

# **Construction Site Stormwater Inspections – Regulatory Basics**

**Kristin Kerr, P.E., QSD/P  
EOA, Inc.**

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# Topics Covered

- **Regulatory Basics**
- **Construction General Permit**
- **Municipal Regional Permit and expected changes**
- **Resources**



# Stormwater Regulations



U.S. EPA

- Clean Water Act establishes NPDES permit program

State Water Resource Control Board

- NPDES Permitting authority in CA
- Issues State Stormwater Construction General Permit

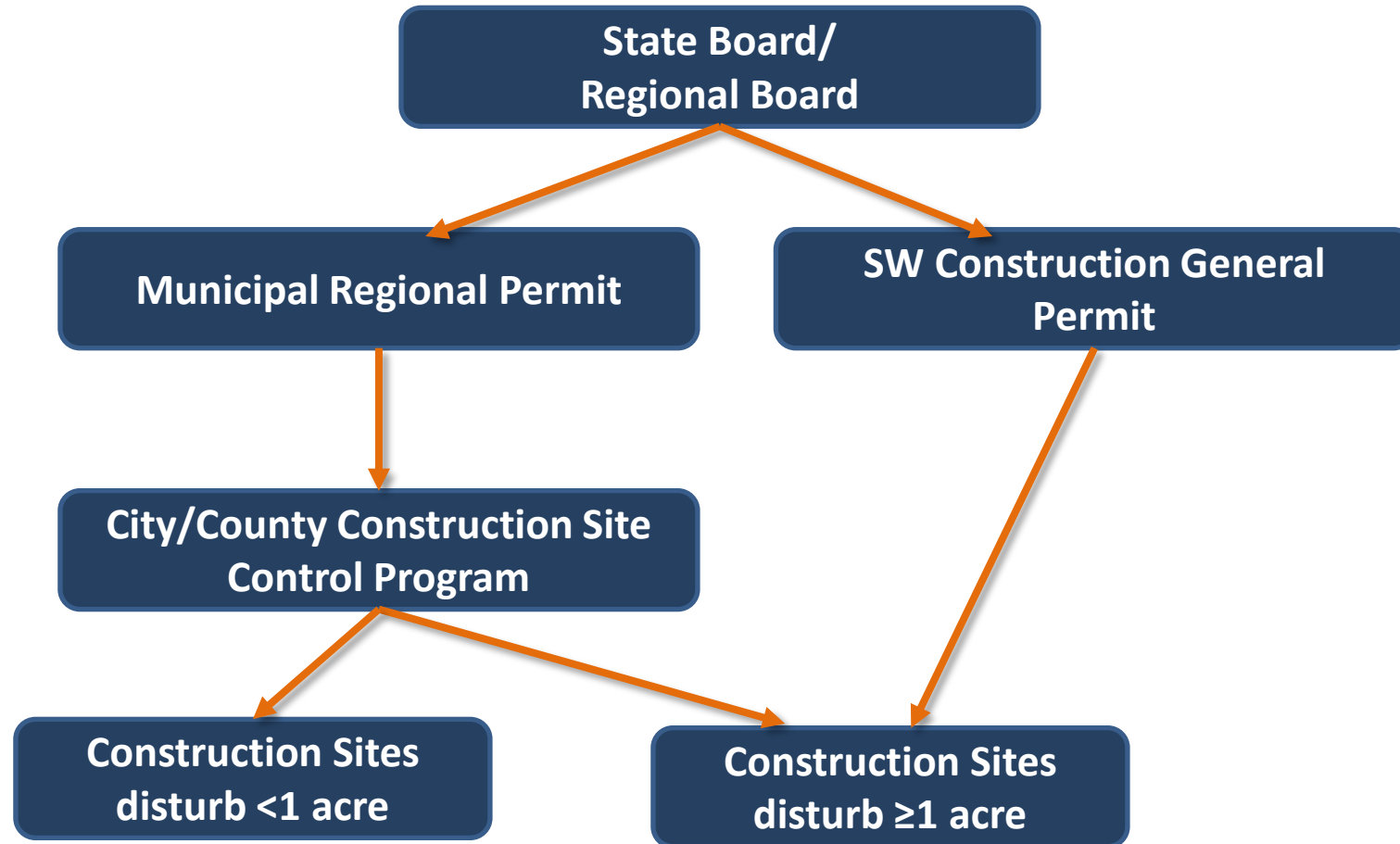
Regional Water Quality Control Board  
9 regions

- Issues Municipal Regional Permit (MRP)
- Inspects/Enforces State SW Construction General Permit

Municipal Separate Storm Sewer System (MS4)

- Implement Local Stormwater Program

# Construction Site Regulations



# Construction General Permit

- **Applies to projects that disturb  $\geq 1$  acre**
  - Stormwater Pollution Prevention Plan (SWPPP)
  - Best Management Practices (BMPs)
  - Conduct inspections
  - Conduct sampling
  - Report in SMARTs
  - QSP/QSD certification





# Construction General Permit

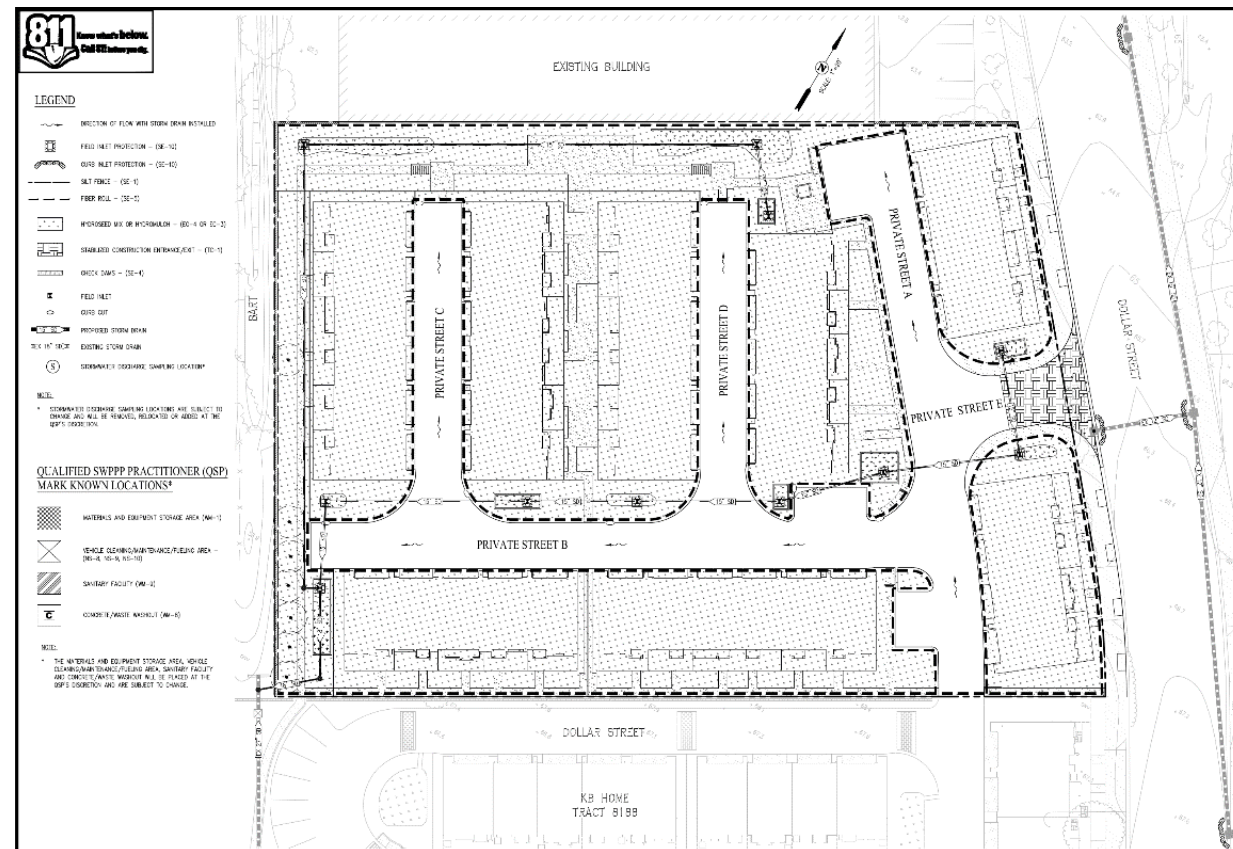
## ■ MRP requirements:

- Verify owners of construction sites that disturb  $\geq 1$  acre file NOI
- Inspect sites that disturb  $\geq 1$  acre each month during wet season



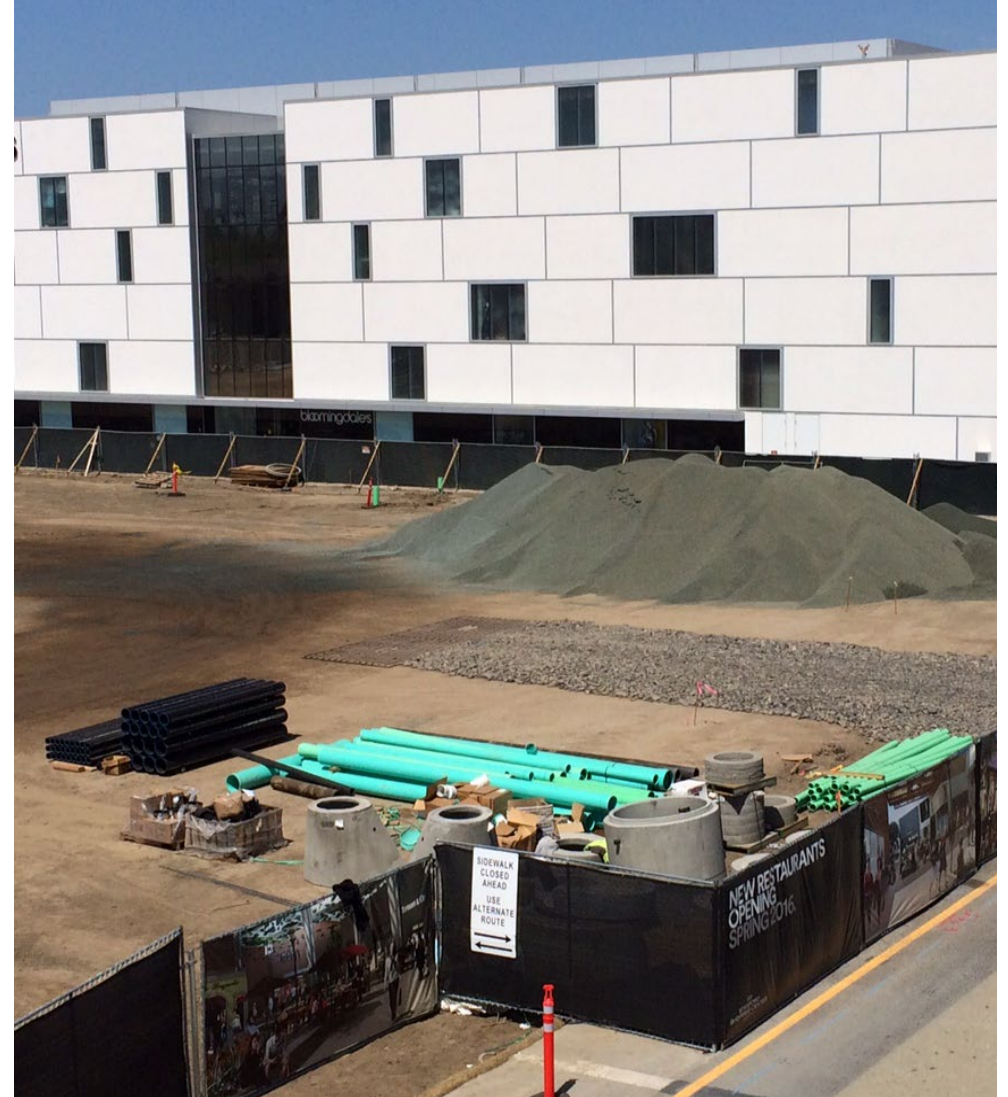
# Construction General Permit

- **Tips for Municipalities:**
  - Reviewing SWPPP, talking with QSP, etc. may help inform your MRP inspection



# Construction General Permit

- **Tips for Municipalities:**
  - Overall site compliance reflects on your inspection program
  - Public projects  $\geq 1$  acre must file for coverage under the CGP





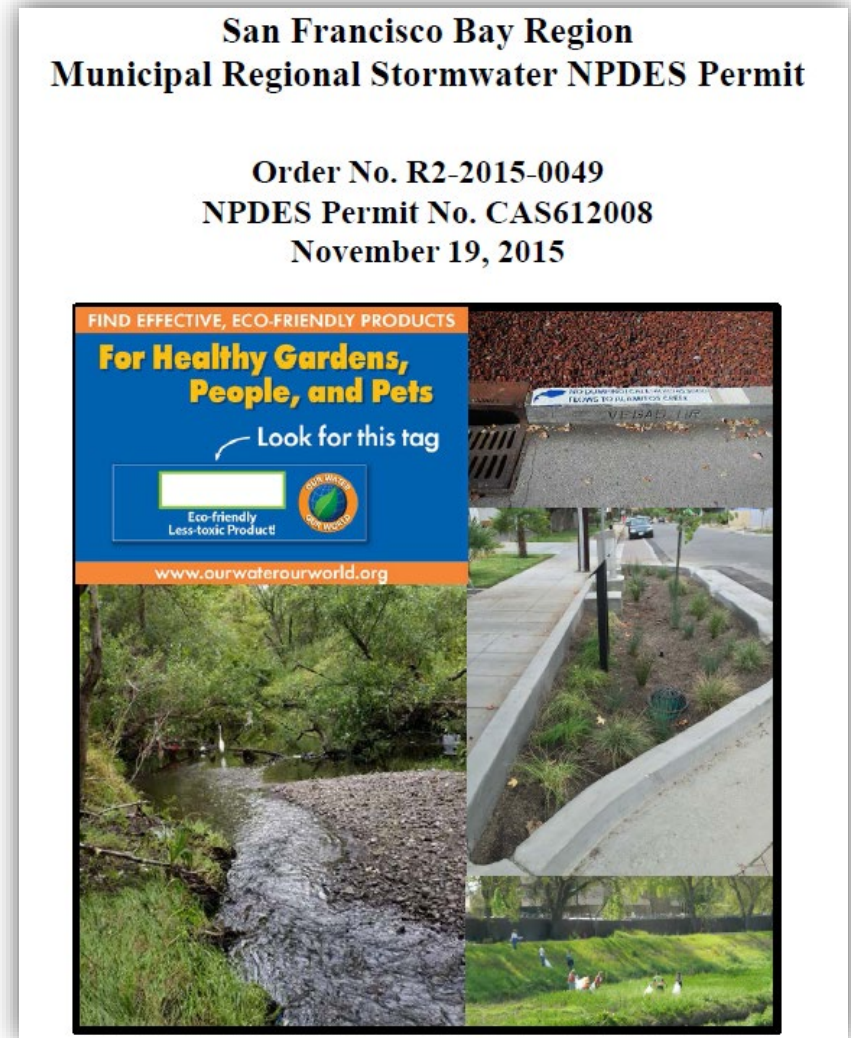
# Municipal Regional Permit

- San Francisco Bay Municipal Regional Stormwater Permit - **MRP**
- 79 Permittees in five counties



# Municipal Regional Permit

- First adopted October 14, 2009
- Renewed every 5 years
- MRP 2.0 Effective Jan 2016
- MRP 3.0 Schedule
  - Revised Tentative Order released April 2022
  - Adoption May 2022
  - Effective date July 1, 2022



# MRP Permit Provisions

- **C1** Discharge Prohibitions
- **C2** Municipal Maintenance
- **C3** New Development/  
Redevelopment
- **C4** Industrial/Commercial Discharge
- **C5** Illicit Discharge Detection &  
Elimination
- **C6** **Construction Site Controls**
- **C7** Public Information and Outreach
- **C8** Water Quality Monitoring

- **C9** Pesticide Toxicity Control
- **C10** Trash Reduction
- **C11** Mercury
- **C12** **PCBs**
- **C13** **Copper**
- **C14** Bacteria Control
- **C15** Exempted & Conditionally  
Exempted Discharges
- **C.17** Discharges Associated with  
Unsheltered Homeless  
Populations

# Construction Site Control Program (MRP Provision C6)

- Prevent discharges of pollutants and impacts on receiving waters
- Require appropriate BMPs in 6 categories
  - at **ALL** construction sites (private and public)  
**ALL** year long





# Construction Site Control Program

- **Legal authority**
  - Site Inspection
  - Require BMPs
    - Site specific
    - Seasonally appropriate
    - Phase appropriate
  - Issue Enforcement Actions



# Construction Site Control Program

- **Legal authority to require effective BMPs through all phases of construction**

- Grubbing
- Clearing
- Site grading
- Filling
- Excavation
- Leveling
- Building
- Landscaping
- Finishing of lots

# Construction Site Control Program

## ■ Plan approval process

- Review erosion/sediment control plans or SWPPPs
  - If SWPPPs don't include erosion control plan drawings, then erosion/sediment/site control plans and drawings must also be submitted and reviewed
- Verify sites  $\geq 1$  acre have filed for NOI
- Provide outreach as appropriate

# Construction Site Control Program

- **Six BMP categories**

- Erosion Control
- Sediment Control
- Good Site Management
- Non-Stormwater Management
- Run-on and Run-off Control
- Active Treatment Systems (ATS)



# Minimum Inspection Requirements

- **Pre-wet season letter by September 1st**
- **Monthly inspections during wet season**
  - October 1<sup>st</sup> – April 30<sup>th</sup>





# Minimum Inspection Requirements

- **Applies to following sites (public & private)**
  - Disturbing  $\geq 1$  acre
  - Hillside projects disturbing  $\geq 5,000$  sq ft
  - Identified as “high priority” by municipality



# Inspection Recordkeeping and Reporting

- Complete inspection form for every required inspection

- Track inspection data in database/spreadsheet

FAILURE TO CORRECT VIOLATION(S) within 10 business days (or as specified in this notice) may result in PENALTIES described on page 2!

**SAN MATEO COUNTYWIDE Water Pollution Prevention Program CONSTRUCTION SITE INSPECTION REPORT**

1. Inspection Date: \_\_\_\_\_ 1a. Current weather conditions: \_\_\_\_\_

2. Name of Project: \_\_\_\_\_ 2a. Project No./Permit No.: \_\_\_\_\_

3. Project Address: \_\_\_\_\_

4. Inspection Type: ☐ Routine ☐ Follow-up ☐ Other

5. Permit Type: ☐ Building Permit ☐ Grading Permit ☐ Site Development ☐ CIP Project

6. Project disturb ≥ 1 acre? ☐ (Y/N - If Yes, inspect monthly during wet season.) NOT Required ☐ (Y/N) SWPPP dated \_\_\_\_/\_\_\_\_/\_\_\_\_

Project covered under statewide Construction General Permit? ☐ (Y/N) SWPPP on site? ☐ (Y/N)

7. Is this a Priority Site (significant threat to water quality)? ☐ (Y/N - If Yes, inspect monthly during wet season.)

8. Project type: ☐ Residential ☐ Commercial/Industrial ☐ Institutional ☐ Landscaping

☐ Utility (water, sewer, PG&E) ☐ Grading ☐ Demolition ☐ Street Improvement ☐ Other: \_\_\_\_\_

9. Erosion Control Measures: (A / NM / P / NA)\*

Inspection Finding (A / NM / P / NA)*	Location on site/Comments
<input type="checkbox"/> Jute Netting/Fiber Blankets	
<input type="checkbox"/> Mulch	
<input type="checkbox"/> Hydroseed/Soil binder/Compost blanket	
<input type="checkbox"/> Silt Fence	
<input type="checkbox"/> Tree Protection Fencing	
<input type="checkbox"/> Riparian Area Barrier	

10. Sediment Control Measures

- Specific data required by MRP
- New: department, agency, or other entity performing the inspection
- Can be requested by RWB at any time

Site Name	Inspection Date	Inspector	Weather During Inspection	Enforcement	Problems Observed						
					Erosion Control	Run-on & Runoff	Sediment Control	Active Treatment	Good Site Management	Non-Stormwater Management	Illicit Discharge
Panoramic Views	9/30/2015	Kristin Kerr	Clear	Written Warning			x				
Panoramic Views	10/15/2015	Jill Bicknell	Clear	No Action							
Panoramic Views	11/15/2015	Jill Bicknell	Rain	Stop Work Order	x		x				x
Panoramic Views	11/15/2015	Jill Bicknell	Rain	No Action							

# Enforcement Response Plan

- Guidance for inspectors to take consistent actions to bring sites into compliance
- Identify enforcement tools
- Identify roles and responsibilities
- Enforcement procedures
- Appropriate time periods for corrective actions

Each city  
has it's own  
ERP

17. <b>Enforcement/Follow-Up</b>	Date problem first identified: _____	Next follow-up inspection date: _____
Comments: _____		
Enforcement: <input type="checkbox"/> None/In compliance <input type="checkbox"/> Verbal Warning <input type="checkbox"/> Notice of Violation <input type="checkbox"/> Notice to Comply <input type="checkbox"/> Stop Work <input type="checkbox"/> Administrative Fine		
18. <b>Resolution:</b>	<input type="checkbox"/> Problem Fixed <input type="checkbox"/> Need More Time (include rationale in comments) <input type="checkbox"/> Escalate Enforcement Date resolved: ____/____/____	
Was there rain with runoff after problem identified and before resolution? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Items corrected during inspection (see comments)		
Comments: _____		



# Enforcement Response Plan

## ■ Potential discharge field scenario examples

- Housekeeping issues
- Inadequate waste or materials management
- Evidence of actual discharges
- Lack of emergency response plans
- Lack of BMPs
- Inadequate BMPs
- Inappropriate BMPs

# Enforcement Response Plan

- **Actual discharge field scenario example**
  - Observed or documented flow of unauthorized, illicit or pollutant-containing stormwater discharges to the MS4



# Enforcement Response Plan

## ■ Corrective Actions

- Active discharge – cease immediately
- Corrective actions w/in 10 business days or before next rain event
  - longer if rationale is documented
  - Including expected time frame for compliance



# Enforcement Response Plan

- **Verify corrective actions**
  - Problem fixed by end of inspection
  - Follow-up inspection
  - Site submits photographs





# Enforcement Response Plan

- **Referral & Coordination w/Other Agencies**
  - In cases where Permittee's enforcement tools are inadequate to remedy noncompliance, refer to the RWB, district attorney or other relevant agencies for additional enforcement
  - May also contact and coordinate with RWB staff for joint inspections

# Source Control: PCBs (Provision C.12.g)

- **Manage PCB-Containing Materials and Wastes During Building Demolition Activities**
  - Implement established protocols
  - Inspect demolition sites to ensure effective BMPs
  - Enhance construction site control program to minimize migration of PCBs from demolition activities

# Source Control: Copper (Provision C.13.a)

- Runoff from architectural copper can impact water quality and aquatic life
  - Concerns during installation, treatment and washing
- When issuing building permits require BMPs
- Annually report permitting and enforcement



## Requirements for Architectural Copper

Protect water quality during installation, cleaning, treating, and washing!

### Copper from Buildings May Harm Aquatic Life

Copper can harm aquatic life in San Francisco Bay. Water that comes into contact with architectural copper may contribute to impacts, especially during installation, cleaning, treating, or washing. Patination solutions that are used to obtain the desired shade of green or brown typically contain acids. After treatment, when the copper is rinsed to remove these acids, the rinse water is a source of pollutants. Municipalities prohibit discharges to the storm drain of water used in the installation, cleaning, treating and washing of architectural copper.



Building with copper flashing, gutter and drainpipe.

### Use Best Management Practices (BMPs)

The following Best Management Practices (BMPs) must be implemented to prevent prohibited discharges to storm drains.

#### During Installation

- If possible, purchase copper materials that have been pre-patinated at the factory.
- If patination is done on-site, implement one or more of the following BMPs:
  - Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
  - Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
  - Collect the rinse water in a tank and haul off-site for proper disposal.
- Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.



Storm drain inlet is blocked to prevent prohibited discharge. The water must be pumped and disposed of properly.

#### During Maintenance

Implement the following BMPs during routine maintenance activities, such as power washing the roof, re-patination or re-application of impervious coating:

- Block storm drain inlets as needed to prevent runoff from entering storm drains.
- Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

### Protect the Bay/Ocean and yourself!

If you are responsible for a discharge to the storm drain of non-stormwater generated by installing, cleaning, treating or washing copper architectural features, you are in violation of the municipal stormwater ordinance and may be subject to a fine.



Photo credit: Don Edwards National Wildlife Sanctuary

### Contact Information

The San Mateo Countywide Water Pollution Prevention Program lists municipal stormwater contacts at [www.flowstobay.org](http://www.flowstobay.org) (click on "Business", then "New Development", then "local permitting agency").

FINAL February 29, 2012



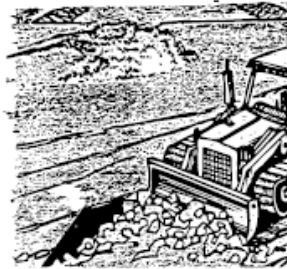
# Resources

## ■ SMCWPPP Website: [www.flowstobay.org](http://www.flowstobay.org)

- BMP Plan Sheet
- BMP brochures
- Workshop Powerpoint presentations

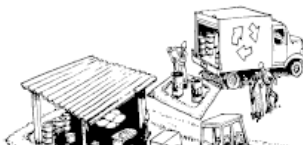
### Earth-Moving and Dewatering Activities

*Best Management Practices for the Construction Industry*



### General Construction and Site Supervision

*Best Management Practices for the Construction Industry*



### Painting and Application of Solvents and Adhesives

*Best Management Practices for the Construction Industry*



Who should use this brochure?

- Homeowners
- Painters
- Paperhangers
- Plasterers
- Dry wall crews
- Floor covering installers
- General contractors
- Home builders
- Developers

### Heavy Equipment Operation

### Roadwork and Paving

*Best Management Practices for the Construction Industry*



Who should use this brochure?

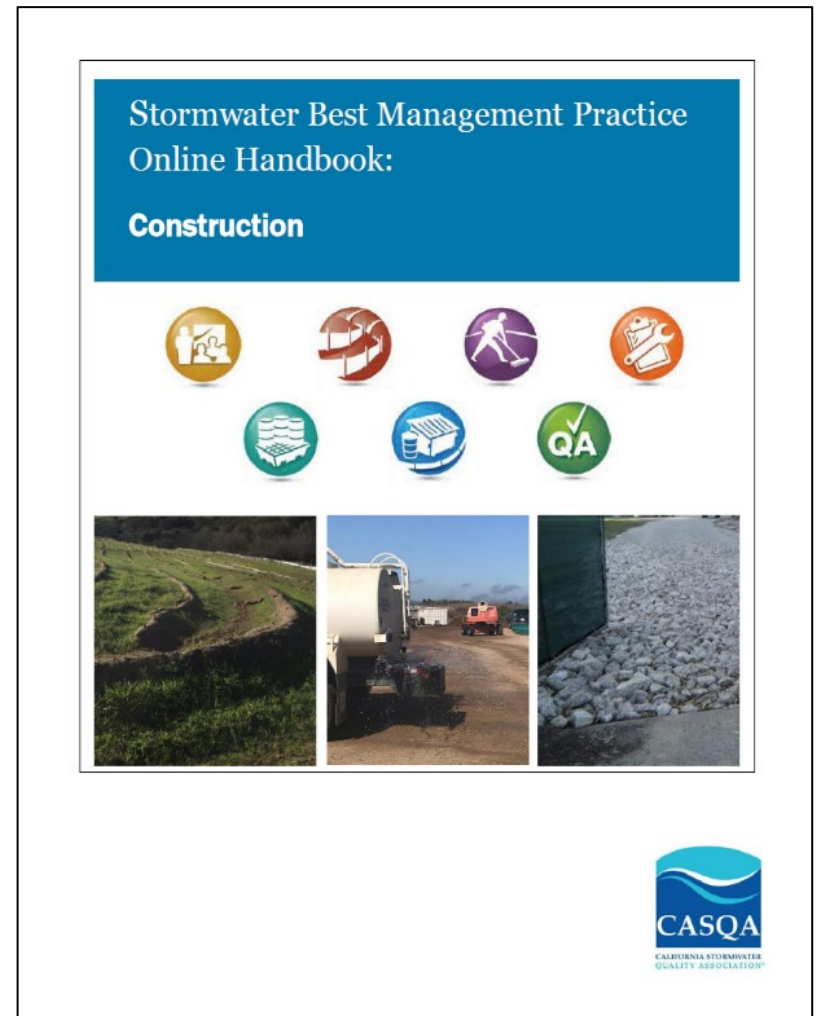
- Crews
- Highway/sidewalk/parking lot construction crews
- Asphalt contractors
- Operators of:
  - Paving equipment
  - Grading machines
  - Dump trucks
  - Concrete mixers
- Construction inspectors
- General contractors
- Home builders
- Developers

**Penalty up to \$10,000 per day!**

may be required.  
In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and loaded off-site for treatment and proper disposal.

# Resources

- **CASQA Construction BMP Handbook Portal –**  
**[www.casqa.org](http://www.casqa.org)**
  - contact your agency SW coordinator for information on how to access web subscription



# Resources

## ■ Videos

- State Water Resources Control Board [Construction General Permit Introduction](#) (9:50)
- County of San Diego [Stormwater Strategies: How to Protect Stormdrains](#) (2011) (6:51)
- County of San Diego [Stormwater Strategies: Erosion and Sediment Control](#) (2011) (9:12)
- County of San Diego [Stormwater Strategies: How to Install Fiber Rolls](#) (2011) (7:10)

# Contact Information

**Kristin Kerr**

**[kakerr@eoainc.com](mailto:kakerr@eoainc.com)**

**510-832-2852 x122**

**Peter Schultze-Allen**

**[pschultze-allen@eoainc.com](mailto:pschultze-allen@eoainc.com)**

**510-832-2852 x128**