

Stormwater Regulatory Landscape at Construction Sites


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Construction Inspection Workshop
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Outline of Presentation

- Regulatory Background
- Current Municipal Regional Permit (MRP) → Future MRP
- State Construction General Permit
- Resources



Stormwater Regulations 101

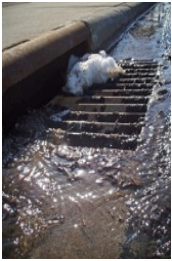

The Clean Water Act

- Requires a Permit to discharge into Waters of the State from Point Sources
 - Wastewater Treatment Plants
 - Industrial Facilities
- NPDES (National Pollutant Discharge Elimination System) Permits

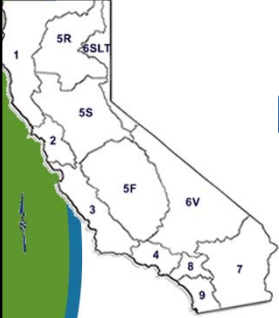


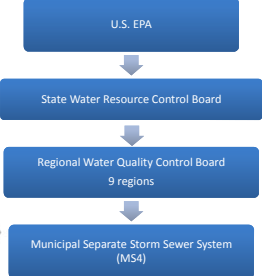

1986 Amendments: Stormwater Nonpoint Source

- Requires **permits to discharge stormwater** from:
 - Municipal Separate Storm Sewer System (MS4)
 - Industrial Facilities
 - Construction Sites
- Larger MS4s permitted in Phase 1 and smaller MS4s in Phase 2


Municipal NPDES Permitting Authority







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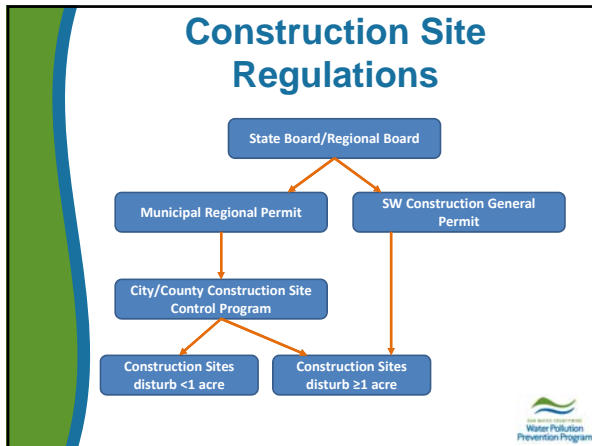
graph TD
    A[U.S. EPA] --> B[State Water Resource Control Board]
    B --> C[Regional Water Quality Control Board  
9 regions]
    C --> D[Municipal Separate Storm Sewer System (MS4)]
            
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Stormwater Permits

- Individual or regional NPDES Stormwater Permits – issued by Regional Board
 - Municipal Regional Permit (MRP)
- Statewide NPDES General Stormwater Permits – issued by State Board
 - Construction General Permit (CGP)
 - Industrial General Permit (IGP)
 - Phase II MS4 General Permit



Municipal Regional Permit (MRP)

- Regional permit regulating municipal stormwater systems
 - Adopted by Regional Water Board: October 14, 2009
 - Effective date: December 1, 2009
 - Permit renewed every 5 years
- Applies to cities, counties, and districts in:
 - Santa Clara, Alameda, Contra Costa, and San Mateo Counties
 - Fairfield and Suisun City (Solano County)
 - Vallejo (Solano County)

San Francisco Bay Area
Water Pollution Prevention Program

- ## Permit Provisions
- C1 – Compliance with Discharge Prohibitions
 - C2 – Municipal Maintenance
 - C3 – New Development and Redevelopment
 - C4 – Industrial and Commercial Discharge
 - C5 – Illicit Discharge Detection and Elimination
 - C6 – Construction Inspection
 - C7 – Public Information and Outreach
 - C8 – Water Quality Monitoring
 - C9 – Pesticide Toxicity Control
 - C10 – Trash Reduction
 - C11 – Mercury Load Reduction
 - C12 – PCBs
 - C13 – Copper
 - C14 – PBDE and Legacy Pesticides
 - C15 – Exempted & Conditionally Exempted Discharges
 - C16 – Reporting
- San Francisco Bay Area
Water Pollution Prevention Program

- ## MRP Renewal
- Administrative Draft February 2nd
 - Comments to Regional Water Board March 27th
 - Tentative Order due out May 11th
 - Board Workshops in June/July
 - Adoption in Fall 2015
- San Francisco Bay Area
Water Pollution Prevention Program

- ## Construction Site Control Program
- Provision C.6 of MRP
 - Implement a construction site inspection and control program **at all construction sites**
 - Prevent discharges of pollutants and impacts on receiving waters
 - When does this apply?
 - *All year long!*
- San Francisco Bay Area
Water Pollution Prevention Program

- ## Construction Site Control Program Requirements
- Legal authority
 - Inspect
 - Require BMPs
 - Bring sites into compliance
 - Plan Approval Process:
 - Verify Plans comply with local ordinance/requirements
 - Verify sites disturbing ≥ 1 acre filed NOI for Construction General Permit
 - Provide educational materials
- San Francisco Bay Area
Water Pollution Prevention Program

Construction Site Control Program Requirements

- Implement Enforcement Response Plan (ERP)
 - Identify enforcement actions and timeframes for problem correction.
 - Timeframes: Violations must be corrected
 - Within 10 business days ,
 - Or before next rain event,
 - OR record rationale for longer compliance.
 - Procedures for escalating the enforcement response.



MRP 2.0 – Possible Change

- MRP 2.0 ERP
 - Actual and Potential Discharges replaces violations
 - required to be corrected within 10 business days or before next rain event
 - reporting
 - If issues are fixed during inspection still record and report violations
 - Confirmation can be follow-up inspection, photo from site or other documentation
 - SWPPP review is NOT for compliance with State General Permit



Construction Site Control Program Requirements

- Require appropriate BMPs within 6 categories:
 - Erosion control
 - Sediment control
 - Run-on and run-off control
 - Active treatment systems (as needed)
 - Good site management
 - Non-stormwater management



Construction Site Control Program Requirements

- Pre-wet season letter to sites disturbing 1 acre or more



Construction Site Inspection Requirements

- Monthly inspections (at least) during wet season for sites
 - disturbing ≥ 1 acre, or
 - identified as “high priority”
- What is a high priority site?
 - Identified by your municipality
 - Generally, site disturbing < 1 acre that has
 - steep slope,
 - adjacent to creek,
 - compliance issues, and/or
 - high soil erosion potential (e.g. soil type)



MRP 2.0 – Possible Change

- MRP 2.0 monthly inspections (at least) during wet season added
 - Hillside sites
 - What is a hillside site?
 - Identified by your municipality
 - Hillside development maps
- OR
- 5% slope




Construction Site Inspection Requirements

- When is the wet season?
 - October 1st – April 30th
- When construction ends during wet season:
 - Continue stormwater inspections until site is fully stabilized
 - If stabilizing with vegetation, assume “fully stabilized” when there is 70% vegetative cover





Construction Site Inspection Requirements

- Inspect public (e.g. Capital Improvement Projects) and private sites
- Inspection Content
 - Compliance w/Permittee’s ordinances & permits
 - Adequacy & effectiveness of BMPs
 - Visual observations for actual/potential discharges or illicit connections
 - Education





Construction Site Inspection Record keeping

- Tracking and reporting of data:
 - Weather during inspection and whether it rained since the last inspection
 - Specific problems within six categories of BMPs
 - Length of time to correct violations
 - Enforcement response level
 - Resolution of problems
 - Comments
- Database or spreadsheet of inspection results*
- Inspection tables should match summaries in Annual Report
 - *Regional Water Board has requested these tables





Source Control: Copper (Provision C.13)

- Runoff from architectural copper can impact water quality and aquatic life
 - Concerns during installation, treatment and washing
 - “Patination” solution contains acids
 - Rinse water containing acids and copper residue cannot be discharged to the storm drain
 - Covered loading docks
 - Concerns after construction
 - Roof power washing, re-patination, sealing
 - Runoff containing copper residue

Copper Control BMPs

- During Installation
 - Purchase pre-patinated materials or treat with impervious coating
 - Discharge rinse water to landscaping
 - Ensure there is no overflow
 - Block storm drain inlet
 - Collect rinse water in tank
 - Pump to sanitary sewer, or
 - Haul off-site
- During Maintenance
 - Block storm drain inlets
 - Discharge wash water to landscaping or sanitary

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. Copper that comes into contact with architectural copper may contribute to impacts, especially during construction, cleaning, treating, or washing. Impervious materials that are used to create the patina finish or other coatings 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.

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. Control spill into sanitary sewer apertures before discharging to the sanitary sewer.
 - Collect the rinse water in a tote 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 minimize the danger posed for a longer time, requiring less maintenance.

During Maintenance

- Implement the following BMPs during routine maintenance activities, such as power washing the roof, repatination or reapplication 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 flow is not an option, haul the wash water off-site for proper disposal.

Protect the Bay/Ocean and yourself!
You are responsible for controlling the storm drain of any 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.

Contact Information
For San Mateo Countywide Water Pollution Prevention Program help, municipal stormwater contacts at www.sanmateo.org click on "Business", then "New Development", then "Local permitting agency".
www.sanmateo.org
www.sanmateo.org




Provision C.3 Requirements

Provision C.3 New & Re-Development

- Permanent Stormwater Controls
- Inspect stormwater treatment measures
 - Within 45 days of installation
 - 20% annually
- AFTERNOON SESSION



C.3 Post Construction BMPs Relationship to C.6 Inspector

- May be the same inspector doing both inspections
- Post construction BMPs used during construction phase
 - Not recommended
 - Likely not designed to handle sediment loading of active construction site



C.3 Post Construction BMPs Relationship to C.6 Inspector

- Post construction BMPs used during construction phase (continued)
 - If installed should be protected
 - If C.3 BMP is unprotected or impacted by sediment require corrective actions
 - Communicate with C.3 inspector – may not be obvious during 45 day inspection BMP impacted by construction sediment



Statewide General Permits

- NPDES authority issues one permit
- Used to cover same or similar operations
- Facilities/municipality applies for coverage
- Facilities/municipality submits Intent (NOI)



Statewide Construction SW General Permit (CGP)

- Revised Permit adopted by State Board September 2009
- Became effective July 1, 2010
- Next reissuance for minor clarification revisions



Statewide Construction SW General Permit (CGP)

- Applies to projects that disturb ≥ 1 acre of land in California
 - Public Projects (e.g. Capital Improvement Projects)
 - Private Projects



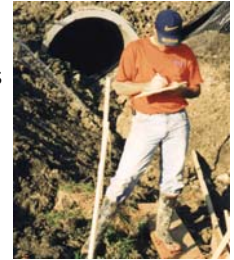
Statewide Construction SW General Permit (CGP)

- Contains requirements for minimum site BMPs, inspections, sampling, SWPPP, reporting (SMARTs), QSP/QSD certification
- Requirements based on Risk Level (1, 2, 3)
- Post-construction runoff reduction requirements do NOT apply to sites in MRP area



Statewide Construction SW General Permit (CGP)

- Regional Water Board staff responsible for compliance inspections & enforcement of CGP



Why do you need to know about the CGP?

- MRP requirement to verify owners of private construction sites that disturb ≥ 1 acre have filed NOI for coverage by CGP
- MRP requirement to inspect construction sites that disturb ≥ 1 acre monthly during wet season for compliance with local ordinances



What do you need to know about the CGP?

- Reviewing SWPPP, QSP inspection records, sampling results, etc. may help inform your MRP inspection
- Public projects ≥ 1 acre must file for coverage under the CGP - will you be involved?

What do you need to know about the CGP?

- Overall site compliance reflects on your inspection program
 - You inspect construction sites for compliance with local SW ordinance
 - Regional Water Board staff inspects construction sites for compliance with CGP
 - Regional Water Board staff enforce compliance with MRP Construction Site Inspection Program



For More Information...

- Municipal Regional Stormwater Permit www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/mrp.shtml
- SMCWPPP Construction BMP Resources <http://flowstobay.org/construction>
- CASQA Construction BMP Handbook Portal (available on web by subscription – contact your agency stormwater coordinator for information on how to access the portal) www.casqa.org



Contact Information

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