

## How to Comply with the State General Construction Activities Storm Water Permit



December 4 & 5, 2000  
Ventura Countywide Stormwater Quality Management Program

### Agenda

- Welcome
- Regulatory Perspective
- Effective COmpliance Methodologies
- Examples of Challenges and Solutions
- Vendor Introductions
- Questions and Answers

### Countywide Municipal Permit

#### Required Program Areas

- Residential
- Business
- Industrial Inspection
- Public facility maintenance
- Illicit discharges
- Land use planning and land development
- Construction activity
- Enforcement
- Monitoring
- Public Outreach

### Why Construction?

- New Stormwater Regulations
  - Local (Municipal NPDES Permit - 7/00)
  - State (Construction General Permit - 8/99)
- Regulatory Agencies - Construction Priority
- Increasing Expectations
- Escalating Enforcement Activity
- New Challenges
- Countywide Cooperative Effort Needed

**Compliance Assistance Seminar**  
**December 4 & 5, 2000**  
**General Construction Activities**  
**Storm Water Permit**

The Ventura Countywide Stormwater Quality Management Program  
in cooperation with  
The California Regional Water Quality Control Board, Los Angeles Region  
and the Building Industry Association

**GOALS OF PRESENTATION**

- Identify common compliance errors to be corrected
- Communicate RB compliance expectations to developers, contractors, and consultants
- Provide information on RB enforcement actions & policy

**Who needs a permit?**

- Construction >5 acres
- <5 acres if it is part of common plan of development or sale
- Construction: clearing, grading, excavation & demolition

**Permit/Notice of Intent (NOI)**

- Signed NOI
- Site Map
- Appropriate fee  
\$250 - \$500
- WDID #

**Permit Coverage**

- When does it begin?
- When does it end?  
Notice of Termination

**Change of Ownership**

- NOI is not transferable
- Need to submit NOT
- Need to submit NOI

**Construction Program Objectives**

- Minimize erosion
- Retain sediments
- Manage on - site construction waste & equipment

## STORM WATER POLLUTION PREVENTION PLAN

- Pollution Prevention Concept:
  - Avoid pollution before it happens
  - Control it after it happened
- Use appropriate BMPs specific for site
  - Non - structural (e.g. good housekeeping)
  - Structural (treatment devices and controls)
- Manage storm water runoff before discharge

## USE YOUR SWPPP!!!

- Identify BMPs specific for your site
- Match BMPs with potential contamination
- Implement them!!!
- Train employees
- Inspections
- Update when necessary
  - Activities and materials change
  - Personnel changes



## Enforcement

Protect water quality by enforcing regulations  
in a manner that is:

consistent  
predictable, and  
fair

## Progressive Approach

- Level 1: Notice to Comply (Fix - it - Tickets)
- Level 2: Notice of Violation
- Level 3: Compliant for Administrative Civil Liability (ACL)
  - Permittee may dispute the ACL by submitting evidence in a public hearing before the Board or a hearing panel of Board members
- Level 4: Referral to a District Attorney or Attorney General

## Penalties

- **Statutory Maximum**, considers both:
  - Duration of violation - \$10,000 per day per violation
  - PLUS!**
  - Magnitude of the violation - \$10/gallon
  - Supplemental Environmental Projects



## Penalties

- **Must recapture economic benefits**  
gained by failure to comply with regulations
- **Must meet minimum levels**  
established by law:
  - \$1,000 for failure to file notice of non - applicability
  - \$5,000 for failure to file an NOI
- Should deter future violations
- Should be consistent

## Storm Water Program Penalty Actions 1998 to date

- 33 ACLs issued
- Penalties ranged from:
  - \$1,000, for a delinquent annual report, to
  - \$137,500 for release of unauthorized washdown water and failure to implement a SWPPP
- ACLs - most common enforcement action

## Other Enforcement Tools

- Cease and Desist Order
- Time Schedule Order, with built - in penalties for future violations
- Referral to task forces investigating criminal conduct (criminal vs. civil actions)
  - e.g. Falsification of a monitoring report





### **Ventura MS4 Regional Board Staff**

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Ventura Countywide Stormwater Quality Management Program  
**Construction Activities  
Compliance Assistance Seminar**

**Requirements and Examples of Erosion and Sediment Controls at  
Construction Sites**

Presented by  
Jeffrey D. Endicott, P.E.  
CDM Camp, Dresser & McKee, Inc.

**December 2000 - Ventura County Government Center**

**Presentation Objectives**

- Review requirements for erosion and sediment control
- Review priorities for rainy and non-rainy season BMP deployment
- Review examples of BMPs that comply with the erosion and sediment control requirements

**Overview of Erosion Process**

- In relative order of severity
  - Sheet erosion
  - Rill erosion
  - Gully erosion





## Requirements for Erosion and Sediment Control

- Requirements contained in
  - Local codes and permits
  - Misc. State and Federal Permits
  - State General Construction Permit
- Focus of this presentation is on the State General Permit
- General Construction Permit
  - Requirements are seasonal
    - Rainy season
    - Non-rainy season
  - Emphasis is on erosion controls

## Rainy Season Requirements

- An effective combination of **erosion and sediment** controls on all disturbed areas
  - Measures to stabilize and prevent erosion of disturbed soils
  - Measures to prevent sediment from leaving the site
    - At site perimeter
    - At internal storm drain inlets
- Exceptions
  - Permit suggests that soil stabilization is not required on all disturbed soils
  - Sediment controls are required to protect these areas
  - Permit provides for limited exemptions for sediment controls on active areas
  - Must establish controls at perimeter before onset of rain



## Non - Rainy Season Requirements

- Erosion control
  - No specific requirement
- Sediment control
  - Sufficient sediment control materials must be available to protect
    - Downgrade perimeter
    - Operational storm drain inlets

## Rainy - Season Priorities

- No rain in 3 - 5 day forecast
  - Maintain sediment control at perimeter and storm drain inlets
  - Phase earthwork so areas can be brought to final grade and erosion controls applied before disturbing more soil
    - \* Don't let earthwork get too far ahead of your ability to apply erosion controls!
- Rain in 3 - 5 day forecast
  - Apply erosion controls to unprotected disturbed soils
  - Install any temporarily missing links in perimeter controls
  - Install sediment controls at storm drain inlets
  - Maintain (clean) sediment from controls
- Rain in 12 - 24 hour forecast
  - Install sediment controls at storm drain inlets
  - Install any temporarily missing links in perimeter controls
  - Apply erosion controls to critical but unprotected disturbed soils
    - \* Straw mulch, punched in, provides immediate protection for small areas

## Non - Rainy Season Priorities

- Monitor weather forecast daily
  - "Predicted" storm is undefined
- Maintain supply of sediment control materials and be prepared to deploy
- Installation of sediment controls at critical perimeter locations is recommended

## BMPs That Work - Erosion Control

### #1 - Straw Mulch with Tackifier

- Straw protects soil surface from raindrop impacts, tack binds straw
  - Very effective (90 - 95%)
  - Inexpensive materials
  - Longevity, 3 - 12 months
- Two step application process
- Straw (2 tons/ac) + Tack (125 lbs/ac) and 100% coverage





## BMPs That Work - Erosion Control

### #2 - Bonded Fiber Matrix (BFM)

- BFM (long - strand mulch fibers and adhesive mixture) protect soil surface from raindrop impact
  - Very effective (90 - 95%)
  - Expensive materials
  - Longevity, 3 - 12 months
- One step application process
- Use - 3,500 lbs/ac and 100% coverage

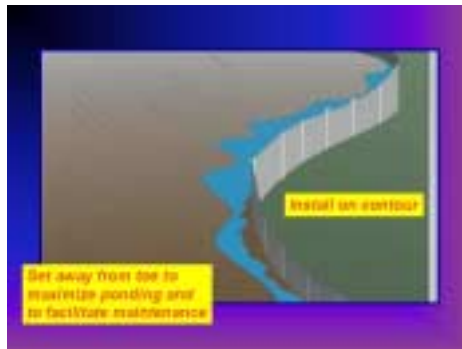




## BMPs That Work - Sediment Control

### #3 - Silt Fence

- Ponds runoff, allowing sediment to settle out
  - Effective. Very effective if used in conjunction with erosion control
  - Expensive
  - Three step application, new equipment allows one step application







## BMPs That Work - Sediment Control

### #4 - Inlet Protection

- Barriers allow water to pond and sediment to settle - some filtration takes place
  - Can be effective, often overwhelmed
  - Inexpensive materials
  - Can be long lasting
- One step installation
- Maintenance intensive



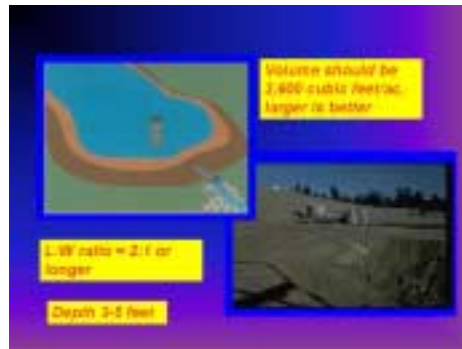


## BMPs That Work - Sediment Control

### #5 - Sediment Traps

- Traps allow water to pond and sediment to settle
  - Effectiveness related to size.... larger traps more effective
  - Inexpensive in most cases
  - Long lasting
- One step installation
- Pump down requires other BMPs





### Photo Credits

Special Thanks to  
Pete Whitney  
County of Ventura, Flood Control Department

CDM Camp, Dresser & McKee, Inc.

### For Additional Information

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## Construction Site Compliance

### Stormwater Quality

#### Challenges & Solutions

December 2000

Pete Whitney, Ventura Countywide Stormwater Quality Management Program

#### Permit Requirements - Construction Activity

- Minimum Requirements - All sites  
Retain all sediment by using structural drainage controls



Ventura Countywide Stormwater Quality Management Program  
Public Works Agency

[www.ventura.org/vcpwa/fc/stormwater/index.htm](http://www.ventura.org/vcpwa/fc/stormwater/index.htm)  
800 South Victoria Avenue, Ventura, CA 93009-1610  
805/654-4064 FAX 805/654-3350



### Permit Requirements - Construction Activity

- Minimum Requirements - All sites  
Eliminate erosion from slopes & channels





### Permit Requirements - Construction Activity

- Minimum Requirements - All sites
  - Do not discharge materials/wastes
  - Contain non - storm water on - site





## SWPCP Requirements

- The SWPCP must contain appropriate BMPs
- The SWPCP must include the rationale used for selecting or rejecting BMPs
- The SWPCP must be signed & certified as specified in our Countywide Municipal Permit
- All applicable sites must have a SWPPP and/or SWPCP on site at all times
- The plan must be continuously modified to reflect evolving site conditions
- The SWPPP/SWPCP must identify all potential pollutant sources on the site and BMPs that will be implemented to prevent pollutants from entering the storm drain system

NPDES Compliance with the State General Construction Activities Storm Water Permit Presentation



## State Construction General Permit

- Applies to projects resulting in soil disturbance exceeding 5 acres
  - Local agencies must obtain proof of filing prior to issuance of a grading permit
  - Requires preparation and implementation of an SWPPP which is much more detailed than the SWPCP
  - Non - compliance can result in fines up to \$27,500/day
  - Public agencies can be fined if we have not met our responsibilities on these sites
- Requires a SWPPP prior to initiation of construction activity
- SWPPP must be on - site & available
- SWPPP needs to be implemented year round
- SWPPP needs to be amended to reflect the constantly changing site conditions
- SWPPP needs to include an inspection log & should have copies of inspection records
- Inspection & record keeping are the responsibility of the developer
- Continued non - compliance is to be reported to the RWQCB
- Requires that erosion controls be addressed with an "EFFECTIVE COMBINATION" of soil stabilization & sediment trapping
- Requires that and non - storm water discharges be listed along with BMPs to prevent pollutants from entering the storm drain system

## Challenges



NPDES Compliance with the State General Construction Activities Storm Water Permit Presentation







## Solutions

- Planning & Preparation/React & Repair
- Communication between engineers & field personnel
- Be innovative & creative



## **Solutions**

- Take credit for your efforts by inserting pages into your SWPPP
- Don't keep your knowledge of storm water regulations a secret
- Make your subcontractors responsible for their actions

## **AVAILABLE INFORMATION**

- Call us!
  - [www.ventura.org/vcpwa/fc/stormwater/index.htm](http://www.ventura.org/vcpwa/fc/stormwater/index.htm)
  - [www.swrcb.ca.gov](http://www.swrcb.ca.gov)
  - [www.swrcb.ca.gov/~rwqcb4](http://www.swrcb.ca.gov/~rwqcb4)
  - [www.ieca.org](http://www.ieca.org)
  - [www.forester.net/ec.html](http://www.forester.net/ec.html)
  - [www.forester.net/sw.html](http://www.forester.net/sw.html)
- [www.svhqsgj4.dot.ca.gov:80/hq/oppd/stormwtr/index.htm](http://www.svhqsgj4.dot.ca.gov:80/hq/oppd/stormwtr/index.htm)