



EXHIBIT B-8.I
CONSTRUCTION
CONSTRUCTION PROGRAM MANAGEMENT

Construction Program Management



Module B-8.I

Audience: NPDES Program Managers, NPDES Staff
Time: 2-3 hours





Construction Program Management

Name
Affiliation
Location
Date



Introduction



Introduction

Water Resources are Crucial to Orange County



Water provides recreation for Orange County residents.

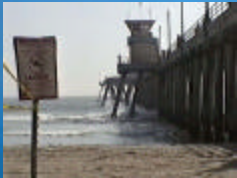


It attracts tourists, boosting the local economy.

It is home to many types of wildlife.

Introduction

Potential Impacts



- Urban runoff and stormwater pollution can impact the ocean, beaches and creeks, harming wildlife and impairing peoples' ability to enjoy the water.

Introduction

Sources of Pollution


- Homes
- Businesses
- Construction sites
- Municipal facilities



Introduction

Path of Pollutants

- Potential pollutants may run off driveways, streets and gutters into stormdrains.
- The stormdrains lead to creeks and rivers, where pollutants can flow untreated into the ocean.




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Introduction

It's Everyone's Responsibility

- Urban runoff and stormwater pollution is not just a coastal issue-it starts in all regions of the community and affects water quality from the mountains to the ocean.



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Introduction

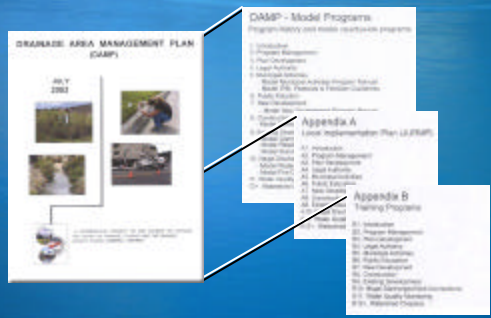
It's Your Responsibility

- Everyone must help to reduce urban runoff and stormwater pollution.
- This training will help explain what you can do while conducting construction activities to help implement the Orange County Stormwater Program.

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Introduction

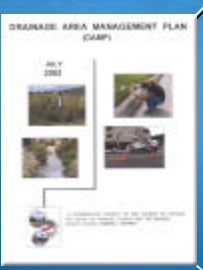
OC Stormwater Program



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Introduction

Program Elements



DAMP - Model Programs
Program history and model countywide programs

1. Introduction
2. Program Management
3. Plan Development
4. Legal Authority
5. Municipal Activities
6. Public Education
7. New Development
8. **Construction**
9. Existing Development
10. Illegal Discharges/Illicit Connections
11. Water Quality Monitoring - SDR/ SAR
12. Watershed Chapters

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Introduction

Training Outline

- Program Manual Introduction
- Inventory Requirements
- Prioritization Requirements
- Break -
- BMPs for Construction Projects
- Documentation Requirements
- Municipal Inspection Requirements of Construction Sites and Reporting Requirements
- Annual Status Report

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Introduction

Training Modules

Program Management

Inspecting Construction BMPs

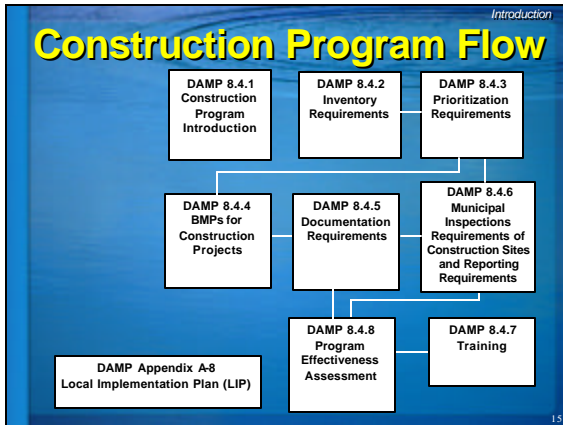
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Introduction

Training Goal

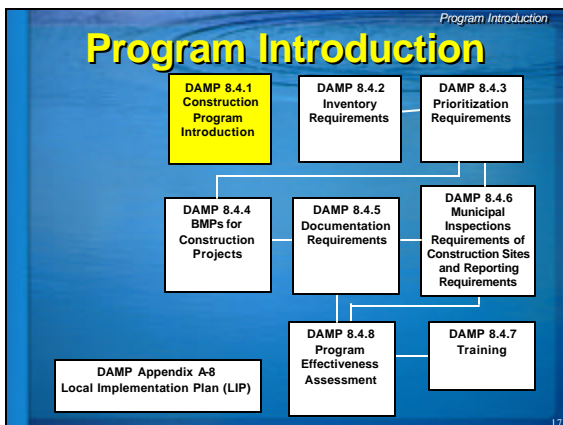
Increase your understanding of the Construction Program

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Program Introduction

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Program Introduction

Construction Program

- Cooperative project among all Permittees
- Fulfills construction activity commitments and requirements of:
 - Section 8 of the 2003 Orange County Drainage Area Management Plan (DAMP)
 - Section VIII and XV of the Santa Ana Regional Board Municipal Stormwater permit (Order R8-2002-0010)
 - Section F.2 of the San Diego Regional Board Municipal Stormwater permit (Order R9-2002-0001)

Continued...
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Program Introduction

Construction Program (Continued)

- Construction projects are also covered under *SWRCB Order 99-08-DWQ, NPDES General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity – "General Permit"*
 - Covers construction projects that result in land disturbance of 1 acre or more

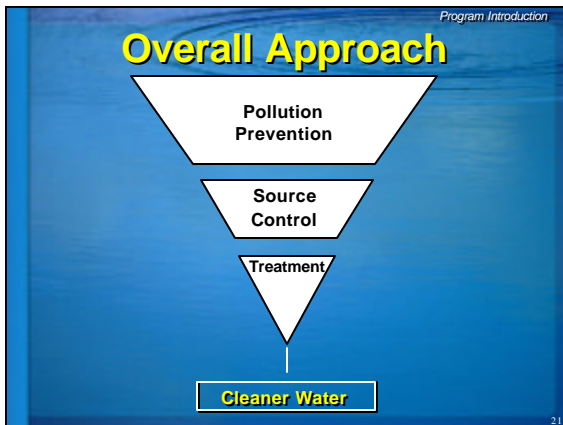
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Program Introduction

Construction Program Objectives

- Provide Permittees with:
 - Program framework for minimizing impacts of construction activities or region's receiving waters
 - Iterative process to inventory, prioritize, inspect, and construction contractors to correct problems that can occur at construction sites
 - Methodologies to meet permit requirements and other applicable environmental laws and regulations
 - Countywide consistency

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Program Introduction

Applies to

- NPDES Program Managers
- Municipal staff performing NPDES related construction activities
- Contractors performing related activities for Permittees

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Program Introduction

Definitions

- Construction Project
- Pollution Prevention
- Storm Water Pollution Prevention Plan (SWPPP)

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Program Introduction

Construction Project

Any site for which building or grading permits are issued and where an activity results in the disturbance of soil such as soil movement, grading, excavation, clearing, road construction, structure construction, or structure demolition; and sites where uncovered storage of materials and wastes such as dirt, sand or fertilizer occurs; or exterior mixing of cementaceous products such as concrete, mortar or stucco will occur

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Program Introduction

Pollution Prevention

Any practice that reduces or eliminates the creation of pollutants

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Program Introduction

Storm Water Pollution Prevention Plan (SWPPP)

Document required to be developed and implemented by the General Permit. The SWPPP emphasizes the use of appropriately selected, correctly installed and maintained pollution reduction BMPs. This approach provides the flexibility necessary to establish BMPs that can effectively address source control of pollutants during changing construction activities

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Program Introduction

Responsibilities

	Municipal Permittee	Private Owner/Developer	Regional Water Quality Control Board
PRIVATE PROJECTS	General Permit Projects ≥ 1 acre	<ul style="list-style-type: none"> Apply for local grading or building permit Submit NOI for General Permit Coverage Comply with grading or building permit and local ordinances Prepare and implement SWPPP Submit NOT 	<ul style="list-style-type: none"> Inspect and enforce General Permit on Owner/Developer Evaluate Permittee's Construction Program for compliance with municipal permit
	Other Projects	<ul style="list-style-type: none"> Issue grading or building permit Inspect and enforce local permit(s) and ordinances 	<ul style="list-style-type: none"> Evaluate Permittee's Construction Program for compliance with municipal permit

Based on DAMP Table B-1

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Program Introduction

Responsibilities

	Municipal Permittee	Private Owner/Developer	Regional Water Quality Control Board
PUBLIC PROJECTS San Antonio Permit Area	Projects ≥ 1 acre	<ul style="list-style-type: none"> Submit notice to RWQCB Prepare and implement SWPPP consistent with General Permit Inspect and enforce contract documents Notify Regional Board of non-compliance Submit Notice of Completion 	<ul style="list-style-type: none"> Inspect and enforce Permittee's projects Evaluate Permittee's Construction Program for compliance with municipal permit
	Other Projects	<ul style="list-style-type: none"> Inspect and enforce local permit(s) and ordinances 	NA

Based on DAMP Table B-1

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Program Introduction

Responsibilities

	Municipal Permittee	Private Owner/Developer	Regional Water Quality Control Board
PUBLIC PROJECTS San Diego Permit Area	Projects ≥ 1 acre	NA	<ul style="list-style-type: none"> Inspect and enforce General Permit on Permittee's projects Evaluate Permittee's Construction Program for compliance with municipal permit
	Other Projects	<ul style="list-style-type: none"> Submit NOI for General Permit coverage Prepare and implement SWPPP Inspect and enforce contract documents Notify Regional Board of non-compliance with General Permit Submit NOT Inspect and enforce local permit(s) and ordinances 	NA

Based on DAMP Table B-1

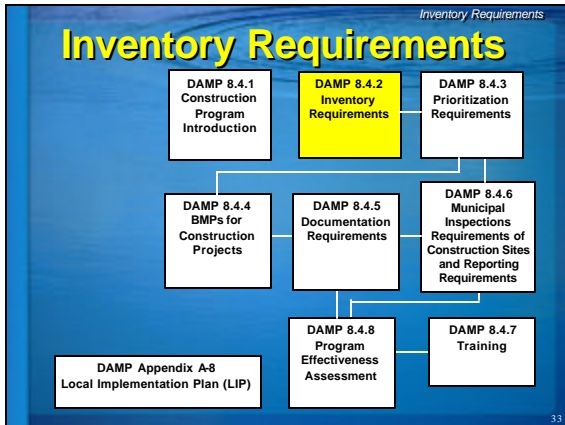
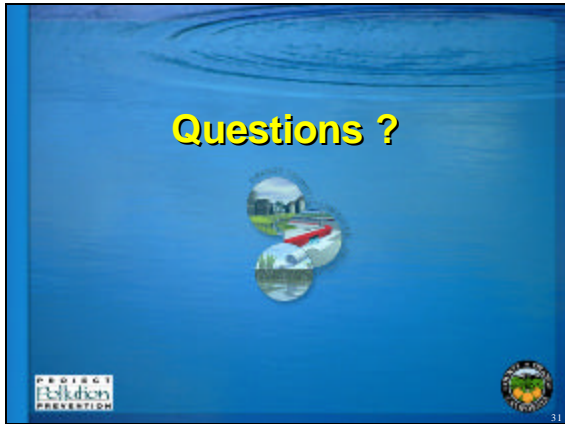
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Program Introduction

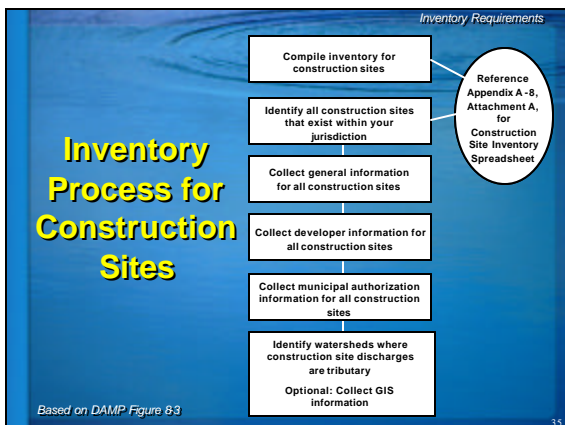
Local Program Administration and Implementation

- DAMP contains language for overall program administration
- LIP contains
 - Sample program text
 - Directions for customization
 - Forms (inventory, inspection, enforcement)

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- Inventory Requirements
- ### Inventory of Construction Sites
- A watershed-based inventory of all construction sites, regardless of size or ownership, must be developed and updated annually prior to the start of the wet season (October 1)
 - Inventory will serve as the basis for prioritization, inspection, enforcement, and reporting elements of the program
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- Inventory Requirements
- ### ID of Constructions Sites and General Information
- Inventory (Appendix A-8)
 - Identification of sites within jurisdiction
 - General information
 - Developer information
 - Municipal authorization information
 - Watershed identification
 - Optional: GIS information
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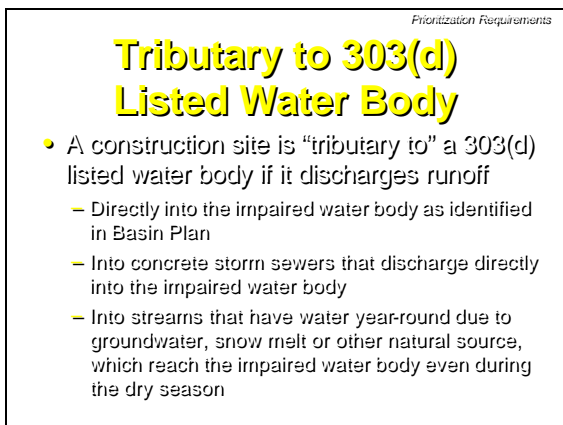
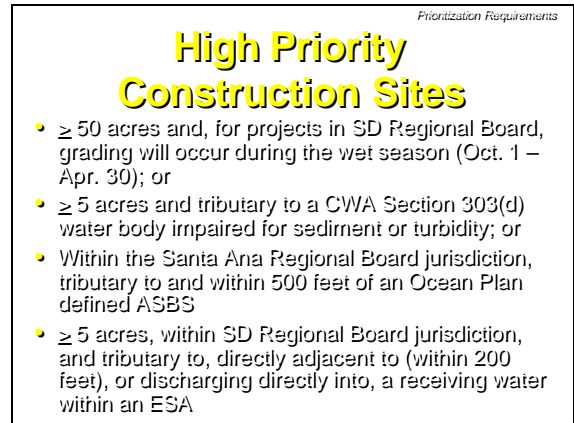
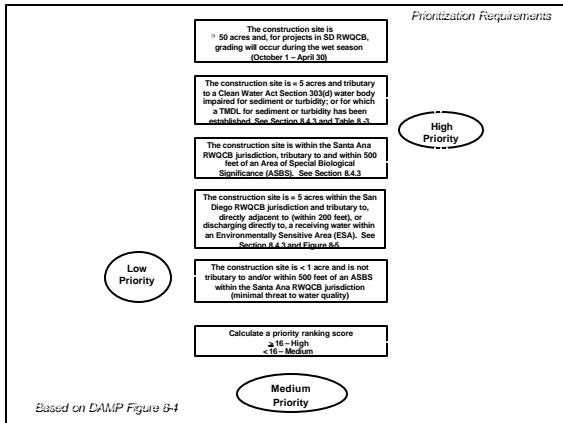
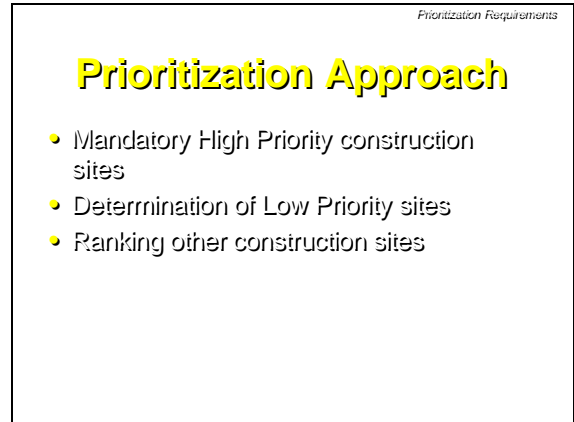
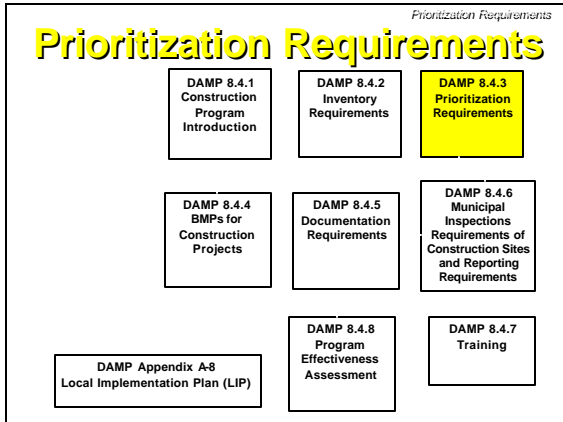


Table B-2
Summary of the 1998 303(d) Listed Water Bodies and Associated Pollutants of Concern for Orange County

Region	Water Body	Watershed	Pollutant											
			Pesticides/Contaminants	Metals	Nutrients	Pesticides	Organic Compounds	Sediment/Siltation	Salinity	TDS	Chlorides			
Region 8 Santa Ana	Anaheim Bay	C		X										
	Huntington Harbor	C	X	X		X								
	Santiago Creek, Reach 4	E									X	X	X	
	Silverado Creek	E	X								X	X	X	
	San Diego Creek, Reach 2	F		X	X	X					X			
	San Diego Creek, Reach 7	F		X	X						X			
	Newport Bay, Upper	G	X	X	X	X					X			
	Newport Bay, Lower	G	X	X	X	X	X							
	Laguna Beach, Pacific Ocean	I	X											
	Aliso Creek, Pacific Ocean	J	X											
Region 8 San Diego	Aliso Creek, Mouth of Orange	J	X											
	Aliso Creek, Lower One Mile	J	X											
	Dana Point, Pacific Ocean	K	X											
	San Juan Creek, Mouth	L	X											
	Lower San Juan, Pacific Ocean	L	X											
	San Juan Creek, Lower	L	X											
	San Clemente	M	X											

Prioritization Requirements

Low Priority

- < 1 acre and not tributary to and/or within 500 feet of an ASBS within the Santa Ana RWQCB
 - Minimal threat to water quality
 - Minimal risk of discharge to receiving waters

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Prioritization Requirements


Ranking Criteria for Other Sites

- Size
- Proximity to ASBS/ESA
 - Santa Ana Regional Board
 - San Diego Regional Board
- Maximum slopes
- Non-Stormwater discharges
- Medium Priority < 16 pts ≤ High Priority

DAMP Section 8.4.3.3

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Questions ?



PROJECT SOLUTION PREVENTION

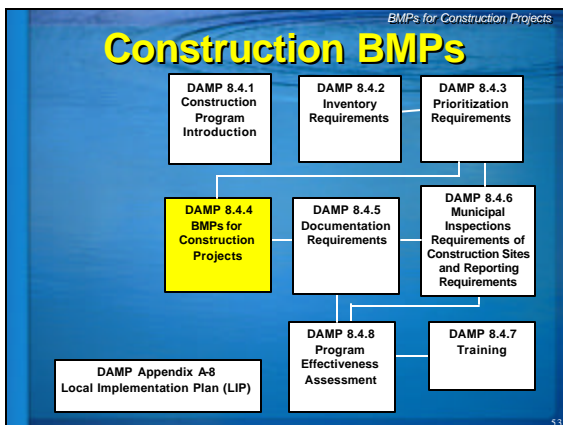
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Construction BMPs



PROJECT SOLUTION PREVENTION

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BMPs for Construction Projects

BMP Implementation Requirements

BMP Implementation Requirements for Construction Sites		
PRIORITY	SITE AREA	BMP REQUIREMENT
LOW	Total Disturbed Soil Area < 1 Acre	<ul style="list-style-type: none"> • Meet minimum requirements (Table 8-6)
MEDIUM	Total Disturbed Soil Area 5 Acres or more	<ul style="list-style-type: none"> • Meet minimum requirements (Table 8-6) • Implement Site Management Requirements • Implement all appropriate Construction BMPs
HIGH		
HIGH	< 1 Acre and not tributary to and/or within 500 feet of an ASBS within the Santa Ana RWQCB jurisdiction	<ul style="list-style-type: none"> • Meet minimum requirements (Table 8-6) • Implement all appropriate Construction BMPs

Based on DAMP Table 8-5

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BMPs for Construction Projects

Minimum Requirements for All Construction Sites

- Erosion and Sediment Control
 - Sediments from areas disturbed by construction shall be retained on site using an effective combination of erosion and sediment controls to the maximum extent practicable, and stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Waste and Materials Management Control
 - Construction-related materials, wastes, spills or residues shall be retained on site to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.

Based on DAMP Table 8-6

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BMPs for Construction Projects

Site Management Requirements

- For all Medium and High Priority projects
- Dry Season Requirements
 - May 1 to September 30
- Wet Season Requirements
 - October 1 to April 30

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BMPs for Construction Projects

Construction BMPs

- Six main categories
 - Erosion Control
 - Sediment Control
 - Wind Erosion Control
 - Tracking Control
 - Non-Stormwater Management
 - Waste Management & Materials Pollution Control
- See Table 8-7 and Fact Sheets

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Questions ?

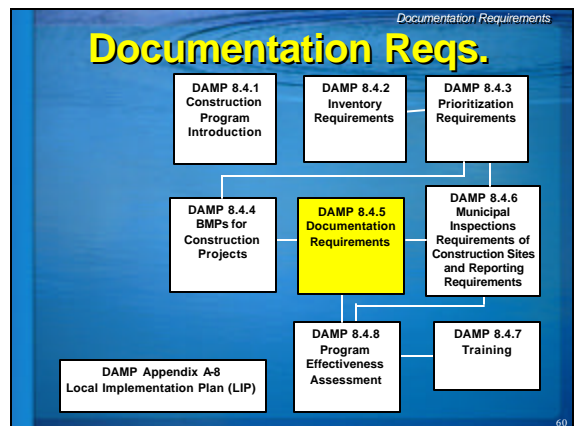


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Documentation Requirements



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Documentation Requirements

Applicable Requirements

- General Permit Sites
 - Private construction projects
 - Public works construction projects
- Other Sites
 - Private construction projects
 - Public works construction projects

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Documentation Requirements

Required Documents

- LOW Priority
 - Minimum requirements as Standard Conditions in Permit or Plan Notes
- MEDIUM Priority
 - SWPPP
- HIGH Priority, 1 Acre or greater
 - SWPPP
- HIGH Priority, < 1 Ac.
 - Minimum requirements as Standard Conditions in Permit or Plan Notes

Based on DAMP Table B8

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Documentation Requirements

Private Construction Sites Covered by GP

- Owner/Developer/Contractor prepares NOI and submits to SWRCB
- Permittee requires proof of GP coverage before issuing grading or building permit
- Owner/Developer/Contractor develops SWPPP and implements year-round
- Municipality inspects and enforces local permit(s) and ordinances
- Owner/Developer prepares NOT and submits to SWRCB once project is complete and complies with GP's final stabilization requirements

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Documentation Requirements

Public Works Construction Sites Covered by GP

- Permittee prepares and submits to SWRCB
 - SD RWQCB – NOI
 - SA RWQCB – Informal Notification of Construction Activity
- Permittee (or Contractor) develops SWPPP; contractor implements SWPPP year-round
- Municipality inspects and enforces local permit(s) and ordinances
- Municipality prepares NOT and submits to SWRCB once project is complete and complies with GP's final stabilization requirements

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Documentation Requirements

Construction Sites Not Covered by GP

- Private
 - Develop Erosion and Sediment Control Plans (ESCPs) showing locations of BMPs that will be implemented during construction to comply with minimum requirements
- Public
 - Comply with "Green Book"
 - Develop ESCPs

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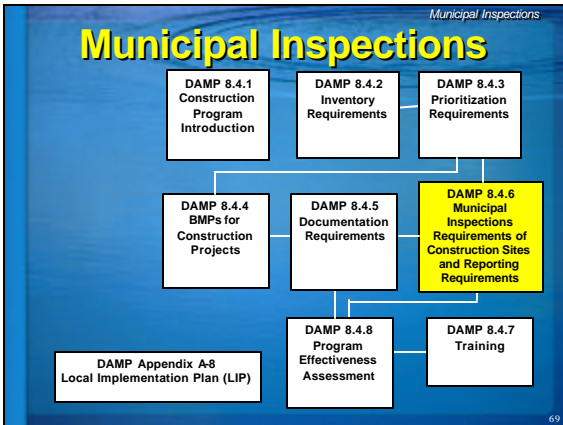
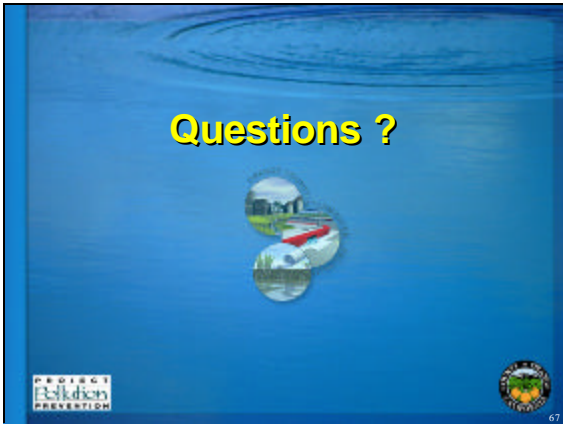
Documentation Requirements

SWPPP Template

- Developed as assistance tool/guidance document
- Contains all elements required by the General Permit
- Provides easy data entry for preparer
- Applies to private and public projects subject to the General Permit

Template is not a requirement;
SWPPPs may not need to match template.
Individual Permittees may develop their own template.

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- Municipal Inspections*
- ## Responsibilities
- Who does the inspection?
 - Inspect for compliance with
 - Local permits
 - Ordinances
 - NPDES Permits
 - General Permit (public works projects only)
 - RWQCB is responsible for inspecting private projects for compliance with General Permit

Municipal Inspections

Frequency

Construction Site Priority	Rainy Season (October 1 - April 30)		Dry Season (May 1 - September 30)
	Projects within the jurisdiction of the Santa Ana RWQCB	Projects within the jurisdiction of the San Diego RWQCB	
HIGH	Once per month	Once per week *	As needed
MEDIUM	Twice during the season		As needed
LOW	Once during the season	Twice during the season	As needed

* OR

Monthly for any site that the responsible Permittee certifies in a written statement to the SDRWQCB all of the following (certified statements may be submitted to the SDRWQCB at any time for one or more sites):

- i. Permittee has record of construction site's Waste Discharge Identification Number (WDID#) documenting construction site's coverage under the statewide General Construction Permit; and
- ii. Permittee has reviewed the construction site's Storm Water Pollution Prevention Plan (SWPPP); and
- iii. Permittee finds SWPPP to be in compliance with all local ordinances, permits, and plans; and
- iv. Permittee finds that the SWPPP is being properly implemented on site.

Based on DAMP Table 89

- Municipal Inspections*
- ## Documentation Procedures
- Construction Site Inspection Checklist (Appendix A-8)
 - Non-compliance reporting
 - Retain for three years

Municipal Inspections

Municipal Inspections of Private Construction Sites

- Owner/developer/contractor is meeting the construction program requirements;
- An effective combination of erosion, sediment and non-stormwater BMPs are being implemented and maintained;
- Owner/developer/contractor implement and maintain BMPs on a year round basis; and
- If issues are noted during the inspections, appropriate corrective actions are taken

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Municipal Inspections

Municipal Inspections of Public Construction Sites

- Contractor is meeting the construction program requirements;
- An effective combination of erosion, sediment and non-stormwater BMPs are being implemented and maintained;
- Contractor implements and maintains BMPs on a year round basis; and
- If issues are noted during the inspections, appropriate corrective actions are taken

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Municipal Inspections

Enforcement Actions

PRIVATE CONSTRUCTION PROJECTS	PUBLIC WORKS CONSTRUCTION PROJECTS
Verbal Warning	Verbal Warning
Written Warning <ul style="list-style-type: none"> - Notice of Non-Compliance - Administrative Compliance Order - Administrative Fines - Cease and Desist Order 	Written Warning <ul style="list-style-type: none"> - Notice of Non-Compliance
Stop Work Order	Enforcement of Contract <ul style="list-style-type: none"> - Withholding of Payment - Bond - Fines - Stop Work Order - Revocation of Contract
Revocation of Permit(s) and/or Denial of Future Permits	<ul style="list-style-type: none"> - Stop Work Order - Revocation of Contract
Civil and Criminal Court Actions	Civil and Criminal Court Actions

Based on DAMP Table 8-10

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Municipal Inspections

Enforcement Actions – Private Sites

ENFORCEMENT OPTIONS	ACTIONS			CRIMINAL ACTIONS
	NON-COMPLIANCE	ADMINISTRATIVE COMPLIANCE	FINES AND PENALTIES	
ENFORCEMENT STRATEGY	STOP WORK ORDER	ADMINISTRATIVE COMPLIANCE	FINES AND PENALTIES	CRIMINAL PROSECUTION
Enforcement Level	Informal	Non-Compliance	Administrative	Criminal
Enforcement Method	None	Administrative	Administrative	Administrative
Enforcement Authority	None	Local	Local	Local
Enforcement Agency	None	Local	Local	Local
Enforcement Method	None	Administrative	Administrative	Administrative
Enforcement Agency	None	Local	Local	Local
Enforcement Method	None	Administrative	Administrative	Administrative
Enforcement Agency	None	Local	Local	Local

Based on DAMP Figure 8-7

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Municipal Inspections

Enforcement Actions – Public Works Sites

ENFORCEMENT OPTIONS	ACTIONS			CRIMINAL ACTIONS
	NON-COMPLIANCE	ADMINISTRATIVE COMPLIANCE	FINES AND PENALTIES	
ENFORCEMENT STRATEGY	STOP WORK ORDER	ADMINISTRATIVE COMPLIANCE	FINES AND PENALTIES	CRIMINAL PROSECUTION
Enforcement Level	Informal	Non-Compliance	Administrative	Criminal
Enforcement Method	None	Administrative	Administrative	Administrative
Enforcement Authority	None	Local	Local	Local
Enforcement Agency	None	Local	Local	Local
Enforcement Method	None	Administrative	Administrative	Administrative
Enforcement Agency	None	Local	Local	Local
Enforcement Method	None	Administrative	Administrative	Administrative
Enforcement Agency	None	Local	Local	Local

Based on DAMP Figure 8-8

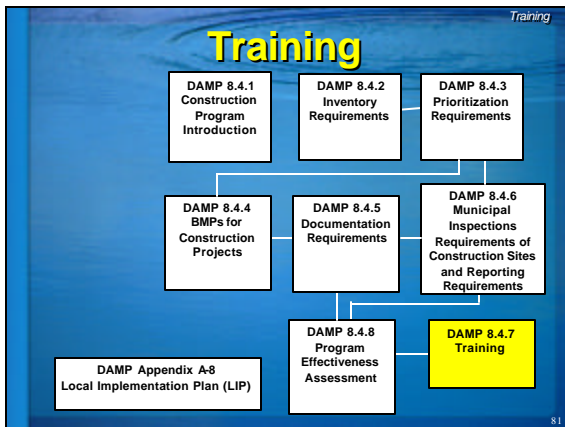
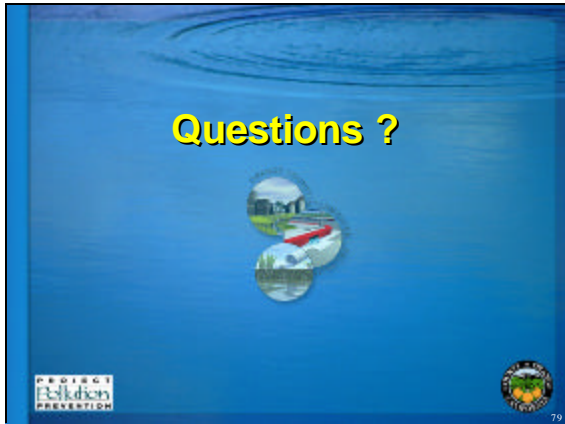
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Municipal Inspections

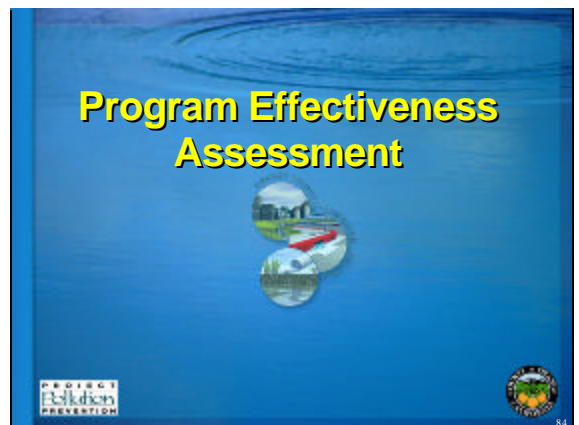
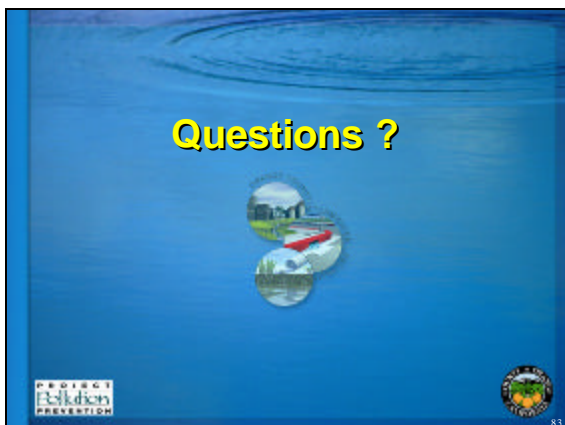
Non-Compliance Reporting

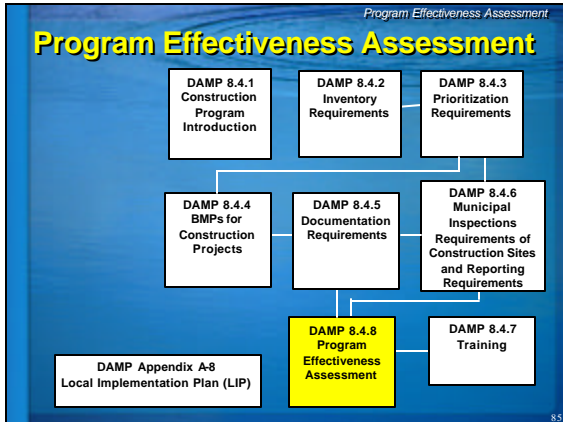
- Private construction project
 - Is non-compliant with local permit and ordinances; and
 - Is determined to pose a threat to public or environmental health
 - Report to RWQCB verbally within 24-hrs of discovery and in writing within 5 days (Form in Appendix A-8)
- Public Works construction project
 - Compliance with General Permit provisions can't be certified
 - Is determined to pose a threat to public or environmental health
 - Report to RWQCB verbally within 24-hrs of discovery and in writing within 5 days (Form in Appendix A-8)

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- Education and Training
- Training Modules (Appendix B-8)
 - General Program Management Overview (this module)
 - Construction BMPs Inspection Training
 - Record Keeping
 - Permittee Sponsored
 - Non-Permittee Sponsored
- Training
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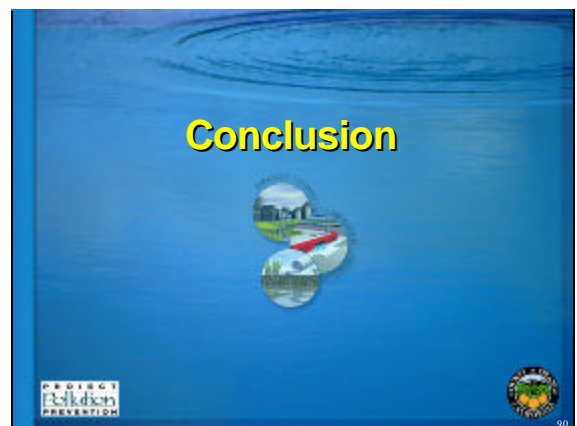
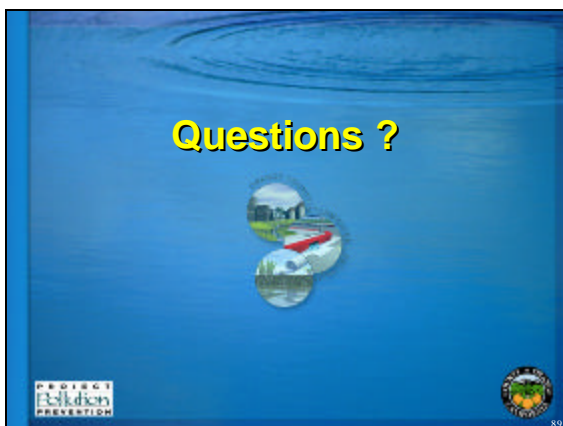




- Program Effectiveness Assessment
- ## Objective
- Determine effectiveness of program
 - Annual report submitted annually to Principal Permittee
 - Activities conducted to meet requirements of DAMP components
 - Quantitative and qualitative information on implementation of individual stormwater/urban runoff program
 - Commitment to pollution prevention and source reduction
 - Iterative evaluation process
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- Program Effectiveness Assessment
- ## Reporting Procedures
- Most Recent Construction Site Inventory
 - Number of active permits by category
 - Summary of inspected construction sites
 - Enforcement actions taken
 - Construction program training status
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- Program Effectiveness Assessment
- ## Appendix
- Construction Site Inventory spreadsheet
 - Construction BMP fact sheets
 - OCEMA's 1999 Standard Plans for construction site BMPs
 - SWPPP template
 - Sample construction inspection checklists
 - Sample enforcement forms
 - Training documentation
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Conclusion

Conclusion

Implementing and maintaining appropriate BMPs during construction will help to reduce stormwater pollution

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Conclusion

Remember

- Everyone benefits from clean water, and everyone has a responsibility to protect it by reducing urban runoff and stormwater pollution.





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Conclusion

Resources

For more information, visit www.ocwatersheds.com or call the Orange County Stormwater Program at 714-567-6363.



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Conclusion

Thank You!

Thank you for attending and learning how you can help!



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