

San Diego Municipal Stormwater Copermittees

RWQCB Permit Workshop 2

May 24, 2006

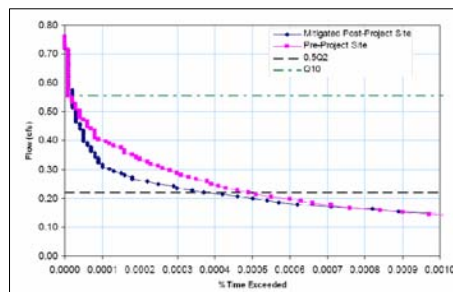
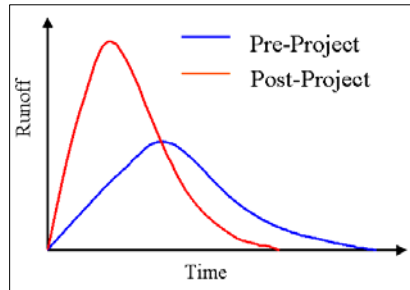
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Summary of Activities by Permit Year

Activity	Year 1	Year 2	Year 3	Year 4	Year 5
Legal Authority	Update	---	---	---	---
JURMP Update	Update	Report	Report	Report	Report
WURMP Update	Update	Report	Report	Report	Report
Hydromodification	Develop (\$1.5 - \$2 million)		Implement	Implement	Implement
Construction	Update	Implement	Implement	Implement	Implement
Municipal	Update	Implement	Implement	Implement	Implement
Industrial / Commercial	Update	Implement	Implement	Implement	Implement
Residential	Update	Implement	Implement	Implement	Implement
ICID	Update	Implement	Implement	Implement	Implement
Fiscal Analysis	Develop Standards	Implement	Implement	Implement	Implement
WURMP	Update	Implement	Implement	Implement	Implement
RURMP	Develop Standards	Implement	Implement	Implement	Implement
Assessment / Reporting	Develop Standards	Implement	Implement	Implement	Implement
Monitoring	Develop / Update (\$3-4 million)		Implement	Implement	Implement

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Hydromodification (Section D.1.g)



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Hydromodification (Section D.1.g)

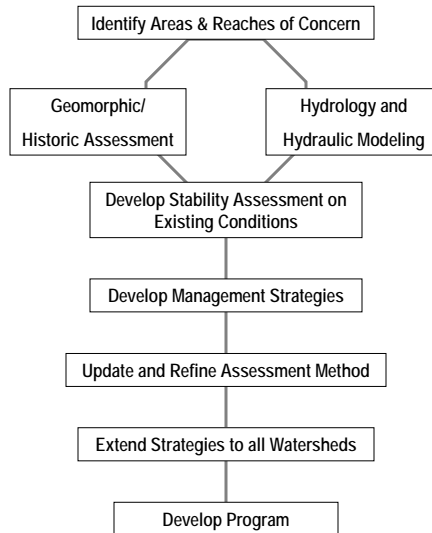
Urbanization Hydrologic Impacts: Variability

- Soil characteristics
- Cover (vegetation, duff layer etc)
- Channel characteristics (bed material, slope etc)
- Extent of existing impacts to streams
- Ep and Qc are elements of a particular method
- Sensitivity to hydromodification varies greatly

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Hydromodification (Section D.1.g)

HMP Assessment



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Hydromodification (Section D.1.g)

HMP Development

- HMP will be a new requirement
- Existing approaches have not been validated through long-term studies of creeks before and after HydroMod
- Partnering with other Southern California agencies will be helpful

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Treatment BMP Maintenance Tracking (Section D.1.e)

Requirements

- Inspection of 100%, 50% and 20% of High, Medium and Low priority sites annually
- Inspections during 5-month dry season (May - Sept.)
- Annual maintenance verification for all BMPs
- SUSMP also requires maintenance agreements

Concerns

- Inspection rates are high, inefficient for a multi-tiered program
- Perpetually growing program – 100’s of new BMPs annually
- Allows only dry season inspections to qualify

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Treatment BMP Maintenance Tracking (Section D.1.e)

Comparison of Inspection Approaches – 5 Year Horizon

	Tentative Order	Copermittee Alternative
High/Med/Low Annual Inspection Frequencies (%)	100/50/20	25/10/5
Minimum Inspection (%)	20	10
Annual No. Projects Approved (33% High, 34% med, 33% Low)	200	200
Total Inventory (5th year)	1,000	1,000
Total Inspections (5th year)	566 (57%)	133 (13.5%)
Required Staff	9 (seasonal)	2
Limitation on Total Inspections	None	Under Consideration

Treatment BMP Maintenance Tracking (Section D.1.e)

Recommendations

Require year-round inspections for ALL priorities

- Threat of inspection/enforcement should be ever present
- Increases opportunities for identifying non-compliance
- Increases opportunities for learning maintenance issues

Allow inspection frequencies appropriate for a spot inspection program

- Threat of inspection would continue as an effective tool
- Inspections form 4th tier of program
- Copermittees' proposal comparable with similar programs

Allow eventual limit to total number of annual inspections

- Perpetually growing program – 100's of new BMPs annually

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Inspection / Cleaning of MS4s (Section D.3.a(3))

Proposed Modifications

1. Denote conflicting requirements for some maintenance activities	<ul style="list-style-type: none"> • RGP-53, etc.
2. Identify factors to be considered for facility prioritization	<ul style="list-style-type: none"> • Average Daily Traffic • Proximity to water bodies • Past inspection results and cleaning efforts • Type and design of structure • Population density • Roadway element prioritization
3. Establish graduated inspection frequencies based on facility prioritization	<ul style="list-style-type: none"> • High Priority: Annual (May - Sept.) • Medium Priority: Annual (not restricted) • Low Priority: As needed
4. Establish triggers for waste removal	<ul style="list-style-type: none"> • Loose material (e.g., floatables, litter, trash, debris) • 6" of waste in a less than 18" in-depth structure • 12" of waste in a greater than 18" in-depth structure
5. Establish timeframe for cleaning that considers relevant factors	<ul style="list-style-type: none"> • Traffic interruptions • Worker safety • Availability of equipment

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Street Sweeping (Section D.3.a(5))

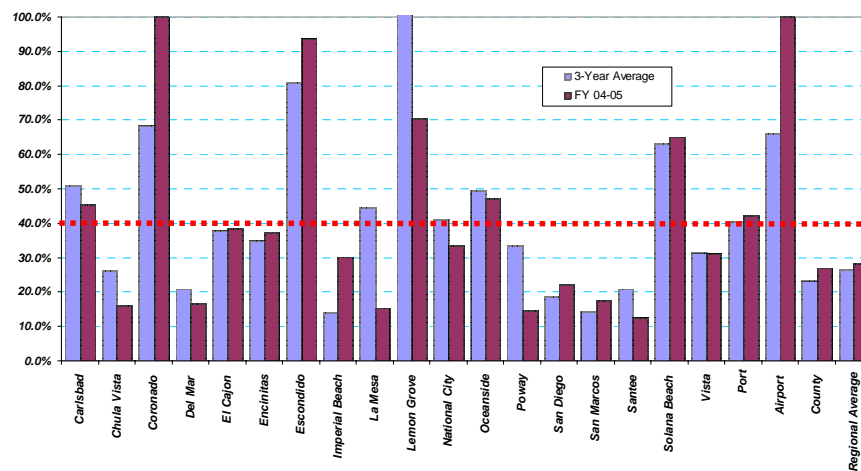
Proposed Modifications

Establish an as-needed sweeping frequency

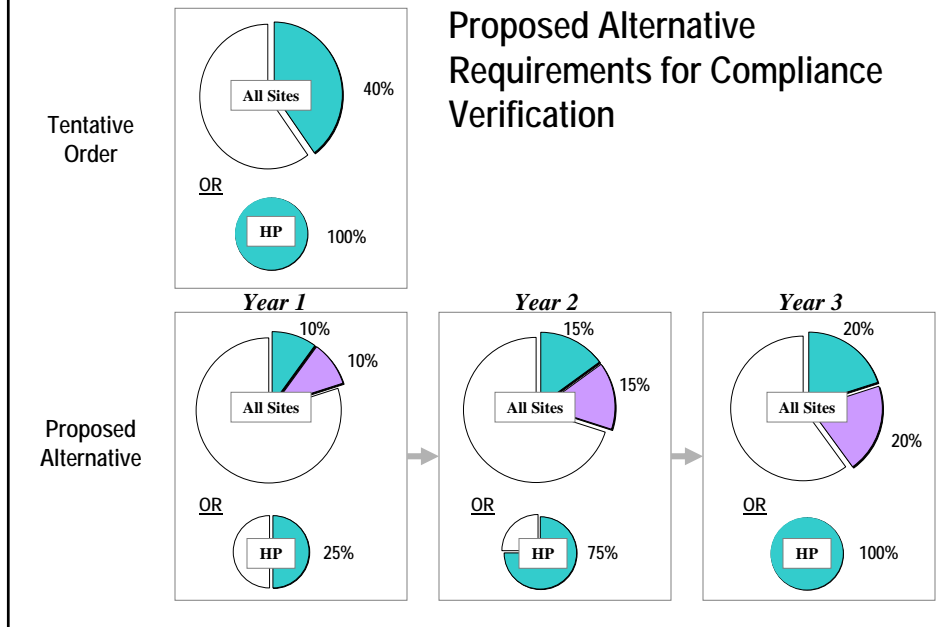
- Roads streets and highways with less than 5,000 Average Daily Traffic; and/or
- Roads and streets that lack curbs and gutters

Industrial & Commercial Inspections (Section D.3.b(3))

Percentage of Total Inventory Inspected



Industrial & Commercial Inspections (Section D.3.b(3))



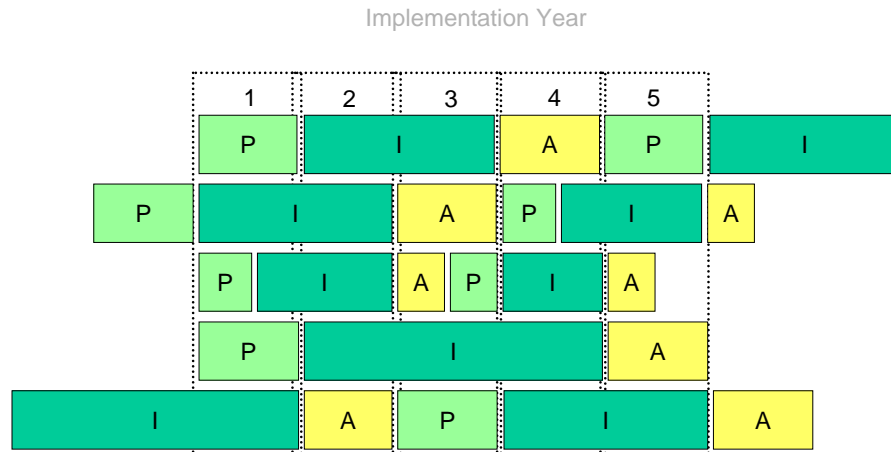
Industrial & Commercial Inspections (Section D.3.b(3))

Benefits to Alternative Approach

- Better reflects existing Copermittee levels of activity
- Provides a reasonable timeframe for ramping up efforts
- Encourages continued development of a variety of verification methods
- Allows Copermittees to use the most cost-effective approaches
- Inspections will continue to be the primary tool for most jurisdictions
- Controls are provided to ensure quality and appropriate levels of effort

Watershed URMP (Section E)

Watershed Water Quality Activities by Permit Year



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Program Effectiveness Assessment (Section I.2.a(5))

Watershed Assessment (Levels 5 and 6)

5) Utilize outcome levels 5 and 6 to assess the effectiveness of implementation of the Watershed Urban Runoff Management Program as a whole, focusing on the high priority water quality problem(s) of the watershed. **These assessments shall exhibit the impact of Watershed Urban Runoff Management Program implementation on the high priority water quality problem(s) within the watershed.**

Copermittees, 2003 -- "... making the connection from program activity or BMP implementation to load reductions is a major focus of the overall process described here. Establishing such relationships to discharge and receiving water quality is considerably more complex in spite of the availability of analytical data to help substantiate conclusions. The primary limiting factor is the conceptual "distance" (e.g., the difference in Outcome Levels as described in section III(B)3 above) between these outcome types."

CASQA, 2005 -- "... assessment methods at the higher outcome levels (i.e., levels 4-6) may be costly and require longer timeframes."

"... statewide efforts should be initiated to develop the methods needed to correlate water quality and environmental assessment with implementation assessments."

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Monitoring (Monitoring And Reporting Program)

Projected Monitoring Cost Increases

Existing Program	\$ 1.1 million / year
New Requirements	\$ 2-3 million / year
Potential Annual Copermittee Costs	\$ 3.1- 4.1 million

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Monitoring (Monitoring And Reporting Program)

Potential Cost Increases for New Requirements

	Tentative Order	SMC Recommendation
MS4 Discharge Monitoring	\$ 1.55 million / year	5-10% of total monitoring program cost (\$55,000 - \$110,000)
Source Identification	\$ 450,000 / year	
Other New Requirements	\$ 270,000	N/A

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Monitoring (Monitoring And Reporting Program)

Key Areas of Needed Change

1. Clarify or modify the terms
“characterize” and “representative”
in MS4 Discharges section

The Copermittees shall collaborate to develop and implement a monitoring program to characterize pollutant discharges from MS4 outfalls in each watershed during wet and dry weather. Outfalls to be monitored shall be representative of the outfalls within each watershed in terms of size, flow, drainage area conditions (such as land use), etc. The program shall include rationale and criteria for selection of outfalls to be monitored. The program shall at a minimum include collection of samples for those pollutants causing or contributing to violations of water quality standards within the watershed. Frequency of monitoring and monitoring methods shall ensure monitoring which is representative of outfall discharge flow and pollutant conditions. This monitoring program shall be implemented within each watershed and shall begin no later than the 2007-2008 monitoring year.

2. Clarify or modify trash monitoring –
visual assessments are the
appropriate approach

The Copermittees shall collaborate to develop and implement a monitoring program to effectively measure and assess the presence of trash (anthropogenic litter) in urban runoff and receiving waters, as well as assess the impacts of trash on beneficial uses. This monitoring program shall be implemented within each watershed and shall begin no later than the 2007-2008 monitoring year.

Monitoring (Monitoring And Reporting Program)

3. Collaboratively develop an overall approach that best assesses MS4s and urban runoff

Tentative Order	Potential Modification
II. Monitoring Programs	II. Monitoring Programs
A. Core Receiving Waters Monitoring Program	A. Watershed Based Monitoring Programs
1. MLS Monitoring	1. Receiving Waters Monitoring Program
	a. MLS (add pyrethroids and photodocument trash)
	b. TWAS (add pyrethroids and photodocument trash)
	c. Bioassessment
	d. Follow-up Analysis and Actions
	e. Ambient Bay & Lagoon Monitoring
	f. Coastal Storm Drain Monitoring
2. Temporary Watershed Assessment Stations (TWAS)	2. Urban Runoff / Discharge Monitoring Program
	Incorporate elements of wet and dry MS4 discharge monitoring, IC/ID (Dry Weather), source identification, and trash monitoring
3. Bioassessment (BA) Monitoring	
4. Follow-up Analysis and Actions	
5. Ambient Bay & Lagoon Monitoring	
6. Coastal Storm Drain Monitoring	
7. Toxic Hot Spot Monitoring	
8. Pyrethroids Monitoring	
9. Trash Monitoring	
10. MS4 Discharge Monitoring	
11. Source Identification Studies	
12. TMDL Monitoring	
B. Regional Monitoring Programs	B. Regional Monitoring Programs
1. Regional watershed monitoring at direction of Executive Officer	1. Regional watershed monitoring at direction of Executive Officer
2. Bight 08	2. Bight 08
C. Special Studies	C. Special Studies
	1. TMDL/Toxic Hot Spots
	2. Regional Harbor Monitoring
	3. AI at direction of Executive Officer
D. Dry Weather Field Screening and Analytical Monitoring	D. Monitoring Provisions (no changes)
E. Monitoring Provisions	

Monitoring (Monitoring And Reporting Program)

Benefits to Re-organization of Monitoring

- Efficient use of resources and coordination with existing program elements
- Enables Copermittees to design and implement urban runoff elements in a coordinated approach similar to the accepted redesign of the receiving waters program
- Improves the correlation with the goals and core management questions identified in Section I.A and I.B
- Facilitates assessments of the progress on watershed water quality activities
- Facilitates watershed reporting and will help Copermittees better assess their programs (using Effectiveness Outcomes 1-6)

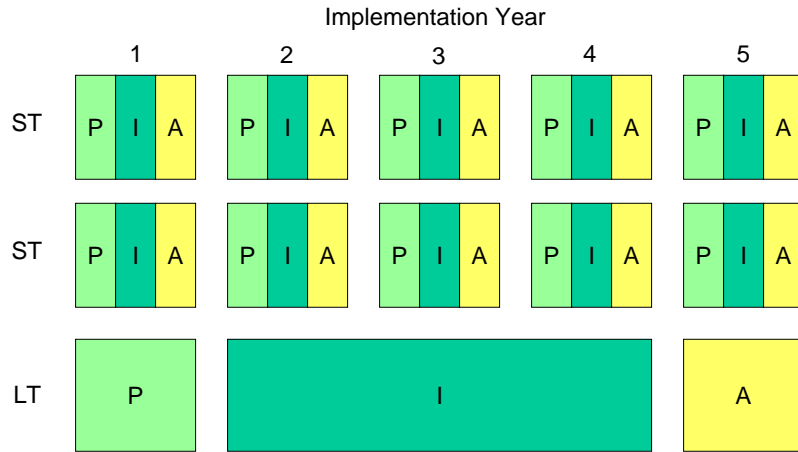
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END

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Watershed URMP (Section E)

Current Scenario



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