



SAN BERNARDINO COUNTY STORMWATER PROGRAM

A Consortium of Local Agencies

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*San Bernardino County
Flood Control District*

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Mr. Gerard J. Thibeault, Executive Officer
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: Fourth Draft Orange County MS4 Draft Permit Comments

Dear Mr. Thibeault:

Thank you for the opportunity to provide comments on the fourth draft MS4 NPDES Permit for the County of Orange within the Santa Ana River Watershed (draft Permit). The San Bernardino County Municipal Stormwater Program is providing these comments in the event that the Regional Board may incorporate some elements of the draft Permit into the forthcoming renewed MS4 Permit for San Bernardino County.

As specified, our comments are limited to Sections XII.C.1 & 2 of the draft Permit. Section XII contains requirements for the permittees to incorporate Low Impact Development (LID) principles into their Water Quality Management Plan (WQMP) so that LID will be implemented within all "priority" development projects. Our comments focus on two concerns: 1) lack of clarity within this very complicated section of the draft Permit, and 2) an over-emphasis on full retention of stormwater runoff on site.

Lack of Clarity

It is difficult to provide constructive comments on Section XII as provided in the fourth draft. Section XII contains numerous requirements and considerations applicable to development projects, resulting in a very complicated section with overlapping and potentially conflicting directives. This complexity makes it difficult to fully understand precisely what development projects and local agencies must comply with, and at what stage of the development review process. We have provided a few examples below to illustrate this concern. Without a full understanding of how and when these requirements are to be applied, implementation is unlikely to be successful.

The single, most-needed improvement is a flow or process diagram that charts the process of site planning, design, and approval, and identifies where or when the requirements of Section XII come into play. Once a clear diagram is developed, Section XII should be reviewed and adjusted accordingly to simplify the requirements.



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For example, Section XII.B.3 states: “WQMPs shall include BMPs for source control, pollution prevention, site design LID implementation (see Section C., below) and structural treatment control BMPs,” and: “The pollutants in post-development runoff shall be reduced using controls that utilize best management practices, as described in the California Stormwater Quality Handbooks, Caltrans Storm Water Quality Handbook or other reliable sources. However, these requirements are not fully consistent with XII.C, which specifies a requirement to retain the runoff from the design storm unless found to be infeasible, and includes 21 separate paragraphs or points for consideration in LID implementation.

Section XII.B.4 provides four options for volume-based BMP design sizing, whereas Section XII.C.2 specifies the “85th percentile storm event (design capture volume).” Does this exclude the option in XII.B.4.A.3, which is a different calculation method?

Section XII.B.5.f states: “Infiltration systems must not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or more daily traffic); automotive repair shops; car washes; fleet storage areas; nurseries; or any other high threat to water quality land uses or activities.” Does this mean that projects with these conditions do not have to conduct the feasibility analysis before selecting non-infiltration BMPs?

As our final example, Section XII.C.2 seems to reference the use of feasibility criteria that will be established as required in Section XII.E. Section XII.E specifies that the principal permittee and co-permittees “shall develop **technically-based** feasibility criteria”. However, the maximum extent practicable standard, as defined in Footnote 2, Page 2, states:

“MEP is not defined in the CWA; it refers to management practices, control techniques, and system design and engineering methods for the control of pollutants taking into account considerations of synergistic, additive, and competing factors, including, but not limited to, gravity of the problem, **technical feasibility**, **fiscal feasibility**, public health risks, **societal concerns**, and social benefits.”

Since MEP is the overarching compliance standard for the draft Permit, we suggest the feasibility criteria must include more than technical considerations, including fiscal and societal concerns.

Overemphasis on Full Retention BMPs

The main focus of the most recent proposed changes in XII.C.1 & 2 is a determination within the draft Permit of what types of so-called “LID BMPs (best management practices)” are to be preferred over others. Specifically, the proposed language limits “LID BMP” implementation to design features that retain the 85th percentile, 24-hour storm event (the design storm as specified in Section XII.B.4) on site. Other “LID BMPs,” that may be effective in pollutant removal and in attenuation of increased runoff volumes and velocities, may be considered for implementation only after on-site retention BMPs have been determined to be infeasible. Common examples that are not strictly infiltration BMPs include biofiltration features and vegetated filter strips. These are effective BMPs and are part of the LID “toolbox” as described in numerous LID Manuals. These BMPs may have

flow-through designs, but also increase infiltration and promote evapotranspiration. It is really a matter of degree. However, the current draft Permit will allow such BMPs only after a “vigorous feasibility analysis”, using feasibility criteria to be developed under Section XII.E.

We strongly disagree with the limitation of this approach and suggest the draft Permit be revised before adoption to allow the full range of LID implementation. If this requirement is not revised, numerous feasibility determinations will result that require considerable staff time with questionable benefits to water quality. There are numerous credible sources of guidance that support a broader concept of and approach to LID. Three examples are provided below:

- “Low Impact Development is a site design strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns in residential, commercial, and industrial settings” (Low Impact Development Technical Guidance Manual for Puget Sound 2005).
- “LID includes specific techniques, tools, and materials. LID practices include; bio-retention facilities or rain gardens, grass swales and channels, vegetated rooftops, rain barrels, cisterns, vegetated filter strips, and permeable pavements” (California State Water Resources Control Board 2009). Of the ten listed “LID Practices,” number four is “Vegetated Swales, Buffers & Strips; Tree Preservation” (http://www.waterboards.ca.gov/water_issues/programs/low_impact_development/index.shtml).
- “The goal of LID is to reduce runoff and to mimic a site’s predevelopment hydrology by infiltrating, filtering, storing, evaporating, and detaining stormwater runoff” (USEPA, Incorporating LID into Municipal Stormwater Programs, April 2009--EPA 901-F-09-005).

If you have questions regarding these comments, please contact Matt Yeager at (909) 387-8112.

Sincerely,



KEVIN BLAKESLEE, P.E., Deputy Flood Control Engineer
San Bernardino County Flood Control District

KBB:MAY: nh/ Fourth Draft Orange County MS4 Draft Permit Comments

cc:

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