

Puget Sound Partnership



Survey of the 2005 and 2006 Recipients of the Low Impact Development Local Regulation Assistance Projects

March 2008



Report

**Survey of the 2005 and 2006 Recipients of
the LID Local Regulation Assistance
Projects**

Prepared for
Puget Sound Partnership

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Background

The Puget Sound Action Team (PSAT), through the 2005 and 2006 Low Impact Development (LID) Local Regulation Assistance projects, provided technical assistance to 19 local governments with the goals of removing local regulatory barriers to the use of LID practices and encouraging the use of the practices within the local jurisdictions. The technical assistance was provided in the form of new or revised regulatory language to be adopted by the local government. These recommendations were made by the PSAT through their consultant, AHBL, Inc. Recommendations to the 2005 participating governments were delivered in March 2006. Recommendations to the 2006 participating governments were delivered in April 2007.

The 11 local governments receiving assistance in 2005 included the following:

- City of Bellingham
- Clallam County
- City of Issaquah
- Jefferson County
- Kitsap County
- City of Marysville
- City of Poulsbo
- City of Redmond
- Snohomish County
- Thurston County
- Whatcom County

The eight local governments that received assistance in 2006 included the following:

- City of Edmonds
- City of Kirkland
- City of Lacey
- Mason County
- City of Normandy Park
- City of Port Angeles
- City of Port Orchard
- City of Woodinville

Project Overview, Goals, and Methodology

In 2007, the Washington State Legislature created the Puget Sound Partnership (PSP), a new state agency charged with overseeing the cleanup of Puget Sound. With this charge in mind, the PSP is interested in the status of the recommendations made by AHBL as part of the 2005 and 2006 LID local government regulation assistance projects. In particular, the PSP is interested in the barriers encountered by the local governments in their efforts to implement both the provided recommendations and an LID approach.

The PSP contracted with CH2M HILL to survey the 19 local governments that received assistance as part of the 2005 and 2006 local regulation assistance projects. One staff person from each government was asked the same set of questions. (The survey questions asked of each local government are included as Attachment A.) Surveys were conducted either in person or over the phone.

This report is a compilation of the results of the survey of local governments. All of the 19 local governments contacted provided survey responses. A set of survey summaries, one for each of the individual surveys conducted, is included in Attachment B. The body of this report includes a summary of the findings of the survey. Attachment C contains the contact information for those surveyed.

Common Themes

Survey results showed a series of common themes among participants regarding both the regulatory assistance project and LID implementation. These include the following:

LID Regulatory Assistance from PSAT was extremely helpful

A few of the governments have adopted the recommendations as-is, though most have not. In most cases, adoption of recommendations has been slow due to complications related to staffing (e.g., staff time availability or turnover) and not from other types of barriers such as lack of desire for additional LID. At the very least, the assistance started the conversation among local government staff. Once the conversation started at the staff level, more complex issues could be discussed among staff, then presented to and discussed with elected officials, and eventually the public.

A Culture shift is required regarding the environment, Puget Sound, and LID

An understanding by the general public of the cause-and-effect of various activities and actions on Puget Sound's health will foster a sense of responsibility by the public for that resource. However, such a shift in culture takes time. LID is a relatively new concept. Eventually, the public will make the connection between cause and effect and become knowledgeable on the benefits of LID for Puget Sound. Once that happens, implementing LID will become less difficult - a culture shift requires time. Progress has been made but barriers still remain for wide acceptance.

The LID approach will be most successful if it is market-driven rather than regulatory-driven

The LID approach will be most successful if the public has a sense of ownership of LID, and can exercise responsibility for the environment, rather than fear enforcement. This can be accomplished by decreasing the cost (or the perception of higher cost) by increasing the awareness and knowledge of developers and permit review staff regarding LID. This effort would streamline the process and make it cheaper. In addition, one-time incentives could be given if materials used in LID construction (such as amended soils) were purchased from local small businesses. This has the potential of helping the local economy.

Progress has been made on implementing the LID approach other than through regulatory methods

Many of the governments have acted to promote the use of LID apart from the efforts to implement LID-related regulations. In addition, activities conducted by others such as local building associations and other non-government entities have helped promote the LID approach within several jurisdictions. In addition, many community groups promote a "green" or "sustainable" approach and therefore align with a community's vision of LID.

Findings of the Survey

Survey participants were asked a series of 14 questions during the course of the interview (see Attachment A). These questions fall into three categories: status of recommendations,

barriers to recommendations, and potential solutions to those barriers. Summaries of findings to those questions are grouped according to the three categories below.

Status of Recommendations

Most of the governments that were included in the LID regulatory assistance program have not adopted the recommendations made by AHBL on behalf of the PSAT.

Those governments that have adopted regulatory changes recommended through the regulatory assistance program are:

- Kitsap County (2005 recipient) passed Ordinance 375-2007 in February 2007. This ordinance amended Kitsap County Code Chapter 12 related to LID. Recommendations provided related to the ordinance were not substantively changed.
- City of Marysville (2005 recipient) adopted LID into their code on May 14, 2007. Marysville made only minor changes to the recommended code to make it more consistent with the city's zoning code.
- City of Redmond (2005 recipient) adopted the recommendations into their 2007 Stormwater Manual, not into the zoning code or city stormwater regulations.
- Snohomish County (2005 recipient) adopted Ordinance 06-044 in June of 2006 and also adopted the LID Technical Guidance Manual for Puget Sound.
- City of Kirkland (2006 recipient) passed Chapter 113 (clustering) of the Zoning Code. Changes were made from the original recommendations.
- Mason County (2006 recipient) brought recommended LID regulations in front of the planning commission on March 24th, 2008. The planning commission recommended that the Mason County Commissioners adopt them as-is.
- City of Port Angeles (2006 recipient) adopted the planned low impact development (PLID) overlay zone into the zoning code in early 2007.
- City of Port Orchard (2006 recipient) adopted LID standards via ordinance in March 2008.
- City of Poulsbo (2005 recipient) adopted LID standards via ordinance.

The governments that received assistance in 2005 are, in general, further ahead than the 2006 recipients since they have had more time for implementation of the recommendations.

Though the recommendations may not have been adopted in most jurisdictions, it is evident from the survey that the regulatory assistance program was successful in getting the conversations regarding LID started. Survey participants noted that while the adoption and implementation process has been slow, it has progressed in the right direction. Puget Sound Action Team, and now PSP staff, have distributed many CD-ROMs containing assistance program materials to governments and individuals throughout the region. Many other governments that did not receive assistance under this program have also adopted changes to code or are preparing to do so. In addition, the PSP is providing assistance to 13 additional governments as part of the 2008 LID Local Regulation Assistance Project.

Barriers to Implementation Identified by the Jurisdictions

Barriers to Adopting Recommended Regulatory Changes Identified by Multiple Jurisdictions

Though responses varied between survey participants, many barriers were identified by several of the governments surveyed. The barriers to recommendation implementation outlined by government contacts were:

- Available staff resources (staff turnover, vacant positions, also financial resources to fund staff time)
- Staff workload (balancing workload between Critical Areas Ordinances , Shoreline requirements, National Pollutant Discharge Elimination System (NPDES) compliance, backlog of permit reviews, etc.; all mandated items were made higher priority than LID, which is not mandated)
- Couldn't adopt the recommended changes as-is due to conflicting vision among government staff (e.g., permit review, fire marshal, etc.)
- The recommended changes to existing or new regulations aren't as applicable in the jurisdiction (e.g., Jefferson County, where maximum impervious surface is more applicable to plats, not in the county where typical lot size is 5-acre parcel; City of Kirkland's PLID chapter is geared towards Planned Unit Developments (PUDs), though Kirkland is generally already dense and most projects are less than 1 acre.)
- Merging code changes with existing code, regulations, plans Growth Management Act, etc. is difficult; LID topics are found in several locations within local government code

Bigger Picture Barriers to Overall Implementation of an LID Approach

The surveyed government contacts also commented on barriers to implementing the LID approach within their jurisdictions. Not all barriers were described by each government contact. Attachment B contains survey summary sheets for each of the individual governments. The barriers outlined during the survey were:

- Staff time and availability to promote the LID approach
- Perception that LID is not proven, technology is untested, and has not been tested by time, general public and elected officials don't yet trust LID
- General public and elected officials lack working knowledge of LID, elected officials could be advocates for LID and the general public could demand LID with increased knowledge and information. Information is needed on what methods will work where and under what conditions, maintenance requirements, and that LID can work and can look good
- Perception of LID as expensive compared to conventional methods
- Construction materials for LID can be more expensive (transportation costs of pervious pavement, for example)
- Maintenance needs and costs are unknown in some circles, lack of widespread knowledge

- Planning department counter staff, permit reviewers, inspectors, and enforcement staff lack adequate training to provide guidance, review permit applications, and inspect LID facilities
- Professional engineers struggle with signing off on plans including LID because LID is not as tested and proven as traditional drainage methods
- Maintenance staff lack adequate training and available time to maintain LID facilities
- Developers lack of knowledge of LID: more knowledgeable developer produces a better product for review (during permit review process)
- LID difficult to implement in a built-up city, retrofits are challenging
- If incentives for LID are granted for private property, local government would need dedicated staff (2 full time employees) to conduct initial inspection and repeated inspections (yearly) to ensure that system continues to work and that incentives are still warranted
- LID is difficult to implement via land use codes; separate LID from land use codes and instead make LID a stormwater issue that is best addressed through clear and simple stormwater requirements (more engineering than planning)
- LID is often in conflict with other perceived needs (e.g., wider road widths for emergency vehicle access)
- Voluntary LID does not produce results, mandatory could produce more
- General public not aware of link between actions/activities in the watershed and Puget Sound health

Solutions to Barriers Identified by the Jurisdictions

During the survey, each government contact was asked to brainstorm on potential solutions to the barriers outlined earlier. Solutions identified were:

- Staff Resources
 - Fill open staff positions at local governments
 - Prioritize workload internally at local governments to increase availability to work on LID
 - Funding for additional staff at local governments (dedicated staff time that can't be used on other priority tasks)
 - Technical Assistance - additional assistance writing ordinances, working new code into existing code, could be a shared resource with other jurisdictions
- Training
 - Government staff: planning department counter staff, permit reviewers, inspectors, those performing code enforcement, also those performing maintenance, a training certification program, could be in-person training or tutorials available on the web

- Developers: design of LID to increase quality of permit applications (possible certification program), could be in-person training or tutorials available on the web

➤ Tools

- Developer toolkit with “off the shelf” LID designs, ready-to-use in a design and submit for permit review, tutorial on sizing, type, and applicability of different LID methods, developers use in order to implement LID without an engineer, could have set of methods for water quality and water quantity, or both
- Residential private property owner toolkit to enable homeowners to implement onsite stormwater retention without an engineer, small projects checklist, could be one for new development and one for retrofitting existing development
- Incentives work better than mandates, guidance on how to implement LID incentive programs
- Regional source for developers (with technical information, technical assistance on questions re: design, unit price lists for LID-specific materials such as amended soils)

➤ Education and Information

- Work group of citizens, realtors, developers, and builders on LID, need technical assistance for facilitation or else funding for outside party to facilitate
- Funding for public relations and communications for educating elected officials and the public
- Forums and/or presentations to elected officials by regional resource in LID
- Brochures, pamphlets, mailings illustrating the benefits provided by LID, the uses of LID, and the types of LID
- Brochures, pamphlets, mailings demonstrating that LID is not more expensive to build and maintain than conventional systems (demonstrate cost-effectiveness as compared to conventional systems, consider triple bottom line approach of social, environmental, and financial); possible matrix showing options and case studies of each
- Available information on LID facilities that have worked, that general public can visit, preferably nearby
- General public not aware of link between actions/activities in the watershed and Puget Sound health

➤ Demonstration Projects

- Funding for demonstration projects in key “high traffic” areas, more public knowledge of LID will increase demand, since local “proof” of benefit will exist

Summary and CH2M Hill Recommendations

The previous section of this report contains outlined listings of the barriers to the LID approach and potential solutions to those barriers as described by the participants of this survey. This section contains recommendations made by CH2M HILL based on the results of this survey. The recommendations outlined here should be considered in addition to those solutions outlined in earlier sections of this report.

Many of those interviewed want and need to better understand how to effectively and assuredly implement LID. Some want to gain a better understanding of how LID helps meet the Partnership's and Governor's expectations for cleaning up Puget Sound. More specifically, the participants in the survey would benefit from the following actions:

- Identify the LID techniques that are 'ready for primetime,' and those that require more research and development. Show how LID can be cost-effective.
- Develop a program to 'train the trainers' using municipal and volunteer (citizens/homeowners) staff, with programmatic oversight and feedback mechanisms to assure there is consistent and appropriate implementation and updating on region-wide experience.
- Develop a certification program, perhaps following the Washington State Department of Transportation Erosion Control process.
- Develop a neighborhood-scale LID implementation funding program, with priority funding for neighborhoods with greatest neighborhood support (e.g., highest percentage of property owners or signed commitments for implementation and maintenance), greatest reduction of runoff, and other needs.
- Emphasize importance and value of retrofitting existing neighborhoods. Educate and inform the public and elected officials that LID is not just for new developments. Address barriers to LID implementation on private property through education and by providing tools (such as toolkits) to private property owners and also by educating other involved parties such as civil and site development engineers, contractors, municipal permit application plan reviewers, municipal field staff, municipal managers, and Council members or Commissioners.
- Create a regional information and training clearinghouse or institute, with seed funding from PSP or state, portion of local utility fees, construction industry support, stormwater/'clean Sound' license plate sales, federal grants, partnerships with non-profit organizations, and others.
- Conduct a forum or other information/experience mechanism that would allow local governments to learn from one another. Municipal governments throughout the state are wrestling with similar barriers to implementing the LID approach. What one government is struggling with currently could be something that another government has resolved. This would be helpful for the regulatory aspects of the LID approach.
- Engage the Washington State Chapter of City and County Engineers in a discussion regarding barriers to LID implementation.

- Many jurisdictions have addressed the need for LID through their planning or economic development departments by means of code or land use changes. Other jurisdictions have changed stormwater standards but have not changed actual regulations. To successfully implement an LID approach, jurisdictions must make both code changes and changes to engineering standards. Planning departments and public works departments both have a crucial role in implementing the LID approach. The PSP can stress the importance of this two part approach.
- Meetings conducted by the PSP have had positive feedback. Local government representatives have attended, and they believe a broader audience of the public and elected officials would also appreciate the message of the meetings. In turn, this broader audience could help deliver the LID message.

Managing stormwater is crucial to restoring Puget Sound. In addition to regulations encouraging LID, local governments should:

- Require retention of 65 percent of the forest cover and no more than 10 percent impervious area outside of Urban Growth Boundaries
- Require zero discharge for all sites up to the 2-year storm
- Mandate retrofit of existing developed areas for treatment and flow control

Puget Sound would benefit from these stricter stormwater controls and LID would then be used to meet these requirements.

The PSP has the opportunity and platform to broadcast the role that stormwater plays in Puget Sound health. Local governments are looking to the PSP for guidance and direction on how to save Puget Sound.

Attachment A

Puget Sound Partnership Survey of Local Governments Regarding the LID Local Regulation Assistance Project 2005/2006

CH2M HILL was tasked by the Puget Sound Partnership to survey the 19 local governments that received technical assistance from the Puget Sound Action Team and its consultant, AHBL, Inc., as part of the 2005-06 Low Impact Development (LID) Local Regulation Assistance projects. The purpose of this survey effort was to document the status of local government adoption of recommendations provided by AHBL and to outline potential solutions to barriers that may have prevented implementation of those recommendations.

Questions asked of staff from the local governments that received assistance as part of the program are listed here. Each government staff person was asked the same questions. The survey consisted of three primary questions with several secondary, or follow-up, questions under each primary question. Results of this survey will be shared with the participants and with the broader Puget Sound community.

Survey of (City/County): _____

Meeting Attendees (Name, Title): _____

Location: _____

Interview Date: _____

Survey Questions

What is the Status of the Recommendations?

1. Have the recommendations been adopted? (Status of progress since January 2006 for 2005 recipients, since April 2007 for 2006 recipients.)
2. Have the recommendations been changed substantively, then either adopted or planned for adoption? (e.g., Planned Low Impact Developments chapter, impervious surface limits, native vegetation protection requirements, or other?)
3. What has been accomplished in regards to LID implementation since recommendations were adopted?
4. If the recommendations haven't been adopted yet, is this planned for the future?

What Are the Barriers to Implementing the Recommendations?

1. Is there common understanding of the recommendations among staff, supervisors, directors, and elected officials in the City/County?
2. What internal (within the City/County) obstacles have prevented adoption of or full implementation of the recommendations?

3. Have there been differences in opinion/approach among staff, elected officials, directors, supervisors, or other departments regarding the LID? Has this slowed the process? Why are they slowing the process? What is motivating them?
4. Does the staff team (within the County/City) have the same shared vision for LID incorporation into County/City regulations, activities, etc? If so, what is that vision? What are the goals that correspond to that shared vision (e.g., LID is allowed versus encouraged versus required)? Has this vision changed over time?
5. What is public opinion of LID in your jurisdiction? What are public expectations of the City/County regarding the LID? What are the opinions of the local building association and local chambers of commerce? What about non-government organizations? What is influencing these opinion/expectations?
6. Have public opinions/expectations changed since recommendations were made or recommendations were adopted?
7. Any changes in political climate since the recommendations were made or adopted?
8. Any other barriers to implementation of the LID approach or the recommendations themselves (e.g., perception that LID will slow down development, therefore economic growth, etc.)?

What Are the Solutions to the Barriers Preventing Implementation?

1. What are possible solutions to address barriers discussed earlier?
2. What is the planned path forward?

Attachment B

City of Bellingham

2005 Recipient

Contact: Renee LaCroix, Planning and Community Development Department
(Note: See Attachment C for full contact information for all survey participants)

Interview Date: 3/26/08

Scope of Regulatory Assistance Received

- Review of City codes and standards
 - Title 13, Streets and Sidewalks
 - Title 15, Water and Sewers
 - Title 16, Environment
 - Title 18, Subdivisions
 - Title 20, Land Use Development
- Work Products:
 - Changes to: Chapter 20.12 Bellingham Municipal Code (BMC), General Standards (20.12.090 LID (new section)), Title 13 Streets and Sidewalks, 13.04.070 Residential Access Streets, Title 15 water and sewers, BMC 15.16.030 storm and surface water rates language, Section 15.40 drainage, Section 14.42, Title 16 environment, Title 18 Subdivisions, Title 20 Land Use Development

Status of Recommendations and of the LID Approach

- Stormwater Ordinance adopted
- Title 20 (land use) changes have not moved forward
- Adopted the 2005 Ecology Stormwater Manual for Western Washington
- Implementation of numerous demonstration projects
- Private developers have tried LID in a few places
- City of Bellingham implemented a pervious sidewalk
- City of Bellingham received grant for rain barrels in Lake Whatcom watershed
- Potential green roof on new museum

Barriers to Implementation of Recommendations and the LID Approach

- Staff turnover
- Workload, balancing other needs (NPDES Phase II, other – since LID isn't a mandate, slips lower on the priority list than others that are)
- Elected officials and public are behind LID, but don't have knowledge of details (benefits, limitations, what types work where)
- Communications between and needs of different city departments
- Engineers signing plans with LID are not as comfortable as they are with pipes, etc. that have been around a long time and are known and proven to work
- Tracking LID on private property is difficult. If incentives are given for LID on private property, city needs system to track and confirm that system still works and that incentives (e.g., reduced stormwater rate) are still warranted; huge workload concerns
- The public don't understand the link between stormwater/LID and Puget Sound health
- Engineering doesn't have depth and breadth of knowledge in LID, hesitant to sign off on plans with LID because of lack of knowledge in LID
- Maintenance staff don't understand LID and maintenance requirements of it

Potential Solutions to Barriers

- Dedicated staff time - Funded staff person (preferred) or consultant to push regulatory side of LID (make it happen); the PSAT's LID regulatory assistance project was great because language was actually written, however now need help getting the regulations to happen (example: Puget Sound Energy funded a 2-year staff position to create a climate action plan for city, met deadline and produced good product because of the dedicated time/resource, instead of balancing all other demands on time)
- Dedicated staff time - Funded staff person (preferred) or consultant to confirm that LID on private property is working (initial inspections, yearly follow-up inspections, etc.), anticipate 2 FTEs/year to do this in City of Bellingham
- Funding for demonstration projects in key areas with lots of "traffic", so that public get used to seeing LID, ask questions, and eventually demand LID
- Education for general public on link between stormwater/LID and Puget Sound health
- Training (certification program?) for engineers designing and/or approving designs for LID
- Maintenance manual for LID
- LID could be incorporated into the tasks of a new office of sustainability (the need for this in City of Bellingham and perhaps other cities/counties), see City of Seattle as example

Clallam County

2005 Recipient

Contact: Carol Creasy, Senior Planner, Department of Community Development

Interview Date: 3/24/08

Scope of Regulatory Assistance Received

- Draft grading ordinance
- Landscaping and native vegetation ordinance
- Draft stormwater management ordinance
- Planned low impact developments chapter
- Cost comparison between LID and conventional methods
- Roof downspout control standards and details
- Incentive matrix
- Road sections

Status of Recommendations and of the LID Approach

- Recommendations not adopted, planned for late 2008
- Specifics in recommendations may change (compromise between departments)
- Draft drainage manual for single family residences helps private property owners manage stormwater onsite without an engineer
- Workshop for LID sponsored by green building groups of Clallam and Jefferson counties
- Political will exists, working on market demand for LID
- Plans for work group of citizens, realtors, developers, builders on LID

Barriers to Implementation of Recommendations and the LID Approach

- Financial resources to fund staff time
- Staff time (significant demands on available time)
- Lack of LID knowledge by citizens, realtors, developers, buildings
- Lack of LID knowledge by planning department counter staff and inspectors
- Perception of LID as too expensive

Potential Solutions to Barriers

- Work group of citizens, realtors, developers, builders on LID, need facilitator of process and funding for facilitator
- Funding or public relations and communications
- Training for planning department counter staff and inspectors

City of Edmonds

2006 Recipient

Contact: Duane Bowman, Director, Development Services Department

Interview Date: 3/12/08

Scope of Regulatory Assistance Received

- Review of City codes and standards:
 - Review planned residential development chapter, ECDC 20.35
 - Review ROW standards, ECDC 18.80 and details
 - Review vegetation retention, street trees and landscaping, ECDC 18.85 and 20.12
 - Review density allowances and incentives, ECDC 16.20
 - Review land clearing and tree cutting, ECDC 18.45
- Memo outlining current status and potential code challenges
- Prepare native vegetation and impervious surface package for discussion

Status of Recommendations and of the LID Approach

- Recommendations not adopted, expected re-writes of code in 2008
- Sustainable Edmonds community group
- Mayor of Edmonds has a climate change initiative

Barriers to Implementation of Recommendations and the LID Approach

- Staff turnover
- Lack of available staff time, workload issues with NPDES Phase II, etc.
- 2007 was election year, little was accomplished
- Setting priorities is difficult
- Questions from citizens: “how will it be applied?” and “what does it mean to me?”
- Conflicting vision between city departments

Potential Solutions to Barriers

- Need to fill open positions

- Staff training on LID techniques (coordinate with WRIA 8, USEPA grant committed approx 200 hours of staff time, developed website for LID and training ops for staff)
- Public education on LID
- Ideas on how to train people (elected officials, technical city staff)
- Materials to prove that LID works (ex: pervious pavement)
- PSP road show - for both LID and for general PSP activities - Presentations to elected officials - different audience than technical staff (mayor, council)

City of Issaquah

2005 Recipient

Contact: Trish Heinonen, Planning Manager, Planning Department

Interview Date: 3/26/08

Scope of Regulatory Assistance Received

- Review of City codes and standards:
 - Title 12, Streets, Sidewalks, and Public Places
 - Title 13, Public Services
 - Title 16, Buildings and Construction
 - Title 18, Land Use Code
- Work Products: Review of City of Issaquah's Best Available Science 2004 Report and the Stormwater Infiltration Evaluation report (Golder and Associates) to identify areas where specific LID techniques would have greater applicability and benefit, new chapter built on existing Chapter 13.28, deviations for LID proposals, review of city street standards

Status of Recommendations and of the LID Approach

- No, not fully adopted
- Proposed stormwater regulations are drafted and have been reviewed by and proposed to city Council for adoption
- Proposed stormwater regulations will have LID standards in them (rather than in the planning code (Issaquah Municipal Code 18), as recommended
- Proposed stormwater regulations will require LID in all soils where LID is feasible (awaiting outcome of Phase II appeal and will finalize the stormwater regulations that include the mandatory use of LID, are waiting to finalize pending any changes brought on by appeal, hoping to adopt later in 2008)
- Adopted or are under consideration:
 - 35 percent of existing native soils preserved (recent landscape code update, adopted), also increases number of required trees in parking lots
 - "Native forested" open space preserved (Cluster development standards, adopted)
 - Protection of between 20 to 30 percent of significant trees on sites proposed for development (Tree preservation amendment, proposed)

Barriers to Implementation of Recommendations and the LID Approach

- Staff time, workload
- Voluntary LID already part of code was not producing results; mandatory (as it will be under proposed stormwater regulations) is now preferred
- Not enough public support (one large land owner only, not many if any single family residential participation); Not enough public knowledge of LID
- Fitting LID into existing development codes that have similar objectives; confusion when dictating land use policy through indirect means such as LID in stormwater code

Potential Solutions to Barriers

- Outside funding for additional staff time (funded position) or consultant time
- Mixing LID with land use codes is problematic, separate LID from land use codes and instead make LID a stormwater issue that is best addressed through clear and simple stormwater requirements (more engineering than planning)
- Education of public
- Demonstration of cost-effectiveness, concrete local examples of how LID can be cost-effective (triple bottom line approach, with financial as well as social and environmental)
- Regional source for developers (with technical information, technical assistance on questions re: design, unit price lists for LID-specific materials such as amended soils)

Jefferson County

2005 Recipient

Contact: Stacie Hoskins, Long Range Planning Manager, Department of Community Development

Interview Date: 3/19/08

Scope of Regulatory Assistance Received

- Preparation of Planned Low Impact Developments (PLID) chapter and incentives matrix
- Preparation of an informal brochure for the permit review counter
- Revisions to the County's grading ordinance to incorporate the Washington State Department of Ecology/Community, Trade and Economic Development technical guidance on grading
- Parking comparison and recommendations

Status of Recommendations and of the LID Approach

- Code has not been changed, though progress has been made on LID
- Adopted the 2005 Department of Ecology Manual
- Staff have received training on LID and on manual
- Developers are proposing LID to accomplish other things, so intent of PLID/clustering regulations are being met in many cases
- Clearing and grading ordinance that was provided – already required under 2005 stormwater manual – maximum impervious surface is more applicable to plats, so not as applicable in County, where typical size is 5 acre parcel
- Workshop for LID sponsored by green building groups of Clallam and Jefferson counties

Barriers to Implementation of Recommendations and the LID Approach

- Staff changes and staff workload (Critical Area Ordinances, etc.)
- Coordination between departments within county
- Don't have design specs for LID – no "off-the-shelf" designs, also no "off-the-shelf" processes for LID for owner/contractors or developers, need a system to encourage/allow LID without requiring an engineer
- Don't have a "grading system" for LID during permit review, need some way to critique permits as they come in for the extent to which they use LID

- Confusion amongst citizens – what is LID, Leadership in Energy and Environmental Design, sustainable building, etc.
- Perception that since LID is new, it costs more money, and doesn't work
- Citizens don't see link between actions/activities in the watershed and Puget Sound health

Potential Solutions to Barriers

- Staff time and financial resources to fund staff time
- Small projects checklist for property owner to designs mall projects using LID with no engineer needed
- Education for citizens on what LID is, types of LID, and what will work where (have lots of owner-contractors applying for permits, fewer big developers)
- Proof to citizens that LID can work in their backyard
- Education for citizens on link between actions/activities and Puget Sound health

City of Kirkland

2006 Recipient

Contact: Jenny Gaus, Surface Water Manager, Public Works Department

Interview Date: 3/19/08

Scope of Regulatory Assistance Received

- Review of City codes and standards:
 - Chapter 95 – Tree Management and Required Landscaping
 - Chapter 105 – Parking and Parking Areas
 - Chapter 110 – Required Public Improvements
 - Chapter 125 – Planned Unit Developments
- Public Works Standards – new standards/ drawings reflecting LID objectives and thresholds (8 new standard drawings)
- Low Impact Development Standards (LID chapter to the Kirkland Municipal Code)
- LID incentives package
- Impervious surface comparison (compares established impervious surface maximum limits across all eight 2006 participant jurisdictions)
- Supplementary Information on green roofs and pervious pavement

Status of Recommendations and of the LID Approach

- Recommendations have not been fully adopted
- Process is starting but moving slowly
- Passed chapter 113 of Zoning Code (clustering), though this has changed from original recommendations
- Planned Low Impact Developments chapter is great but not as applicable to Kirkland, which has few planned unit developments, rather small lots, dense development, with most projects < 1 acre
- Kirkland plans to adopt standards equivalent to the 2005 Washington State Department of Ecology Manual in 2008
- Pilot project as part of sidewalk project - Bioretention swales
- King County/Kirkland current project in Juanita Creek Basin, will have LID elements (grant from US Environmental Protection Agency)

Barriers to Implementation of Recommendations and the LID Approach

- Staff time, workload
- In Kirkland, inspectors do all types of inspections (e.g., water, sewer, streets, stormwater); are not equipped to inspect details on soil standards and tree retention, also limited experience in inspecting LID
- LID-related items are in numerous parts of the city code (e.g., landscaping, roads, etc.), difficult, must change multiple parts, not just one
- Perception within city of higher costs of LID versus conventional (more time to review permit, more time to inspect)
- Receive questions from individual property owners on long-term maintenance of LID

Potential Solutions to Barriers

- Assistance with plan review (outside contractor or shared regional resource?)
- Outside private contractor or shared regional resource to inspect LID projects, would need to have good response time as to not slow construction
- Education of public on LID - how it works, that it works, maintenance requirements, etc. (time passes, LID projects are successful over time, the public need to see results over time, this will help culture shift)
- Bring in more LID into 2005 Washington State Department of Ecology Manual
- Organize tours of existing sites - not just for city staff, but for electeds and the public
- PSP should stress importance of stormwater in overall Puget Sound health, and should continue to share resources as they have been (continue offered trainings, programs)

Kitsap County

2005 Recipient

Contact: Jeff Rowe-Hornbaker, Assistant Director, Community Development Department

Interview Date: 3/13/08

Scope of Regulatory Assistance Received

- Preparation of Planned Low Impact Developments Chapter
- Preparation of Cost Comparison
- Preparation of An Incentives Matrix
- Revision to Technical Deviation Language
- Revision to the Performance-Based Development Chapter to recognize LID as something that warrants PBD approval
- Preparation of a Landscaping and Native Vegetation chapter

Status of Recommendations and of the LID Approach

- Ordinance 375-2007, amending Kitsap County Code Chapter 12 relating to LID, hasn't substantively changed from recommendations (passed February 2007)
- Implemented several high-profile projects, now will monitor results
- General acceptance of LID amongst public and elected officials

Barriers to Implementation of Recommendations and the LID Approach

- Though public and electeds generally view LID as a good thing, some distrust because most have not seen implemented projects "working" over several years

Potential Solutions to Barriers

- For public and electeds - education materials, organized tours, presentations on LID - what's worked, what hasn't

City of Lacey

2006 Recipient

Contact: Doug Christenson, Water Resources Engineer, Public Works Department

Interview Date: 3/21/08

Scope of Regulatory Assistance Received

- Comprehensive review of City of Lacey codes and standards, review of residential right-of-way sections
- Detailed review and analysis of City of Lacey's Zero Effective Drainage Discharge Chapter 14.31 (Planned Low Impact Developments Chapter)
- 16.60 Planned Residential Development
- Roadway Sections and Details
- Supplemental Information on several pervious surfacing products

Status of Recommendations and of the LID Approach

- Recommendations have not been adopted, planned for short-term
- Changes will be made to recommendations (some wording was confusing, also may be adopting less stringent requirements than what was recommended)
- Zero effective drainage discharge ordinance in place
 - Allows LID, has some elements of LID, so developers and public can gradually ease into LID
 - Not an LID ordinance, though has some of the same benefits as an ordinance would have
- Hope to have LID standards in new stormwater manual update (2008 or 2009)

Barriers to Implementation of Recommendations and the LID Approach

- Available staff time (1 staff person for all stormwater)
- Backlog of permit reviews, busy with National Pollutant Discharge Elimination System permit compliance tasks
- Lack of developer/builder knowledge of LID
- Perception of higher cost of LID, perception that LID hinders permit review (permit reviews take longer and require more effort, therefore more expensive)

- Lack of knowledge on part of public and elected officials that LID works and can look good
- Internal (city) agreement on LID standards

Potential Solutions to Barriers

- Funding for additional staff resources
- Education materials on effectiveness of LID and how it can enhance aesthetics (rain gardens, pervious pavement)
- Education materials on costs of LID versus conventional systems
- Training for permit reviewers on LID
- Template or tutorial for developer/builder, can be either for water quantity or treatment (or both), step-by-step instructions on which techniques to use where (soils, etc.), which to use for either water quantity or treatment, and how to size them; straightforward way to make sure that calculations are done properly
- Puget Sound Partnership can continue to get the message out to public, elected officials

City of Marysville

2005 Recipient

Contact: John Cowling, Development Services Manager, Community Development Department

Date: 3/10/08

Scope of Regulatory Assistance Received

- Draft new chapter for regulation of LID projects
- Review existing code for conflicts with implementation of LID and identify opportunities to include LID techniques within the code framework
 - Title 12 (Streets and Sidewalks)
 - Title 14 (Water and Sewers)
 - Title 19 (Zoning)
 - Title 20 (Subdivisions)
- Work Products:
 - Review street standards and recommend LID options
 - Provide options for application in the downtown area
 - Draft LID ordinance

Status of Recommendations and of the LID Approach

- Adopted May 14, 2007
- No significant changes, only minor changes to make it more consistent with zoning code
- No one has used the code yet (residential), one development expressed interest`
- Plan to implement adaptive management on City's LID approach once a short time has passed

Barriers to Implementation of Recommendations and the LID Approach

- Much of Marysville has good soils for LID (sandy, good infiltration), so LID could save developers a lot of money in fill; not the case in higher elevations in the city, with till soils
- Public has not been active in LID implementation, no strong opinions either way, possibly because they are not as knowledgeable as they could be

- Permit reviews are going well, staff are knowledgeable and specified review deadlines are met even with LID (may change if sudden increase in LID projects, but not now)

Potential Solutions to Barriers

- Though Marysville is not experiencing these barriers, potential solutions to barriers found elsewhere include:
 - Knowledgeable staff performing permit reviews is key (training)
 - Engineer performing the design should be knowledgeable (training, tutorials on LID), reduces permit review time

Mason County

2006 Recipient

Contact: Barbara Robinson, Director, Department of Community Development

Date: 3/25/08

Scope of Regulatory Assistance Received

- Review codes and standards:
 - Mason County Code (MCC) 14.44 - Excavation and Grading
 - MCC 11.04 - Forest Practices Moratorium
 - Draft MCC 17.60 & 17.61 - Master Development Plans
 - MCC 16.21 - Performance Subdivisions
 - MCC 16.23 - Cluster Subdivisions
 - Title 17 - Zoning
- Work Products: Clear and Grade Ordinance, 17.31 Landscaping in the Belfair Urban Growth Area (UGA 17.17 landscaping in the Allyn UGA, Draft of 17.70 LID Chapter, Draft of 16.25 LID Subdivisions, draft of 17.60 Master Development Plans, Public Benefit tax Analysis

Status of Recommendations and of the LID Approach

- March 24, 2008 the LID regulations went to the planning commission, planning commission recommended that County Commissioners go ahead with them
- Clearing and grading, also Subdivision requirements not at this time, planned for the future
- Belfair and Allyn UGAs are sensitive/critical areas, as are shellfish shorelines, LID is required in these areas (if County Commissioners approve LID regulations)
- Maintenance guide to be adopted (regulatory assistance provided in 2006 did not have enough maintenance guidelines/standards)
- Stormwater plans adopted in 2007, County Commissioners are supportive

Barriers to Implementation of Recommendations and the LID Approach

- Staff availability (backlog of permit reviews to perform)
- Public works will be "overseeing" LID once it is in the regulations. Inspectors and permit reviewers will need training

- Though County Commissioners are behind LID, are not knowledgeable in the technical details

Potential Solutions to Barriers

- Technical assistance or funded position to perform plan reviews
- Training for permit review and inspection staff
- “Road show” on stormwater and LID, capabilities, potential benefits to Puget Sound, etc., for elected officials and public

City of Normandy Park

2006 Recipient

Contact: John Adamson, Director, Community Development Department

Interview Date: 3/19/08

Scope of Regulatory Assistance Received

- Review Normandy Park codes and standards:
 - Title 10 Streets and Sidewalks
 - Title 17 Subdivisions and Plats
 - Title 18 Zoning
 - Chapter 13.20 Normandy Park Municipal Code (NPMC) – Land Clearing, Grading, and Filling
 - Chapter 18.58 NPMC – Planned Residential Development
- Work Products: Land clearing, grading and filling chapter re-write, draft changes to zoning district dimension chart, changes to Ch 18.08, site landscaping and tree retention (new landscape code), Planned Low Impact Development chapter, LID road standards

Status of Recommendations and of the LID Approach

- Recommendations not adopted, though adoption is on work program for 2008
 - Staff to review over next few weeks
 - Ordinance to council later this year
- Specifics in recommendations may change, conversations have not started yet
- Anticipate either adoption or equivalent to 2005 Washington State Department of Ecology Manual in 2008 (now using 1998 King County)

Barriers to Implementation of Recommendations and the LID Approach

- Workload, staff availability with Critical Areas Ordinances, others
- Lack of knowledge among city staff in LID (though now have engineer on board that is knowledgeable in LID)
- Difference in approach between planning and public works
- Lots of redevelopment right now, staff are busy
- Cost, or perception of cost, is barrier

- Difficult to implement LID in a built-up city

Potential Solutions to Barriers

- Funding for staff time
- Training materials for staff conducting permit reviews and inspections
- Informational materials on cost of LID versus conventional systems (including initial and maintenance costs)
- Informational materials on local benefit and also broad public benefit of LID (link to Puget Sound health)
- Techniques, tutorials, technical assistance to help implement LID in a built-up city with very little (if any) new development
- PSP presentation to public and elected officials on LID, stormwater, and the link to Puget Sound health (class was excellent, but would be helpful for public and elected officials, too)
- PSP presentation to elected officials (council) on overall goals, objectives of PSP and how city can help PSP save Puget Sound

City of Port Angeles

2006 Recipient

Contact: Scott Johns, Associate Planner, Community and Economic Development Department

Interview Date: 3/19/08

Scope of Regulatory Assistance Received

- Review codes and standards:
 - PAMC 15.24 – Wetlands Protection
 - PAMC 15.28 – Clearing, Grading, Filling and Drainage Requirements
 - PAMC Title 16 – Subdivisions
 - PAMC Title 17 – Zoning
 - Road Sections and details for the City of Port Angeles
- Work Products: 15.28 – Clearing, Grading, Filling and Drainage Requirements, 17.44 – Planned Low Impact Development Chapter, Right-of-Way Standards and Parking Lot Details, LID Incentives

Status of Recommendations and of the LID Approach

- The planned LID overlay zone has been adopted into the zoning code, no applications made under this yet (been in effect for approximately 1 year)
- Haven't had a land division application for several months (economy has changed), after having 700 new lots in the last 3 to 4 years
- Proposed code sections were changed to make it more parallel and similar to the Planned Residential Development Section
- Did not adopt the suggested clearing and grading section (probably won't adopt – the prepared version seemed more appropriate for rural areas)
- Did not adopt the LID street standard – debate on street section, staff working on this now (see potential solution below)
- LID seems to be happening “on its own”, separate from overlay (three new LID projects, Clallam County and Port Angeles now have a Built Green Program)

Barriers to Implementation of Recommendations and the LID Approach

- Staff time (have three to four capital projects currently underway, staff don't have time, also National Pollutant Discharge Elimination System compliance, combined sewer overflows, etc.)

- Lack of understanding and acceptance historically, though this has changed dramatically and is much less of a barrier now
- Staff performing permit reviews have come up to speed on LID, was a barrier at one time
- LID is more expensive now (design, permit review, etc. is different, therefore takes more time right now, also transportation costs for pervious concrete are high on the peninsula), but won't always be
- Economic slowdown, fewer developments and home buying
- Public and electeds not convinced LID works
- No clear way to use LID to retrofit old neighborhoods (typical 7,000-square-foot lot, curb and gutter drainage system), how to reduce stormwater from these areas?
- Reducing stormwater runoff is not as attractive to commercial/industrial users without incentives

Potential Solutions to Barriers

- Funding for additional staff time
- Additional training for permit review staff
- Education materials and tutorials for developers and owner/contractors submitting LID projects for permit review - better designs equal less permit review time
- Increased use of LID will help lower costs (in design, permit review, and materials costs), increase demand for LID (once economy picks up)
- Pilot projects in the ground locally to prove to public/electeds that LID works (and can work in their "backyard")
- Incentives for reducing stormwater runoff in commercial/industrial areas
- Technical assistance with designing a street section, also guidance on how to bring LID into streets standards/guidelines

City of Port Orchard

2006 Recipient

Contact: James Weaver, Development Director, Planning Department

Interview Date: 3/21/08

Scope of Regulatory Assistance Received

- Review codes and standards:
 - Port Orchard Zoning Ordinance - emphasis on landscaping, tree retention and parking lot standards
 - Developers Handbook
 - Title 16 Port Orchard Municipal Code
- Work Products: right-of-way and parking details, Title 18 Clear and Grade Ordinance, Tree Canopy Standards, Planned Low Impact Developments (PLID) Chapter, Transfer of Residential Density Credits for Low Impact Developments

Status of Recommendations and of the LID Approach

- LID standards were adopted via ordinance in March 2008
- Expect Planned Low Impact Developments chapter by the end of 2009
- 2004/2005 updates currently being done (3 to 4 years late), have opportunity to bring LID into these updates at this point, instead of in the next round in approximately 2012

Barriers to Implementation of Recommendations and the LID Approach

- Staff time and availability (Critical Areas Ordinances, Shorelines)
- All inspection and code enforcement staff have attended Washington State Department of Ecology stormwater classes, permit review staff, too; could always enhance this
- Merging these new recommendations (code changes) with existing code, regulations, plans (Growth Management Act), etc. is toughest part of LID - the actual implementation, changing the way things are done and how it all is "married" together is biggest challenge
- Current elected officials are on board (as is public), though a challenge to re-educate a group of elected officials every 2 years with election cycles

- Have no guidance on what to do if LID fails or how to prepare for “worst case” scenario, preparing inspectors, maintenance staff and engineers for real-time response is imperative
- Maintenance staff need training on maintenance procedures

Potential Solutions to Barriers

- Technical assistance or funding for staff person to develop ordinances, etc. an opportunity for a shared resource with other jurisdictions
- Additional training for staff (permit review, inspectors, and especially maintenance staff)
- Show that LID is “tried and true”, that it does work and that it is a good option (education, tours of existing sites, etc.)
- Incentives work better than mandates. Additional guidance on how to incorporate incentives
- Write-up of “worst case” scenarios and possible failure based on existing manuals and standards

City of Poulsbo

2005 Recipient

Contact: Andrzej Kasiniak, Assistant Director, Public Works Department

Interview Date: 04/01/08

Scope of Regulatory Assistance Received

- Work Products:
 - Roof downspout controls
 - LID road sections
 - Parking comparison and recommendations
 - Cost comparison memorandum
 - Planned Low Impact Developments Chapter
 - Incentives Matrix

Status of Recommendations and of the LID Approach

- Adopted LID ordinance (similar to Port Orchard and Kitsap County)
- Working on 'cookbook', or guidelines, for LID (in draft form as of March 2008)
- Porous pavement demonstration project implemented, now monitoring for three years

Barriers to Implementation of Recommendations and the LID Approach

- Poulsbo does not have a dedicated stormwater person much less one for LID
- Lack of resources, both time and money
- Implementation is the problem now, policy/regulations is no longer the problem

Potential Solutions to Barriers

- Shared resources for maintenance requirements of LID (shared with other jurisdictions, both personnel and equipment)
- Education of inspectors and plan reviewers on LID

City of Redmond

2005 Recipient

Contact: Cathy Beam, Principal Environmental Planner, Planning and Community Development Department

Interview Date: 03/20/08

Scope of Regulatory Assistance Received

- Review codes and standards:
 - Critical Areas Ordinance and Natural Features Element, RCDG 20.80
 - Landscaping and Tree Protection, RCDG 20C.30-100
 - Maximum Lot Coverage of Structures, RCDG 20C.30.25-110
 - Maximum Impervious Surface, plus associated site requirement charts for the various zoning districts
 - Redmond Shoreline Master Program, RCDG 20E.90
 - Clearing, Grading, and Stormwater Management, Clearing, Grading, and Stormwater Management Technical Notebook, Issue No. 4, RMC Chapter 15.06
 - Fire Code
 - Standard Specifications and Details for Public Works Construction, 20D.180
- Work Products
 - Clearing Grading and Stormwater Management Technical Notebook review,
 - Memorandum helping the City address water and sewer bedding requirements,
 - New LID Chapter (Chapter 16),
 - Guidance on maintenance of LID facilities,
 - Example of site analysis documents for modeling work done (Pierce County Hylebos project)

Status of Recommendations and of the LID Approach

- Adopted recommendations into the 2007 stormwater manual, not in zoning code or stormwater regulations;
 - LID is not being used on a technical basis, though not an administrative or policy topic yet; recommendations were adopted as-is
 - It's working this way, though LID never went through a public process or council/planning commission)

- Zoning code or stormwater regulations changes are not planned for short-term, need to have public discussions first
- Elected officials back “green” approaches and sustainability, the momentum is in the right direction

Barriers to Implementation of Recommendations and the LID Approach

- Specifics on LID are not well understood (what works well where, what are benefits, what are limitations, LID is more than just permeable pavement)
- Discomfort with change (LID is new and different and therefore harder to review, inspect, design, and maintain)
- LID isn’t “proven,” according to some

Potential Solutions to Barriers

- Internal training (permit review staff, inspectors, those that maintain facilities)
- Education of elected officials and public (what works well where, what are benefits, what are limitations, demonstrated effectiveness, LID works better in some areas of the city than others)
 - In the form of a “road show” (PSP has come to talk with staff before, now needed for more public works staff but especially elected officials)
 - Pamphlet to have at the permit review counter (with as many local references as possible)
- “Proof” provided to public that LID works
- PSP should continue outreach, if not enhance
- Outside assistance on inspections (and possibly permit review)

Snohomish County

2005 Recipient

Contact: Randy Sleight, Chief Engineering Officer, Planning and Development Services Department

Interview Date: 03/13/08

Scope of Regulatory Assistance Received

- Strategies to minimize impervious surfaces that include examining the street, parking use, height, density/dimension and native vegetation retention/restoration standards
- Review and recommendations on the Reduced Drainage Discharge Demonstration Program
- Preparation of a new chapter for LID projects that describes the site analysis process, provides interim recognition of LID Best Management Practices (BMPs) found in the 2005 Washington State Department of Ecology Manual
- Preparation of regulatory language that addresses ongoing access to and maintenance of LID facilities
- Review and amendment to Chapter 20.25 Snohomish County Code to require minimum standards for landscaped area soils
- Review and recommendation that the Draft Critical Areas Regulations (June 2005 draft) include bioretention as an approved BMPs

Status of Recommendations and of the LID Approach

- Adopted ordinance 06 044 in June of 2006
- Adopted LID Technical Guidance Manual for Puget Sound
- Since June 2006 approval, have 400 lots that can be described as LID or “LID-like”
- Reduced discharge pilot program
- Increase in number of green builders in Snohomish County
- Sustainable development Task Force (non-profit, assist developers in using LID)

Barriers to Implementation of Recommendations and the LID Approach

- LID approval process (permit review) is difficult, different every time, have streamlined inspections in general, but still struggle with LID approvals (tried special LID team); now each permit review is done on a case-by-case basis with decisions within the County right-of-way made by engineering, and decisions on private property made by Randy Sleight
- No BMPs in design standards, just had guidelines
- All the codes didn't change, just some
- Differences in approach within County: allowing LID versus encouraging LID
- Elected officials vary in opinion on LID
- Materials for LID are expensive
- Designs brought in for permit review aren't all done by experienced developers, slow down process

Potential Solutions to Barriers

- Better internal clarity on which codes did change, which did not, and how to navigate through
- Need training/ education for developers who wish to design LID
- Developers could use a "key" to help select BMPs, for example, the BMPs could be placed into categories based on applicability for any one situation and placed in order of preference according to Snohomish County
- "Road show" to educate elected officials on LID benefits, effectiveness, and limitations
- Materials are expensive, even though many providers of materials (amended soils, etc.) are local to Snohomish County

Thurston County

2005 Recipient

Contact: Mark Swartout, Natural Resources Program Manager, Development Services Department

Interview Date: 03/13/08

Scope of Regulatory Assistance Received

- Preparation of revisions to draft stormwater management manual to integrate LID
- Preparation of a new landscaping and native vegetation retention chapter
- Recommendations on modifications to Forest Practices standards to provide tree retention for Class IV Conversions
- Review of impervious surface and other bulk/ dimensional requirements from the Thurston County zoning code

Status of Recommendations and of the LID Approach

- No recommendations adopted, scheduled for end of 2008

Barriers to Implementation of Recommendations and the LID Approach

- Staff availability and workload: stormwater utility staff working on it, though need to adopt most recent stormwater manuals (2001/2005) and National Pollutant Discharge Elimination System Phase II compliance, then will concentrate on LID
- Big issues surrounding LID have not been discussed yet
- Public and elected officials are pushing for LID, limited by staff time and availability

Potential Solutions to Barriers

- Technical assistance or funded staff person for progressing on implementing recommendations
- Forum for discussing big issues surrounding LID
- Education of public and elected officials on LID details, so that all are on the same page

Whatcom County

2005 Recipient

Contact: Peter Gill, Senior Planner, Planning and Development Services Department

Interview Date: 3/12/08

Scope of Regulatory Assistance Received

- Draft of new section 20.80.637 Whatcom County Code that establishes minimum standards for an LID project, including standards for residential uses, non-residential, new roads, and soil preservation and/or amendment
- Preparation of a Planned Low Impact Developments (PLID) chapter that provides incentives for applicants proposing LID subdivisions, standards for impervious surface cover, native forest, and soil preservation and/or amendments
- Research of available maintenance covenants for LID facilities
- Preparation of a maintenance manual for LID facilities

Status of Recommendations and of the LID Approach

- Not yet adopted PLID ordinance or minimum LID standards
- PLID ordinance and minimum LID standards will change because the PLID was built from the zoning code that will be re-written
- Have established water resources special management areas (soil and sediment control, phased LID, soil), also water resources protection overlay district, and stormwater special district (ex: Lake Whatcom watershed – any development that is not vested has to adhere to specific standards that are similar to what an LID ordinance would require)
- Requiring LID was recommended within the Birch Bay Stormwater Plan prepared for Whatcom County. The plan has been approved by Whatcom County Council
- LID ordinance and standards to be worked on this year (2008)

Barriers to Implementation of Recommendations and the LID Approach

- Staff turnover, staff availability (National Pollutant Discharge Elimination System Phase II, Critical Areas Ordinances, Shorelines)
- Some of the public are behind it (example: Birch Bay, Lake Whatcom), but not all
- Public knowledge of LID methods and effectiveness is lacking, education needed
- Fire Marshall has issues with road widths
- Significant coordination is required between departments within County

- County staff not all knowledgeable to same degree
- Conflict between state law and density bonuses – can't have 1 house per 5 acres in rural area, outside of UGA because it would exceed rural density
- Changing development standards will be difficult, but important. Lack of willingness to change, when used to doing one way for a while
- Perception that LID is too expensive, as compared to conventional systems

Potential Solutions to Barriers

- Technical assistance or funding of ordinance-writing and coordination
- Funding of public outreach and education efforts
- Demonstration that reduced road widths do not prevent fire/emergency response
- Education and training of county staff (public works and planning) on LID benefits, concepts, applicability), especially with recent turnover
- Training of permit review staff to review LID projects
- Training of maintenance staff to maintain LID projects
- Shared resources among local governments regarding the regulatory aspects of LID (each local government has its own set of accomplishments and struggles, need to share information on what's worked and what hasn't), possibly PSP or else WSU extension
- Education on costs of LID compared to conventional methods
- Local pilot projects would allow residents and elected officials to see LID first hand, would increase momentum for LID

City of Woodinville

2006 Recipient

Contact: Sarah Ruether, Planner, Public Works Department

Interview Date: 3/20/08

Scope of Regulatory Assistance Received

- Review codes and standards:
 - 20.02 Subdivisions, 21.12 Density and Dimensions, 21.14 Design Requirements, 21.16 Tree Retention and Landscaping, 21.18 Parking and Circulation, 21.34 Residential Density Incentives, 21.36 Transfer of Residential Density Credits, 21.38 Property Specific Development Standards
- Work Products: 21.12 Density and Dimensions, 21.34 Residential Density Incentives, 21.36 Transfer of Residential Density Credits, 21.37 Low Impact Development Chapter, Roadway Sections and Details, Supplemental Information on green roofs, pervious pavement, and native tree species

Status of Recommendations and of the LID Approach

- No recommendations adopted yet
- Recent sustainable development study in Woodinville (small lake area) to determine if up-zoning should happen, had citizen advisory committee for process, committee expressed interest in LID (though up-zoning did not pass)
- Plans for approaching planning commission, then council and public, regarding LID regulations

Barriers to Implementation of Recommendations and the LID Approach

- Staff turnover and staff time availability
- Fire and maintenance have concerns with road widths, permeable pavers, respectively
- Council not as comfortable with LID (not proven yet)

Potential Solutions to Barriers

- Technical assistance by outside party
- Funding for staff position
- Documentation of how LID does not inhibit fire truck access
- Documentation of maintenance requirements and costs
- Documentation of LID that has worked elsewhere, potential applications locally
- Education of elected officials, public on LID: what works where and why

Attachment C

Local Government Contact Information

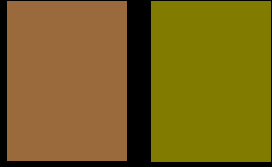
2005 Recipients

Local Government	Contact Name	Title & Department	Contact Phone Number	Contact Email
Bellingham	Renee LaCroix	Planning and Community Development Department	360-676-6961	rlacroix@cob.org
Clallam County	Carol Creasy	Senior Planner, Department of Community Development	360-417-2423	ccreasey@co.clallam.wa.us
Issaquah	Trish Heinonen	Planning Manager, Planning Department	425-837-3095	trishh@ci.issaquah.wa.us
Jefferson County	Stacie Hoskins	Long Range Planning Manager, Department of Community	360-379-4463	shoskins@co.jefferson.wa.us
Kitsap County	Jeff Rowe-Hornbaker	Assistant Director, Community Development Department	360-337-7181	jhornbak@co.kitsap.wa.us
Marysville	John Cowling	Development Services Manager, Community Development	360-363-8100	jcowling@ci.marysville.wa.us
Poulsbo	Andrzej Kasiniak	Assistant Director, Public Works Department	360-779-5111	akasiniak@cityofpoulsbo.com
Redmond	Cathy Beam	Principal Environmental Planner, Planning and Community Development Department	425-556-2429	cbeam@redmond.gov
Snohomish County	Randy Sleight	Chief Engineering Officer, Planning and Development Services Department	425-388-3411	Randy.Slight@co.snohomish.wa.us
Thurston County	Mark J. Swartout	Natural Resources Program Manager, Development Services Department	360-709-3079	swartom@co.thurston.wa.us
Whatcom County	Peter Gill	Senior Planner, Planning and Development Services Department	360-676-6907	pgill@co.whatcom.wa.us

Local Government Contact Information

2006 Recipients

Local Government	Contact Name	Title & Department	Contact Phone Number	Contact Email
Edmonds	Duane Bowman	Director, Development Services Department	425-771-0220	bowman@ci.edmonds.wa.us
Kirkland	Jenny Gaus	Surface Water Manager, Public Works Department	425-587-3850	jgaus@ci.kirkland.wa.us
Lacey	Doug Christenson	Water Resources Engineer, Public Works Department	360-438-2686	dchriste@ci.lacey.wa.us
Mason County	Barbara Robinson	Director, Department of Community Development	360-427-9670	BarbarR@co.mason.wa.us
Normandy Park	John Adamson	Director, Community Development Department	206-248-8257	johna@ci.normandy-park.wa.us
Port Angeles	Scott Johns	Associate Planner, Community and Economic Development	360-417-4752	sjohns@cityofpa.us
Port Orchard	James Weaver	Development Director, Planning Department	360-876-4991	jweaver@cityofportchard.us
Woodinville	Sarah Ruether	Planner, Public Works Department	425-489-2700	sarahr@ci.woodinville.wa.us



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