WRITING PRACTICAL PERMITS

LID numerics vs. MEP

With the adoption of new municipal storm water permits in Orange and Ventura counties in California, the debate regarding adequate implementation of low-impact development (LID) principles and practices has taken an interesting turn. These permits, along with others, grapple with the fundamental challenge of writing enforceable LID requirements that meet Clean Water Act requirements for reducing the discharge of pollutants of concern to the maximum extent practicable (MEP).

To meet this standard, most prior Phase I municipal storm water permits in California required sequenced application of source control, site design and treatment controls. These requirements have led to effective LID-based programs such as that of the city of Los Angeles, in which site designers must exhaust opportunities for onsite retention prior to consideration of flow-through best management practices (BMPs); where flow-through BMPs are required, adequately sized biofiltration is preferred. Consistent with the MEP standard, which requires implementation of the most effective BMPs feasible on a site, this design approach mandates the use of runoff retention BMPs where feasible and allows for less effective treatment means on extremely challenging sites.

In the latest round of permit updates, regional boards have been instructed to include quantifiable, enforceable LID provisions to replace subjective phrases like "maximize retention" or "minimize imperviousness." The new Ventura permit mandates retention of the first 0.5 in. of rain on all sites and targets retention of 0.75 in. of runoff—referred to as the design capture volume (DCV). Any portion of the DCV not retained on site must be treated to the MEP prior to discharge, pending demonstration that complete onsite retention is infeasible. Also, a volume equal to the portion of the DCV released from the site must be retained off site. This standard is quantifiable and enforceable, yet the offsite mitigation requirement seems to conflict with the MEP standard. If retaining the entire DCV on site is infeasible following the MEP approach, the next most effective BMP—biofiltration—should be adequate and no offsite treatment required.

The Orange County municipal permit has the same runoff reduction goal, although prior to triggering offsite mitigation requirements, it allows for "biotreatment" where retention is infeasible. This is an improvement in flexibility, but the same basic conflict between the MEP standard and the offsite mitigation requirement exists. In somewhat circular logic, both permits require runoff from the design storm that is not retained (or biotreated in Orange County) to be treated to the MEP.

A more reasonable approach to offsite mitigation would be to allow developers to choose between implementing highly effective and feasible BMPs on their sites and paying for implementation of similar BMPs elsewhere in the watershed with some cost multiplier. This approach could potentially fund regional mitigation projects that benefit from an economy of scale and may more effectively address emerging total maximum daily load benchmarks and other priorities.

At a time of intense budgetary pressure on developers and municipalities, permits should provide a clear, performance-based hierarchy of mitigation approaches with flexibility to choose the most effective but feasible solutions for each site without triggering offsite mitigation requirements. Optional payment to offsite mitigation banks, however, should be investigated as a means of maximizing the environmental benefit per dollar spent on a watershed basis. SWS

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> "Permits should provide a clear, performance-based hierarchy of mitigation approaches."

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