

Clark County

General and Specific Comments on the August Ecology Proposal

General Comments

Don't Give LID a Bad Name

Stormwater managers, land use planners and development project proponents rightfully view LID approaches as an attractive alternative to traditional stormwater facilities. It was generally expected that as the restrictive flow control requirements of the Western Washington Manual take hold, LID options will also be viewed by the development industry as an attractive alternative to large detention facilities. There is concern that the relatively sudden imposition of LID practices as development requirements could create an atmosphere where LID is no longer seen as an option to be embraced. Without community buy in, new requirements may be resisted and half-heartedly applied.

Don't let the Tail Wag the Dog

Using an NPDES municipal stormwater permit to implement a wide range of practices that include broader land use regulation is overstepping the basic purpose of the permit to regulate discharges from stormwater outfalls through a specific set of requirements that include regulation of stormwater controls for new development and redevelopment. Specifically, in terms of basin and watershed planning as being discussed by Ecology and the advisory committees. Other avenues such as comprehensive planning under the State Growth Management are more appropriate for planning and implementation of land use approaches to managing stormwater through LID and critical areas designation (e.g. retaining native vegetation).

Costs and Time Needed to Revise Development Standards

Making even minor revisions to development regulations is a complex and time consuming process that involves public outreach, stakeholder involvement, completion of appropriate manuals and code language, hearings required to meet Growth Management Act requirements, hearings for code revisions, revision to development permitting procedures, and training permitting staff and the regulated community. The likely changes to Comprehensive Plans and codes are well beyond the scope of routine updates and will require a significant amount of work and public involvement. While these things are all possible to do, the more expansive the definition of LID feasibility, the greater the code and manual revision effort will be. In order to implement LID, we anticipate the need to revise the following codes and plans:

- Comprehensive Plan
- Land Development Standards
- Transportation Standards
- Zoning Ordinances

Variance Process Should Not Be Part of the Feasibility Determination

Jurisdictions cannot justify to their communities the need to conduct additional feasibility tests for incorporating LID, and then require a variance process because these test results concluded that LID was not feasible. Use of a variance to bypass a minimum requirement of the permit is a significant public process. It should not be considered part of a common feasibility assessment for standard BMPs under code.

Consider that LID Feasibility Will Evolve

If the purpose of defining feasibility is to implement the PCHB ruling on the phase I and phase II permits, Ecology should consider that LID will increase in feasibility as standards and applied technology evolve. What is feasible within current code, manuals and experience is different from what will be feasible as manuals, land use standards, construction techniques and maintenance approaches evolve.

Lack of State Standards for Design, Construction and Maintenance

Western Washington has a unique flow control standard that results in highly-engineered detention and retention facilities. While the Ecology Stormwater Management Manual for Western Washington includes procedures to apply the flow control standard to LID BMPs in the Puget Sound Partnership LID technical guidance for the Puget Sound. The Western Washington manual reference the Puget Sound manual but the BMPs are not part of the current state stormwater manual and standard practice. As such, implementation under an NPDES permit that requires permittees to follow the state manual is problematic.

Concerns about maintenance and ownership are based on experience with conventional stormwater facilities and need to be taken seriously. LID practices built to meet Minimum Requirements 6 and 7 require a maintenance manual and identification of the parties responsible for maintenance.

Currently, there is no maintenance manual delineating defects and required maintenance or repairs that is comparable to the robust maintenance standards for conventional facilities in Volume V of the SWMMWW.

If facilities are in the right-of-way or on a tract or easement dedicated to the municipality for ownership and/or operation the permittee must inspect and maintain them. This should be reasonably feasible but will required training and additional resources to perform maintenance tasks not typical to stormwater facilities.

If facilities are on private property serving individual residential lots, inspection and maintenance becomes extremely problematic. This is due to the number of facilities to inspect and the amount of time required to follow up inspections under compliance actions.

In order to regulate maintenance of privately held stormwater facilities, permittees generally place municipal inspection and maintenance easements on each facility and include identification of the owner in the recorded subdivision plat and attached

conditions, covenants and restrictions, or as a condition of approval for site development. The farther LID BMPs diverge from standard stormwater facilities, the more liberal access and maintenance easements and covenants will become. While it is feasible to disperse LID features at an industrial facility, multifamily project or commercial project, it may not be feasible to address them at a subdivision as single lot improvements that are part of the measures to meet minimum requirements 6 and 7. This is because it will be very difficult to guarantee long term survival of small rain gardens on individual lots.

The LID proposal is too prescriptive and complex.

Clark County is investing resources in simplifying our development code, which is opposite of the direction this proposal takes us. The LID requirement will add complexity to our code and manuals. The argument is that LID is better than what we have, but the existing requirements don't get replaced.

Comment [sid1]: suggest replacing old requirements with - "recently adopted requirements are not replaced."

The Basin Planning proposal adds even more complexity. This proposal makes the argument that LID and the minimum requirements in the permit are not adequate to meet the state's requirements for stormwater management during development, and that basin plans are needed that supersede everything else.

It seems like we've lost focus on the desired outcome of LID and are just figuring out how it can be applied everywhere just because we can. The proposal eliminates any flexibility in an approach to get to the desired outcome.

Jurisdictions should be able to adopt Equivalent Approaches

Ecology's proposal should describe how jurisdictions can adopt an equivalent, alternative approach to meeting the goals of LID.

Federal Standards May Be Adequate for Washington

Federal standards for LID retention of 95th percentile storm event, which is 1" in Portland; (EPA 841-B-09-001) may be considered MEP and AKART

Add definitions for all terms not defined in the permit or the SWMMWW

A common language is needed to discuss LID proposals.

Basin-Scale Approach

Until Ecology has the capability to support permittee development of basin plans, they should not be required under the permit. This support includes procedures for conducting basin plans, criteria for approval, technical support for their development, and sufficient staffing to review them. Specific objectives of required analysis should be clearly stated so that permittees may explore alternate approaches.

The scale of basin planning for stormwater should be based on a threshold area that can be identified as having a measurable impact on hydrology and stream habitat. Questions about basin planning requirements:

- Is Ecology changing GMA regulations through the administrative process of issuing NPDES permits rules?
- Where is the science to support this?
- Where has it successfully been done before?
- What is the timeframe for adding area or changing land use intensity?
- What is meant by increasing density?
- What actions are expected after the analysis?
- If LID retention and MR 7 are AKART, why does this need to be added? Forest retention for hydrology is probably being met by the LID requirement.
- If municipalities are using LID measures, isn't that enough?
- What would be expected beyond using LID practices?
- Shouldn't there be a basin plan that examines the entire subwatershed?

Minimum Requirements

Draft the standards to include key information in the End Notes.

Exempt small development projects from structural LID BMP requirements, both inside and outside of the UGA

Non-structural and structural LID is probably a better stormwater management strategy, but there is no basis for using the approach on all projects of all sizes. Mandating the use of LID for small-scale projects like home construction, infill, and even short plats places unnecessary burdens on applicants and local governments. The marginal benefits realized will not outweigh the administrative costs and the public perception of over-regulation. The long-term viability of structural controls such as rain gardens on individual residential lots is uncertain. Impervious surface thresholds for water quality and flow control will remain the same so these smaller projects will need to comply, just as they do now. Plus minimum requirement 5 for onsite stormwater controls including soil amendment will still apply.

Exempt projects that discharge to large water bodies from LID

Requiring LID on projects discharging to large water bodies exemplifies the disconnect between stormwater management goals and the widespread requirement of LID for LID's sake. The LID proposal is measured in terms of flow reduction, not water quality benefits. The Manual's existing water quality treatment requirement using approved BMPs is also adequate for pollutant removal. If local communities are concerned about particularly sensitive water resources, they have the ability to require LID or additional treatment requirements as they see fit. The benefits of requiring LID for projects like this will be difficult to explain to the community as they're not apparent.

Rural Performance Standard

Make the requirements the same for both rural and non-rural. Splitting them leads to additional complexity that needs to be justified. It is also difficult to understand the use of the performance standard on large rural lots. What is the threshold?

Specific Comments on parts B, C and D.

B.1.b. There is no definition of what site appropriate development principals are.

B.1.c. The below pavement infiltration facilities could be a problem for sites where municipalities may not allow storm structures. For example, ROW containing a significant amount of utility infrastructure or road areas set aside for future utility installation. This needs additional analysis.

B.1.d. Standards for the retention basin area as a function of site size should be based on some type of analysis. For example, multiple model runs for variety of site conditions that include soil and slope characteristics.

B.1.e. Green roof feasibility should have some type of performance measure. It seems that infiltration could provide more cost-effective flow control than a green roof. The requirement should specify infiltration as an alternative, not the location of infiltration. Does commercial mean any non-single family building such as industrial facilities and apartments? Would this include government buildings?

B.3. What is the technical basis for the LID performance standard? Where has a duration standard been successfully applied to design LID BMPs? What is the justification of matching the flow durations through the 50-year flow?

C.6.. Exempt flow exempt large water bodies from LID requirements because Ecology's performance standard is water quantity based, not quality.

C.7. Projects in Outwash Soils. Reword this to the more generic term such as "highly permeable soils". In southern Clark County and in other areas of the state, there are geologic deposits other than "outwash soils" where simple infiltration practices such as drywells and infiltration trenches are used to dispose of nearly all site runoff after stormwater is treated to permit standards. These systems are probably cheaper and easier to maintain than any alternative stormwater management approach.

Reference the use of Class V wells as being an appropriate tool to meet the performance standard.

D.10. Can test pits similar in depth to rain-gardens be an appropriate tool for planning facilities? It seems like some jurisdiction should have developed infiltration tests suitable for rain gardens by now.

Hydraulic conductivity is a bulk metric that has both vertical and horizontal components. Its measurement using test wells is problematic. It is common for layered sediment to have large differences between vertical and horizontal conductance. Typically, vertical flow is slower than horizontal.

End Note vii. What is the basis for extensive use of green roofs in Europe? Is it stormwater management or other reasons? If other reasons, are they applicable here? For example:

- Are there incentives for green roofs in Europe?
- Are there mandates for green roofs in Europe?

Attachment #1 A.

Bio-retention basins.

There probably should be a setback from a potentially unstable slope or other landslide hazard area. GMA and stormwater code probably has something about setbacks already.

The 1-foot vertical separation is going to be difficult to measure from seasonal high water. It can vary by several feet from year to year.

What does “bioretention facilities not compatible with surrounding drainage” mean?

#1.B. Porous pavement.

The language on porous pavement should reference limitations due to source control standards in MR 3 for areas that need spill containment.

#1.C. Green roofs.

Are there cost standards? Lifetime cost of conventional vs. green.

II. Competing needs.

Note that the competing needs are project specific, not in general.