

“A TALE OF TWO STORMWATER LID PROJECTS”

As cities and counties prepare to integrate Low Impact Development (LID) into their existing codes, ordinances, and plans, a lot can be learned from the jurisdictions that have already started to change the way they manage stormwater. Thousands of projects have been successfully implemented statewide, in private developments and as part of street and infrastructure improvements. The case studies below profile two jurisdictions that have successfully installed LID facilities to treat stormwater.

SPOKANE URBAN RUNOFF GREENWAY ECOSYSTEM (SURGE) PROGRAM CITY OF SPOKANE

- The City of Spokane developed the SURGE program to address combined sewer overflows into the Spokane River. The program consists of multiple infrastructure retrofit projects that will augment or replace the existing pipe and gutter stormwater system with LID techniques. More than 37 rain gardens were constructed along rights-of-way, and approximately 1,200 square yards of pervious sidewalk were installed.
- As the first SURGE project in the city, the Broadway Street project ran into some existing regulations that challenged the use of LID on projects.
- For example, the Broadway project preferred design called for bioretention cells in the form of planter boxes on the sidewalk. The existing code specified six-foot-wide sidewalks. The project sought and was granted approval from the City Planning Department and Design Review Committee to divide that six foot width into a two-foot and four-foot section with bioretention in the middle.
- The City has been monitoring the flow from the Lincoln Street project to ensure that the system continues to function as designed. Private homeowners and community volunteers provide maintenance with City support.
- The Broadway SURGE project has successfully infiltrated all the stormwater and the Lincoln Street project will likely be slightly modified to receive even more stormwater in the future. The City is planning to install additional LID projects and is implementing additional water quality monitoring on some of the existing sites.

BLUEBERRY PARK REDEVELOPMENT PROJECT CITY OF BREMERTON

- For the last decade, the City of Bremerton has been working to upgrade their existing storm sewer system, work with residents to disconnect downspouts, and educate private developers with demonstration projects on LID. By evaluating every possible aspect of the operating sewer system – encouraging LID in parallel with the upgrade to their aging infrastructure – they were able to tackle the problem holistically and maximize the effectiveness of their efforts.
- One significant project was the LID redevelopment of Blueberry Park, a neighborhood park with community gardens, a play meadow, and a wetland.
- The City engaged the public early in the master planning process, holding public meetings to educate about LID and to get community feedback about desired features.
- The final design features permeable pavement, rain gardens, a green roof, and ecoturf. The ecoturf functions like a lawn, but is made of hardy and drought-tolerant perennials such as clover. This reduces the City’s costs of mowing watering and fertilizing.
- Throughout the process, the City of Bremerton has been committed to collaboration. Many City staff, including the mayor, public works director, city engineer, planning manager and members of the planning commission and city council, worked with other local jurisdictions, private industry and community members to develop a “*Practical Guide to LID Implementation in Kitsap County*.” This guidebook was adopted by Kitsap County and all four cities within it to provide guidance for implementing LID techniques.



ADDITIONAL INFORMATION

- SURGE Program: spokanestormwater.net/surge.aspx
- City of Bremerton: www.cityofbremerton.com/content/downspoutdisconnections.html
- City of Puyallup: www.cityofpuyallup.org/services/public-works/stormwater-management/projects/
- City of Port Angeles: 4th Street Stormwater Improvement Project: www.cityofpa.us/4thStreetProject.htm
- *Low Impact Development (LID) Guidance Manual: A Practical Guide to LID Implementation in Kitsap County*: www.kitsaplid.org/resources/Cookbook%20V%201_21%20070109.pdf

For additional information about LID:

Association of Washington Cities Low Impact Development website:
www.awcnet.org/TrainingEducation/LID.aspx



SUMMARY

Jurisdictions statewide have begun to transition to LID as the norm for stormwater management, and the approaches are as diverse as Washington's cities and counties. Some cities, like Port Angeles, use incentives for private land owners and developers to implement certain LID strategies on their properties. Places like Puyallup have used their rain garden retrofit projects to galvanize the community and spread awareness about water quality issues.

Now is the time to include provisions in your 2014 budget, begin reviewing your jurisdiction's codes, ordinances, and plans, and work with your departments, customers, and the community to ensure that your jurisdiction identifies needed changes and prepares accordingly.

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