

## **Comments to Department of Ecology Regarding Outline of Proposed LID Integration into 2012 Municipal Permits**

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I believe that LID use should be a choice, rather than a mandate. I believe that LID requirements will likely lead to installations inappropriate to soil and/or site conditions and will lead to failures. The application of most LID techniques are and should be site specific. In Kitsap County and our cities we have demonstrated that LID has become the tools of choice for stormwater mitigation for the building and development community as a market-based solution. Low Impact Development is a great example of a market-based environmental solution, and it is disappointing to see it mandated when I believe it shouldn't and doesn't need to be.

I also believe that individual LID techniques should not be mandated. Let projects be designed to achieve the performance standard – whatever LID and traditional stormwater mitigation tools are used.

The application of LID is and should remain site and project specific.

### **Requirements & Timelines to Update Development Codes**

The outline proposal provides local jurisdiction flexibility with regard to the specifics of code revisions. This is essential. While there is an opinion that all jurisdictions should be required change their local land use codes in specific ways, allowing each jurisdiction flexibility is a key to successful implementation. The upcoming PSP work that provides suggestions on the obstacles to LID implementation as well as other “samples” are important and valuable. They will provide suggestions and guidance while allowing local government choices.

While some jurisdictions may not go as far as desired in the first round of code revisions, we will see additional future revisions as these jurisdictions will gain confidence and comfort with LID applications. The process needs to be transitional in order for widespread acceptance and use.

Integrating with GMA timeframes is logical, and unless the local jurisdictions believe that it is impractical, they are the way to go. The elements of LID that relate to land use policy should be integrated into GMA so as not to have a separate regulatory requirement that may conflict with GMA policy.

The timeframes suggested should be a goal. I have been involved with many land use and code related public processes with local government. Having each jurisdiction “open up” all land use and development codes in a very short timeframe may not be realistic. The public process each jurisdiction are required to perform may lead to delays, and a plan –not to punish – jurisdictions that are working towards the goal should be in place. For example, as many as 12 or 13 separate codes may require amendments. Many citizens and interest groups will certainly want to be involved and many will likely want non-LID changes to be made or discussed during the process. The political resolve and staff resources to undertake all these changes will be difficult for many jurisdictions.

I would recommend that LID Technical Education for jurisdiction staff be strong encouraged, incentivized or required. My experience has been that once engineers, planners and those review plans, conducting inspections and maintenance have the technical training – they tend to “get it” and become more accepting and enthusiastic about LID practices. I believe is the largest obstacle to proper widespread use is technical knowledge by jurisdiction professionals. This is as important as removing obstacles in codes and regulations. An engineer has to get to a point where they understand LID and achieve a comfort level on its use. Otherwise, despite what is in approved codes and regulations, there will be institutional obstacles to project approvals – a significant obstacle to project proponents utilizing the creative application of LID within their projects. The technical training is also critical for private sector engineers and planners.

## **Proposed Requirements for Basin-Scale Approach**

With any basin-scale analysis, the computer modeling tools must be able to show alternative future scenarios. The tools I've seen used only have had the capability of using current (or past) development practices and showing what happens in a watershed on that basis. Any modeling to must be able to model alternative development and land use scenarios.

Perhaps intensity of development should be considered instead of just density?

## **Low Impact Development Minimum Requirements for New Development and Redevelopment**

I am surprised at the inclusion of green roof analysis for most commercial applications. I am surprised as roofs are generally not pollution generating surfaces; the modest volume reduction that green roofs provide in most of our region's rainfall amounts and patterns; and the substantial structural requirements for supporting the added design weight on the roofs in our earthquake prone region.

### **B. LID Requirements Table – Clarifications**

- c., e. “impermeable pavement with collection and redistribution” and “routed below the parking lot” (and in other areas “below permeable pavement”) – This language and description should be consistent as discussions with DOE staff have indicated is intended. (There are various forms of this language throughout the draft outline.)
- d. Should indicate that this is whole footprint of rain garden area, not the bottom area. Also should consider rain garden ponding depths, soil infiltration rates and rainfall amounts for determining default rain garden sizing??

### **D. Technical Considerations**

- 9. There are slope limits on pervious pavement, which varies by type of surface material. There are also other technical limitations such as for any infiltration system. There are circumstances where either impervious or a combination of pervious and impervious surface with infiltration or re-distribution below the pavement are appropriate.

### **Attachment #1 Feasibility Review Criteria**

Any feasibility analysis should include a financial component. Each project and site are different, and this makes it difficult to create specific broad-based criteria for everyone. Each jurisdiction should be encouraged to develop their fiscal feasibility analysis and review.

- a. Setbacks from an onsite sewage system drainfield is listed at 100 feet. DOE should consult with the State Department of Health for appropriate setbacks. Downslope setbacks should be significantly less and upslope would depend on soil and site conditions. I agree with the comments submitted by Dave Tucker and the Kitsap County Dept of Health.

## **B. Permeable Pavements**

Or, impervious pavement with redistribution of runoff below pavement.

Slopes are limits for permeable pavement materials

Setbacks from onsite sewage system as above.

## **C. Green Roofs**

Cost and applicability to project should be included.

In our building code seismic zones the added design weight on the roof will often require substantial addition structural engineering, shear walls and structural components that may make a green roof not feasible.

## **II. Competing Needs**

There should be some appropriate method for local jurisdictions to evaluate local competing needs in addition to the state and federal requirements. While LID and GMA are generally compatible, some LID practices are not consistent with GMA.

The Municipal Permit should at least recommend, if not require, local jurisdictions to have an “adjustment” process that is used to evaluate equivalency. Variance and Exception processes in the codes are time consuming, expensive and often require addition mitigation for the variance/exception. A review for “equivalent” to be approved more quickly than cumbersome processes.