
LA County MS4 Permit: Board Workshop

Item 16

Los Angeles Water Board

November 10, 2011

Outline

- Permit Background
- Status of Permit Development
- Permit Structure Evaluation & Staff Conclusions
- Permit Requirements
 - Stormwater Management Program & Minimum Control Measures
 - TMDL Provisions
 - Other Key Topics

Background

- Last issued in 2001
- Reopened in 2006, 2007 and 2009
 - SMB Beaches Bacteria Summer Dry Weather
 - Marina Del Rey Bacteria Summer Dry Weather
 - LA River Trash
- Amended in April 2011
 - Voided and set aside 2006 provisions in response to writ of mandate
- Updated permit scheduled for 2012

Objectives for New Permit

- Increase flexibility of provisions, while ensuring consistent baseline level of implementation
- Improve SQMP requirements & minimum control measures to achieve water quality standards
- Implement TMDL WLAs
- Clarify compliance determination in a commingled system

Status & Outreach

- May-Jun.: Kick-off meeting & web-based survey
- Jun.-Sep.: Targeted program assessments
- Jun.-Nov.: As requested meetings
- Today: Board workshop

- Nov. '11-Apr. '12: As requested meetings
- Dec. '11-Feb. '12: Two issue workshops
- Mar. '12: Draft permit
- May '12: Board hearing

Permit Structure: Background

- Single permit for 84 cities, LA County & LACFCD
 - Highly interconnected system across jurisdictional boundaries
 - Commingled discharges to receiving waters
 - Opportunities for cooperation
 - Efficiencies gained in public outreach, monitoring & reporting
 - Los Angeles County Flood Control District role (LA County Flood Control Act)

Permit Structure: Alternatives

- Single unified permit
 - Watershed sections
- Watershed permits
- Other multiple-permit approaches
 - Individual permits
 - Permits based on 2006 ROWDs

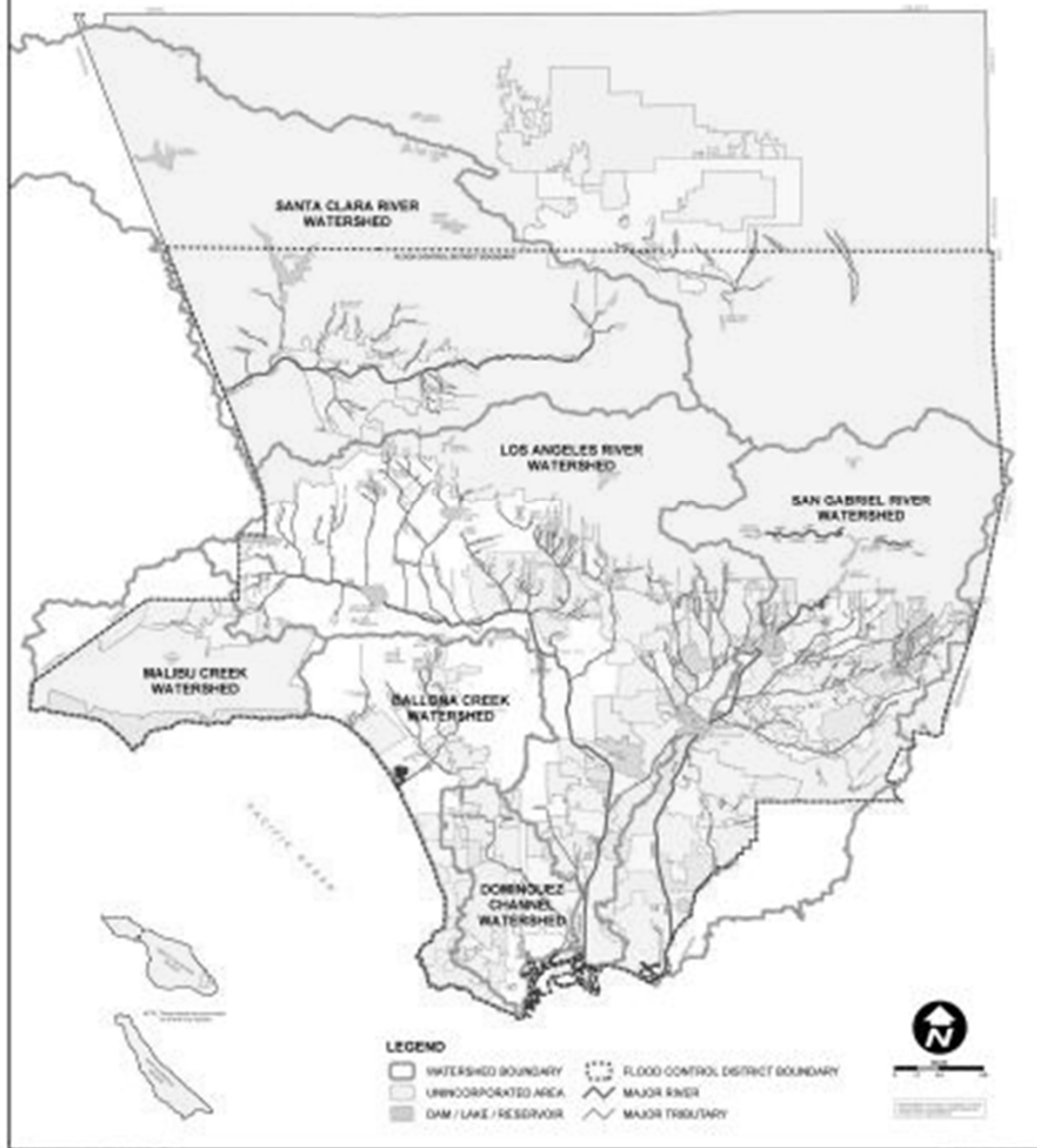
Permit Structure: Considerations

- Clean Water Act §402(p)
- Implementing regulations (40 CFR §122.26(a)(1))
- Factors considered:
 - Nature of Greater LA County MS4
 - Permittees' input
 - TMDLs
 - Opportunities for collaboration
 - LACFCD water quality funding initiative

Interconnected and Overlapping System

- Multiple jurisdictions discharge to MS4
- Discharges from co-permittees commingle prior to reaching receiving water
- MS4 infrastructure largely owned and/or operated by LACFCD

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT



Permittees' Input

- Survey of Permittees' preferences using web-based SurveyMonkey®
 - 85 percent support single MS4 permit or watershed-based permits
 - Small number support alternative groupings
 - Four permittees expressed a preference for individual MS4 permits
- 2006/2010 ROWDs
 - Signal Hill; Downey; Upper SGR Group; LACFCD

TMDL Provisions

- 29 TMDLs adopted with WLA for LA County MS4 co-permittees
- One of most significant parts of new permit
- Watershed-based implementation
 - Allocations
 - Implementation
 - Compliance monitoring

Opportunities for Collaboration

- Regional efforts and solutions may be most cost effective
 - Combine resources for program implementation
- LACFCD water quality initiative
 - Collaborative “watershed authority groups”
 - Watershed based funding
 - Some oversight by LACFCD

Permit Structure: Our Path Forward

- Single permit
 - Watershed sections
- Flexibility in provisions
 - Direct efforts to watershed priorities
 - Individualized requirements
- No Principal Permittee
- Revised compliance monitoring provisions

Storm Water Management Program: Minimum Control Measures

40 CFR 122.26(d)(2)(iv)

- Industrial / Commercial Program
- Development Construction Program
- Illicit Connections/Illicit Discharges Elimination Program
- Public Agency Activities Program
- New Development/Redevelopment Program
- Public Information and Participation Program

Minimum Control Measure – Industrial/Commercial Sources

- Key Objective: Ensure the implementation of BMPs at industrial/commercial facilities to reduce the contribution of pollutants to the MS4 from industrial/commercial activities.
- Basic Requirements
 - Watershed-based database of all industrial and commercial facilities
 - Inspections of all designated industrial/commercial facilities
 - Ensure BMP implementation (e.g. CASQA manual)

Minimum Control Measure – Development Construction Program

- Key Objective: Ensure the implementation of BMPs at construction sites to reduce the contribution of pollutants to the MS4 from construction activities.
- Basic Requirements
 - Inventory of grading permits, encroachment permits, demolition permits, building permits, or construction permits
 - Review and written approval of a Erosion and Sediment Control Plan (ESCP)
 - BMP implementation (per CASQA or Caltrans manual)

Minimum Control Measure – Illicit Connections and Illicit Discharges Elimination (Non-stormwater Discharges Oversight)

- **Key Objective:** Effectively prohibit non-storm water discharges to the MS4.
- **Basic Requirements**
 - Develop and implement a Dry Weather Outfall Screening Program to identify priority areas.
 - Develop procedures for conducting source investigations for IC/IDs

Minimum Control Measure – Public Agency Activities Program

- Key Objective: Minimize storm water pollution impacts from permittee owned or operated facilities and activities.
- Basic Requirements
 - Maintain an inventory and map of all Permittee-owned or operated facilities.
 - Implement activity specific BMPs (such as catch basin cleaning, open channel maintenance, street sweeping, and appropriate pesticide application)
 - Training of employees and contractors.

Minimum Control Measure- New Development and Redevelopment

- Key Objective: Minimize the impacts of development and significant re-development projects on water quality and hydrology.
- Basic Requirements
 - On-site retention of the storm water runoff volume resulting from the 85th percentile, 24-hour storm or the 0.75 inch 24-hour storm, whichever is greater.
 - Off-site mitigation where on-site retention is technically infeasible.

Minimum Control Measure- New Development and Redevelopment

Interim Hydromodification (Sites < 50 acres)

■ Requirements

- On-site retention of the volume of runoff from the 95th percentile, 24-hour storm, or
- BMP implementation to ensure the runoff flow rate, volume, velocity, and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour rainfall event.
- The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by a Hydromodification Analysis Study

Minimum Control Measure- New Development and Redevelopment

Interim Hydromodification (Sites > 50 acres)

■ Requirements

- On-site project infiltration of at least the runoff from a 2-year, 24-hour storm event, or
- BMP implementation to ensure the runoff flow rate, volume, velocity, and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour rainfall event. These conditions must be substantiated by hydrologic modeling acceptable to the Permittee, or
- The Erosion Potential (Ep) in the receiving water channel <1.

Minimum Control Measure - Public Information and Participation Program

- Key Objective: To measurably increase the knowledge of the target audience about the adverse impacts of storm water pollution and change the waste disposal and storm water pollution generation behavior of target audiences.
- Basic Requirements
 - Watershed-wide reporting hotline
 - Storm water pollution prevention advertising campaign
 - Distribution of outreach materials

TMDL Provisions: Background

- 24 TMDLs with MS4 WLAs in effect for LA County
 - 2007 & 2009 amendments
 - MDR Bacteria TMDL – Summer WLAs
 - LA River Watershed Trash TMDL WLAs
- 5 TMDLs in state approval process

TMDL Provisions: Considerations

- Provisions consistent with assumptions and requirements of WLAs
 - Include all interim & final WLAs
- Numeric effluent limitations and “action-based” compliance demonstration

TMDL Provisions: LA River Trash WLAs Example

- Numeric effluent limitations
 - Equivalent to WLAs
 - Compliance measure if partial capture and/or institutional strategies are used
 - Necessary absent “up-front” demonstration that controls will achieve TMDL design/performance standard
- “Action-based” requirements
 - TMDL design/performance standard to achieve WLAs = full capture systems
 - Compliance measure = % drainage area addressed by full capture systems

TMDL Provisions: Considerations

- Dual Path for Compliance Demonstration
 - Numeric effluent limitations or
 - “Action-based” with reasonable assurance
 - TMDL implementation plans
 - Other quantitative analysis / implementation plan showing that actions will achieve WLAs
 - “Reasonable assurance” standard and validation monitoring

Other Key Permit Requirements

- Non-stormwater Discharge Prohibitions
- Receiving Water Limitations
- Water Quality Based Effluent Limitations (WQBELs)
- Monitoring & Reporting

Non-stormwater Prohibitions

- CWA § 402(p) - “Effectively prohibit non-stormwater discharges”
- Current tools: IC/IDE program; Public Outreach/Education; Categorical exceptions
- New directions:
 - Characterize & prioritize major outfalls based on monitoring
 - System assessment & remedial actions
 - Categorical exceptions/permitted discharges

Receiving Water Limitations (RWL)

- MS4 discharges may not cause or contribute to violations of water quality standards (Part 2.1)
- Iterative process to address exceedances of RWLs (Part 2.3)
- Considerations
 - Waterbodies subject to TMDL
 - Waterbodies not subject to TMDL

Water Quality Based Effluent Limitations (WQBELs)

- Effluent limitations established to achieve compliance with water quality standards
- Numeric WQBELs - derived from water quality standards or WLAs
- Application to
 - Waterbodies subject to TMDLs
 - Non-stormwater discharges
 - Stormwater discharges

Monitoring Program Objectives

- Establish linkage between MS4 discharges and receiving water quality
- Determine compliance with
 - TMDL provisions
 - Other numeric WQBELs
- Target implementation actions
- Validate performance / outcome expectations for “action-based” compliance

Summary of Path Forward

- Single permit with watershed sections
- Stormwater Management Program & Minimum Control Measures, incl. LID
- TMDL Provisions and Dual Path for Compliance Demonstration