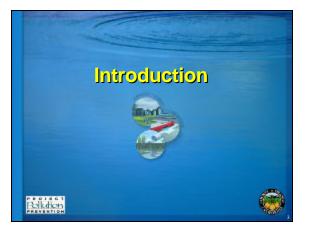**EXHIBIT B-5.I**

Municipal Activities Program

Municipal Activities Program Training

**Municipal Activities
Program Management Training**

Module B-5.I

**Audience: Municipal NPDES
Program Coordinators
Time: 3 hours**

1

**Municipal Activities
Program Management
Training**

Name
Affiliation
Location
Date

2

Introduction

3

**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.

4

Potential Impacts

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

5

Sources of Pollution

• Homes

• Businesses

• Construction sites

• Municipal facilities

6

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.

7

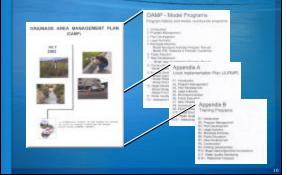*Introduction*

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.
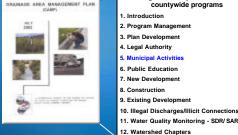
8

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 municipal activities to help implement the Orange County Stormwater Program.

9

Introduction

OC Stormwater Program

10

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

11

Introduction

Training Outline

- Municipal Activities Program Introduction
- Inventory Procedures
- Prioritization Procedures
  -Break-
- Model Maintenance Procedures
- Inspection Requirements
- Program Effectiveness Assessment

12

Training Modules

Introduction

| Program Management | Inspection |
| Business | HOA |

13

Training Goal

Introduction

Increase your understanding of the Municipal Activities Program

14

Overall Approach

Introduction

Pollution Prevention

Source Control

Treatment

Cleaner Water

15

Municipal Activities Program

16

Municipal Activities Program Flow

Section 5.4.1 Program Introduction	Section 5.4.2 Municipal Inventory Requirements	Section 5.4.3 Prioritization Requirements
	Section 5.4.4 Model Maintenance Procedures	Section 5.4.5 Municipal Inspection Requirements
	Section 5.4.6 Program Effectiveness Assessment	Section 5.4.7 Training

Based on Figure 5-2, DAMP.

17

Program Introduction

18

Slide 19

Program Introduction

Program Introduction

- **Section 5.4.1** Program Introduction
- **Section 5.4.2** Municipal Inventory Requirements
- **Section 5.4.3** Prioritization Requirements
- **Section 5.4.4** Model Maintenance Procedures
- **Section 5.4.5** Municipal Inspection Requirements
- **Section 5.4.6** Program Effectiveness Assessment
- **Section 5.4.7** Training

Based on Figure 5-2, DAMP

19

Slide 20

Program Introduction

Municipal Activities Program

- Model fulfills municipal activity requirements of:
  - Section 5 of the 2003 Orange County Drainage Area Management Plan (DAMP)
  - Section XIV of the Santa Ana Regional Board Municipal stormwater permit
  - Section F.3.a of the San Diego Regional Board Municipal stormwater permit

20

Slide 21

Program Introduction

Program Objectives

- Provide Permittees with:
  - Countywide consistent program for water quality protection
  - A framework for local programs
  - Set of methodologies for Municipal Activities
  - Implementation methodologies to meet DAMP and NPDES requirements
  - Iterative process to monitor and respond to problems

21

Slide 22

Program Introduction

Program Applies To

- Municipal staff performing activities
- Contractors performing work for Permittees
- Lessees managing municipal facilities

22

Slide 23

Program Introduction

Program Definitions

- Fixed Facilities
  - Example: Corporation Yard
- Field Programs
  - Example: Road and Street Maintenance
- Drainage Facilities
  - Example: Catch basins, open channels

23

Slide 24

Program Introduction

Fixed Facilities

24

Program Introduction

Field Programs

25

Program Introduction

Drainage Facilities

26

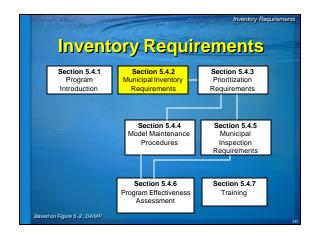*Program Introduction*

Local Program Administration and Implementation

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

27

Questions ?

28

Inventory Requirements

29

Inventory Requirements

Inventory Requirements

| Section 5.4.1 Program Introduction | Section 5.4.2 Municipal Inventory Requirements | Section 5.4.3 Prioritization Requirements |

| Section 5.4.4 Model Maintenance Procedures | Section 5.4.5 Municipal Inspection Requirements |

| Section 5.4.6 Program Effectiveness Assessment | Section 5.4.7 Training |

Based on Figure 5-2, DAMP

30

Inventory Requirements

Fixed Facility and Field Program Inventory Process

Step 1
Fixed Facility and Field Program Identification

Step 2
Watershed Determination

Step 3
ESAs and Clean Water Act Section 303(d) Listed Water Bodies

Step 4
Potential Pollutant Generating Activities

Step 5
Pollutant of Concern Discharge into 303(d) Listed Water Body Determination

Based on Figure 5-3, DAMP

31

Inventory Requirements

Drainage Facility Inventory Process

Step 1
Drainage Facility Identification

Step 2
Watershed Determination

Step 3
ESAs and Clean Water Act Section 303(d) Listed Water Bodies

Based on Figure 5-4, DAMP

32

Inventory Requirements

Inventory Process

Step 1: Fixed Facility, Field Program, and Drainage Facility Identification

- Fixed Facilities
- Field Programs
- Drainage Facilities

33

Inventory Requirements

Fixed Facilities

- Municipal Waste Facilities
- Corporation Yards
- Other Municipal Owned and/or Operated Facilities

See DAMP Table 5.1

34

Inventory Requirements

Field Programs

- Lake Management
- Landscape Maintenance
- Roads, Streets, and Highways Operations and Maintenance
- Fountains, Plazas, and Sidewalk Maintenance and Cleaning
- Solid Waste Handling
- Water and Sewer Utility Operations and Maintenance

See DAMP Table 5.6

35

Inventory Requirements

Drainage Facilities

- Flood Management Projects and Flood Control Devices
- Drainage Systems

See DAMP Table 5.8

36

Inventory Requirements

Inventory Process
Step 2: Watershed Determination

Determine which watershed(s) the Fixed Facilities/Field Programs/Drainage Facilities lie within

37

Inventory Requirements

Regional Board Boundaries within Orange County

Region	Watershed	Identifier
Region 8 Santa Ana	Coyote Creek	A
	Carbon Canyon	B
	Westminster	C
	Talbert	D
	Santa Ana River	E
	San Diego Creek	F
	Newport Bay	G
	Los Trancos / Muddy Creek	H
Region 9 San Diego	Laguna Canyon	I
	Aliso Creek	J
	Salt Creek	K
	San Juan Creek	L
	Prima Deshecha & Segunda Deshecha	M

The Watersheds of Orange County

38

Inventory Requirements

Inventory Process
Step 3: Environmentally Sensitive Areas (ESAs) and Clean Water Act Section 303(d) Listed Water Bodies

- Determine the Facilities and Programs that are:
  - Within or adjacent to, or
  - Discharge directly to an ESA

39

Inventory Requirements

ESA Designation

- An ESA exists if the following designations apply
  - Clean Water Act 303(d) impaired water body
  - Area of Special Biological Significance by the SWRCB
  - RARE beneficial use by the SWRCB
  - Preserves or equivalent under the Natural Community Conservation Planning Program
  - Critical Aquatic Resources
  - Other equivalent ESAs identified by the Permittees
  - An ESA exists if the following designations apply
- Web link from www.ocwatersheds.com under development

40

Inventory Requirements

303(d) Listed Water Bodies

- Table 5.3: Summary of 1998 303(d) listed water bodies
- Table 5.4: Summary of proposed 2002 303(d) listed water bodies

41

Inventory Requirements

Inventory Process
Step 4: Potential Pollutant Generating Activities

- Table 5.5 – Fixed Facilities Activities
- Table 5.7 – Field Programs Activities
- Produce list of activities
- List pollutants of concern

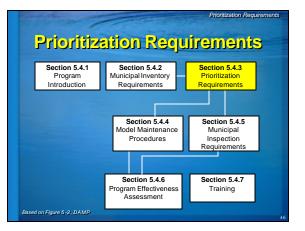42

Inventory Process

Step 5: Pollutant of Concern Discharge into 303(d) Listed Water Body Determination

- Determine if activities identified in Step 4 potentially discharge pollutants to 303(d) water body for which the water body is impaired

  See DAMP Table 5.3

Inventory Requirements

43

Questions ?

44

Prioritization Requirements

45

Prioritization Requirements

Prioritization Requirements

Section 5.4.1 Program Introduction	**Section 5.4.2** Municipal Inventory Requirements	**Section 5.4.3** Prioritization Requirements
	Section 5.4.4 Model Maintenance Procedures	**Section 5.4.5** Municipal Inspection Requirements
	Section 5.4.6 Program Effectiveness Assessment	**Section 5.4.7** Training

Based on Figure 5-2, DAMP

46

Prioritization Process

Prioritization Requirements

- Prioritizing Fixed Facilities, Field Programs, and Drainage Facilities for Inspection Frequencies
- Evaluation based on criteria in NPDES permits

47

Fixed Facility Prioritization

Prioritization Requirements

- Facilities identified as high priority in NPDES permits are automatically high priority
- For those not identified as high, a ranking system has been developed

48

Slide 49

Prioritization Requirements

High Priority Sites

- Roads, Streets, Highways, and Parking Facilities
- Flood Management Projects and Flood Control Devices
- Areas and Activities:
  - Tributary to a Clean Water Act Section 303(d) impaired water body, where an area or activity generates pollutants for which the water body is impaired
  - Within, adjacent to, or discharging directly to receiving waters within ESAs

49

Slide 50

Prioritization Requirements

High Priority Sites

- Municipal Waste Facilities
- Areas and Activities that may may contribute a significant pollutant load to an MS4
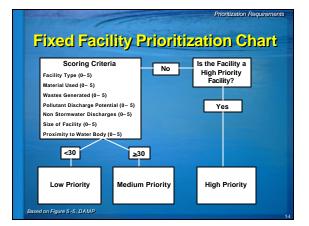- Municipal Airfields

50

Slide 51

Prioritization Requirements

Fixed Facility Ranking

- For Fixed Facilities not automatically high priority, a ranking system has been developed

51

Slide 52

Prioritization Requirements

Fixed Facility Ranking

- Ranking criteria include:
  - Type of facility
  - Materials used
  - Waste generated
  - Pollutant discharge potential
  - Non-stormwater discharges
  - Size of facility or area
  - Proximity to receiving waters

52

Slide 53

Prioritization Requirements

Fixed Facility Ranking

- Score each criterion as 0 through 5, 5 having the highest threat
- Medium priority
  - facilities scoring 30 or more
  - two inspections during first year of program
- Low priority
  - facilities scoring less than 30
  - one inspection during first year of program

53

Slide 54

Prioritization Requirements

Fixed Facility Prioritization Chart

Scoring Criteria
Facility Type (0–5)
Material Used (0–5)
Wastes Generated (0–5)
Pollutant Discharge Potential (0–5)
Non Stormwater Discharges (0–5)
Size of Facility (0–5)
Proximity to Water Body (0–5)

No → Is the Facility a High Priority Facility?

Yes

<30 → Low Priority

≥30 → Medium Priority

High Priority

Based on Figure 5-5, DAMP

54

Slide 55

Prioritization Requirements

Field Program Prioritization
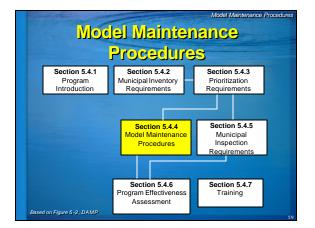
- All Field Programs, by Orange County definition, are considered high priority
- Field Programs should be inspected and evaluated annually

55

Slide 56

Prioritization Requirements

Drainage Facility Prioritization

- All Drainage Facilities, by Orange County definition, are considered high priority
- Maintenance, cleaning, and inspection of all drainage facilities is required annually

56

Slide 57

Questions ?

57

Slide 58

Model Maintenance Procedures

58

Slide 59

Model Maintenance Procedures

Model Maintenance Procedures

Section 5.4.1 Program Introduction	Section 5.4.2 Municipal Inventory Requirements	Section 5.4.3 Prioritization Requirements
	Section 5.4.4 Model Maintenance Procedures	Section 5.4.5 Municipal Inspection Requirements
	Section 5.4.6 Program Effectiveness Assessment	Section 5.4.7 Training

Based on Figure 5-2, DAMP.

59

Slide 60

Model Maintenance Procedures

Fixed Facilities

Model Maintenance Procedure Fact Sheets for Fixed Facilities

Spill Prevention and Response	Vehicle and Equipment Storage
Building Maintenance and Repair	Vehicle and Equipment Cleaning
Parking Lot Maintenance	Material Storage, Handling, and Disposal
Landscape Maintenance	Material Loading and Unloading
Waste Handling and Disposal	Minor Construction
Fueling	Over Water Activities
Equipment Maintenance and Repair	

60

Slide 61

Model Maintenance Procedures

Field Programs

Model Maintenance Procedure Fact Sheets for Field Programs

Roads, Streets, and Highways Operations and Maintenance	Sweeping and Cleaning, etc.
Sidewalk, Plaza, and Fountain Maintenance and Cleaning	Surface Cleaning, etc.
Drainage System Operations and Maintenance	Management of the Municipal Drainage System, etc.
Solid Waste Handling	Solid Waste Collection, etc.
Water and Sewer Utility O&M	Water Line Maintenance, etc.

61

Slide 62

Model Maintenance Procedures

Model Maintenance Procedures Content

- Model Maintenance Procedures located in the LIP
- Includes baseline procedures that must be implemented
- Includes optional procedures that must be implemented when deemed necessary, or when conditions warrant

62

Slide 63

Model Maintenance Procedures

Drainage Facilities

Model Maintenance Procedure Fact Sheets for Drainage Facilities

Drainage Facilities	Litter removal and cleaning, illicit connection control, illegal dumping control

63

Slide 64

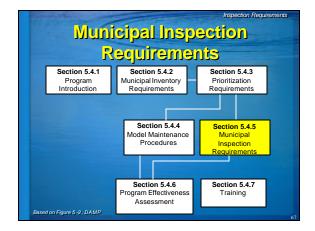*Model Maintenance Procedures*

Contract and Lease Language

- Example language within DAMP for use in contract and lease situations
  - When a lessor is performing municipal activities, for example, leased stadium activities
  - When a contractor is performing municipal activities, for example, contracted street sweeping

64

Slide 65

Questions ?

65

Slide 66

Municipal Inspection Requirements

66

Municipal Inspection Requirements

Inspection Requirements

Section 5.4.1 Program Introduction	Section 5.4.2 Municipal Inventory Requirements	Section 5.4.3 Prioritization Requirements

Section 5.4.4 Model Maintenance Procedures	Section 5.4.5 Municipal Inspection Requirements

Section 5.4.6 Program Effectiveness Assessment	Section 5.4.7 Training

Based on Figure 5-2, DAMP

67

Responsibilities

Inspection Requirements

- Fixed Facilities and Field Programs
  - Stormwater Program Coordinator
  - On-Site Fixed Facility Manager
  - Field Program Superintendent
- Contracted Activities/Leased Facilities
  - Stormwater Program Staff

68

Frequencies

Inspection Requirements

- Inspections based upon permit requirements
- Inspections based upon prioritization

69

Inspection Frequencies

Inspection Requirements

Facility/Programs	Inspection Frequency
Fixed Facilities	
Municipal Corporation Yards	Quarterly
High Priority Fixed Facility	Annually
Medium Priority Fixed Facility	Biannually During First Year of Program Implementation
Low Priority Fixed Facility	Once During First Year of Program Implementation
Field Programs	
High Priority Field Programs	Annually
Drainage Facilities	
Drainage Facilities (San Diego Permittees)	Annually Before the Wet Season, with Additional Inspections as Needed During the Wet Season
Drainage Facilities (Santa Ana Permittees)	80% of Drainage Facilities Annually, with 100% Included over a Two Year Period

Based on Table 5-12, DAMP

70

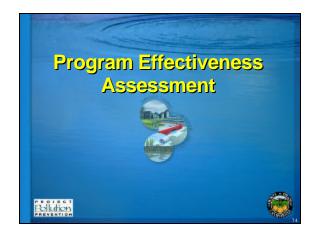## Documentation Process

Inspection Requirements

- Model Inspection Form (Appendix A-5)
  - General Inspection Form for general information
  - Activity Specific Inspection Forms
    - Document inspection findings
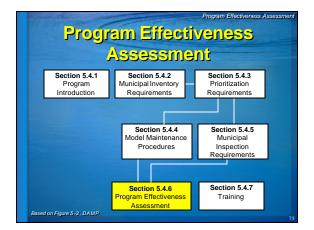   - Suggest corrective action plans

71

Enforcement

Inspection Requirements

- Municipal Employee Mechanisms
  - Job descriptions
  - Current disciplinary procedures
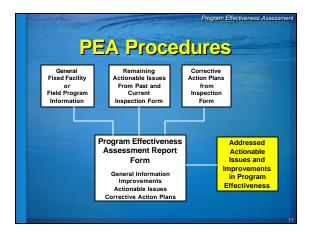- Contractor/Lessee Mechanisms
  - Contract
  - Lease

72

Questions ?

73

Program Effectiveness Assessment

74

Program Effectiveness Assessment

Program Effectiveness Assessment

Section 5.4.1 Program Introduction	Section 5.4.2 Municipal Inventory Requirements	Section 5.4.3 Prioritization Requirements

	Section 5.4.4 Model Maintenance Procedures	Section 5.4.5 Municipal Inspection Requirements

Section 5.4.6 Program Effectiveness Assessment	Section 5.4.7 Training

Based on Figure 5-2, DAMP

75

Program Effectiveness Assessment

Program Effectiveness Assessment (PEA)

- Verifies stormwater program effectiveness
- Submitted annually to Principal Permittee
- Reports:
  - Improvements in water quality protection
  - Program elements in need of improvement
  - Action plans developed for improvements

76

Program Effectiveness Assessment

PEA Procedures

General Fixed Facility or Field Program Information	Remaining Actionable Issues From Past and Current Inspection Form	Corrective Action Plans from Inspection Form

Program Effectiveness Assessment Report Form

General Information
Improvements
Actionable Issues
Corrective Action Plans

Addressed Actionable Issues and Improvements in Program Effectiveness

77

Program Effectiveness Assessment

CITY OF _____

PROGRAM EFFECTIVENESS ASSESSMENT REPORT

Municipal Fixed Facilities and Field Programs

Facility / Field Program Name:
Address (if applicable):
Contact person / title:
Number of Employees:

Actionable Issues from Previous Inspection Form:

Current Conditions:

Actionable Issues Improvements

Actionable Issues from Current Inspection Form
Start Date Completion Date

Corrective Action Plan from Current Inspection Form:

Based on Table 5-13, DAMP

78

PEA Record Keeping

- Each year's forms
- Inspection forms
- Organizational chart
- Map of site location or boundaries
- Diagram of site drainage and storm sewer system
- List of site activities
- List of potential pollutants
- List of on-site BMPs
- Applicable Model Maintenance Procedures
- Training documentation

79

Questions ?

80

Training

81

Training

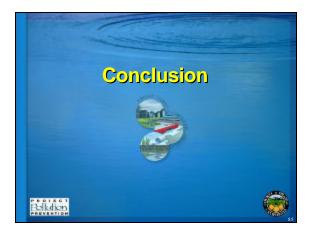| Section 5.4.1 Program Introduction	Section 5.4.2 Municipal Inventory Requirements	Section 5.4.3 Prioritization Requirements
	Section 5.4.4 Model Maintenance Procedures	Section 5.4.5 Municipal Inspection Requirements
	Section 5.4.6 Program Effectiveness Assessment	Section 5.4.7 Training

Based on Figure 5-2, DAMP

82

Training Modules

- General Program Management Training
- Fixed Facility Model Maintenance Procedure Training
- Field Program Model Maintenance Procedure Training
- Integrated Pest Management, Pesticide, and Fertilizer Guidelines
- Integrated Pest Management Approaches

83

Questions ?

84

Conclusion

Conclusion

- The Municipal Activities Program is a model for fulfilling the inventory, prioritization, best management practice, inspection, and verification requirements of your NPDES permit.

- Program Effectiveness Assessment provides a framework for continuously improving municipal activities with respect to water quality protection.

Remember

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

Resources

For more information:
Visit www.ocwatersheds.com
or
Call the Orange County Stormwater Program at 714-567-6363.

Thank You!

Thank you for attending and learning how you can help!

Handouts

- Meeting Agenda
- Inventory Worksheet
- Prioritization Worksheet
- Example MMP Fact Sheet
- PEA Form
- Hard copy of presentation
- Contact list