

NPDES Stormwater Training

Municipal Facilities Operations and Maintenance



Training Process

- Goal – To complete the session within 3 hours
 - ❖ Sticking to the process will help accomplish this goal!
- Restrooms
 - ❖ You do not need to ask to be excused.
- Cell phones
 - ❖ Please turn them off or set to silent.
- A mid-session break is planned
- Questions
 - ❖ We have a great amount of information to cover.
 - ❖ Please ask questions related to the content.
 - ❖ "Out-of-scope" questions will be deferred.
 - ❖ I will be available after the session if you have additional questions.

Why are we here?

- To comply with permit requirements for training
- To review the municipal permit requirements for municipal facilities and operations
- To review BMPs applicable to municipal facilities and operations
- To review the municipal facility pollution prevention plan



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Introductions

- **Your Instructor**
 - AEI-CASC Consulting
 - Jeff Endicott, P.E., DEE
 - Rebekah Guill
- **Audience Introductions**
 - Superintendents/Foremen
 - Corporate Yard Staff
 - Facilities Staff
 - Streets/Roads Staff
 - Parks/Landscape Staff
 - Others
- **Past Training Experience**
 - First Timers
 - Veterans



What Is Storm Water Pollution?



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What is Storm Water Pollution?



Where Does Storm Water Pollution Go?

- ☞ Lakes
- ☞ Rivers
- ☞ Streams
- ☞ Ocean



Are Polluted Waters Really a Problem?

- ☞ According to the U.S. EPA, Forty percent of all U.S. waters are not fishable or swimmable due to impairments.



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What about me? What about my kids?

- Contact with receiving waters that receive urban runoff has been linked to some nasty diseases:
 - ⊖ Gastroenteritis
 - ⊖ Typhoid
 - ⊖ Dysentery
 - ⊖ Hepatitis
 - ⊖ Skin rashes
 - ⊖ Respiratory infections

-EPA's 1999 report to congress

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Course Outline

Part 1

- Municipal Permits and Requirements for Municipal Facilities and Operations
- Essential Knowledge

Part 2

- BMPs Applicable to Municipal Facilities and Operations
- Municipal Facility Pollution Prevention Plan

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Municipal Permits

Requirements for Municipal Facilities and Operations

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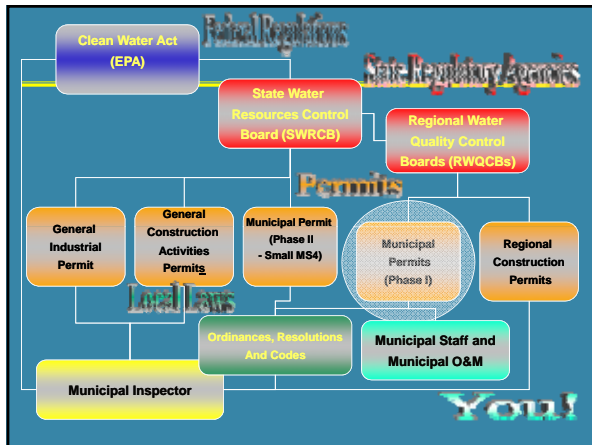
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The Regulatory maze continues to evolve

There is a maze of regulations to work through and it all starts at the federal level before trickling down to the local level.





Municipal Permits

Riverside County Municipal Permits

- Municipalities have their own Permits!
- Municipalities within Riverside County are covered by three Regional Water Quality Control Board (RWQCB) issued Permits
 - Santa Ana RWQCB (8) – For Santa Ana River Basin
 - Colorado River RWQCB (7) – For Whitewater River Basin
 - San Diego RWQCB (9) – For Santa Margarita River Basin

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Municipal Permits

Riverside County Municipal Permits

Covered by Santa Ana RWQCB Permit

⇒ County of Riverside	⇒ Menifee
⇒ Riverside County Flood Control and Water Conservation District	⇒ Moreno Valley
⇒ Beaumont	⇒ Murrieta
⇒ Calimesa	⇒ Norco
⇒ Canyon Lake	⇒ Perris
⇒ Corona	⇒ Riverside
⇒ Hemet	⇒ San Jacinto
⇒ Lake Elsinore	⇒ Wildomar

Some are covered by more than 1 permit!!

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Municipal Permits

Riverside County Municipal Permits

Covered by Colorado River RWQCB Permit

⇒ County of Riverside	⇒ Coachella
⇒ Riverside County Flood Control And Water Conservation District	⇒ Desert Hot Springs
⇒ Coachella Valley Water District	⇒ Indian Wells
⇒ Banning	⇒ Indio
⇒ Cathedral City	⇒ La Quinta
	⇒ Palm Desert
	⇒ Palm Springs
	⇒ Rancho Mirage

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Municipal Permits

Riverside County Municipal Permits

Covered by San Diego RWQCB Permit

⇒ County of Riverside	⇒ Menifee
⇒ Riverside County Flood Control and Water Conservation District	⇒ Murrieta
	⇒ Temecula
	⇒ Wildomar

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General Municipal Permit Requirements for Facilities Programs and Activities

Goal – ensure municipal facilities do not cause or contribute to pollution or nuisance in receiving waters

- Implement a Municipal Facilities Pollution Prevention Strategy
 - Conduct Training
 - Develop Model Maintenance Procedures
 - Enforce Ordinances
 - Implement Monitoring and Reporting Program
 - Develop and Distribute BMP Guidance
 - Identify BMP Opportunities
- Prepare and Implement the Municipal Facilities Pollution Prevention Plan
 - Conduct Annual Review of Facilities - report findings
 - Revise Strategy based on Reviews

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Each Permit Conveys a Key Message



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The Key Message in Each Permit

- Prevent Pollution in Storm Water
- “Only Rain in The Drain”
- Prevent Non-Storm Water Discharges
- Municipal facilities and operations staff have an important role
 - In their own Day-to-day work
 - In the Community
- It’s your job to contribute to keeping our waters healthy!



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Essential Knowledge - Overview

Common general questions that municipal operation and maintenance staff should be prepared to answer:

- ☉ What is "stormwater" and "non-stormwater"?
- ☉ What is illicit connection?
- ☉ What is illegal discharge?
- ☉ What is the difference between storm drains and sanitary sewers?
- ☉ Be able to explain the portion of the NPDES permit that pertains to the municipal facilities program

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Essential Knowledge - Details

What is “stormwater” and “non-stormwater”?

- ☛ Stormwater means rainfall runoff, snow melt runoff, and storm water surface runoff and drainage.
- ☛ Non-Stormwater consists of all discharges to and from a stormwater conveyance system that do not originate from precipitation events. Non-stormwater includes illegal discharges, non-prohibited discharges and NPDES permitted discharges.
- ☛ Non-Stormwater Discharge means any discharge to storm sewer systems that is not composed entirely of stormwater.

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Essential Knowledge - Details

Non-Stormwater Discharges *Conditionally* Allowed:

- ☛ Permitted by other NPDES permit
 - ☛ Potable water line flushing
 - ☛ Rising Groundwater or groundwater infiltration or uncontaminated pumped groundwater
 - ☛ Irrigation water
 - ☛ Passive foundation drains and footing drains or water pumped from crawl spaces
 - ☛ Diverted stream flows
 - ☛ Air conditioning condensate
 - ☛ Dechlorinated pool water
- May require BMPs if identified as a source of pollution**

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Essential Knowledge - Details

What is illicit connection?

☛ Any connection to the storm drain system that is prohibited under local, state or federal statutes, ordinances, codes, or regulations. Includes all non-storm water discharges and connections except those permitted.

☛ What is illegal discharge?

☛ Any disposal, either intentionally or unintentionally, of material or waste to land or MS4s that can pollute storm water or create a nuisance. Includes any discharge to MS4 that is not entirely made up of storm water.



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Essential Knowledge - Details

What is the difference between storm drains and sanitary sewers?

- MS4 – conveyance that goes directly to a surface water body (lake, stream, ocean, etc.) normally without treatment or without going a POTW.
- Sanitary sewer is a conveyance that usually flows to a POTW for treatment prior to discharge to a water body.



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How do I know the impairments of a water body?

- Clean Water Act Section 303(d) list of Water Quality Limited Segments and the associated list of Water Quality Limited Segments being addressed by USEPA TMDLs. (last updated 7/26/07)
- Refer to the SWRCB website



http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006.shtml

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What pollutants should I be concerned about?

- General Constituents of Concern
 - **Sedimentation**
 - Turbidity -cloudiness due to suspended solids
 - **Nutrients**
 - Oxygen depletion
 - **Pathogens**
 - Waterborne bacteria, viruses, and protozoa that can cause human illnesses
 - **Pesticides (Toxicity)**
 - Chemicals that adversely affect biota
 - Examples: DDT, DDE, alachlor, malathion, diazinon, chlordane, and carbofuran.



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