDOT Highway Runoff Manual, allowed pursuant to SCC 30.63A.140

- Natural dispersion
- Engineered dispersion

Q: Are there other LID BMPs not required to meet the requirements of Chapters 30.63A and 30.63C but that qualify as LID BMPs?

A: Yes, the following LID BMPs are not drainage facilities, but qualify as LID BMPs for the purposes of Chapter 30.63C SCC:

- Permeable pavement
- Vegetated roofs
- Minimal excavation or pin-pile foundations

These BMPs need to be considered in the hydrologic modeling required by Chapter 30.63A SCC.

Q: What is permeable pavement and where are standards for it?

A: Permeable pavement is a collective term for pervious concrete, porous asphalt and permeable pavers (concrete or plastic). Permeable pavement is gaining wider usage as its characteristics become better understood. Standards for permeable pavement are included in Chapter 4 of the Engineering Design and Development Standards.

Q: When is an LID pre-application meeting required?

A: SCC 30.63C.050 requires pre-application meetings for project applications that include the use of LID stormwater modeling credits or if applicants request a code modification or deviation from the EDDS to facilitate the use of LID BMPs in project design.

Q: Can I get a waiver from a mandatory LID pre-application meeting?

A: Yes, SCC 30.63C.050(3) allows the Director of PDS to waive mandatory pre-application meetings upon written request by the applicant if the pre-application meeting would serve no useful purpose.

Q: Can I modify Title 30 SCC regulations or deviate from the Engineering Design and Development Standards (EDDS) to incorporate the use of LID BMPs into my project proposal?

A: Yes, with the appropriate approval. SCC 30.63C.080 provides the list of code chapters that may be modified to facilitate the use of LID BMPs. SCC 30.63C.090 allows EDDS deviations necessary to facilitate the use of LID BMPs. Title 30 SCC chapters that may be modified include:

- Chapter 30.23 SCC, General development standards - Bulk regulations
- Chapter 30.24 SCC, General development standards - Roads and access
- Chapter 30.25 SCC, Landscaping
- Chapter 30.26 SCC, Parking
- Chapter 30.42B SCC, Planned residential development
- Subtitle 30.5 SCC, Construction codes

Requests for modifications from Snohomish County Code and any deviation required from the EDDS shall be submitted under one proposal as a comprehensive site analysis.

Q: What are the criteria to modify Snohomish County Code to use LID?

A: A modification may be granted under the following criteria established in SCC 30.63C.080:

- The modification must be consistent with and further the purposes of the stormwater regulations set forth in SCC 30.63A.100.
- The modification will not result in significant adverse environmental impacts.
- The modification will not adversely impact the public health, safety, and welfare.
- The modification is consistent with generally accepted engineering design criteria.
- The modification will result in one or more of the following:
 - Innovative site design.
 - Increased on-site stormwater retention using a variety of vegetation and landscape conditions.
 - Retention or re-creation of original natural habitat conditions over a significant portion of the site.
 - Improved on-site water quality beyond that required by current applicable regulations.
 - Retention or re-creation of pre-development and/or natural hydrologic conditions, and retention or re-creation of forested watershed conditions.

Q: What criteria must be met to obtain a deviation from the EDDS (except Chapter 5 Drainage) to facilitate the use of LID BMPs?

A: A request for an EDDS deviation necessary to facilitate the use of LID BMPs may be granted when the deviation criteria in EDDS section 1-05 and the following deviation criteria in addition to SCC 30.63C.060(1)(a) and (b) are met:

- The deviation is consistent with and furthers the purposes of the stormwater regulations set forth in SCC 30.63A.100;
- The deviation does not result in significant adverse environmental impact;
- The deviation does not adversely impact the public health, safety, and welfare;
- The deviation is consistent with generally accepted engineering and design criteria; and
- The deviation will result in one or more of the following:
 - Innovative site design.
 - Increased on-site stormwater retention using a variety of vegetation and landscape conditions.
 - Retention or re-creation of original natural habitat conditions over a significant portion of the site.
 - Improved on-site water quality beyond that required by current applicable regulations.
 - Retention or re-creation of pre-development and/or natural hydrologic conditions, and retention or re-creation of forested watershed conditions.

Modifications of Chapter 5 of the EDDS are allowed pursuant to SCC 30.63A.170.

Q: Are there special conditions of approval?

A: As a condition of approval for applications under this chapter, the County may require adoption of covenants and restrictions and the granting of necessary easements to preserve and maintain LID BMPs. Special construction sequencing may be required.

Q: Can the size of conventional stormwater facilities be reduced with LID?

A: The Snohomish County Drainage Manual explains how individuals can obtain credits to help them reduce the size of their stormwater facilities by using LID techniques.

Q: Can LID BMPs be used for stormwater modeling credits to meet the requirements of chapter 30.63C SCC?

A: Yes, the modeling credits may be obtained consistent with the provisions of Volumes III and Appendix III –C of the Snohomish County Drainage Manual.

Q: How do LID techniques protect critical areas?

A: Stormwater management techniques can complement regulations protecting critical areas by protecting water quality and controlling sedimentation and erosion.

Q: What if my project was vested prior to September 30, 2010?

A: Projects vested prior to September 30, 2010, may be subject to the previous LID chapter 30.63C SCC (Amended Ordinance 06-044 became effective July 16, 2006) that adopted the Low Impact Development Technical Guidance Manual for Puget Sound pursuant to SCC 30.63C.010. The Manual contains detailed guidance on how best to design, construct and maintain low impact development (LID) practices. For more information go to the PDS Engineering web page at <http://www1.co.snohomish.wa.us/Departments/PDS/Divisions/Permitting/Engineering/>.

Q: How can I get more information on Low Impact Development?

A: Call (425) 388-3311 or submit questions online at AskPermitTech@snoco.org. Remember, asking questions first can save lots of headaches, heartaches and money!