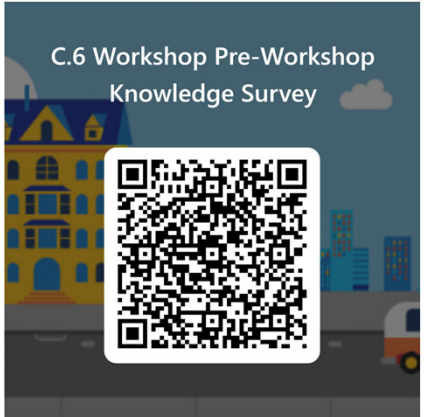



Please complete the pre-workshop survey _____



C.6 Workshop Pre-Workshop Knowledge Survey


The slide features a QR code for a pre-workshop survey. The background of the QR code area is a stylized illustration of a city street with buildings and a truck.

1



CONTRA COSTA
CLEAN WATER
PROGRAM

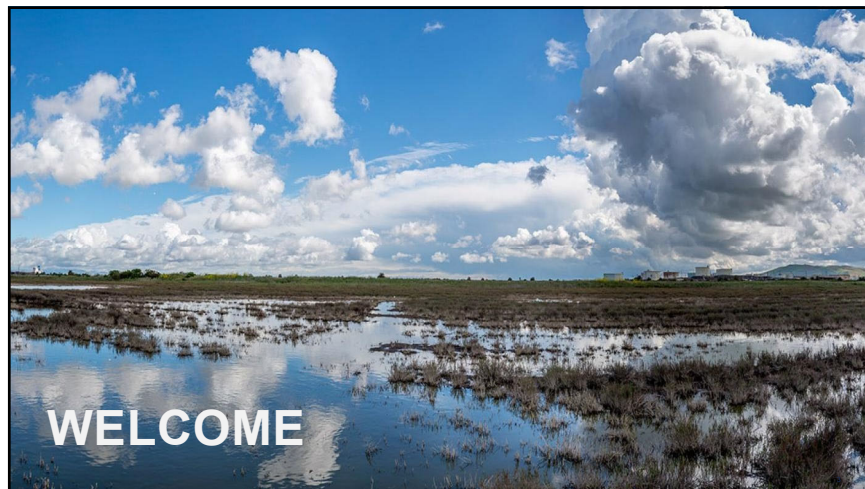
Construction Stormwater Inspection Workshop
Provision C.6 Training



Sandy Mathews, CPESC, QSD, January 30, 2024

The slide is a title slide for the workshop. It includes the Contra Costa Clean Water Program logo at the top, the workshop title in the center, and the presenter's name and date at the bottom left.

2



3

Logistics

- Cell phones**
 - Please silence them
- Questions**
 - Ask as we go along
- Disclaimer**
 - Images and mention of commercial products or services should not be construed as an actual or implied endorsement or recommendation

4

The slide is titled 'Logistics' and lists three items: Cell phones, Questions, and Disclaimer. Each item has a corresponding list of instructions or disclaimers.

4

Overview and Introductions

Welcome and Complete Knowledge Survey	9:00-9:05
Construction Phase Stormwater Pollutants & Regulations	9:05-9:15
MRP Provision C.6	9:15-9:30
C.6 BMP Toolbox	9:30-9:50
Break	9:50-10:00
Inspections and Documentation Best Practices and Tools	10:00-10:15
Inspection Situations	10:15-10:30
2022 CGP Overview	10:30-10:50
Wrap up and Complete Knowledge Survey and Evaluation	10:50-11:00


5

Setting

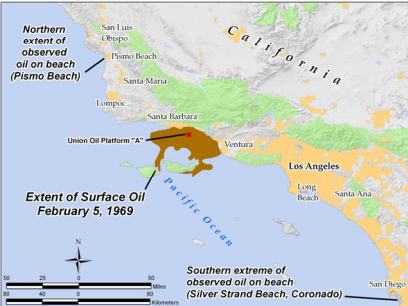
Regulations & Construction Phase Stormwater Pollutants

6

Cuyahoga River Fires



Union Oil Platform Blowout



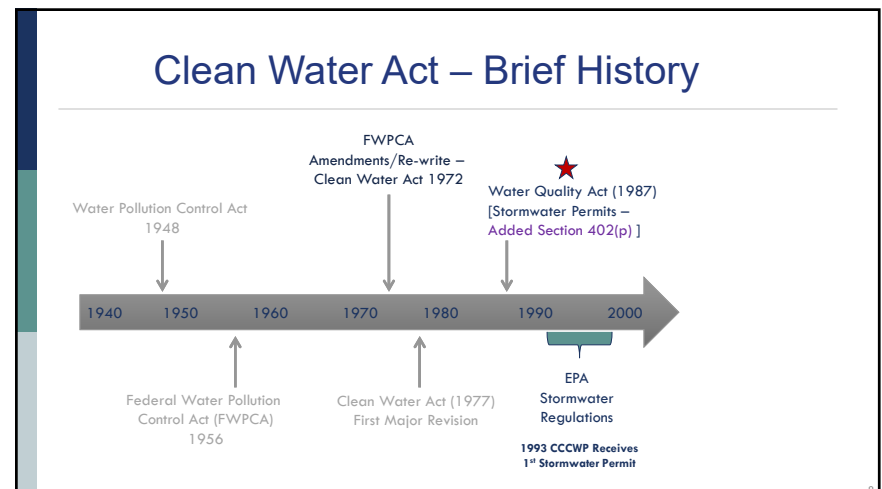
Northern extent of observed oil on beach (Pismo Beach)

Southern extreme of observed oil on beach (Silver Strand Beach, Coronado)

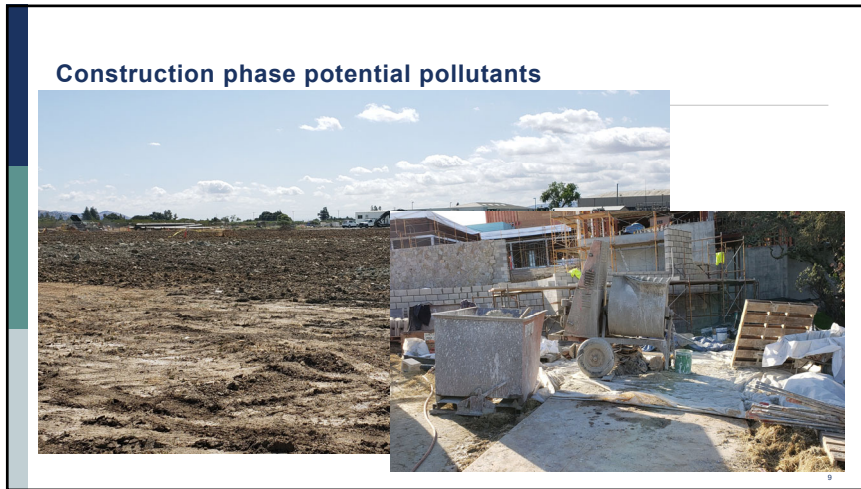
Extent of Surface Oil February 5, 1969

By Antandrus at English Wikipedia, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=16365110>

7



8



9

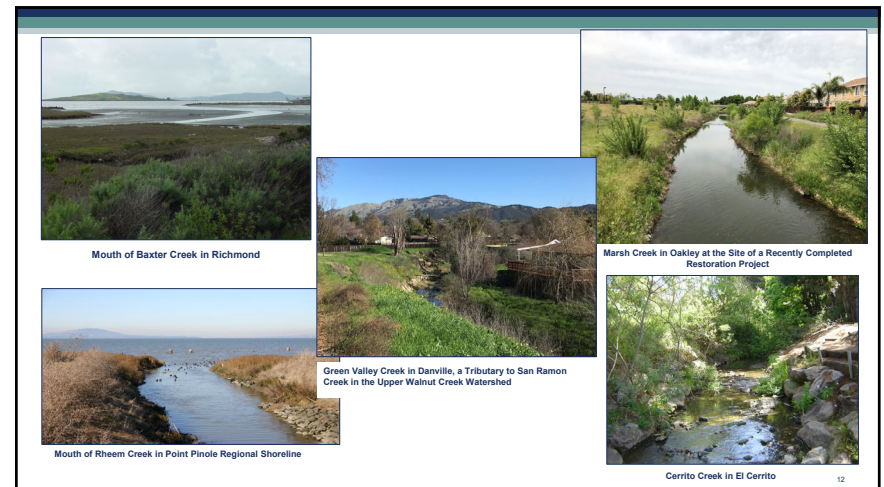
Common sources of water pollutants on construction sites

Material/Activity	Pollutant	Effect on Creeks
Grading/soil disturbance	Sediment	<ul style="list-style-type: none"> Fills spawning gravels, clogs gills, impairs ability to hunt Carries other pollutants
Concrete wastewater	pH	<ul style="list-style-type: none"> Toxic to aquatic life
Concrete wastewater Vehicle fueling & maintenance	Metals	<ul style="list-style-type: none"> Toxic to aquatic life
Paints and solvents	Synthetic organic compounds	<ul style="list-style-type: none"> Toxic to aquatic life
Landscape trimmings and fertilizers	Nutrients, Biochemical oxygen demand	<ul style="list-style-type: none"> Causes algal blooms, depletes oxygen
Asphalt/Paving Vehicle fueling & maintenance	Oil & grease	<ul style="list-style-type: none"> Causes sheen, toxic to aquatic life

10



11



12

Two permits regulate construction site stormwater discharges

Municipal Regional Stormwater Permit

→

Construction General Stormwater Permit

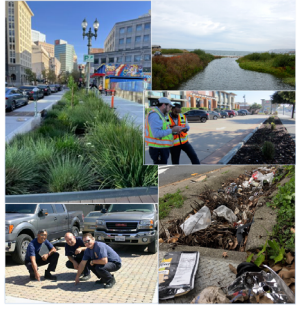
↓

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES (GENERAL PERMIT)

ORDER WQ 2022-0057-DWQ
NPDES NO. CAS000002

California Regional Water Quality Control Board
San Francisco Bay Region
Municipal Regional Stormwater NPDES Permit

Order No. R2-2022-0018
NPDES Permit No. CAS612008
May 11, 2022



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MRP Provision C.6

Construction Site Control

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Municipal Regional Permit (MRP) 3.0

- Each agency implements programs to protect water quality
- Provision C.6 requires a Construction Site Control program
 - Prevent discharge of construction related pollutants
- MRP was reissued in 2022, but Provision C.6 was largely unchanged

California Regional Water Quality Control Board
San Francisco Bay Region
Municipal Regional Stormwater NPDES Permit

Order No. R2-2022-0018
NPDES Permit No. CAS612008
May 11, 2022



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MRP specifies six elements for construction site control programs

-  C.6.a – Legal Authority
-  C.6.b – Enforcement Response Plan (ERP)
-  C.6.c – Best Management Practices Categories
-  C.6.d – Plan Approval Process
-  C.6.e – Inspections, tracking, and reporting
-  C.6.f – Staff training

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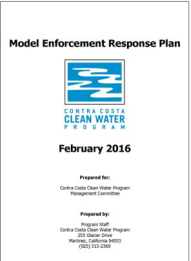
C.6 Review

C.6.a – Legal Authority

- Each jurisdiction is required to have the legal authority and ability to prevent discharges of pollutants and implement progressively stricter enforcement
 - Require effective stormwater pollutant controls
 - Oversee and inspect projects
 - Require expedient cleanup

C.6.b – Enforcement Response Plan

- ERP provides guidance for inspectors on **initiating** and **escalating** enforcement actions to achieve **timely correction**
- Each agency created its own ERP
 - Based on local ordinance
 - CCCWP model provided guidance



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C.6 Review

C.6.c – Best Management Practices Categories

- All sites must implement BMPs in the following categories
 1. Erosion Control
 2. Sediment Control
 3. Run-on and Runoff Control
 4. Active Treatment Systems (as needed)
 5. Good Site Management
 6. Non-Stormwater Management

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C.6 Review

C.6.d – Plan Approval Process


Before issuing a grading permit ...


- Review erosion control plan
 - Conforms to the local grading ordinance and other local requirements
 - Contains seasonally appropriate and effective BMPs
- Confirm sites one acre or more have filed for coverage under the State Construction General Permit (CGP)
 - Site has a WDID #
- Provide educational materials, as appropriate


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C.6 Review

C.6.e – Inspections

 Send annual wet season notification by September 1

 Conduct monthly inspections October – April

 Review adequacy of BMPs and consistency with local ordinances

 Require timely corrections of actual or potential problems observed

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C.6 Review

Monthly Rainy Season Inspections Required

≥1 acre sites	Hillside projects	High priority sites
<ul style="list-style-type: none"> Sites that disturb 1 acre or more of land (CGP sites) 	<ul style="list-style-type: none"> Sites disturbing ≥5,000 sf of land that: <ul style="list-style-type: none"> Meet local hillside development criteria Or Are in local hillside development zones Or Where there are no local criteria, sites with ≥15% slope 	<ul style="list-style-type: none"> Determined by the Regional Board or local jurisdiction <ul style="list-style-type: none"> Erosion potential, soil type Slope Size/type Sensitivity/proximity of receiving water NSWDs Other factors

Rainy season is October - April

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C.6 Review

PCBs Demolition Site Inspections

Demolition of applicable structures containing building materials with PCBs concentrations of 50 ppm or greater

Wet Season	Dry Season
<ul style="list-style-type: none"> Inspect minimum of once during wet season during demolition Conduct additional wet season inspections as specified in your program 	<ul style="list-style-type: none"> Inspect as specified in your program

Specifics determined by the program implemented by each agency

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C.6 Review

C.6.e – Tracking

- Use written or electronic inspection form
 - Program developed a standard inspection form
- Track/log data
 - Inspection log must be made available to Regional Water Board during inspections or audits
- Follow ERP if violations are identified

Construction Site Inspection Report

Project Name: _____		Inspection Date: _____	
Location: _____		County: <input type="checkbox"/> Alameda <input type="checkbox"/> Contra Costa <input type="checkbox"/> El Dorado <input type="checkbox"/> Inyo <input type="checkbox"/> Mono <input type="checkbox"/> Nevada <input type="checkbox"/> Placer <input type="checkbox"/> San Francisco <input type="checkbox"/> Santa Clara <input type="checkbox"/> Stanislaus <input type="checkbox"/> Sutter <input type="checkbox"/> Yuba	
Permit No. _____		Permit Type: <input type="checkbox"/> Building <input type="checkbox"/> Grading <input type="checkbox"/> Other _____	
Project Type: <input type="checkbox"/> Commercial/Industrial <input type="checkbox"/> Residential <input type="checkbox"/> Landscaping		How has the project been funded? <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> Other _____	
Type of Work: <input type="checkbox"/> New <input type="checkbox"/> Alter <input type="checkbox"/> Repair <input type="checkbox"/> Demolition		Reason for inspection: <input type="checkbox"/> Routine <input type="checkbox"/> Complaint <input type="checkbox"/> Other _____	
Inspected by: _____		Date of Report: _____	
Erosion Control Measures		Sediment Control Measures	
Mowing <input type="checkbox"/> Mulch <input type="checkbox"/> Temporary Sealing <input type="checkbox"/> Erosion Control Mats <input type="checkbox"/> Other _____		Sediment Basins <input type="checkbox"/> Silt Fences <input type="checkbox"/> Check Dams <input type="checkbox"/> Other _____	
Stormwater Management <input type="checkbox"/> Stormwater Detention <input type="checkbox"/> Stormwater Treatment <input type="checkbox"/> Other _____		Stormwater Management <input type="checkbox"/> Stormwater Detention <input type="checkbox"/> Stormwater Treatment <input type="checkbox"/> Other _____	
Good Site Management <input type="checkbox"/> Good Site Management <input type="checkbox"/> Good Site Management <input type="checkbox"/> Other _____		Good Site Management <input type="checkbox"/> Good Site Management <input type="checkbox"/> Good Site Management <input type="checkbox"/> Other _____	
Non-Stormwater Management <input type="checkbox"/> Non-Stormwater Management <input type="checkbox"/> Non-Stormwater Management <input type="checkbox"/> Other _____		Non-Stormwater Management <input type="checkbox"/> Non-Stormwater Management <input type="checkbox"/> Non-Stormwater Management <input type="checkbox"/> Other _____	
Enforcement and Follow-up <input type="checkbox"/> Enforcement and Follow-up <input type="checkbox"/> Enforcement and Follow-up <input type="checkbox"/> Other _____		Enforcement and Follow-up <input type="checkbox"/> Enforcement and Follow-up <input type="checkbox"/> Enforcement and Follow-up <input type="checkbox"/> Other _____	

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C.6 Review

C.6.e – Reporting (Annual Report Form Excerpts)

DRAFT 2023-24 Forms

C.6.e.iii.(3)(a), (b), (c), (d) ▶ Site/Inspection Totals				
Total number of construction sites requiring inspections during at least part of the Permit year: [C.6.e.iii.1.a]	Total number of active hillside sites disturbing <1 acre of soil requiring inspection [C.6.e.iii.1.b]	Number of High Priority Sites (sites disturbing < 1 acre of soil requiring storm water runoff quality inspection) [C.6.e.iii.1.d]	Number of sites disturbing ≥ 1 acre of soil [C.6.e.iii.1.c]	Total number of storm water runoff quality inspections conducted (include only Hillside Sites, High Priority Sites and sites disturbing 1 acre or more) [C.6.e.iii.1.e]

C.6.e.iii.(1)(f) ▶ Construction Related Storm Water Enforcement Actions		
Guidance: Do not leave any cells blank. Provide a brief description of each enforcement action level (e.g., verbal warning, notice of violation, stop work order, legal action, etc.)		
	Enforcement Action (as listed in ERP) ¹	Number Enforcement Actions Issued
Level 1 ²		
Level 2		
Level 3		
Level 4		
Total		


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C.6 Review

C.6.e – Reporting (Annual Report Form Excerpts)

DRAFT 2023-24 Forms



New MRP 3 requirement

C.6.f.iii ▶ Staff Training Summary

Training Name	Training Dates	Topics Covered	Total Number of Inspectors (both municipal and non-municipal staff)	No. of Inspectors in Attendance (both municipal and non-municipal staff)

Comments:
 Guidance: Use this area if needed to explain any information in the Staff Training Summary. Include training of any contractors or other entities performing inspections. If there was no training in this FY state that here.

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C.6 Review

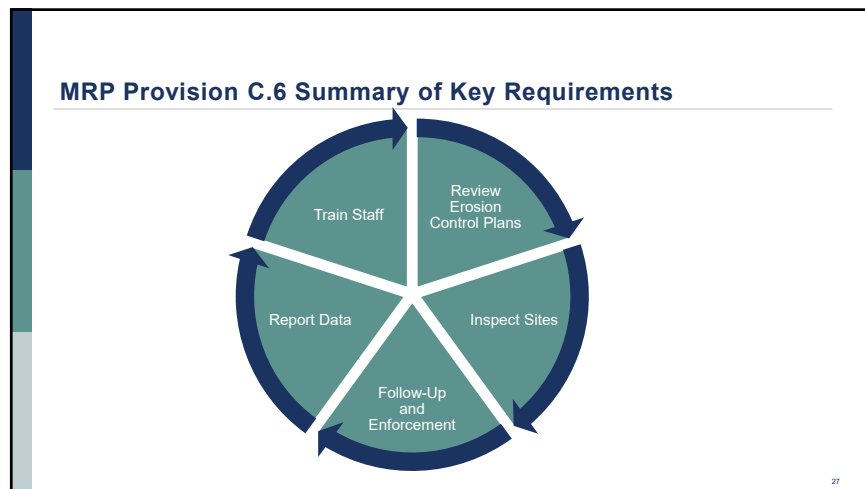
C.6.f – Staff Training

- Provide training or access to training for staff involved in construction site stormwater inspections
- Training to be provided at least every other year

Today's workshop meets the C.6.f training requirement

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BMP Principles

Basic principles of stormwater quality protection

- Sites need to **Plan** for stormwater protection
- Sites need to **use and maintain BMPs** at appropriate levels year-round
 - **Minimize** pollutant exposure
 - **Protect** exposed pollutants
- Sites need to **use BMPs in layers** to protect water quality and plan for accidents

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BMP Principles

C.6 Minimum BMP Categories Toolbox

BMP	Typical Applications
1. Erosion Control	Apply <u>on</u> graded areas and soil stockpiles.
2. Sediment Control	Apply <u>around</u> graded areas, soil stockpiles, landscape materials, site perimeter, at inlets/ catch basins. Includes sweeping and tracking.
3. Run-on and Runoff Control	Diverts water away from disturbed areas and controls water leaving site.
4. Active Treatment Systems	Chemical treatment systems to remove sediment. Not common.
5. Good Site Management	Good housekeeping and site management throughout site, especially material laydown areas.
6. Non-Stormwater Management	Water conservation and practices to prevent non-stormwater discharges.



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Erosion Control BMPs

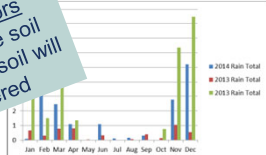
Erosion controls

- Protects soil and prevents soil particles from becoming detached by rainfall, flowing water or wind
- Soil protected as a resource
- Source controls that prevent soil from becoming a pollutant

Tip for Inspectors

- Look for bare soil
- Ask how the soil will be covered

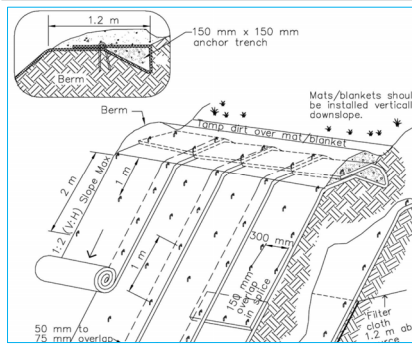


31

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Erosion Control BMPs

Fiber (Erosion Control) Blankets



Tips for Inspectors

- Blanket overlap – no gaps
- Stapled to soil
- Not stretched
- Anchored at top
- Install vertically downslope
- Natural fiber nets for permanent installations



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Erosion Control BMPs

Hydroseeding/Hydromulch

Tips for Inspectors

- Look for complete coverage of soil
- Look for erosion rills
- Seeds need irrigation or light rains to germinate
- Best if soil is track walked or roughened before application



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Sediment Control BMPs

Sediment controls

- Practices that trap dirt particles – sediment – once they have been detached by rain, flowing water, or wind
 - Various practices to slow and detain water to allow sediment to settle
 - Treatment controls that remove soil from water or wind

Tip for Inspectors

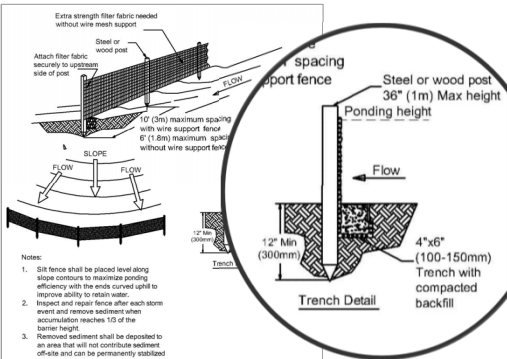
- Look for sediment controls where runoff will leave the site




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Sediment Control BMPs

Silt Fence



Tips for Inspectors

- Installed on contour!
- Ponds water – is there space?
- Tug test – trenched and compacted
- Sediment no more than 1/3 height
- No gaps between sections
- Look for undercutting (or light under fence)
- Cannot use in concentrated flow paths

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Sediment Control BMPs

Fiber Rolls (Wattles)

Tip 1 Installation



Tips for Inspectors

- Installed on contour!
- Cannot be used on pavement
- Toe test – can you lift the wattle with you toe?
- Overlapped sections
- Look for undercutting
- J-hook ends upslope

Tip 2 Installation



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Sediment Control BMPs

Stabilized Entrance/Exit Standard Design

- Rock pad underlain with a geotextile fabric
 - 10 feet wide – accommodate width of vehicles
 - 50 feet long – accommodate several wheel rotations
 - 3-inch to 8-inch rock (sources vary on rock size)
 - 6 to 12 inches deep layer of rocks

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Sediment Control BMPs

Small Site Tips for Inspectors

- Install maximum length site will allow
- Install to allow two full rotations of tires of the typical vehicle
- Augment with rumble racks
- Enhance street sweeping

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Sediment Control BMPs

Drain Inlet Protection Last Line of Defense

TYPICAL PROTECTION FOR INLET ON SUMP

Tips for Inspectors

- Cannot be the only BMP!
- Look for protection at drains on-site and immediately off-site
- Woven geotextile bags (in good condition)
- Bags filled with gravel
- Not stacked higher than curb line
- Spillway for water to get to DI
- Cannot use silt fence fabric over inlet

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Sediment Control BMPs

Active Treatment Systems

- System that uses chemical coagulation, chemical flocculation, or electro-coagulation to reduce turbidity
- Systems typically include basins or holding tanks, pumps, filtration units, and online monitoring systems
- If ATS is used must meet the CGP ATS requirements

Tips for Inspectors

- Check how chemicals are stored
 - Secondary containment!
- Check the discharge point
 - Effluent should be clear
 - No signs of erosion

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Run-on/Runoff BMPs

Run-on and Runoff Controls

Run-on Control

- Manage/divert runoff and dry weather flows that originate outside the project around the project or disturbed areas

Runoff Control

- Manage runoff within the project
 - Prevent runoff from flowing through disturbed areas
 - Direct runoff to sediment controls



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Good housekeeping

- Source control practices that minimize exposure of construction materials and waste to rain and wind

Tip for Inspectors

- Check material and waste storage areas
- Is the site prepared for spills and leaks





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Good Housekeeping BMPs

Stockpile Management



Tip for Inspectors

- Covers for inactive soil piles
- Covers tied down
- Perimeter controls for soil piles



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Good Housekeeping BMPs

Sanitary Waste Management

- Manage sanitary wastes by providing convenient, appropriately placed, well-maintained facilities
- Arrange for regular service and disposal

Tips for Inspectors

- Placed on flat surface and secure units
- Out of gutter and away from storm drains
- Secondary containment



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Good Housekeeping BMPs

Waste and Litter Management

Tips for Inspectors

- Covers in place or available to be deployed
- Excessive litter on site
- Uncontained piles of trash
- Leaks from bins






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Non-Stormwater BMPs

Non-Stormwater Management



Tips for Inspectors

- Look for evidence of discharge, e.g., stains, wet areas
- Ask about hoses or unlabeled pipes

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Non-Stormwater BMPs

Concrete Washout

Tips for Inspectors

- Wash out set up before start of concrete operations
- Leaks or damaged containers
- Overtopping
- Away from storm drains




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Non-Stormwater BMPs

Copper is a Significant Water Quality Concern

- Copper is used in a variety of architectural features
 - When installed these features may be cleaned, treated (patinated), or washed
- Treatment solutions and rinse or wash water from copper features must be collected for proper disposal



Tips for Inspectors

- Ask operators about plans treat or wash copper features

Source: Wiki commons, <http://www.rutlandguttersupply.com/copper-dome.asp>

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BMP Principles

C.6 Minimum BMP Recap

BMP	Typical Applications
1. Erosion Control	Apply <u>on</u> graded areas and soil stockpiles.
2. Sediment Control	Apply <u>around</u> graded areas, soil stockpiles, landscape materials, site perimeter, at inlets/ catch basins. Includes sweeping and tracking
3. Run-on and Runoff Control	Diverts water away from disturbed areas and controls water leaving site.
4. Active Treatment Systems	Not common, chemical treatment systems to remove sediment.
5. Good Site Management	Good housekeeping and site management throughout site, especially material laydown areas.
6. Non-stormwater Management	Water conservation and practices to prevent non-stormwater discharges.

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Inspections and Documentation


Best Practices and Tools

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- Inspection Guidelines
- ### Goals of Inspection
- Assess compliance with local ordinances
 - Check adequacy and effectiveness of BMPs
 - Require correction of problems
 - Observe
 - Evidence of sediment discharges
 - Evidence of discharge of construction materials
 - Evidence of illicit connections/discharges
 - Educate on stormwater pollution prevention
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- Inspection Guidelines
- ### Preparation for Inspection
- Review existing information
 - Past Inspection Records
 - Site Plan/SWPPP Plan
 - Check with other inspectors
 - Other useful information
 - SWPPP or Erosion Control Plan
 - Locate site with mapping tools (e.g., GIS, Google Maps) to understand location in watershed
 - Information in SMARTS on CGP sites
 - Annual Reports
 - Monitoring data (pH, turbidity)
- 
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Preparation for Inspection

- Gather equipment and tools
 - PPE – hard hat, safety glasses, safety shoes, vest
 - Identification
 - Copy of Site Map, plan, schedule
 - Inspection form blanks or field log
 - Camera
 - Enforcement documents
 - Brochures/info

Aplicación de Concreto Fresco y Ladrillo



Mejores Prácticas Para la Industria de Construcción

Programa de Agua Del Condado de Costa

Inspection Guidelines

HEAVY EQUIPMENT OPERATION



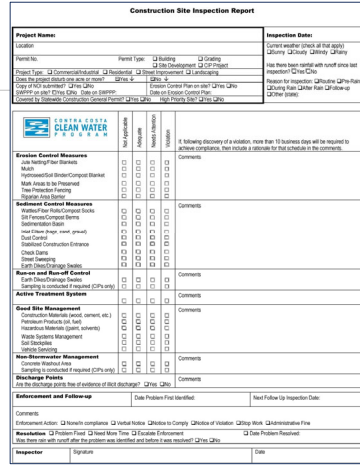
Best Management Practices for the Construction Industry

Contra Costa Clean Water Program

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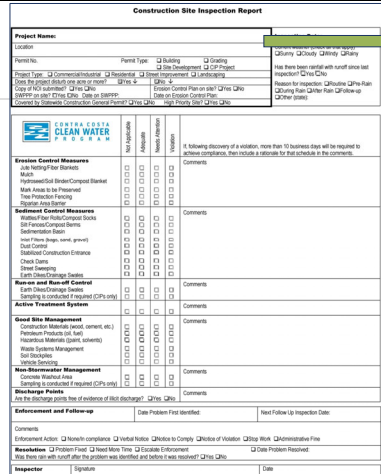
Documenting the Inspection

- Complete the inspection form
- Mirrors the MRP requirements
 - Facilitates reporting
 - Provide consistency across agencies
- Accounts for CGP requirements
 - Used for CIPs



Inspection Guidelines

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Inspection Guidelines

Project Information

Inspection Day Information

BMP Observations

Illicit Discharge Observations


Follow-up Actions

Sign & Date Form

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Document BMP Observations and Actual and Potential Illicit Discharges

- ☑ Not Applicable
- ☑ Adequate
- ☑ Needs Attention
- ☑ Violation
- Comments
 - Document needed actions for BMPs identified as Needs Attention or Violations
 - For actual or potential discharges give a time-frame to correct
 - Before next rain event or 10 business days
 - If longer than 10 business days, provide justification



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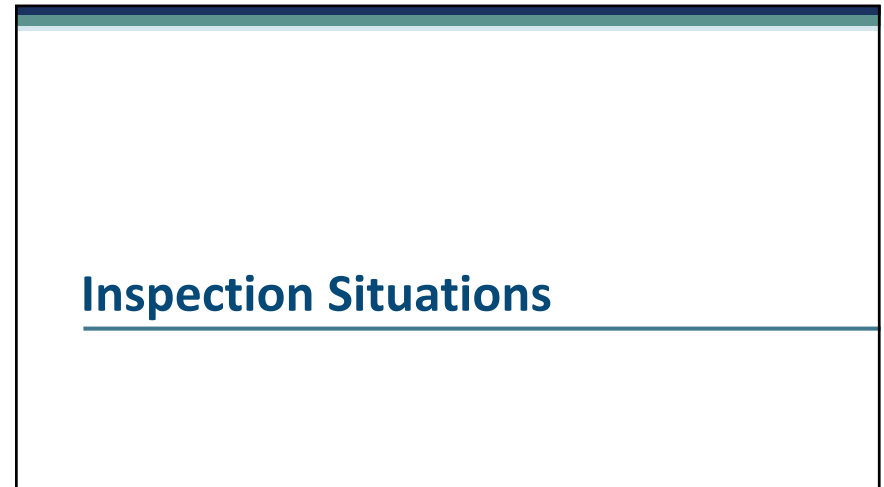
Inspection Guidelines

Use the Inspection Form to Document Enforcement

- Re-inspection
- Enforcement action taken
- Resolution

Enforcement and Follow-up	Date Problem First Identified:	Next Follow Up Inspection Date:
Comments Enforcement Action: <input type="checkbox"/> None/in compliance <input type="checkbox"/> Verbal Notice <input type="checkbox"/> Notice to Comply <input type="checkbox"/> Notice of Violation <input type="checkbox"/> Stop Work <input type="checkbox"/> Administrative Fine		
Resolution <input type="checkbox"/> Problem Fixed <input type="checkbox"/> Need More Time <input type="checkbox"/> Escalate Enforcement <input type="checkbox"/> Date Problem Resolved: Was there rain with runoff after the problem was identified and before it was resolved? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Inspector	Signature	Date

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2022 Construction General Stormwater Permit

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2022 CGP

https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
1001 I Street Sacramento, CA 95814
<https://www.waterboards.ca.gov>

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH
CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES
(GENERAL PERMIT)

ORDER WQ 2022-0057-DWQ
NPDES NO. CAS000002

This Order was adopted by the State Water Resources Control Board on:	September 8, 2022
This Order shall become effective on:	September 1, 2023
The statewide programmatic permitting option per Section III.B.4 of this Order shall become effective on:	December 17, 2022
This Order shall expire on:	August 31, 2028

IT IS HEREBY ORDERED that this Order supersedes Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-0006-DWQ except for: (1) the requirement to submit annual reports by September 1, 2023, (2) enforcement purposes, and (3) as set forth in Section III.C of this Order. The discharger shall comply with the requirements in this Order to meet the provisions contained in Division 7 of the California Water Code (commencing with § 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder.

IT IS ALSO HEREBY ORDERED that on or after December 17, 2022, a discharger deploying Executive Order N-73-20 may obtain regulatory coverage through the statewide programmatic permitting option in Section III.B.4 under Order 2009-0009-DWQ as amended by Orders 2010-0014-DWQ and 2012-0006-DWQ until September 1, 2023.

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2022 CGP Overview

CGP implements federal and state water quality requirements

- Construction sites that disturb ≥ one acre of soil
 - Statewide general permit
 - Regulates stormwater and some non-stormwater discharges from construction sites
- Issued to the construction site (landowner)
- Requires plans and BMPs to protect stormwater and prevent non-stormwater discharges

● Federal Clean Water Act

● State Water Code

● Construction General Permit

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2022 CGP Overview

Basic CGP requirements


-  Develop a Stormwater Pollution Prevention Plan (SWPPP)
-  Develop Post Construction BMP Plan
-  Submit a Permit Application – Notice of Intent (NOI)
-  Implement and maintain the BMPs and SWPPP
-  Monitor the site
-  Complete and certify annual reports
-  File a Notice of Termination (NOT)

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2022 CGP Overview

2022 CGP effective date and regulatory transition period



- Two parallel CGPs will be in effect from 9/1/2023 until 9/1/2025
- Projects with active WDID numbers before 9/1/2023, can remain under the 2009 CGP until the end of the transition period
 - New area added to an existing project after 9/1/2023 will be under the 2022 CGP

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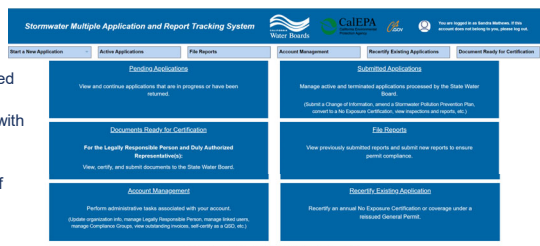
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2022 CGP Overview

Getting coverage under the 2022 CGP

New/Changed Requirements

- New SMARTS interface for the 2022 CGP
- Permit fee based on total disturbed area
- Submit Post Construction Plans with CGP application
- Projects separated by ¼ mile are not considered a common plan of development



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2022 CGP Overview

CGP projects in Contra Costa need to comply with C.3 requirements

- Upload an attachment or web source of the post construction standards
- Upload preliminary or approved Post Construction BMP Plan and calculations
 - If uploading a preliminary plan, need to upload approved plans within 14-days of plan approval by the local agency



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2022 CGP Overview

Qualified SWPPP Developer and Practitioner responsibilities


- Projects must have QSD and QSP throughout the project
- Mandates QSDs and QSPs conduct specified inspections that may not be delegated
- QSPs must provide specified training to staff performing delegated tasks
 - Foundational training, e.g., how to use weather forecasts
 - Site specific training, e.g., where to collect samples at the site
- State Water Board may take action against QSDs and QSPs found to be negligent
- QSDs and QSPs must complete a reissuance review for the 2022 CGP prior to their credential expiration
 - Self-certified QSDs (e.g., professional engineers) must complete the recertification process within a year of the effective date

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2022 CGP Overview


Fundamental changes to inspections and monitoring




Definition of the qualifying precipitation event (QPE)



Sampling frequency and reporting



Data evaluation



Who does inspections

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2022 CGP Overview

New term: Qualifying Precipitation Event

- A QPE is any weather pattern that is forecast to have a **50 percent or greater Probability of Precipitation** and a **Quantitative Precipitation Forecast (QPF) of 0.5 inches or more within a 24-hour period.**
 - The event begins with the 24-hour period when 0.5 inches has been forecast and continues on subsequent 24-hour periods when 0.25 inches of precipitation or more is forecast
- Use the National Weather Service Weather Table
 - <https://www.weather.gov/wrh/wxtable>

2009 Qualifying Rain Event Definition

Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.

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2022 CGP Overview

Qualifying Precipitation Example #1

	December 31				January 1				January 2				January 3			
Time	4a	10a	4p	10p	4a	10a	4p	10p	4a	10a	4p	10p	4a	10a	4p	10p
PoP	55	95	100	40	15	-	-	-	-	5	50	55	30	30	30	35
QPF	0.02	0.13	0.83	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.1	0.01	0.01	0.01	0.04
QPE	1 st QPE – Start & End				No QPE				No QPE				No QPE			

	January 4				January 5				January 6				January 7			
Time	4a	10a	4p	10p	4a	10a	4p	10p	4a	10a	4p	10p	4a	10a	4p	10p
PoP	35	45	60	80	75	55	35	30	20	15	15	15	-	-	-	-
QPF	0.05	0.11	0.28	0.51	0.35	0.30	0.27	0.11	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00
QPE	No QPE				2 nd QPE – Day 1 (Start)				2 nd QPE – Day 2 (End)				No QPE			

PoP = Probability of Precipitation QPF = Quantitative Precipitation Forecast
 QPE = Qualifying Precipitation Event

Source: California Water Boards

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2022 CGP Overview

Sampling frequency, reporting, and data evaluation

- pH and turbidity sampling frequency
 - Collect one sample from each actively discharging location each 24-hour period of the QPE
 - 1 discharge point = 1 sample per day
 - 10 discharge points = 10 samples per day
- pH and turbidity data must be uploaded to SMARTS after each precipitation event
 - NAL exceedance: Within 10 days of the completion of the precipitation event
 - Data within NAL: Within 30 days of the completion of the precipitation event
- Evaluation of pH and turbidity Numeric Action Levels (NALs)
 - **No more averaging of results**
 - Exceedance occurs when any sample exceeds the NAL value

Parameter	NAL
pH	< 6.5 to > 8.5
Turbidity	> 250 NTU

Only trained QSP Delegates, QSPs, or QSDs may collect samples

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2022 CGP Overview

Who can perform inspections

Inspection Type	QSD	QSP	QSP-Delegate
Twice annual	☑		
Within 30 days of construction start and replacing QSD	☑		
As requested by Regional Water Board	☑		
Inactive sites – within 14 days of COI approval	☑		
Within 14 days of NAL exceedance	☑	☑	
Monthly	☑	☑	
Pre-precipitation event	☑	☑	
Weekly	☑	☑	☑
During and post-precipitation event	☑	☑	☑
Inactive sites – Monthly and pre-precipitation event	☑	☑	☑
Prior to COI and NOT submissions	☑	☑	

☑ CGP Required ☑ CGP Allowed

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2022 CGP Overview

New definition: Routine Maintenance for Roads

Routine maintenance for road and highway projects is defined as the replacement of the structural section, but not when the activity exposes the underlying soil or erodible subgrade.

- Road maintenance projects that *expose ≥1 acre of soil and/or subgrade* are subject to the CGP

Source: <https://pavementinteractive.org/>

Order Section II.B.1
Attachment B Glossary

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2022 CGP Overview

New requirement: Reducing acreage on residential subdivision

- 2022 CGP allows projects to remove residential lots from CGP coverage
 - Lots can be removed before final stabilization of the front and/or back yards
- Must meet the following criteria
 - All construction is complete
 - Lot is less than one acre of disturbance
 - Home is sold to individual homeowner
 - Certificate of Occupancy issued
 - Temporary stabilization BMPs are installed
 - Homeowner is contracted to
 - Maintain BMPs
 - Complete final stabilization within one year

Source: California Water Boards

Order Section III.F.2.b

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New BMPs and Controls

- Passive Treatment BMPs
 - Use must comply with Attachment G
- Dewatering plans or permits
 - West County – Develop dewatering plan per Attachment J
 - East County – Apply for the Central Valley Regional General Dewatering Permit for
 - Order [R5-2022-0006-01](#)
 - Projects need to plan well in advance to acquire the dewatering permit

Dewatering is mechanical pumping or siphoning non-potable water from excavations, foundations, vaults, impoundments, trenches and groundwater removal specifically related to construction activities



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2022 CGP Overview

New/Changed requirements: Terminating CGP coverage

- Final erosion control BMPs cannot have plastic nets (wildlife entrapment)
- QSP must inspect and complete inspection report that verifies the site meets the termination criteria
- Photos demonstrating final stabilization and the applicable post-construction BMPs
- More detailed final site map(s)
 - Photo orientation references, locations of permanent erosion/sediment control and post construction BMPs, etc.
- Long-term maintenance plan for the post-construction BMPs

- NOT is automatically approved after 30 days if Regional Water Board does not act on it

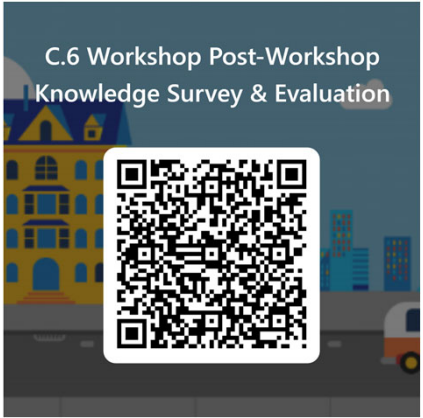
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Wrap up and resources

- CGP - https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html
- SMARTS - <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>
- SMARTS help guides - https://www.waterboards.ca.gov/water_issues/programs/stormwater/smarts/construction/const_help_guides.html
- CASQA Construction BMP Handbook and SWPPP Template <https://www.casqa.org/resources/bmp-handbooks/construction-bmp>
- 2022 CGP Reissuance Review (for the public) <https://www.casqa.org/resources/training/cgp-training-program/2022-cgp-reissuance-review> (QSDs and QSPs need to complete the review in their accounts to get credit)
- State Water Board CGP Roadshow https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html#roadshow

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Please complete the post-workshop survey and evaluation



C.6 Workshop Post-Workshop Knowledge Survey & Evaluation

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