

Thurston County Community LID Workgroup

June 2015

WELCOME

Thank you for participating in Thurston County's Community LID Workgroup. Below is an overview of the regulatory framework for this project and your role.



PROJECT OVERVIEW

Thurston County is reviewing its development codes and identifying changes that will promote a low-impact development (LID) approach to new construction. This review is required by the County's municipal stormwater permit (details below). Put simply, LID minimizes impervious surfaces, maximizes native vegetation retention, and filters stormwater on site as much as possible; in short, LID mimics the natural water cycle of the landscape better than conventional stormwater systems.

In the coming months, Thurston County will elicit feedback about potential LID policy changes from this Community LID Workgroup, comprised of public- and private-sector stakeholders. Project staff will incorporate this advisory workgroup's input into a package of recommendations for consideration by the Thurston County Planning Commission and the Board of County Commissioners in 2016.

COMMUNITY LID WORKGROUP

The Community LID Workgroup is comprised of community members with experience in engineering, real estate, development, and environmental issues, as well as other professionals with a stake in the outcome of LID code amendments. The community workgroup will meet monthly from June 2015 through February 2016 (eight meetings). Meetings will be at the Thurston Regional Planning Council (TRPC) and last for 1.5-2 hours, depending on need. At each meeting, project staff will introduce specific topics, such as parking requirements or street standards, as well as present questions and concepts stemming from a County staff workgroup's initial review.



INTERJURISDICTIONAL COLLABORATION

TRPC is facilitating the County's update process and assisting with coordination among the cities of Lacey, Olympia and Tumwater, which are also in the midst of an LID code update. This will ensure coordinated planning amid the urban growth areas of the north county cities. The Community LID Workgroup's focus, rather, will be on rural lands and the unincorporated growth areas amid Grand Mound and surrounding Rainier, Tenino and Yelm.



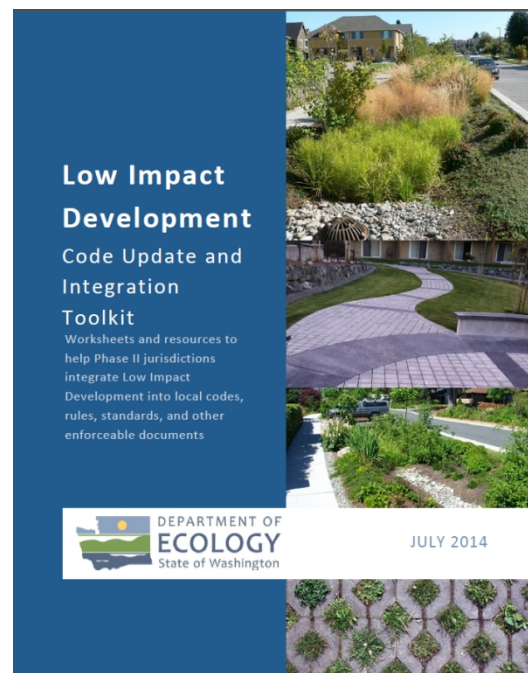
REGULATORY FRAMEWORK

Congress created the National Pollutant Discharge Elimination System (NPDES) program in 1972 as part of the Clean Water Act. The program regulates water pollution via permits focused on various activities, industries and discharge sources (e.g., wastewater vs. stormwater). The U.S. Environmental Protection Agency (EPA) delegates NPDES permitting authority to Washington and other states.

The Washington Department of Ecology administers the NPDES municipal stormwater permit in two phases for municipal separate storm sewer systems (MS4s) that collect runoff and discharge it to surface waters. Phase I permittees include Clark, King, Pierce and Snohomish counties and the cities of Seattle and Tacoma (Western Washington cities with more 100,000 residents and unincorporated counties with more than 250,000 residents as of the 1990 census). Phase II covers smaller municipalities, including Thurston County, Olympia, Lacey and Tumwater.

Ecology's updated 2013-2018 permit requires the use of stormwater best management practices (BMPs), ranging from constructing new drainage structures to educating the public, so as to reduce pollutant discharge to the maximum extent practicable. And for the first time, the permit requires municipalities to make LID the "preferred and commonly used" approach to site development, where feasible. Phase II permittees must adopt and make effective LID development code changes by the end of 2016, in coordination with major 10-year Growth Management Act (GMA) updates.

Thurston County is using the Puget Sound Partnership's *Integrating LID into Local Codes: A Guidebook for Local Governments* and the Ecology Department's *Low Impact Development Code Update and Integration Toolkit* to shape its code analysis and external outreach efforts. In a parallel effort required by the municipal stormwater permit, Thurston County engineers are updating the Thurston County Drainage Design and Erosion Control Manual (DDECM) to ensure its consistency with the Ecology Department's *2012 Stormwater Management Manual for Western Washington*, as amended in December 2014. The DDECM sets technical standards for reducing and managing stormwater runoff on new development and redevelopment projects amid unincorporated Thurston County. The manual also applies to projects within incorporated and urban growth areas that adopt the Thurston County manual.



LID BENEFITS AND LIMITATIONS

Stormwater management has undergone several paradigm shifts. Early stormwater management strategies focused on reducing localized flooding risk. As such, pipes conveyed stormwater runoff away from its source and into creeks, rivers and other water bodies.

Over time, stormwater and environmental professionals recognized the harm stormwater discharges have on receiving areas. Practices such as building stormwater treatment and flow-control facilities have helped reduce — but not entirely eliminate — polluted runoff. The next paradigm shift is requiring LID practices — where feasible — so as to minimize impervious surfaces, protect and enhance native vegetation and soils, and manage stormwater at its source.



According to the Puget Sound Partnership’s guidebook, LID can surpass conventional stormwater management techniques by reducing environmental impacts and infrastructure costs. Benefits include:

- The LID approach often results in infrastructure cost savings when compared with traditional catch basin, pipe, and pond strategies;
- Managing stormwater close to where it falls helps minimize modification of the hydrologic cycle;
- LID facilities also can serve as amenities, adding both aesthetic and financial value to developments;
- Managing stormwater in small-scale, distributed facilities reduces the flooding effects to downstream properties from flash storm events;
- Bioretention — an approved method of reducing the concentration of metals in stormwater — also offers flow reduction, additional landscaping, habitat, and reduction of other stormwater pollutants such as petroleum products, solids, and bacteria;
- LID facilities help to avoid costly cleanup efforts such as Total Maximum Daily Loads (TMDLs), stream and wetland rehabilitation, shellfish restoration, and sediment cleanup;
- LID helps protect local jobs involved in the shellfish and other aquatic-based industries.

- The use of natural features, such as native vegetation, results in increased habitat areas;

LID does not take the place of good land use planning, however. The Puget Sound Partnership’s guidebook underscores that LID should occur within the larger framework of the state Growth Management Act and in compliance with codes related to protection of critical areas, shorelines, and flood plains. Further, there are areas — such as those with high groundwater or adjacent to steep slopes — where LID techniques that rely on infiltration are not a good choice for stormwater control.

For more information about Thurston County’s code-update process, or to explore an interactive map of some of the region’s existing LID projects, visit :

www.trpc.org/466/Stormwater-LID-Code-Integration.



Rain garden at the new Olympia Regional Learning Academy building. **Image:** TRPC

LID RESOURCES

- Better Site Design Manual – divided into Part 1 and Part 2 (Center for Watershed Protection 1998) www.cwp.org/online-watershed-library?view=docman
- Central Coast Low Impact Development Initiative (LIDI) website www.centralcoastlidi.org/Central_Coast_LIDI/Home.html
- Green Stormwater Infrastructure (GSI) Program Overview and Annual Report (Seattle Public Utilities 2013) www.seattle.gov/util/groups/public/@spu/@drainsew/documents/webcontent/01_028743.pdf
- LID Administrative Tools and Guidance video (Herrera Environmental Consultants 2014) www.youtube.com/watch?v=Oz4OT-SX3nQ&feature=youtube_gdata
- LID Manual for Michigan, Chapter 4, Integrating LID at the Community Level (Southeast Michigan Council of Governments 2008) www.semco.org/uploadedfiles/programs_and_projects/water/stormwater/lid/lid_manual_chapter4.pdf

SOURCES: *Integrating LID into Local Codes: A Guidebook for Local Governments*, Puget Sound Partnership; *Stormwater Management Plan*, King County Department of Natural Resources and Parks; *Low Impact Development Code Update and Integration Toolkit*, Washington Department of Ecology; Washington Department of Ecology webpage—Phase II Western Washington Municipal Stormwater Permit: <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wvphiipermmit.html>; U.S. EPA webpage — NPDES water pollution prevention: <http://water.epa.gov/polwaste/npdes/>; Thurston County Drainage Design and Erosion Control Manual: <http://www.co.thurston.wa.us/stormwater/manual/manual-home.html> .