



Illegal Discharge/Illicit Connection Program Authorized Inspector Training



Module B-10.II

Audience: Authorized Inspectors/Staff
Time: 5-6 Hours





Illegal Discharge/Illicit Connection Program Authorized Inspector Training

Name
Affiliation
Location
Date



Program Overview



Program Overview

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.

Program Overview

Potential Impacts



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

Program Overview

Sources of Pollution


- Homes
- Businesses
- Construction sites
- Municipal facilities



Program Overview

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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Program Overview

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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Program Overview

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 inspection activities to help implement the Orange County Stormwater Program.

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Program Overview


Clean Water Act

- **Objective**
 - "To restore and maintain the chemical, physical and biological integrity of the Nation's waters"
 - "Fishable"* *"Swimmable"*
- **Permitting of Discharges**
 - The CWA established the National Pollutant Discharge Elimination System (NPDES) program to regulate discharges, including urban runoff and stormwater

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Program Overview

Two NPDES Permits for Orange County



- Santa Ana Regional Water Quality Control Board
 - 8 Watersheds
 - 27 Permittees
- San Diego Regional Water Quality Control Board
 - 5 Watersheds
 - 13 Permittees

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Program Overview

Municipal Permits

- **5 Year Permit Terms 2002-07**
 - Order No. R8-2002-0010 adopted by the Santa Ana Board on January 18, 2002
 - Order No. R9-2002-0001 adopted by the San Diego Board on February 13, 2002

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Program Overview

OC Stormwater Program

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

Appendix A
Local Implementation Plan (LIP/LIMP)

Appendix B
Training Programs

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Program Overview

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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Program Overview

ID/IC Training Modules

Program Management	Authorized Inspectors
Sewage Spill Response	Emergency Personnel Responders

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Program Overview

Training Goals

Provide understanding of the ID/IC program by:

- Presenting overview of ID/IC Program Elements
- Provide methodologies to support compliance with Santa Ana and San Diego Regional Board Municipal Stormwater permits
- Ensure effective program implementation

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Program Overview

Training Outline

- Program Introduction
- Program Administration and Implementation-
- Break -
- Detection of Illegal Discharges and Illicit Connections
- Model Spill Response Procedures
- Break -

Continued...

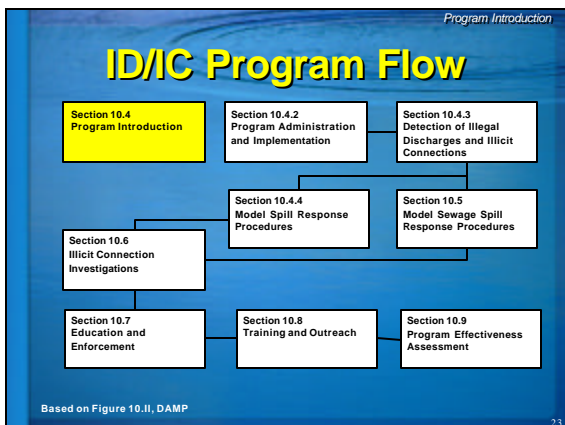
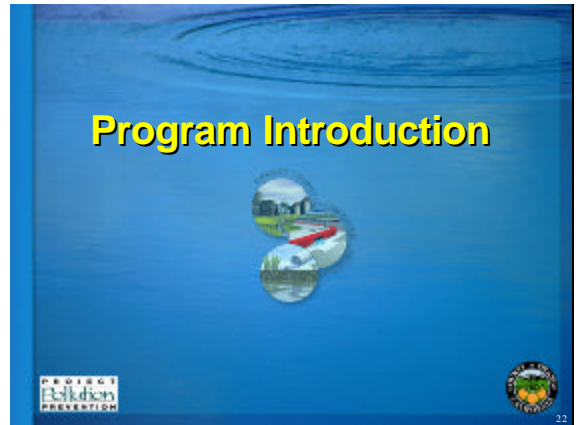
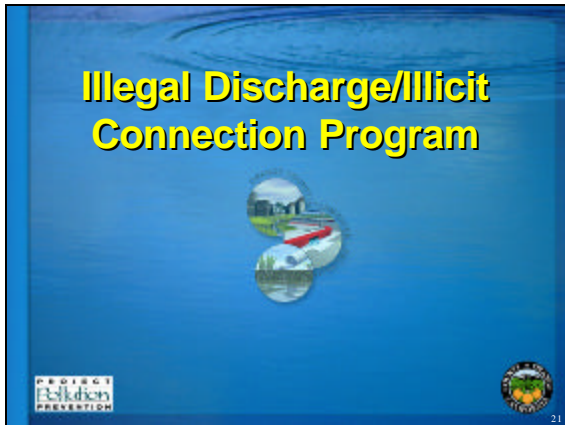
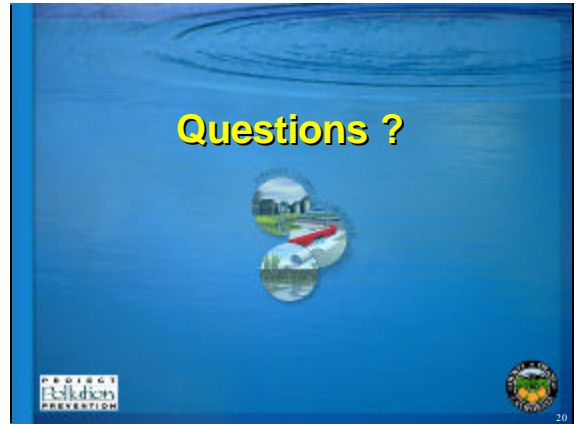
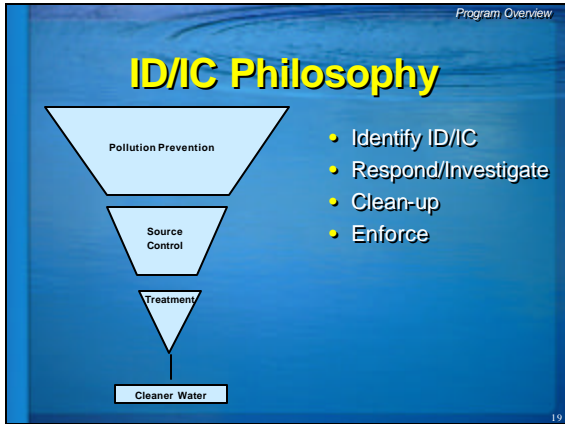
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Program Overview

Training Outline (Continued)

- Model Sewage Spill Response Procedures
- Illicit Connection Investigation
- Break -
- Education and Enforcement
- Training and Outreach
- Program Effectiveness Assessment

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Program Introduction

Program Objectives

- Countywide consistent program for water quality protection
- Framework for local programs
- Methodologies for ID/IC activities
- Implementation methodologies to meet DAMP and NPDES permit requirements
- Establish iterative process for evaluating and modifying program based on results

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Program Introduction

Program Applies To


- County Flood Control District
- City Management/Field Staff
- Sanitation Agency Staff
- Emergency Personnel Responders

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Program Introduction

Program Definitions

- An illegal discharge is any discharge to the municipal storm drain system not composed entirely of stormwater and not covered by an NPDES permit.



Continued... 27

Program Introduction

Program Definitions (Continued)


- Examples of Illegal Discharges:
 - Sewage
 - Cleaning discharges
 - Wash waters (mobile washing)
 - Runoff from uncovered storage areas
 - Discharges containing chlorine, biocides, or other chemicals
 - Restaurant wastes

Continued... 28

Program Introduction

Program Definitions (Continued)

- An illicit connection is an undocumented and/or un-permitted physical connection from a facility to the municipal storm drain system.



Continued... 29

Program Introduction

Program Definitions (Continued)

- Special circumstances of illicit connections:
 - Permitted
 - Swimming pools
 - Planter boxes
 - Discharge points
 - Legal non-conforming
 - Situations where connections were once acceptable but have changed with new storm water regulations

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Program Introduction

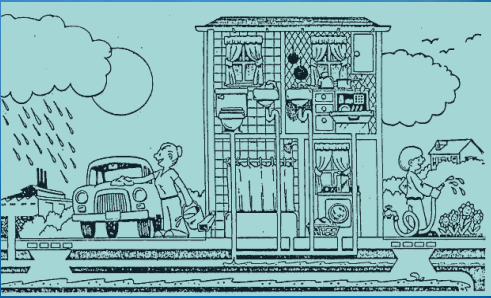
Key Messages

- Water pollution degrades surface waters
- ID/IC can be significant sources of pollutants
- Spill response/investigation identifies sources
- Enforcement can reduce ID/IC

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Program Introduction

ID/IC Sources



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Program Introduction

Program Development and History

- First and Second Term Permits
 - Required facility inspection and documentation
 - Cities certified reconnaissance
 - Reconnaissance Survey Report, February 1997
 - Water Quality Ordinance adopted, 1997
 - Adoption of Enforcement Consistency Guide (ECG)

Continued...
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Program Introduction

Program Development and History

(Continued)


- Third Term Permit
 - Continue implementing ID/IC program
 - Modify ID/IC program as necessary to reduce pollutants in stormwater discharges
 - Evaluate and revise ID/IC program

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Program Introduction

Jurisdiction

- Above ground channels (approximately 370 miles for County)
- Below ground drains (approximately 550 miles >39" for County)
- Unincorporated areas, Flood Control District and contract cities



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Program Introduction

ID/IC Program

- City responsible for implementation
- Local Implementation Plan (LIP) identifies roles and responsibilities
- Implements response, investigation, control, elimination, enforcement, and reporting elements
- Provides training and public outreach opportunities

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Program Introduction

ID/IC Program Coverage

- Illegal discharges
- Sewage spills
- Illicit connections
- Identified water quality problems

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Program Introduction

Relationships

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Questions ?

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Program Administration and Implementation

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Program Administration and Implementation

ID/IC Program Flow

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Program Administration and Implementation

Local Program Administration and Implementation

- DAMP contains language for overall program administration
- LIP contains:
 - Sample program text
 - Directions for City implementation
 - Forms (Investigative/Notifications, Education/ Enforcement)

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Program Administration and Implementation

ID/IC Program Responsibilities

- Ensuring all procedures are followed within jurisdiction (in-house and/or contracted out)
- Staffing for all roles/responsibilities
- Develop Spill Response Plan, as defined in LIP
- When a spill enters public right-of-way
- Proper disposal

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Program Administration and Implementation

ID/IC Program Responsibilities

(Continued)


- Water Quality Monitoring to help identify ID/IC
- Strike Force and District Attorney to help enforce

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Program Administration and Implementation

Key Roles

- Authorized Inspector
- Spill Responder
- Enforcing Attorney
- Others as identified in the Enforcement Consistency Guide



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Program Administration and Implementation

Authorized Inspector (AI)

- Responsibility of Management employee, or those persons directed by them and under their direct supervision
- Assigned to investigate compliance with, and detect violations of, and take actions pursuant to the Ordinance
- Duties are broadly defined, including technical, administrative, and enforcement

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Program Administration and Implementation

AI Duties

- Map discharge points and outlets
- Identify locations of ID/IC
- Review documents and records
- Identify facilities/properties where Local Permit may be appropriate
- Inspect properties subject to ID/IC program
- Inspect, review, and enforce other requirements of the Stormwater Program

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Program Administration and Implementation

AI Enforcement Duties

- Conduct administrative compliance and/or criminal inspections
- Prepare inspection consent requests and consult with Enforcing Attorney (EA)
- Consult with the EA regarding criminal inspection warrants
- Issue Notices of Non-Compliance, Administrative Compliance Orders, and Cease and Desist Orders
- Issue citations and recommend prosecution

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AI Spill Response Tasks

- Map discharge and collect data
- Sample wet and dry weather discharges
- Conduct administrative compliance and/or criminal inspections
- Collect, preserve, document evidence for enforcement
- Document source of the spill
- Conduct field tests to verify compliance or locate an ID/IC
- Identifying responsible party (RP)
- Document evidence for recovery of spill response costs

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AI Cleanup Duties

- Coordinate with fire department staff, evaluate and determine the need for emergency abatement of conditions
- Mobilize work crews for non-hazardous cleanup

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Basic Authorized Inspector Knowledge

- Practical application of the Ordinance and ECG
- Federal, State and local reporting requirements
- Orange County Hazardous Materials Area Plan
- California Ocean Oil Spill Plan
- Applicable RWQCB Basin Plans
- Proposition 65 requirements
- Applicable health and safety training

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AI Skills and Training

- Familiarity with hazardous waste handling regulations and procedures
- Effective inspection, monitoring and sampling methods
- Storm drain permit issuance and compliance
- Familiarity with LIP ID/IC requirements
- Familiarity with other Stormwater Program elements
- First Responder training

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Spill Responder

- Authorized personnel responding to hazardous materials spills and water pollution incidents
- Duties may include:
 - Interface with the Incident Commander
 - Provide technical support for abatement and cleanup
 - Provide access to facilities and resources
 - Obtain evidence and samples

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Spill Responder Incident Duties

- Assist AI with emergency abatement assessment
- Coordinate with fire department for immediate response to emergency incidents requiring cleanup
- Coordinate activities for spill response enforcement with the OC Hazardous Materials Strike Force
- May assume role of Incident Commander
- Direct and oversee cleanup
- Contract with cleanup company for spill cleanup

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Program Administration
and Implementation

Basic Spill Responder Knowledge

- AI's Training
- Environmental/Science background—Ability to assess impacts on the environment, their effects on natural systems, and potential long-term degradation
- Municipal codes and ordinances
- Physical and chemical analyses and techniques
- Pollution mitigation techniques

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Program Administration
and Implementation

Spill Responder Skills

- 24-hour availability
- Evidence/sample collection
- Operate sampling and analytical equipment
- Pollution abatement and mitigative measures

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Program Administration
and Implementation

Health & Safety Training

- For handling hazardous waste:
 - Hazardous materials safety training, 40-hour
 - Annual refresher training

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Program Administration
and Implementation

Medical Surveillance

- Routine physical examinations
- Medical surveillance program to determine:
 - Determine physical fitness to perform response tasks.
 - Monitor potential long-term effect of chemical exposures on the body

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Program Administration
and Implementation

Enforcing Attorney

- Either the City Attorney or District Attorney (DA) acting as counsel for the City
- For criminal prosecutions, only the DA or designee, will act as the EA

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Program Administration
and Implementation

Enforcing Attorney Duties

- Provide advice on Ordinance enforcement
- Assist with administrative and criminal inspection warrants
- Assist AI in proper evidence documentation
- File civil and criminal actions
- Prosecute citations, as necessary
- Seek judicial injunctions
- File nuisance liens and recover nuisance abatement costs from RP

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Program Administration and Implementation

Incident Commander

- Person-in-charge at spill response scene
- If not first on the scene, City staff reports to the person-in-charge, or Incident Commander for status update

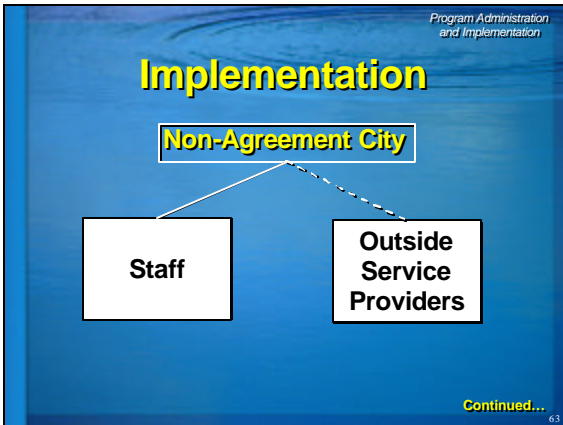
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Program Administration and Implementation

Strike Force

- Committee providing tactical, logistical, and training support for investigation and enforcement of environmental regulations capabilities through the OC DA's office
- Provides network of support, of available municipal, County, State, and federal agencies for investigation and enforcement proceedings ID/IC

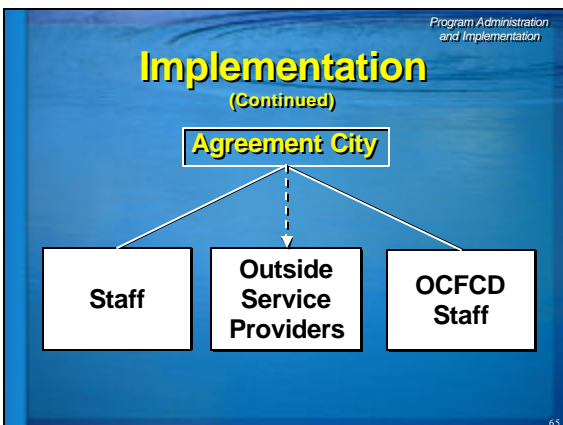
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Program Administration and Implementation

City Responsibilities *WITHOUT* OCFCD WQO Implementation Agreement

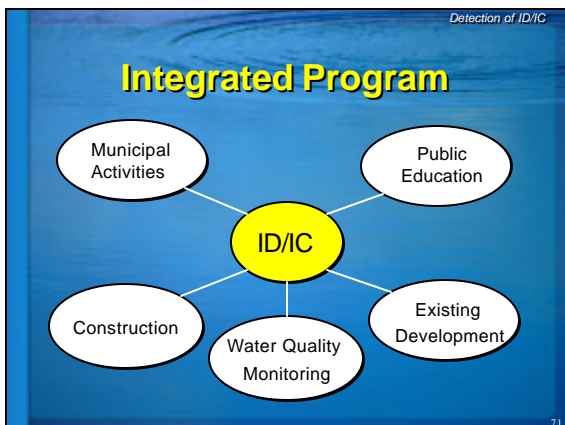
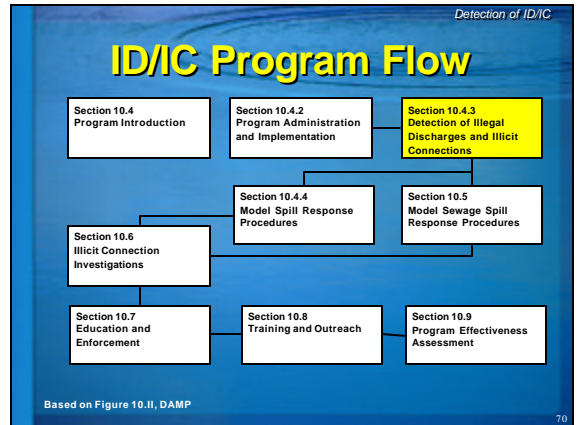
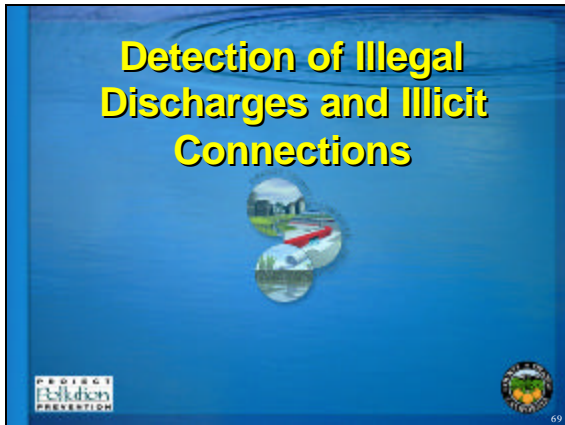
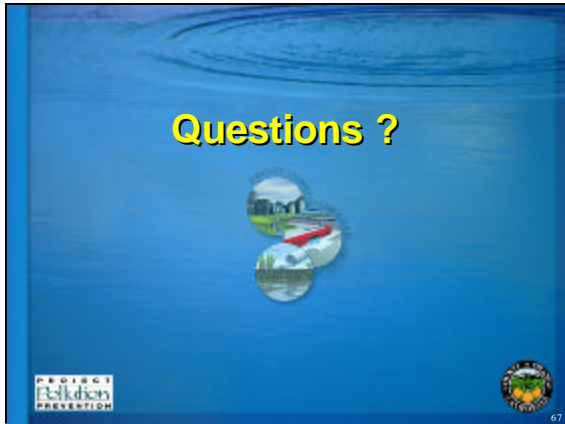
Roles	Responsibilities
Reporting Hotline and Dispatch	Establish and maintain, receive complaints, and make notifications
Designated Authorized Inspector, NPDES Representative or Spill Responder	Assess and investigate incidents.
Authorized Inspector or Code Enforcement	Initiate, track and report the enforcement activities
Authorized Inspector, Public Works or Contractor	Initiate, supervise and report the clean-up activities. Obtain contractor if necessary.
Authorized Inspector or NPDES Representative	Complete annual reporting requirements



Program Administration and Implementation

City Responsibilities *WITH* OCFCD WQO Implementation Agreement

Roles	Responsibilities
Reporting Hotline and Dispatch	Establish and maintain, receive complaints, and make notifications— <i>Contact OCFCD to respond when necessary</i>
Designated Authorized Inspector, NPDES Representative or	Assess and investigate non-hazardous incidents— <i>refer hazardous or after hours incidents to OCFCD</i>
Authorized Inspector or Code Enforcement	Initiate, track and report enforcement activities related to non-hazardous incidents— <i>refer hazardous or after hours incidents to OCFCD. Obtain information from OCFCD for annual report.</i>
Authorized Inspector, Public Works or Contractor	Initiate, supervise and report non-hazardous clean-up activities— <i>refer hazardous or after hours incidents to OCFCD. Obtain information from OCFCD for annual report.</i>
Authorized Inspector or NPDES Representative	Complete annual reporting requirements— <i>obtain information from OCFCD for annual report.</i>



Detection of ID/IC

Watersheds Within Orange County

Region	Watershed	Identifier
Region 8 Santa Ana	CoyoteCreek	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

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Detection of ID/IC

Integrated Program Elements

- Industrial Facility Inspections
- Countywide Reconnaissance Monitoring
- Water Pollution Problem Reporting
- Other Inspecting Agencies

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Detection of ID/IC


Industrial Facility Inspections

- City participates with other departments and agencies
- Principal permittee coordinates with other public agencies:
 - Orange County Healthcare
 - Fire Departments
 - Agriculture Commission
 - Orange County Sanitation District
- Coordination through Orange County Hazardous Materials Strike Force

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Detection of ID/IC


Industrial/Commercial



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Detection of ID/IC

Industrial/Commercial



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Detection of ID/IC

Countywide Reconnaissance Monitoring

- Primary objective to detect gross contamination from illegal discharges
- Minimal incidences were detected during first and second term permits
- Third term permit monitoring program addresses need to identify ID/IC problems
- Identified problems turned over to Authorized Inspector for follow-up

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Detection of ID/IC

Public/Private Areas



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Detection of ID/IC


Water Pollution Problem Reporting

- Public reporting hotlines
- Important source for detecting ID/IC
- Public reporting facilitated by:
 - Public education activities
 - Countywide water pollution problem reporting, (714) 567-6363
 - Development and advertisement of website, www.ocwatersheds.com

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Detection of ID/IC

Unidentified Sources



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Detection of ID/IC

Residential



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Detection of ID/IC

Construction



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Detection of ID/IC

Other Inspecting Agencies

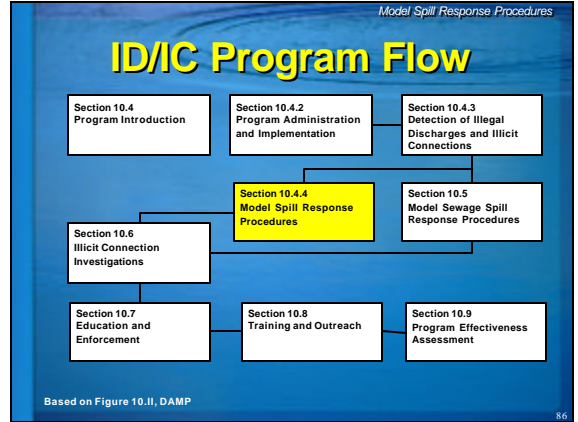
- Orange County Healthcare agency—hazardous waste (HW) storage and disposal
- Orange County fire departments—hazardous materials—OCC Sec 4-3-200-300 and Fire Code
- State Agriculture Commissioner—pesticide storage—initiates enforcement action for non-compliance (NC)
- Discharges to sanitary sewers—Pretreatment facility inspections

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Questions ?

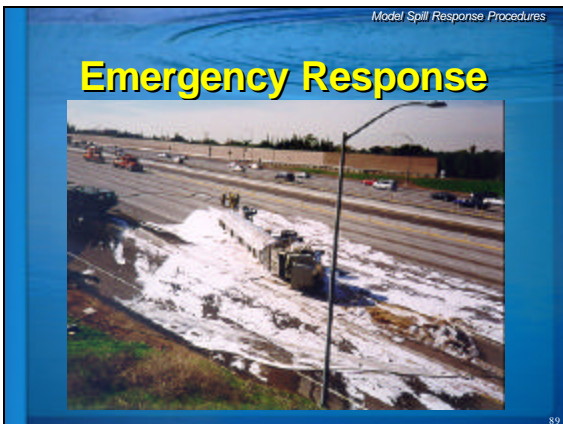


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- Model Spill Response Procedures*
- Primary Spill Response Objectives**
- Protection of human health and welfare
 - Preservation of surface water quality
 - Preservation of ground water quality
 - Protection of environmentally sensitive areas
 - Protection of storm drain infrastructure
 - Protection of private and public property
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- Model Spill Response Procedures*
- Types of Field Response**
- Emergency Response
 - Hazardous materials, significant environmental impact, and/or complex enforcement
 - Non-Emergency Response
 - Non-hazardous materials, minimal environmental impact, routine enforcement
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Model Spill Response Procedures

ID/IC Notification

- Most common sources
 - Private citizens
 - Business owners
 - Sanitation district staff
 - City staff
 - Regulatory agencies

Continued... 91

Model Spill Response Procedures

ID/IC Notification (Continued)

- Normally initiated as follows:
 - Fire/911
 - Call to Control One, notifies appropriate agency
 - Call to County Health Care Agency
 - Call to City

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Model Spill Response Procedures

Spill Response Process Summary

Step 1: Record Keeping

↓

Step 2: Notification and Response requests

↓

Step 3: Response

↓

Step 4: Investigations

↓

Step 5: Clean-Up

↓

Step 6: Reporting

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Model Spill Response Procedures

Spill Response

Step 1: Record Keeping

- Accurate information of any personnel involved
- Allow data to be analyzed, identifies repeat offenders, problematic areas and businesses
- Required regulatory notification/reports completed
- Provide required information for enforcement and/or cost recovery
- Assists annual reporting and program effectiveness evaluations

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Model Spill Response Procedures

Spill Response

Step 2: Notification and Response requests

- General Public
- City staff
- Other agency personnel
- Emergency personnel
- Strike Force


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Model Spill Response Procedures

Spill Response

Step 3: Response

- Investigate as soon as possible
- Minimize impacts
- Avoid exposure
- Isolate hazard area
- Deny entry



Continued... 96

Model Spill Response Procedures

Spill Response

Step 3: Response

(Continued)

- On Scene Assessment
 - Jurisdiction
 - Storm drain maps
 - Responsible party
 - Materials identification
 - Cause of incident
 - Impacts



Continued... 97

Model Spill Response Procedures

Spill Response

Step 3: Response

(Continued)

- Notifications
 - Other Agencies
 - Federal
 - State
 - Local
 - City
 - Request assistance



Continued... 98

Model Spill Response Procedures

Spill Response

Step 3: Response

(Continued)

- Containment preference
 - On-site at point of origin
 - In the curb/gutter or street
 - In catch basin
 - In storm drain system
 - In channels or streams



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Model Spill Response Procedures

Spill Response

Step 4: Investigations

- Obtain legally defensible documentation
- Accurate information obtained
- Evidentiary requirements met
- Thorough investigation may include:
 - Collection of samples
 - Photographs
 - Interviews

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Model Spill Response Procedures

Spill Response

Step 5: Clean-Up

- Restore impacted area back to its original state
- Prevent further environmental degradation
- Complete in a timely and cost effective manner
- Proper waste disposal

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Model Spill Response Procedures

Spill Response

Step 6: Reporting

- Proposition 65 notification
 - Health and Safety Code 25180.7
 - Disclose within 72 hours to local health officer
 - Proposition 65 Hotline (714) 667-3765
- Regional Board notifications
 - By phone or e-mail within 24-hours
 - Written report within 5 days

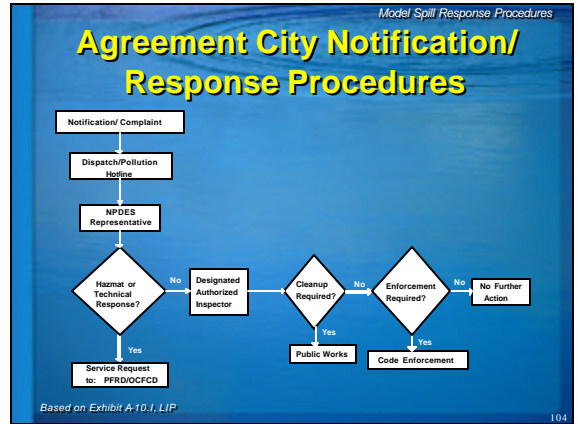
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Model Spill Response Procedures

Agreement Cities

- OCFCD provides AI services to Cities under Water Quality Ordinance Services Agreement
- Request procedures:
 - Request for response to hazardous materials or highly technical incidence through Water Pollution Reporting number during business hours: (714) 587-6363
 - Business hours – 6:30 AM to 5:00 PM, MF
 - After hours requests through Control One (714) 628-7000
 - Agreement Cities may contact OCFCD Authorized Inspectors directly

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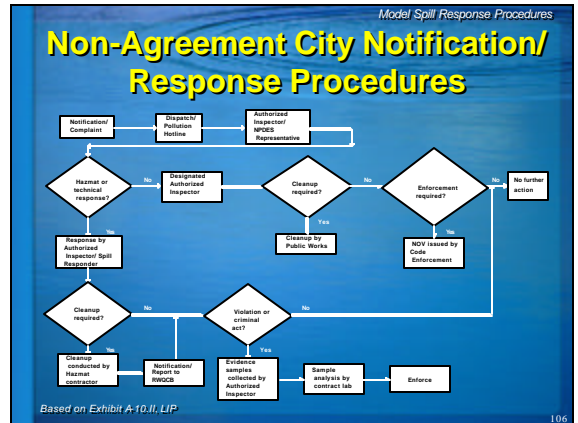


Model Spill Response Procedures

Non-Agreement Cities

- Reporting Hotline and Dispatch
 - Establish, maintain, receive complaints, make notifications
- Designated AI, SR or NPDES Representative
 - Assess and investigate all incidents
- AI, Code Enforcement
 - Initiate, track, and report all enforcement activities
- AI, Public Works/Contractor
 - Initiate, supervise, and close all clean-up activities
- City AI
 - Administrates all reporting requirements

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Model Spill Response Procedures

PNIR Form

See PNIR Form Handout.

County of Orange PUBLIC FACILITIES & RESOURCES DEPARTMENT ENVIRONMENTAL SERVICES DIVISION	
POLLUTION NOTIFICATION INVESTIGATION REQUEST FORM	
Date: _____ Division: _____ Location: _____ City: _____ State: _____	Phone: _____ Fax: _____ E-mail: _____
Reported by: _____ Title: _____ Company: _____	Reported to: _____ Title: _____ Company: _____
Incident description: _____ Date and time of incident: _____ Location: _____ Weather conditions: _____ Wind direction and speed: _____ Visibility: _____ Temperature: _____ Humidity: _____ Barometric pressure: _____ Other: _____	Nature of spill: _____ Volume: _____ Color: _____ Odor: _____ Other: _____
Investigation initiated by: _____ Date: _____ Time: _____ Investigation priority: _____ Hours spent on investigation: _____ Cost of investigation: _____ Investigation results: _____ Remedial actions: _____ Date of completion: _____ Investigator: _____ Title: _____	Investigation results: _____ Remedial actions: _____ Date of completion: _____ Investigator: _____ Title: _____

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Model Spill Response Procedures

Spill Response Plan

- Objectives:
 - Protection of human health, surface water quality, environmentally sensitive areas
 - Protect storm drainage infrastructure
 - Minimize risks
 - Minimize response time

Continued...

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Model Spill Response Procedures

Spill Response Plan (Continued)

- Assessment planning
 - Minimize spill volume and adverse effects
 - Anticipate spill scenarios—response actions
 - Spill response crew training—field demonstrations
 - Inventory spill response equipment, supplies

➔ See Equipment and Supplies Handout

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Model Spill Response Procedures

Clean-up Contractors

- Should have the following:
 - 24-hour availability
 - Spill response training and HazWoper certification
 - Required licenses and permits
 - Necessary equipment and supplies

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Model Spill Response Procedures

Spill Response Procedures

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    graph TD
      A[AI Notified of Spill] --> B[On-Scene Assessment]
      B --> C{Within Jurisdiction?}
      C -- No --> D[• Contact Other Jurisdiction  
• Monitor Situation  
• Respond, if necessary]
      C -- Yes --> E{Emergency Spill?}
      E -- Yes --> F[• Contact Others for Assistance]
      E -- No --> G{Confirm Code Violation?}
      G -- No --> H[Document No Action]
      G -- Yes --> I[Continued...]
    
```

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Model Spill Response Procedures

Spill Volume Estimation

- Visual estimate for small spills
- Calculate by measuring shape, dimensions and depth
- Calculate volume of original containers
- Calculate by estimating discharge time and average flow rate

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Model Spill Response Procedures

Spill Contacts

- Initial Assessment to Supervisor
- Dispatch Center/Control One – status
- Responsible Parties/owners
- Contractor Assistance – if needed
- If hazardous – FD Hazmat, RWQCB, OCHCA

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Model Spill Response Procedures

Spill Response Procedures (Continued)

```

    graph TD
      A[Confirmed Code Violation] --> B{Identify RP}
      B -- No --> C{Spill Contained?}
      C -- No --> D[Contain Spill]
      C -- Yes --> E{RP Cooperates?}
      E -- No --> F[Contact Others for:  
Cleanup, Decontamination,  
Storage, Disposal]
      E -- Yes --> G[• Monitor Cleanup Progress  
• Sample (if needed)  
• Document  
• Report  
• Follow-Up]
      F --> G
      G --> H[See Enforcement Flow Chart  
Cost Recovery]
    
```

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Model Spill Response Procedures

Containment

- Avoid exposure to hazardous materials
- Stop the spill or flow; locate RP
- On-site or downstream containment – sandbags, plastic sheeting, dirt, absorbents
- Diversion to basin or sump




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Model Spill Response Procedures

Cleanup

- Contact others for cleanup, decontamination, storage, disposal
- Monitor clean-up, repairs, decontamination progress
- Document activity
- Follow-up inspection



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Model Spill Response Procedures

Waste Storage/Disposal

- Nonhazardous liquid/solids – cleanup and removal by public works
- Hazardous liquid/solids and decontamination fluids
 - Storage, labeling, transport, disposal per RCRA guidelines
 - DOT approved containers, transporters
 - Uniform hazardous waste manifest

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Model Spill Response Procedures

Spill Documentation

- Authorization/responsibility for cleanup costs
- Spill monitoring/tracking – tracking database
- ID/IC documentation-reporting
- Notification of public agencies
- Enforcement response
- Cost recovery

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Model Spill Response Procedures

Agency Notification

- Storm drain/Flood Channel – PFRD
- Creek/stream/river – Department of Fish and Game
- Bay/harbor/ocean – US Coast Guard
- Human health/Hazardous waste/private property – OCHCA
- Hazardous materials - Control One/Fire Department

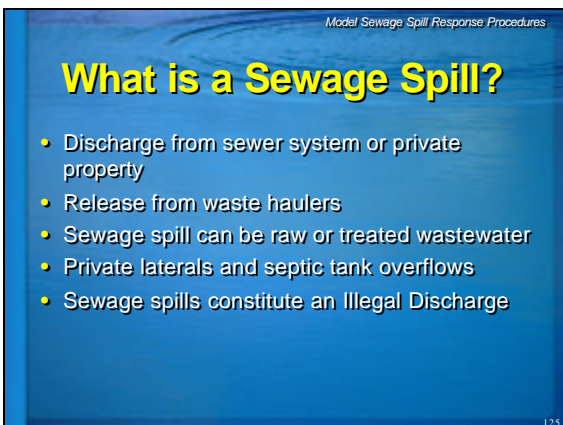
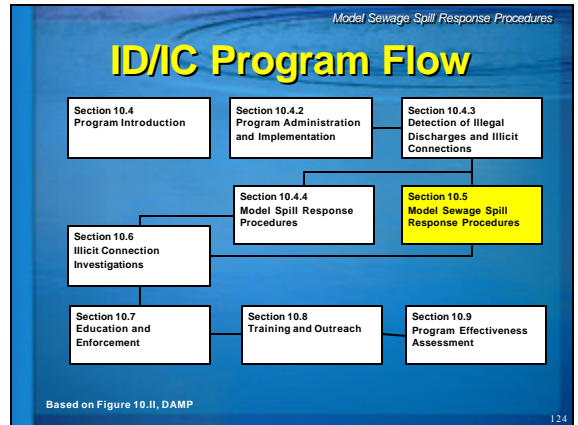
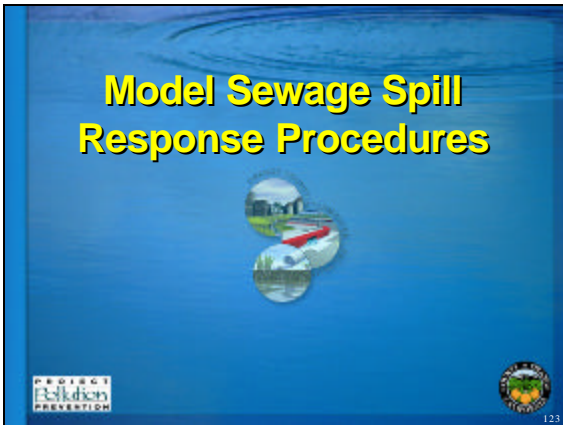
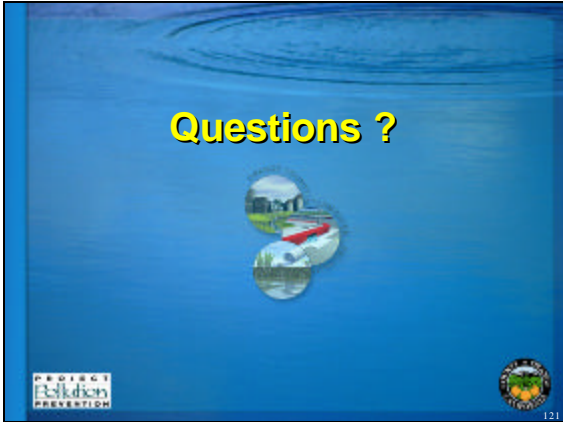
119

Model Spill Response Procedures

Agency Reporting

- Regional Water Quality Control Board – Santa Ana and/or San Diego
- Office of Emergency Services – if spill >1000 gallons
- Proposition 65 – if imminent danger or risk is observed


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Model Sewage Spill Response Procedures

Sanitary Sewer Overflow

- Any overt spill, release, discharge, or diversion
- All SSOs that reach a storm drain constitute an illegal discharge.




127

Model Sewage Spill Response Procedures

Sanitary Sewer System

- Any system used to collect and convey municipal sewage
- Includes all temporary storage and conveyance facilities



128

Model Sewage Spill Response Procedures

Sewage Spill Magnitude

- Large - >1,000 gallons or poses threat of reaching receiving waters
- Small - <1,000 gallons, can be isolated without reaching open receiving water

129

Model Sewage Spill Response Procedures

Sewage Spill Impacts

- Exceedance of water quality standards
- Public health threat; bacteria and viruses
- Adverse affects on aquatic life
- Impair public recreational use and aesthetic enjoyment of surface waters
- Contamination of water supplies
- Nuisance

130

Model Sewage Spill Response Procedures

Beach Closures

- 42 miles of ocean beaches
- 124 miles of coastal and bay beaches
- 45,260 beach-mile-days per year - 60% SA Region - 40% SD Region (99-01)
- 147 beach-mile-days posted (warning) or closed (access prohibited) over 3 year period (99-01)
- 31 beach closures (1/00-8/01) to body contact recreation due to sewage spills

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Model Sewage Spill Response Procedures

Causes

- Mainly from pipe blockages - grease, debris, line failure and tree roots
- Other common causes:
 - Flooding
 - Vandalism
 - Sewage pump station failures
 - inadequate capacity/undersized pipes
 - power outages
 - contractor
 - inflow and infiltration (I/I)

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Model Sewage Spill Response Procedures

North Orange County

- 5,000+ miles of sewers/interceptors
- 100+ pump stations
- 27 Sewage Collection Agencies
- 160 SSOs in 2000 excluding Newport Beach
- SSO Regs. in WDR Order R8-2002-0014
- Private Property Owners – on-site clean up and correction required

Model Sewage Spill Response Procedures

South Orange County

- 1,700+ miles sewers/interceptors
- 45+ pump stations
- 10 Sewage Collection Agencies
- SSO Regs. – under RWQCB Order 96-04-74
- SSOs in FY01/02
- Private Property Owners – clean up on site; reporting on SSO (Private Property) form as courtesy

Model Sewage Spill Response Procedures

What to Look For

- Drain backups inside buildings
- Wet ground and water leaking around manhole lids
- Leaking water from cleanouts or drains
- Unusual odorous wet areas; sidewalks, external walls, ground/landscape around buildings, embankments

Model Sewage Spill Response Procedures

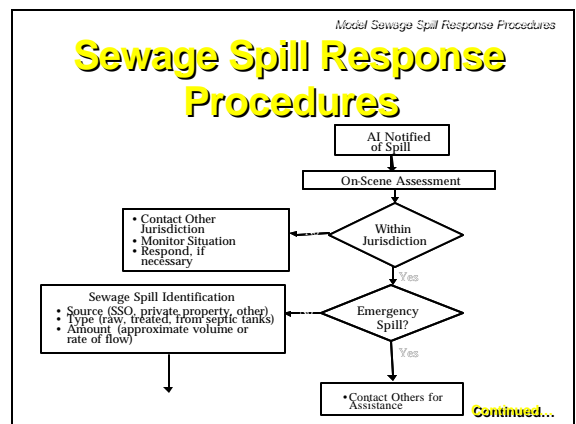
Responsibilities

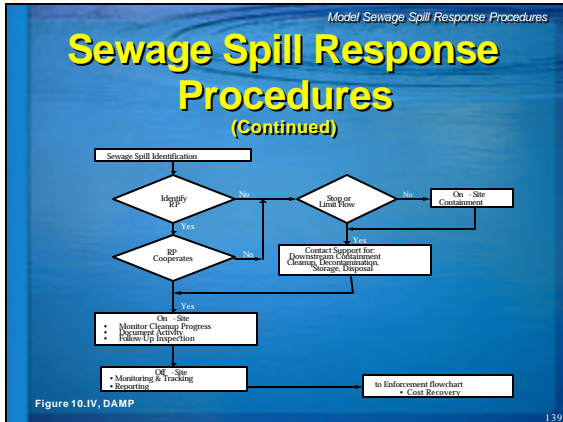
- Spills reaching the storm drain system are joint or shared responsibility
- Primary responsibility:
 - Private property is property owners
 - Local sewage system is sewer collection agency
 - Regional trunk sewers is sanitation district
- If spill has entered storm drain, cities respond to assist with cleanup

Model Sewage Spill Response Procedures

Response

- Contain as close to originating site as possible
- Order of preference for containment:
 - On-site at point of origin
 - In the curb/gutter or street
 - In catch basin
 - In storm drain system
 - In channels or streams





- Model Sewage Spill Response Procedures*
- ## General Field Response
- Discovery/AI notification
 - On-Scene assessment
 - Contact – supervisor/others as needed
 - Control, contain, clean-up
 - Documentation
 - Reporting
- 140

- Model Sewage Spill Response Procedures*
- ## AI On-Scene Assessment
- Determine jurisdiction
 - Emergency (significant)
 - Non-emergency (smaller) sewage spills
 - Identification – source (public/private)
 - Type (raw/treated/septic tank)
 - Amount (volume/rate)
 - Notify Responsible Parties
 - Prepare enforcement response
- 141

- Model Sewage Spill Response Procedures*
- ## Sewage Spill Contacts
- Initial Assessment to Supervisor
 - Dispatch Center/Control One – status
 - Responsible Parties/owners
 - Contractor Assistance - if/as needed
 - External: RWQCB, OCHCA, OEC if > 1,000 gallons, others as listed
- 142

- Model Sewage Spill Response Procedures*
- ## Spill Volume Estimation
- Eyeball – useful for spills < 100 gal
 - Calculate by measuring shape, dimensions and depth
 - Calculate by estimating duration (elapsed time) and average flow rate
 - Average Flow Rate: by manhole charts, flow meter, # of upstream connections
- 143

- Model Sewage Spill Response Procedures*
- ## AI Sewage Spill Responses
- AI dispatched - arrives on-scene
 - On-Scene assessment – contact others (support crews/agencies/contractors/RPs/...)
 - Initiate remedial actions:
 - Stop
 - Isolate
 - Contain
 - Correct
 - Clean-up
- Continued...
144

Model Sewage Spill Response Procedures

AI Sewage Spill Responses (Continued)

- Complete field data report
- Convey spill status/documentation to Supervisor
- Follow up assessment/investigation as necessary

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Model Sewage Spill Response Procedures

Sewage Mitigation

- Stop the spill
- On-site or downstream containment – sandbags, plastic sheeting, dirt
- Monitor clean-up, repairs, decontamination progress
- Document activity
- Follow-up inspection/notifications

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Model Sewage Spill Response Procedures

Stop the Spill



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Model Sewage Spill Response Procedures

Isolate



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Model Sewage Spill Response Procedures

Containment



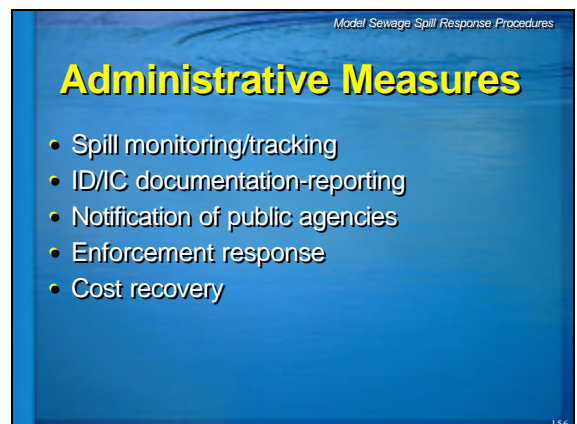
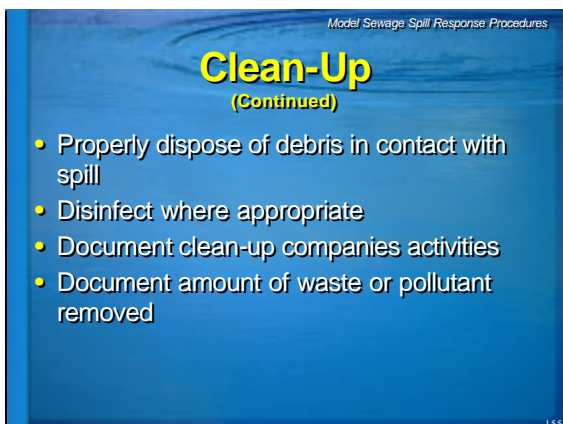
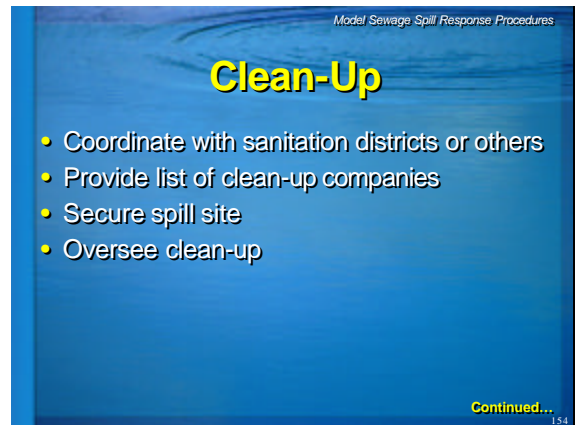
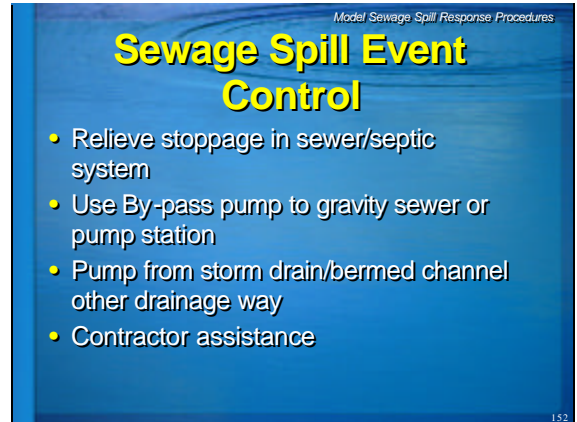
149

Model Sewage Spill Response Procedures

Clean-up



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Model Sewage Spill Response Procedures

Prevention

- Spill response planning
- Municipal storm sewer maintenance
- Inspections and ID/IC investigations
- Staff training

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Model Sewage Spill Response Procedures

Planning

- Tustin Area Spill Control Demonstration (TASC) Project main objectives:
 - Prevent spills
 - Improve interagency coordination
 - Develop predictive tools to aid in determination of impacts
- When completed TASC will become an Exhibit to the DAMP for sewage spill response planning

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Model Sewage Spill Response Procedures

Record Keeping

- Use forms similar to County PNIR
- Minimum information includes:
 - Initial notification/response request
 - Location and specific details
 - Information about alleged responsible party
 - Results of investigation
 - Actions that were taken

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Model Sewage Spill Response Procedures

Agency Notification

- Storm drain/Flood Channel – PFRD
- Creek/stream/river – Department of Fish and Game
- Bay/harbor/ocean – US Coast Guard
- Human health/Hazardous waste/private property – OCHCA
- Hazardous materials - Control One/Fire Department

160

Model Sewage Spill Response Procedures

Agency Reporting

- Regional Water Quality Control Board – Santa Ana and/or San Diego
- Office of Emergency Services – if spill >1000 gallons
- Proposition 65 – if imminent danger or risk is observed

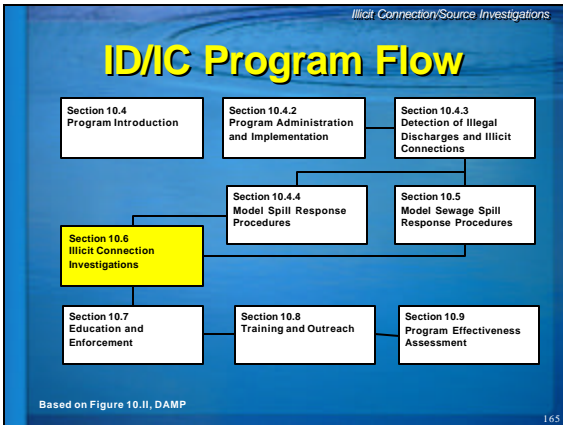
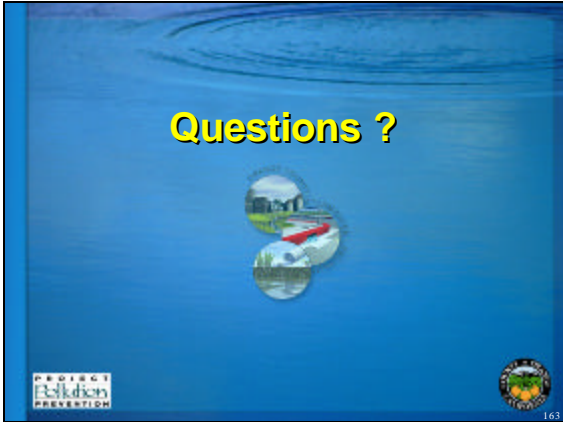
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Model Sewage Spill Response Procedures

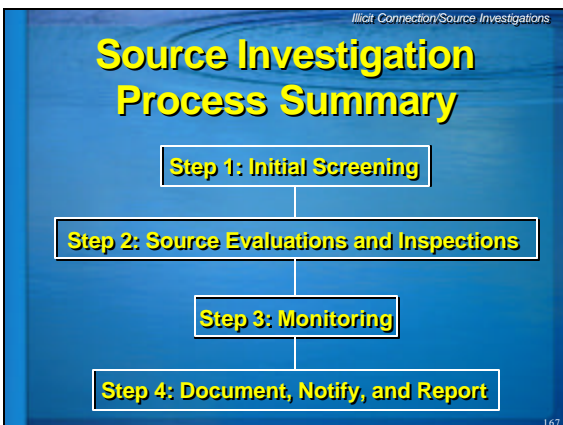
Reporting

- Sewage spill reporting has parallel and overlapping requirements
- Cities should report to each entity designated:
 - Orange County Health Care Agency (HCA)
 - State Office of Emergency Services (OES)
 - Santa Ana and/or San Diego Regional Boards

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-
- Illicit Connection/Source Investigations
- Illicit Connections**
- Undocumented and/or unpermitted physical connection from a facility to the storm drain system
 - First term permit required cities to undertake programs to identify and eliminate
 - Cities developed facility inspection and documentation program
 - Cities currently implement the program through routine maintenance of their facilities
- 166



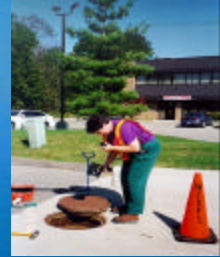
-
- Illicit Connection/Source Investigations
- Step 1: Initial Screening**
- Gather information on sources
 - Review previous investigations
 - Contact other local authorities
 - Review drainage area maps
 - Review records and permits
 - Analyze water quality data
- 168

Step 2: Source Evaluations and Inspections

- Review drainage maps and identify key locations
- Maintain personal notes of observations and interviews
- Conduct above ground physical inspections
- Conduct below ground physical inspections
 - Observe confined-space requirements
- Video inspections

Step 3: Monitoring

- Determine sampling site suitability
- Conduct initial field screening
- Obtain flow measurements
- Prepare a monitoring plan
- Conduct monitoring



Step 4: Document, Notify, and Report

- Comprehensive (never too much)
- Photographs
- Interviews
- Written logs and reports
- Helps to identify problem areas

Source Investigation Procedures

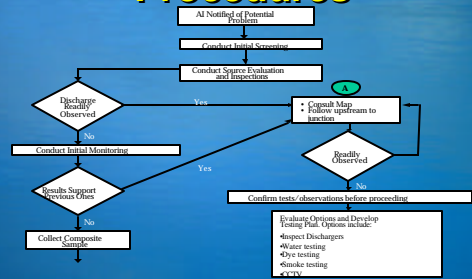


Figure 10.V, DAMP

Continued...

Source Investigation Procedures (Continued)

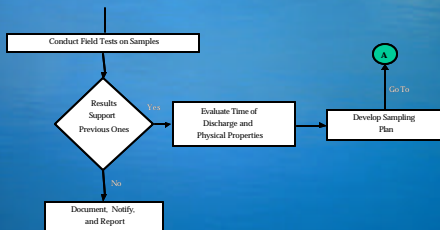


Figure 10.V, DAMP


ID/IC Investigation

- Document research – review storm drain system maps, connections and discharge permits
- Site survey
- Visual observation and/or field testing
- Develop sampling plan

Illicit Connection/Source Investigations

Source Investigation Procedures

- Field testing
- Collect and analyze sample, if necessary
- Trace source upstream




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Illicit Connection/Source Investigations

Potential Source Located

- Develop sampling plan, if needed
- Inspect
- Testing options:
 - Water testing
 - Dye testing
 - Smoke testing
 - Closed-circuit television (CCTV) inspection



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Illicit Connection/Source Investigations

Documentation and Follow-up

- Document all source investigations
- Use PNIR form or equivalent
- Keep file of unresolved ID/IC investigations
- Follow-up inspections/investigations for unresolved ID/IC
- Enforcement on identified RP
- Cost recovery

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Illicit Connection/Source Investigations

Enforcement Investigation

- Legal non-conforming connection
- Willful/criminal connection
- History of non-compliance
- Good faith effort
- Egregious ID/IC

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Questions ?

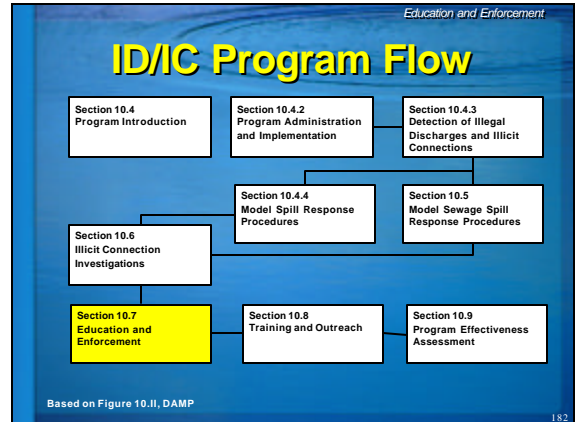
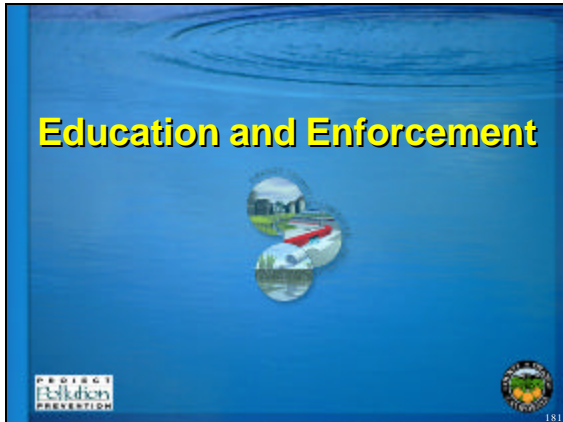
179

- Break -






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- References**
- Water Quality Ordinance
 - Enforcement Consistency Guide
 - Local Implementation Plan
- 183

- Enforcement Options**
- Educational Letter
 - Administrative Remedies
 - Criminal Remedies
 - Other civil or criminal remedies as appropriate
 - Cost Recovery
- 
- 184

- Educational Letter**
- Issued when complaint is received, but no direct evidence observed
 - Issued to resident with errant contractor
 - Suspected areas, businesses, and activities
 - Additional information that may be attached
 - Educational brochures
 - Pamphlets
 - Posters
- 185

- Administrative Remedies**
- Notice of Non-compliance
 - Minor infractions
 - Directs violations to be corrected
 - Administrative Compliance Orders
 - Non-compliance cannot be corrected in a short period
 - Cease and Desist Orders
 - Immediate action necessary to stop existing discharge
 - Other Administrative Procedures or Civil Actions
- 186

Education and Enforcement

Notice of Non-Compliance

- Violation/threat not significant and short in duration
- RP cooperative and indicates willingness to remedy conditions
- Violation/threat is an isolated incident
- Violation/threat does not affect human health or the environment

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Education and Enforcement

Administrative Compliance Order

- Non-compliant condition exists, cannot be remedied within a short period
- RP willing to comply by meeting milestone schedule
- Violation does not pose immediate threat to human health or the environment

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Education and Enforcement

Cease and Desist Order

- Violation/threat:
 - Immediate in nature
 - May require emergency spill response
 - Exhibits potential to harm human health or the environment
 - Contact with RP indicates need to demonstrate further authority of the City [OC]
 - Prior Notices of Non-compliance not effective

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Education and Enforcement

Criminal Remedies

- Issuance of Citation
 - Responsible party should sign
- Infractions
 - First infraction not more than \$100, second \$200, and \$500 for each additional during the year
- Misdemeanors

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Education and Enforcement

Criminal Enforcement

Appropriate when evidence indicates RP has acted willfully with intent to cause, allow to continue, or conceal a discharge in violation of the Ordinance

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Education and Enforcement

Criminal Inspections

- Review inspection records and/or incident reports
- Determine if facts indicate discharger is subject to criminal sanctions under Ordinance
- Review matter with Enforcing Attorney
- Obtain warrant for inspection
- Warrant not required if discharger consents
- Written consent preferred, but may be verbal

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Education and Enforcement

Other Civil or Criminal Remedies As Appropriate


- Administrative Hearings
 - All may revoke or modify existing permits
 - Appeals to a designated Hearing Officer
- Injunction or Other Civil Enforcement
 - Enforcing Attorney usually approves and initiates

193

Education and Enforcement

Historical Data Review

- Utilize past incident response inspections
- Review all facts of a location
- Identify repeating trends
- Enforcement response may be directed based on past reports




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Education and Enforcement

Additional Resources

- Orange County District Attorney Hazardous Materials Strike Force
 - Provides tactical and logistical support for investigation and enforcement
 - Implements investigative and enforcement proceedings of illegal discharge complaints



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Education and Enforcement

Enforcement Options Diagram

ENFORCEMENT OPTIONS	ADMINISTRATIVE ACTIONS			CRIMINAL ACTIONS
	NOTICE OF NON-COMPLIANCE	ADMINISTRATIVE COMPLIANCE ORDER	CEASE & DESIST ORDER	INFRINGEMENTS AND MISDEMEANORS
COMPLIANCE STRATEGY	EDUCATE VIOLATOR		AUTHORIZED INSPECTOR'S JUDGEMENT	CRIMINAL PROSECUTION
Threat Level	Insignificant	Not Significant	Might be Significant	Significant
Environmental Harm	None	Not Immediate	Potential/Immediate	Actual/Immediate
Event Duration	Short	Short	Long/Continuous	Long/Continuous
Event Frequency	Isolated	Intermittent	Frequent/Ongoing	Frequent/Ongoing
Cooperation	Readily Complies	Working to Comply	Incompliance/Slow to Comply	Non-Responsive
Intent	Unknowingly	Not Willful	Possible Willful	Willful

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Education and Enforcement

Enforcement Consistency Guide

- Allows municipalities to select from several alternative initial and follow-up actions
- Provides consistent enforcement throughout the County
- LIP Enforcement Response Matrix
 - Describes violations and enforcement options
 - Cities identify personnel responsible for implementation

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Education and Enforcement

Enforcement Response Matrix

- Procedures of Ordinance enforcement actions
- Implements the 2003 DAMP requirements
- Follows the ECG
- Enforcement Response Matrix is not inclusive, additional measures and techniques should be used when appropriate

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Education and Enforcement

City Enforcement Response Matrix

Illicit Connection			
Type of Response	Nature of Violations	Enforcement Responses	Personnel
1. Non-Emergency	RP unaware of connection, cooperates with mitigation	Notice of Non-Compliance Administrative Compliance	AI
	RP unaware of connection, does not cooperate with mitigation	Order Notice of Non-Compliance Administrative Compliance	AI, CA
	RP aware of connection, cooperates with mitigation	Cease and Desist Order Notice of Non-Compliance Administrative Compliance	AI, CA
	RP aware of connection, does not cooperate with mitigation	Order Citation Notice of Non-Compliance Administrative Compliance	AI, CA, DA

AI – Authorized Inspector CA – City Attorney DA – District Attorney

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Education and Enforcement

City Enforcement Response Matrix

Illicit Connection			
Type of Response	Nature of Violations	Enforcement Responses	Personnel
2. Emergency	Illicit connection causing harm to MS4, RP cooperates with mitigation	Notice of Non-compliance Administrative Compliance	AI, CA, DA
	Illicit connection causing harm to MS4, RP does not cooperate with mitigation	Order Notice of Non-compliance Cease and Desist Order Administrative Compliance Recovery of Costs Cease and Desist Order	AI, CA, DA

AI – Authorized Inspector CA – City Attorney DA – District Attorney

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Education and Enforcement

City Enforcement Response Matrix

Illegal Discharge			
Type of Response	Nature of Violations	Enforcement Responses	Personnel
1. Non-Emergency	RP unaware of requirement, no harm to MS4 or environment, RP cooperates with cleanup	Education	AI
	RP unaware of requirement, no harm to MS4 or environment, RP does not cooperate with cleanup	Notice of Non-compliance Education	AI, CA
	RP unaware of requirement, harm to MS4 or environment, RP cooperates with cleanup	Notice of Non-compliance Education Recovery of Costs	AI, CA
	RP unaware of requirement, harm to MS4 or environment, RP does not cooperate with cleanup	Notice of Non-compliance Education Cease and Desist Order Other Civil	AI, CA, DA
	RP aware of requirement, no harm to MS4 or environment, RP cooperates with cleanup	Notice of Non-compliance Citation	AI, CA
	RP aware of requirement, no harm to MS4 or environment, RP does not cooperate with cleanup	Notice of Non-compliance Cease and Desist Order Citation	AI, CA, DA
	RP aware of requirement, harm to MS4 or environment, RP cooperates with cleanup	Cease and Desist Order Other Civil	AI, CA
	RP aware of requirement, harm to MS4 or environment, RP does not cooperate with cleanup	Recovery of Costs Cease and Desist Order Citation	AI, CA, DA
	RP does not provide follow-up reporting	Recovery of Costs Notice of Non-compliance Citation	AI, CA, DA

AI – Authorized Inspector CA – City Attorney DA – District Attorney

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Education and Enforcement

City Enforcement Response Matrix

Illegal Discharge			
Type of Response	Nature of Violations	Enforcement Responses	Personnel
2. Emergency	Hazardous waste discharge RP cooperates with cleanup, no discharge to MS4	Notice of Non-compliance	AI, CA
	Hazardous waste discharge RP does not cooperate with cleanup, no discharge to MS4	Cease and Desist Order Notice of Non-compliance Citation	AI, CA, DA
	Hazardous waste discharge RP cooperates with cleanup, discharge to MS4	Recovery of Costs Administrative Compliance	AI, CA
	Hazardous waste discharge RP does not cooperate with cleanup, discharge to MS4	Cease and Desist Order Notice of Non-compliance Citation Cease and Desist Order	AI, CA, DA
	Highly technical discharge to MS4 RP cooperates with cleanup	Recovery of Costs Notice of Non-compliance Citation	AI, CA
	Highly technical discharge to MS4 RP does not cooperate with cleanup	Cease and Desist Order Other Civil Citation	AI, CA, DA
	RP does not provide follow-up reporting	Recovery of Costs Notice of Non-compliance	AI, CA, DA

AI – Authorized Inspector CA – City Attorney DA – District Attorney

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Education and Enforcement

Cost Recovery

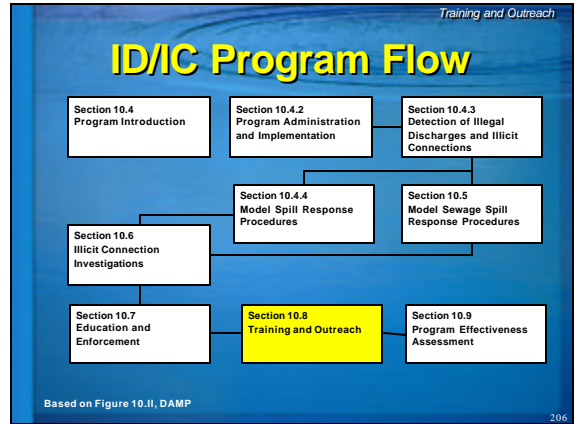
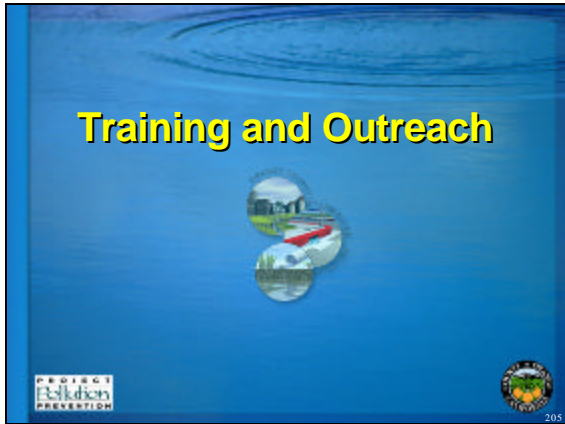
- Invoice for Costs delivered according to Section VII.A.5. of the Ordinance
- Actual costs incurred by Permittee

203

Questions ?



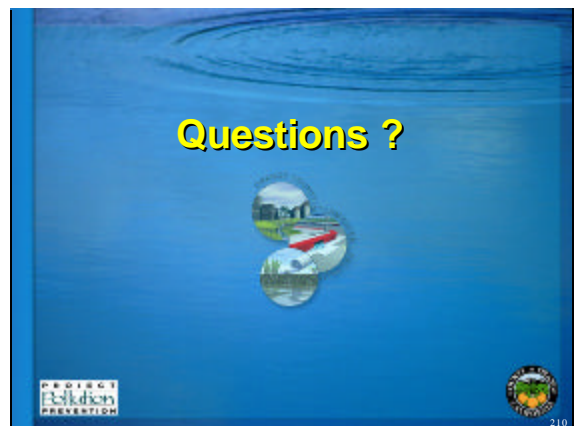
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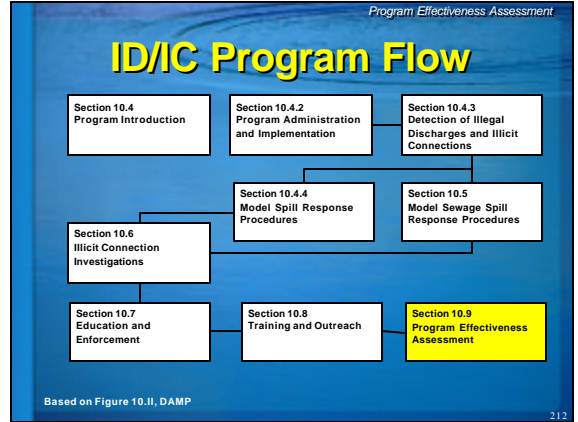
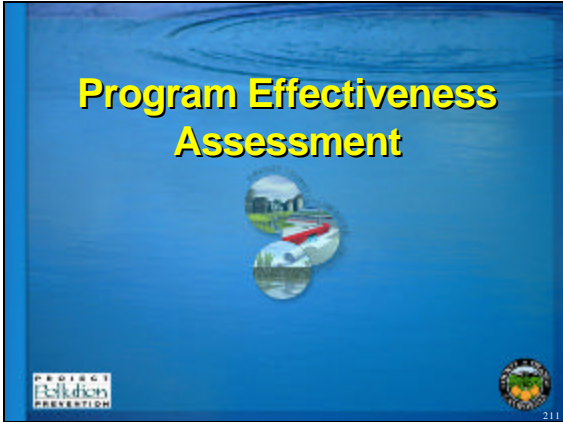


- ### Training Program
- Training modules
 - Outside training
 - Target audience
 - Implementation
 - Record-keeping

- ### Training Modules
- Program Management
 - Authorized Inspectors
 - Sewage Agency Personnel
 - Emergency Personnel Responders

- ### Outreach
- Web Page
 - Mailings
 - Brochures and Posters
 - Education Letters
 - Public Counter
-





- Program Effectiveness Assessment
- ### Program Effectiveness Assessment
- Serves as foundation for the submittal of the annual progress report
 - Basis for evaluating each city's individual ID/IC efforts (baseline evaluations)
 - Appendix C-10 of DAMP
- 213

- Program Effectiveness Assessment
- ### Reports
- PNIR form or equivalent
 - SSO reports
 - Annual Reports
 - City specific reports
-
- 214

- Program Effectiveness Assessment
- ### SSO Reports
- Use PNIR form if spill enters the MS4
 - Notify responsible agency of spill within 24-hours
- 215

- Program Effectiveness Assessment
- ### Annual Reports
- Indicate compliance and effectiveness of program elements
 - AI must document actions on all required forms and field books
 - Annual report will come directly from AI documentation
-
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Program Effectiveness Assessment

City Identified Reports

- May require AI to adopt specialized report forms and/or documentation procedures
- AI will normally utilize an electronic database for storage of information specific to the Permittee

217

Program Effectiveness Assessment

Database Management

- Spill investigation data entered into database
- Original documents retained for at least five years
- Database maintenance procedures performed weekly
- Use database to create sewage spill reports
- Internal reports sort spills by cause, geographical area, and volume

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Program Effectiveness Assessment

Trend Establishment

- Performance measurement and decision-making
- Assists in decision-making regarding future maintenance and repair activities
- Assists in decision-making for rehabilitation or replacement of drainage system facilities
- For reference regarding historical performance or claims

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Program Effectiveness Assessment

Assessment

- Identify Authorized Inspectors
- Incident Investigation summary
- Enforcement summary
- Training summary
- Outreach program activities



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Questions ?



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Conclusion



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Conclusion

Conclusion

- Water pollution degrades surface waters
- ID/IC are sources of contamination
- Spill Response/Investigation identifies sources
- Enforcement reduces ID/IC

233

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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Conclusion

Photo Credits

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Manager, Collection Facilities
O&M
Orange County Sanitation District
narhontes@ocsd.com

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Conclusion

Handouts

- Hard copy of presentation
- AI to bring DAMP
- Equipment and Supplies Handout
- PNIR Form Handout

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