

Current Stormwater Management

11.03.010 - Declaration of purpose.



The purpose of this chapter is to regulate and control drainage or stormwater to safeguard the public health, safety, and general welfare. The objectives of this chapter are as follows:

- A. To promote sound, practical, and economical development practices and construction procedures which minimize impacts to the county's waters;
- B. To minimize degradation of water quality and to control the sedimentation of streams, rivers, lakes, wetlands, and other surface water;
- C. To control stormwater runoff originating on developing land;
- D. To preserve the suitability of water for recreation and fishing;
- E. To fulfill the goals and requirements of the critical areas ordinance, [chapter 17.02](#) by:
 - 1. Preserving and protecting aquatic habitat; and
 - 2. Minimizing net loss of the county's wetlands by maintaining hydrologic continuity with other aquatic resources.
- F. To maintain the quality of the county's water resources;
- G. To minimize adverse effects caused by alterations in surface water or groundwater quality, quantities, locations, and flow patterns;
- H. To maintain the safety of county roads and rights-of-way; and
- I. To protect public safety by reducing slope instability and landslides.

Current Stormwater Policy

Review drainage plans to confirm compliance with County code for development in

1) Critical drainage areas*

2) Areas or development that may affect a critical area

- Aquifer recharge
- Geologically unstable
- Wetlands
- Fish and Wildlife Habitat Conservation Area
- Flood hazard

3) Major developments (>5000 sq ft of impervious surface)

*

- A. Areas sensitive to the effects of construction or development as evidenced by severe flooding, drainage, and/or erosion/sedimentation conditions, which have resulted or will result from the cumulative impacts of development and urbanization; or
- B. Areas that discharge to a receiving water that has a documented water quality problem and has been designated a water quality sensitive area as defined herein; or
- C. Areas where the need for additional stormwater control measures have been identified through a basin plan, watershed ranking process, or through Growth Management Act planning.

Low Impact Development

- Combines a functional site design with pollution prevention measures to compensate for development effects on hydrology and water quality.
- Attempts to maintain the predevelopment runoff volume, peak runoff rates, and frequency to mimic predevelopment runoff conditions.
- Manages stormwater in small, cost-effective landscape features rather than being conveyed and managed in large, costly pond facilities located at the bottom of drainage sites.

Advantages of Low Impact Development (LID)

LID has a number of advantages over conventional stormwater management practices. LID can reduce or eliminate the need for larger detention ponds and flood controls. It also reduces pollutant loading to receiving waters as well as stream bank erosion associated with peak flows. LID also can provide a visual amenity in developments and allow more flexible site layouts. LID can cost less than conventional techniques.

Finally, LID provides superior groundwater recharge.



An example of a rain garden.



Low impact cluster design subdivision. (Source: Massachusetts Executive Office of Energy and Environmental Affairs)

Cost Comparison of LID to Conventional Development

Project	Conventional development cost (estimated)	Actual LID cost	Cost difference	Percentage difference
2 nd Avenue SEA Street, Seattle, WA	\$868,803	\$651,548	\$217,255	25%
Auburn Hills, WI	\$2,360,385	\$1,598,989	\$761,396	32%
Bellingham City Hall, WA	\$27,600	\$5,600	\$22,000	80%
Bellingham Donovan Park, WA	\$52,800	\$12,800	\$40,000	76%
Gap Greek, AR	\$4,620,360	\$3,942,100	\$678,500	15%
Garden Valley, WA	\$324,400	\$260,700	\$63,700	20%
Kensington Estates, WA	\$765,700	\$1,502,900	(\$737,200)	-96%

Low Impact Development Today in Island County

- **Island County does not require LID**
- **IC code (Chapter 11.03 Stormwater and Surface Water) defines LID and offers it as an option**

Low Impact Development History

- **2005 IC Water Resource Management Plan identified as a High Priority Groundwater Recharge/Low Impact Development**
- **2007 Camano Island Non-Point Prevention Plan identified LID implementation as a high priority**
- **2010 The Clean Water Utility identified LID as a Phase 2 task but the task is not well defined**
- **2017 Phase 2 is still not implemented**

The Choices

- Encourage LID - politically safe but not meaningful
- Require LID – not politically safe but meaningful
- Make LID the first option but if impractical because of cost and/or some feature of development, allow conventional
- Other?