

Orange County MS4 Permit LID Requirements



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Orange County Stormwater Program

A cooperative of the County of Orange, the Orange County Flood Control District and all 34 Orange County cities.

- ➔ Maintain compliance
 - Santa Ana Region
 - San Diego Region
- ➔ Protect waterbodies
- ➔ Manage runoff quality



Evolution of the MS4 Permit



1972 - Clean Water Act (NPDES, point sources)

Projects Subject to Land Development Requirements

The following project sizes generally trigger requirements for preparation of a Water Quality Management Plan:

- **New Development**

Creates 10,000 square feet or more of new impervious surface on a previously undeveloped site

- **Significant Redevelopment**

Adds or replaces 5,000 sf or more impervious surface on an already-developed site

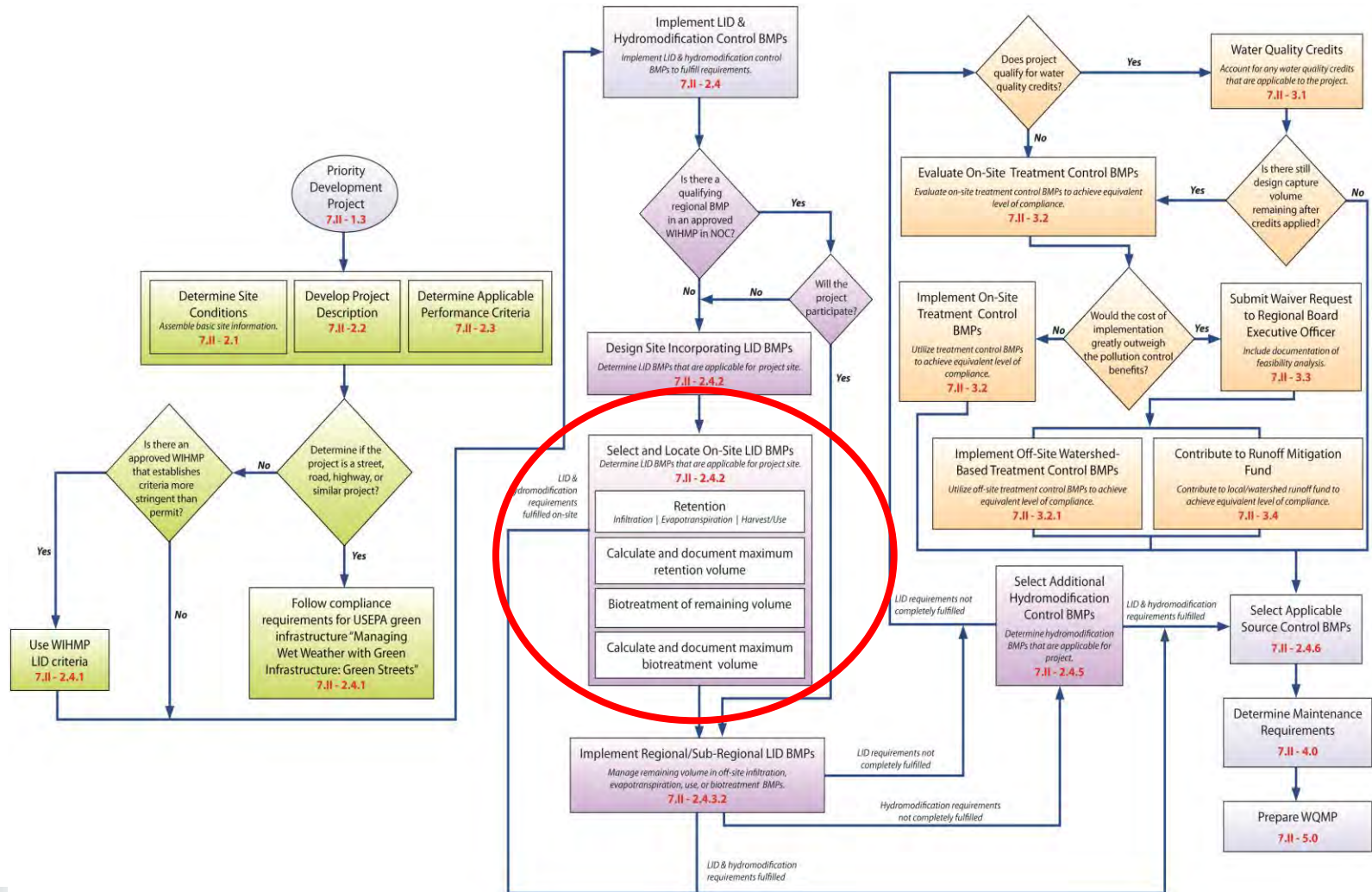


Permit Requirements for Land Development

Permit Order No.	R8-2009-0030 (Santa Ana Region)	R9-2009-0002 (San Diego Region)
Low Impact Development	<ul style="list-style-type: none"> Infiltration, harvest & reuse, or evapotranspiration of runoff from 24-hour 85th percentile storm event <ul style="list-style-type: none"> Biotreat If not feasible: traditional BMPs onsite PLUS offsite retention or in-lieu 	<ul style="list-style-type: none"> Infiltration, harvest & reuse, or evapotranspiration of runoff from 24-hour 85th percentile storm event <ul style="list-style-type: none"> Biofilter If not feasible: traditional BMPs onsite PLUS LID waiver program
Hydromodification Management	<ul style="list-style-type: none"> Pre- and post- development runoff volume and Tc for 2-year storms matches +/- 5% 2 year storm runoff is infiltrated If adverse HCOC, additional management controls required 	<ul style="list-style-type: none"> Match pre- (naturally occurring) and post-development <u>flow-duration curves</u> for a range of 10% of 2-year to 10-year flow. Sediment supply: site design <u>must avoid</u> significant sources of bed sediment



Model WQMP Process (2011 onwards)



LID Hierarchy

The stormwater permits establish a hierarchy of LID features required to capture a specified volume of rainfall (85th percentile storm). A rigorous analysis is required to demonstrate infeasibility.

1. On-site Retention
 1. Infiltration
 2. Evapotranspiration
 3. Harvest and Reuse
2. On-site Bio-treatment
3. Off-site LID (Regional/Sub-Regional BMPs) (SAR)
6. In-lieu fee (SAR)
7. LID Waiver (SDR)



Resources

- www.ocwatersheds.com
 - Model WQMP & Technical Guidance Documents
 - Hydromodification Management Plan and South Orange County Hydrology Model (SOCHM)
 - Training (MS PowerPoint)
 - FAQs
- *Water Quality Requirements for Land Development* brochure
- City & County Staff
- Help Desk (via email)



Questions

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