Review of Draft Order No. R8-2014-0002: Orange County Municipal Separate Storm Sewer System Permit

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Review Modules

1. Introduction
2. Findings/Technical Report
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5. Implementation Agreement, Legal Authority, and Enforcement
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11. Training Programs and Notification Requirements
12. Total Maximum Daily Loads (Water Quality Monitoring)
13. Program Effectiveness Assessment (Program Monitoring)
14. Fiscal Analysis, Provisions, Permit Modification
Regulatory Background

- **MS4 Permit program originated in 1987 Clean Water Act Amendments → Section 402(p)**
  - USEPA regulations: 40 CFR Parts 122, 123, and 124
- **MS4 Permit program regulates discharges of “urban runoff” from the municipal separate storm sewer system.**
- **When final, Order R8-2014-0002 will be the fifth-term OC MS4 Permit**
- **OC MS4 Permit program almost 25 years old**
- **MS4 Permit program relies on an “iterative” approach to compliance vs. strict compliance with numeric effluent limitations**
Development Strategy

- Evolution of the OC MS4 Permits.
- Incorporate key elements of the Co-permittees’ storm water programs into the language of the Permit.
  - Enforce the permit language instead of language in program plans.
- Re-focus on the “iterative process”.
  - Improve the flexibility of program planning.
  - Minimize complexity in planning.
  - Promote innovation.
Module 1: Introduction

Development Strategy

Image source: EPA, 2008, Evaluating the Effectiveness of Municipal Stormwater Programs, EPA 833-F-07-010
Development Strategy

Plan
- Identify Program activities
- Develop performance metrics

Do
- Execute the plan
- Collect data on outcomes

Check
- Analyze data
- Verify validity of performance metrics
- Verify validity of measurement method

Act
- Identify improvements

Figure adapted from W. Edwards Deming’s PDCA Cycle
Overview of Permit Contents

- General layout has been updated for better consistency with State Board template.
- Technical Report, table of contents, glossary, etc. have been added.
- Most objective Permit requirements have been retained (e.g. 10 million public education impressions).
- Organization within the Permit body is mostly retained.
- Permit body language is succinct; “plain language” used where practical; discussion found in the Technical Report.
- TMDL WLAs and requirements are in Appendices; instructive requirements are in the Permit body.
Overview of Findings

- Findings incorporate the Technical Report
- Technical Report is functionally the “Fact Sheet”
- Findings have been shortened with more detailed information in the Technical Report.

Features of the Findings:
- Continues to acknowledge limits of Co-permittees’ authority.
- Clarifies difference between in-stream structural treatment controls and other types of stream modifications.
  - Stream modifications are regulated under the dredge/fill program
  - In-stream structural treatment controls and waters of the U.S. have mutually exclusive purposes.
Overview (cont’d)

- Continues to acknowledge necessity of “iterative process” and achievement of water quality standards over the long-term.
- Commits to use of voluntary performance metrics that are not subject to enforcement.
Overview of Technical Report

- Summarizes some of the lessons learned during the permit term, including the performance of 14 audits.
  - Incorporation by reference may be stifling innovation.
  - Incorporation by reference provides disincentive to fully document storm water programs.
  - There is a need for a comprehensive set of performance metrics.
- Provides a general explanation of Permit requirements.
- Provides explanations of specific Sections of the Permit.
- Explanations will be presented during the other Modules.
Section I: General Responsibilities of the Co-permittees

- Section I responsibilities apply to all Co-permittees, including the Principal Permittee.
- Based primarily on the “iterative process”.
- Includes “iterative process” requirements to:
  - Accurately document and effectively implement BMPs.
  - Develop and apply performance measures.
  - Execute program improvements.
  - Evaluate validity of performance measures/methods of measurement.
- Process requirements are reinforced by PEA requirements in Section XIX and elsewhere.
Section I: General Responsibilities of the Co-permittees (cont’d)

- Continues previous requirements for internal and external coordination.
- Adds requirements to “maintain records and submit reports that are adequate to determine compliance”.
Module 1: General Responsibilities of the Principal Permittee

Section II: General Responsibilities of the Principal Permittee

- No new duties are intended to be assigned.
- Assigns responsibilities to coordinate and execute common programs, policies, procedures, and strategies.
- Assigns responsibilities to monitor and report.
- Assigns responsibilities to coordinate preparation of written reports, programs, plans, and procedures.
Section III: Discharge Prohibitions and Limitations

- Requires that non-storm water discharges be “effectively prohibited” unless:
  - Subjected to an NPDES permit.
  - Listed in Table 2
  - CERCLA discharges were added.
  - Table 2 can be modified by the Executive Officer
- Other prohibitions and limitations from the current permit are continued.
Module 1: Discharge Prohibitions & Receiving Water Limitations

Section IV: Receiving Water Limitations

- Requires that water quality standards in receiving waters be maintained unless a draft plan for compliance is submitted/prepared or, if final, is being fully implemented.
  - Plan may be submitted voluntarily or required by the Executive Officer; 6-month and 90-day deadlines respectively.
  - Requires revisions to the draft within 60-days.
  - If a TMDL applies, TMDL plan requirements satisfy these requirements.
- Incorporates Special Protections in Attachment B to Resolution No. 2012-0012.
  - Protects Newport Coast and Crystal Cove ASBS
  - Applies only to City of Newport Beach.
Section V: Implementation Agreement

- “Co-permittees must execute inter-agency and inter-Co-permittee agreements necessary to satisfy the requirements of this Order.”
- These agreements already exist but may require revisions to comply with the Order.
Section VI: Legal Authority and Enforcement

- Continues requirements for legal authority.
- Adds requirements to expressly track and evaluate challenges to authority.
- Continues requirements for progressive enforcement.
  - Each co-permittee must have their own formal written program.
  - A single shared guidance document is not sufficient.
Section VII: Illicit Discharges, Illicit Connections, Illegal Dumping; Litter, Debris, and Trash Control

- Repeats requirement to “effectively prohibit” illicit discharges and illicit connections.
- Continues requirement for public reporting.
- Adds requirement for advertised methods for legitimate disposal of wastes with “potential to be illicitly discharged”.
- Continues requirements for illicit discharge/connection detection program (including SSOs).
  - Adds more detailed requirements based on the Co-permittees’ existing program.
Section VII: Illicit Discharges, Illicit Connections, Illegal Dumping; Litter, Debris, and Trash Control (cont’d)

- Continues requirement for trash and debris program.
- Adds program for ‘formal evaluation’ of trash and debris technology.
  - Does not mean a technology performance program.
  - Evaluation can be subjective and based on practicable factors.
Section VIII: Municipal Inspections of Construction Sites

- Construction site inspection requirements are continued with no change to frequency.
- Inspections are narrowed to sites with expected or actual construction duration of 2 weeks.
  - Sites may begin and end without exposure to storm water
  - Staff may not have a chance to inspect.
Section IX: Municipal Inspections of Industrial Sites

- Industrial site inspection requirements are continued with no change to frequency.
- Inspection method is not dictated: personal visits or inspections from car as appropriate.
- Regional Board staff inspections can serve in place of a Co-permittee’s inspection.
Section X: Municipal Inspections of Commercial Sites

- Commercial Inventory has been modified slightly in response to Co-permittees’ request.
  - Plastics manufacturers are in “industrial” inventory
  - Transportation services has been added.
- Inspection frequency is continued.
- Prescribed distribution was 10%; 20%; 70%
- Proposed: 5%; 15%; 80% (Pareto distribution: 80-20 Rule).
  - Provides approximately 16% reduction in expected commercial inspections/100 sites.
  - Expected to benefit 9 Co-permittees (16 don’t need help); 40% reduction would benefit 13
  - Would not help 7; with 40% reduction would not help 3
Results of Estimated Individual Capacity to Comply with Reported Inventory (prior 4 years):
reported inspections/expected inspections (%)
Section XI: Residential Program

- Is now incorporated into Public Education.
- HOA’s and similar organizations are part of the target or general audiences.
Section XII: New Development

- This section was heavily re-written and incorporates key elements of the Co-permittees’ 2011 Model WQMP and Technical Guidance Document.
- Although major editorial changes from previous permit, the re-write mostly reflects a change in how enforcement will occur.
- Propose that key elements are directly enforceable in the draft permit.
- The requirements map the process already described; adds requirements to address deficiencies found during audits.
- Certain “guidance” is will be mandatory.
Section XII: New Development (cont’d)

- Significant changes
  - On-site infeasibility does not need to be demonstrated if a qualified off-site structural treatment control is available.
  - Types of structural treatment controls are broken into defined categories with specific requirements.
  - Hierarchy of BMP selection is continued but for LID BMPs, off-site or on-site is less important.
  - By default BMPs must be on-site; except under a set of conditions, structural controls can be off-site.
    - Most conditions do not require demonstrating that on-site is infeasible.
Section XII: New Development (cont’d)

• Significant changes (cont’d)
  • Non-priority project plans now only required if the non-priority project “includes modifications or improvements that are, or affect areas that are exposed to storm water or which may be sources of urban runoff”.
  • Non-priority projects may be required to use eligible off-site structural treatment control.
  • Waivers of structural treatment controls must be approved.
Section XIII: Public Education and Outreach

- General Audience
  - 10 Million impressions
  - School-age and up

- Target Audience
  - Subject to high-priority runoff issues campaign: 3 issues/watershed
  - Discretion in selecting issues for each watershed; can be same or different.

- Methodology must be well-described in a written program.

- Public input required.
Section XIV: Municipal Facilities

- Continues requirements from previous permit.
- Adds requirements for closer tracking of pollutants removed from drainage systems.
- Adds requirements for SOPs for field activities.
- Adds specific requirements to implement Integrated Pest Management, Pesticide and Fertilizer Guidelines with corresponding annual audits.
Module 2: Municipal Facilities/Activities and Construction

Section XV: Municipal Construction Projects and Activities

- Continues requirements to comply with State Board’s Construction General Permit.
- Amplifies that the MS4 Permit prevails on post-construction best management practices.
- Co-permittees expected to continue to use SMARTS.
Module 3
Section XVI: Training Programs

- Personnel subject to training is expanded to include “staff, contractors and vendors whose duties or responsibilities directly or indirectly affect the Co-permittee’s capacity to satisfy the requirements” of the Permit.
- Specifies training minimum training content.
- Requires tracking and demonstrated expertise and competence
- Training is transferrable
- Training every two years instead of annually.
Section XVII: Notification Requirements

- Continues routine quarterly notification requirements and “imminent threat” notification requirements.
- Clarifies notification content and deadlines.
Section XVIII: Total Maximum Daily Load Implementation

- Waste Load Allocations and other requirements are located in Appendices B through H.
- Draft Order requires compliance with WLAs or to be in process of developing or implementing a plan for compliance.
  - Default is compliance with WLAs if plan is not being developed or a final plan is not being implemented.
  - Co-permittees have 50 days to begin developing/implementing a plan: starts with written notice and additional milestones are established.
  - Plan development is voluntary but Co-permittees must weigh risk of non-compliance.
  - Compliance is determined at “designated monitoring locations”.

Module 4: Total Maximum Daily Loads
Section XVIII: Total Maximum Daily Load Implementation (cont’d)

- WLA compliance determinations are supported by requirements in the Monitoring and Reporting Program
  - Water Quality Monitoring Plan
    - Expressed requirements for processes for determining compliance subject to conditions.
    - Mandates cycles of monitoring, analysis, and reporting.
    - Creates a mechanism to discover and report compliance or non-compliance at certain time scales.
Module 5
Section XIX: Program Effectiveness Assessments

- Essentially requires reporting based on the “iterative process” described earlier.
  - Each Co-permittee must perform the PEA; Principal Permittee compiles information
  - Components of PEA follows the components of the “iterative process”
  - Planning component requires conceptual models of the pollution processes to guide the program.
  - Must develop voluntary performance standard for interventions within the pollution processes.
  - Must employ voluntary and prescribed performance standards for the assessments.
Section XX: Fiscal Analysis

- Reorganized to make it clear that the analysis is to include previous, current, and next fiscal year information.
- Adds new requirement to conform to reporting guidance from USEPA when available.
  - Origin is in GAO reports noting problems from inconsistent methods.
Section XXI: Provisions (Monitoring)

- Largely continued from the current permit.
- Establishes Monitoring and Reporting Provisions as being requirements of the Order.
  - Includes Program Effectiveness reporting requirements and Water Quality Monitoring
  - Includes requirements for the development of a new Water Quality Monitoring Program at a later time
  - In interim, water quality monitoring program as reported must be continued.
Section XXII: Permit Modification

- Describes some of the conditions where the Permit may be modified (e.g. TMDL changes/Basin Plan changes).
Section XXIII: Permit Expiration and Renewal

- Establishes that Order No. R8-2009-0030 is withdrawn.
  - Provisions can continue to be enforced for violations that occurred during its term.
- Establishes that the new Order will become effective 50-days after adoption.
- Establishes the expiration date of the new Order: 5-years from date of adoption of previous Order.
  - New Order will be expired, except for enforcement purposes, same as previous permit versions.
  - All Orders can be administratively extended so long as Co-permittees submit ROWD.
Section XXIV: Standard Provisions

- Includes more technical details on sampling requirements.
- Includes certification statement requirement for submittals.
- Inspection/entry requirements.