CONTRA COSTA CLEAN WATER PROGRAM

Construction Site Stormwater Controls Workshop

MRP Provision C.6

April 10, 2014

Presented by: Sandy Mathews
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LARRY WALKER ASSOCIATES

Front Matter

- Cell phones
- Restrooms
- Questions

Workshop Agenda

Check in – Complete surveys	8:00-8:30
Introduction and Welcome	8:30-8:40
C.6 Requirements Overview	8:40-9:00
Recognizing C.6 BMPs – Inspector's Eye	9:00-9:30
Relating C.6 to the State Construction General Permit	9:30-9:50
Break	9:50-10:05
Inspections, Documentation, and Reporting	10:05-10:25
Enforcement - Using the ERP	10:25-10:45
Using Inspection Tools Group Exercise and Discussion	11:00-11:45
Questions and Answers and Wrap-up Complete Post-Workshop Surveys	11:45-Noon

Acronyms

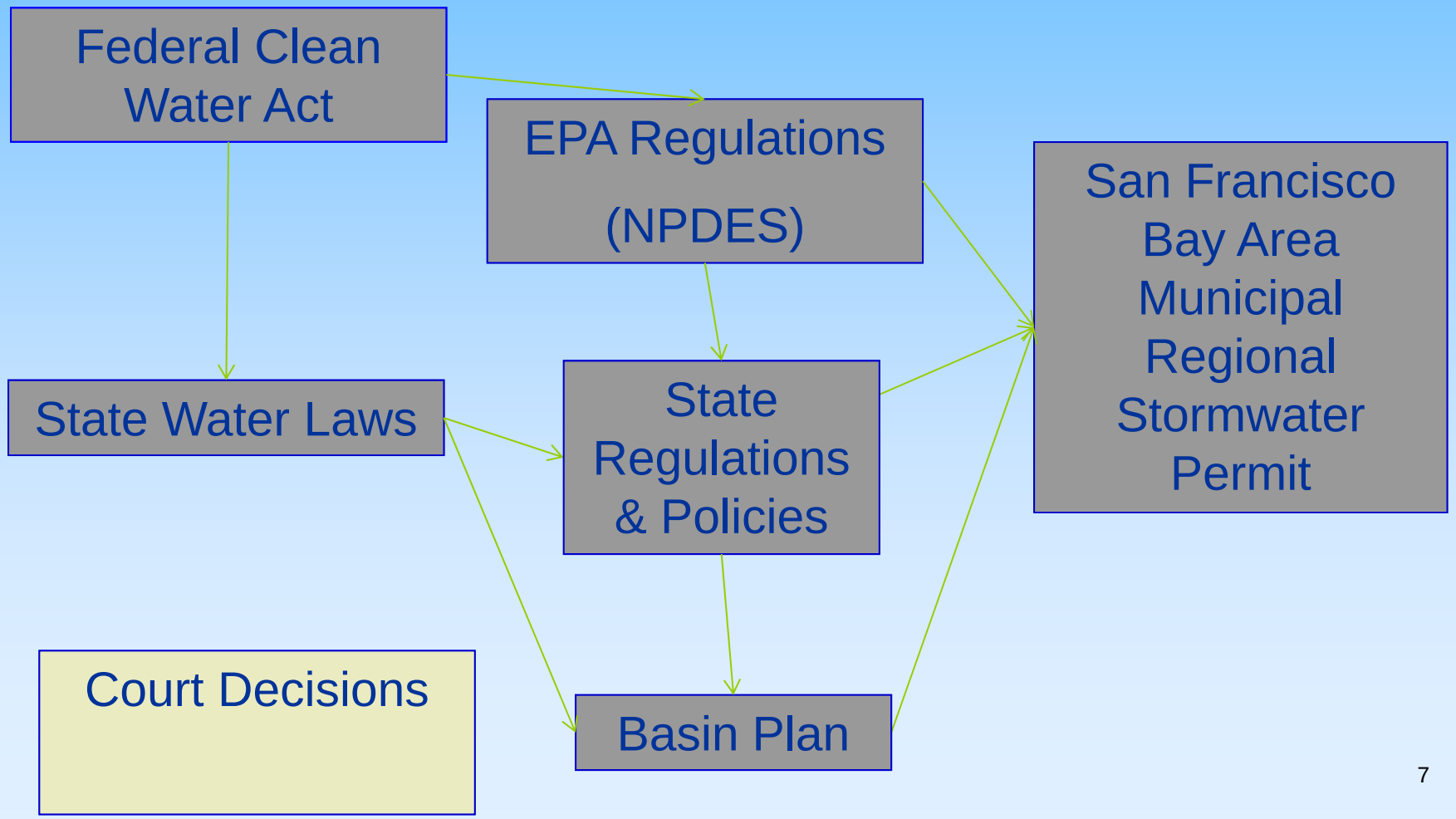
ATS	Active Treatment System
BMP	Best Management Practice
CASQA	California Stormwater Quality Association
CGP	Construction General Permit
CIP	Capital Improvement Project
COB	Close of Business
ERP	Enforcement Response Plan
MRP	Municipal Regional Permit
MS4	Municipal Separate Storm Sewer System aka storm drainage system
NOI	Notice of Intent

Acronyms

NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
PPE	Personal Protective Equipment
PRDs	Permit Registration Documents
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
REAP	Rain Event Action Plan
SMARTS	Stormwater Multiple Application and Report Tracking System
SWPPP	Stormwater Pollution Prevention Plan
WDID	Waste Discharger Identification Number

OVERVIEW OF PROVISION C.6 OF THE MUNICIPAL REGIONAL PERMIT

Putting the MRP into Regulatory Context



Municipal Regional Permit (MRP)

- All the local agency jurisdictions are responsible for implementing programs to protect the quality of discharges from their storm water drainage systems
- Provision C.6 of the MRP requires Permittees implement a construction site inspection and control program at all construction sites to prevent construction site discharges of pollutants and impacts on receiving waters

Construction Site Control Requirements

- C.6.a – Legal Authority for Inspections
- C.6.b – Enforcement Plan (ERP)
- C.6.c – Best Management Practices Categories
- C.6.d – Plan Approval Process
- C.6.e – Inspections (and Reporting)
- C.6.f – Staff Training

C.6.a – Legal Authority

- Your agency is required to have the legal authority and ability to require effective stormwater pollutant controls and escalate progressively stricter enforcement to achieve compliance and clean up at all public and private construction sites.

C.6.b – Enforcement Response Plan (ERP)

- Your agency is required to have and implement an ERP that will serve as a reference document for inspection staff to take consistent actions to achieve timely and effective compliance from all public and private construction site owners/operators.

C.6.c – Best Management Practices (BMPs)

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

C.6.d – Local Erosion Control Plan Approval Process

- An erosion control plan must be reviewed and approved for construction sites prior to issuing a grading permit for the site
- The erosion control plan must conform to the local grading ordinance and other local requirements, or project-specific conditions
- For sites one acre or more, must confirm that the applicant has filed for coverage under the State CGP
  - Confirm they have a WDID number

C.6.e – Inspections

- Provide pre-rainy season BMP Notification to sites/owners by September 1, annually
- Perform monthly inspections October through April at sites disturbing 1 or more acres or land and other “High Priority” sites
- Review adequacy of implementation of the six BMP categories, consistent with your local ordinance
- Require timely corrections of actual or potential problems observed

C.6.e. – Documenting Inspections

- Use written or electronic inspection form
- Follow ERP if violations are found
- Ensure corrections within 10 business days or prior to next rain event (whichever is first), or provide additional rationale
- Track/log data into an electronic database or table
- Provide summary report to Regional Water Board annually

C.6.e Annual Reports to the Regional Water Board

- Summary of inspections
- Summary of violations and enforcement actions
- Summary of non-compliant discharge incidents
- Summary of duration until violations were corrected

C.6.f – 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

MRP Provision C.6 Summary

- Review erosion control plans
- Inspect sites to confirm effective BMP implementation
- Perform follow-up and enforcement consistent with your agency's ERP to correct problems
- Report data that summarizes your effort and demonstrates the effectiveness of your construction program
- Train staff responsible for these tasks

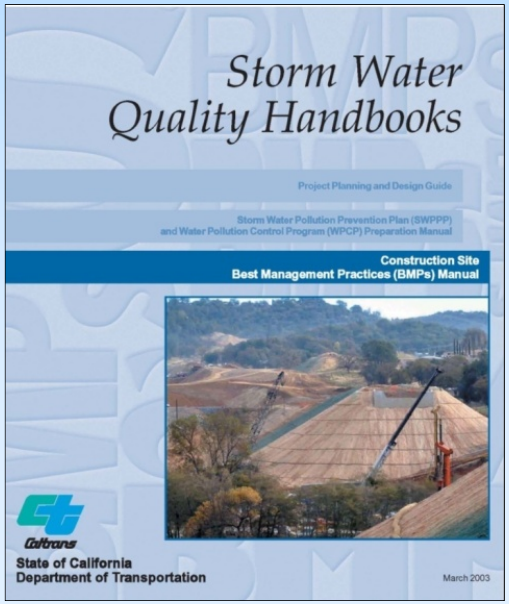
RECOGNIZING C.6 BEST MANAGEMENT PRACTICES (BMPS) – INSPECTORS EYE

Municipal Regional Permit (MRP) required BMP Categories

1. Erosion Control
2. Run-on and Runoff Control
3. Sediment Control
4. Active Treatment Systems (as necessary)
5. Good Site Management
6. Non-stormwater Management

MRP calls out three BMP reference manuals

- CASQA California BMP Handbook, Construction
- Caltrans Stormwater Quality Handbook, Construction Site BMP Manual
- Erosion and Sediment Control Field Manual
  - San Francisco Bay Regional Water Quality Control Board (2002)
- New BMPs available since the release of the above documents



Where to get the references

- CASQA Handbook
  - Available by subscription: http://www.casqa.org
- Caltrans Handbook
  - Available online at: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm
- Erosion Control Field Manual
  - Get order form: http://www.swrcb.ca.gov/water_issues/programs/stormwater/training.shtml

Erosion Controls

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

Examples of Erosion Controls

Tree protection fencing
Jute netting, fiber blankets
Soil binders
Riparian area buffer
Mulch
Compost blankets
Hydroseeding

Sediment Controls

- Practices that trap soil 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

Examples of Sediment Controls

Silt fence	Compost berms
Compost socks	Fiber rolls (wattles)
Stabilized entrance	Street sweeping/vacuuming
Dust control	Sediment basins
Check dams	Inlet filters

Run-on and Runoff Controls

- Practices that manage/divert runoff and dry weather flows that originate outside the project
  - Prevent run-on from flowing through disturbed areas or construction materials
- Practices that manage runoff from within the project
  - Prevent runoff from flowing through disturbed areas or construction materials
  - Direct runoff to sediment controls

Examples of Run-on and Runoff Controls

Earth dikes
Drainage swales

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

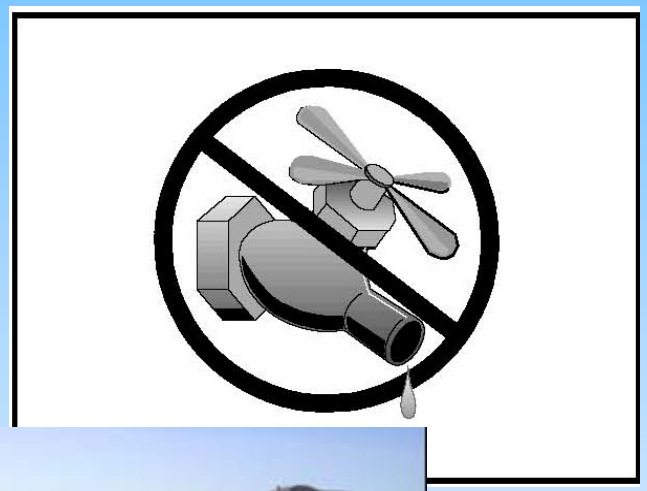
Good Site Management

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

Examples of Good Site Management Practices

Stock pile protection
Petroleum product storage
Waste management systems
Material storage
Hazardous material storage
Vehicle servicing

Non-stormwater Management



- Practices that use water in a manner that prevents erosion and the transport of pollutants offsite
- Practices that prevent the discharge of unauthorized non-stormwater

Examples of Non-Stormwater Management

Concrete washout
Vehicle and equipment cleaning
Dewatering operation

YOU'RE THE INSPECTOR
WHAT WOULD YOU DO?


TEJA


CHUCK'S


United


CONCRETE WASHOUT SYSTEMS, INC.


40
EXPO EXTERIOR COLOR COAT
EXPO COLOR
CAUTION

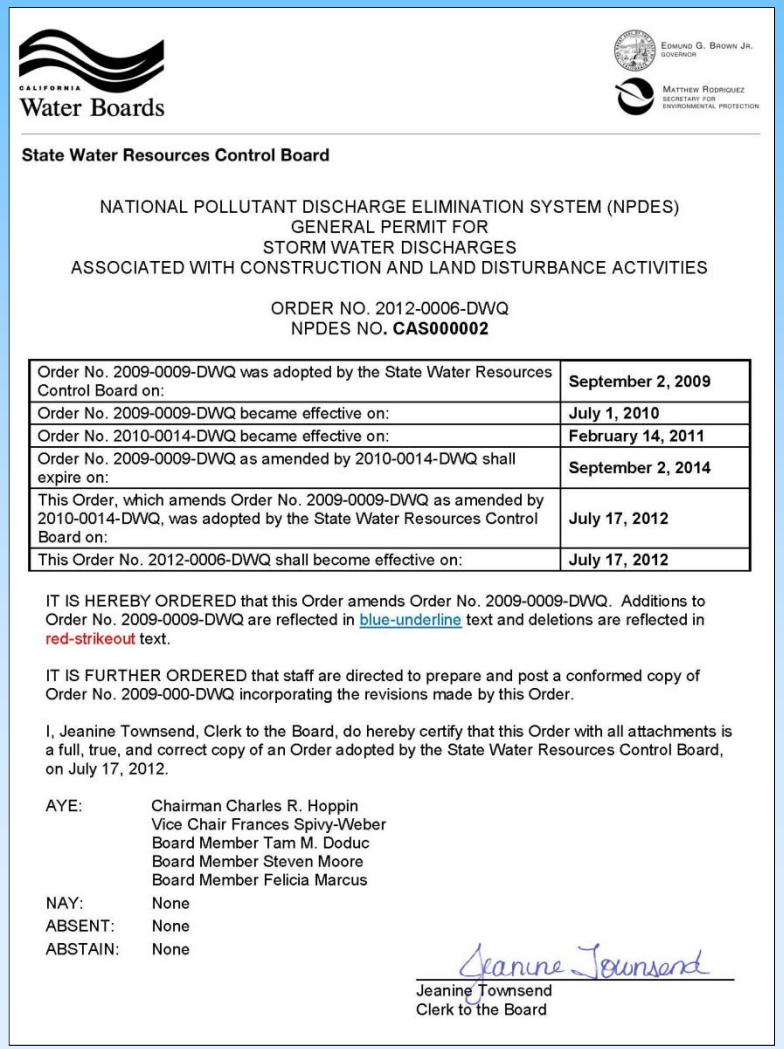

1993
DANGER
DIESEL
FUEL
DANGER
NO SMOKING
NO OPEN FLAMES

CONTRA COSTA CLEAN WATER PROGRAM

A review of the key differences

RELATING C.6 TO THE STATE CONSTRUCTION GENERAL PERMIT

Overview of the CGP



CALIFORNIA Water Boards

Edmund G. Brown Jr. GOVERNOR

Matthew Rodriquez SECRETARY FOR ENVIRONMENTAL PROTECTION

State Water Resources Control Board

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

ORDER NO. 2012-0006-DWQ
NPDES NO. **CAS000002**

Order No. 2009-0009-DWQ was adopted by the State Water Resources Control Board on:	**September 2, 2009**
Order No. 2009-0009-DWQ became effective on:	**July 1, 2010**
Order No. 2010-0014-DWQ became effective on:	**February 14, 2011**
Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ shall expire on:	**September 2, 2014**
This Order, which amends Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ, was adopted by the State Water Resources Control Board on:	**July 17, 2012**
This Order No. 2012-0006-DWQ shall become effective on:	**July 17, 2012**

IT IS HEREBY ORDERED that this Order amends Order No. 2009-0009-DWQ. Additions to Order No. 2009-0009-DWQ are reflected in blue-underline text and deletions are reflected in red-strikeout text.

IT IS FURTHER ORDERED that staff are directed to prepare and post a conformed copy of Order No. 2009-000-DWQ incorporating the revisions made by this Order.

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board, on July 17, 2012.

AYE: Chairman Charles R. Hoppin
Vice Chair Frances Spivy-Weber
Board Member Tam M. Doduc
Board Member Steven Moore
Board Member Felicia Marcus

NAY: None

ABSENT: None

ABSTAIN: None

Jeanine Townsend
Clerk to the Board

- Order 2009-0009-DWQ
- Effective July 1, 2010
- Amended twice since adoption
  - November 16, 2010
  - July 17, 2012

CGP = Construction General Permit

Comparing the Key Requirements

- The CGP and MRP C.6 requirements have the same goal
  - Minimize discharge of pollutants associated with construction activities
- Use different tools to accomplish goal

All projects regulated by the CGP are also regulated by the MRP

Requirement for Discharger/ Site Operator	MRP	CGP
Who is governed by the Permit?	Any project disturbing soil subject to a grading permit	≥ 1 acre disturbance
Who issues the Permits?	Local Agency	State Water Board / Regional Water Board
Where does the authority come from?	Established in ordinance based on MRP	Established in CGP

Requirement for Discharger / Site Operator	MRP	CGP
How do you get the permit?	Local Agency process	Submit PRDs (NOI) and supporting information to State
Who prepares the SWPPP or Erosion Control Plan?	NA or governed by local ordinance	Prepared by a Qualified SWPPP Developer (QSD)
Who implements the SWPPP?	NA	Implementation overseen by Qualified SWPPP Practitioner (QSP)

Requirement for Discharger/ Site Operator	MRP	CGP
How do requirements differ?		
Minimum BMPs	Six Minimum BMP Categories: 1. Erosion Control 2. Sediment Control 3. Run-on and Runoff Control 4. ATS (if needed) 5. Good Site Management 6. Non-stormwater Management	Same set of categories as MRP Details of specific BMPs differ from MRP ATS is not a minimum BMP. CGP establishes requirements if ATS is used

Requirement for Discharger/ Site Operator	MRP	CGP
Rain Event Action Plan	NA	Some sites based on risk level
Runoff Monitoring	NA	Some sites based on risk level or project type
Numeric Action Levels and Receiving Water Monitoring Triggers	NA	Some sites based on risk level or project type
Reporting	NA	Submit to State • Annual reports • Data (for sites that monitor runoff)

Local Agencies Responsibilities at CGP Projects

- Responsibilities are similar to all other projects
  - Verify site has proof of CGP coverage – PRD receipt, WDID #
  - Ensure SWPPP is consistent with local ordinance
    - You do not need to verify it is consistent with the CGP
  - Inspect per agency inspection schedule
  - Assess adequacy and effectiveness of BMPs
  - Require correction of problems
- Optional: Use CGP tools for additional information
  - QSPs/Monitoring Data/REAPs

Capital Improvement Projects (CIPs) and the CGP

- When constructing a CIP that is one acre or greater, the municipality is responsible for CGP compliance
- All the requirements of the CGP apply to the municipality
  - PRDs/NOIs
  - QSD/QSP
  - REAPs
  - Monitoring
  - Annual reporting
  - Etc.

Sources for Additional Information on the CGP

- CASQA
  - BMP Handbook http://www.casqa.org
  - Construction Subcommittee
- State Water Board Construction Stormwater Program
  - http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml
- SMARTS Page
  - https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

CONTRA COSTA CLEAN WATER PROGRAM

INSPECTIONS, DOCUMENTATION, AND REPORTING

Guidelines for Inspection

- Frequency
- Goals
- Preparation
- Site Visit
  - What to look for
  - Using the inspection checklist
- Documenting the inspection

Frequency

- Monthly inspections during the wet season for
  - Sites ≥ 1 acre (CGP sites), and
  - High Priority sites
    - Each agency defines their high priority sites
- Re-inspection for violations
- Many agencies inspect other sites based on local code or agency specific requirements

Wet season = October through April

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

Preparation for Inspection

- Review existing information
  - Site Plan
  - SWPPP or Erosion Control Plan
  - Past Inspection Records
  - Locate site with mapping tools (e.g., GIS, Google Maps) to understand location in watershed
  - Check with other inspectors
  - Information in SMARTS on CGP sites
    - Annual Reports
    - Monitoring data (pH, turbidity)

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
  - Manhole hook
  - Enforcement documents
  - Brochures/info

At the site trailer

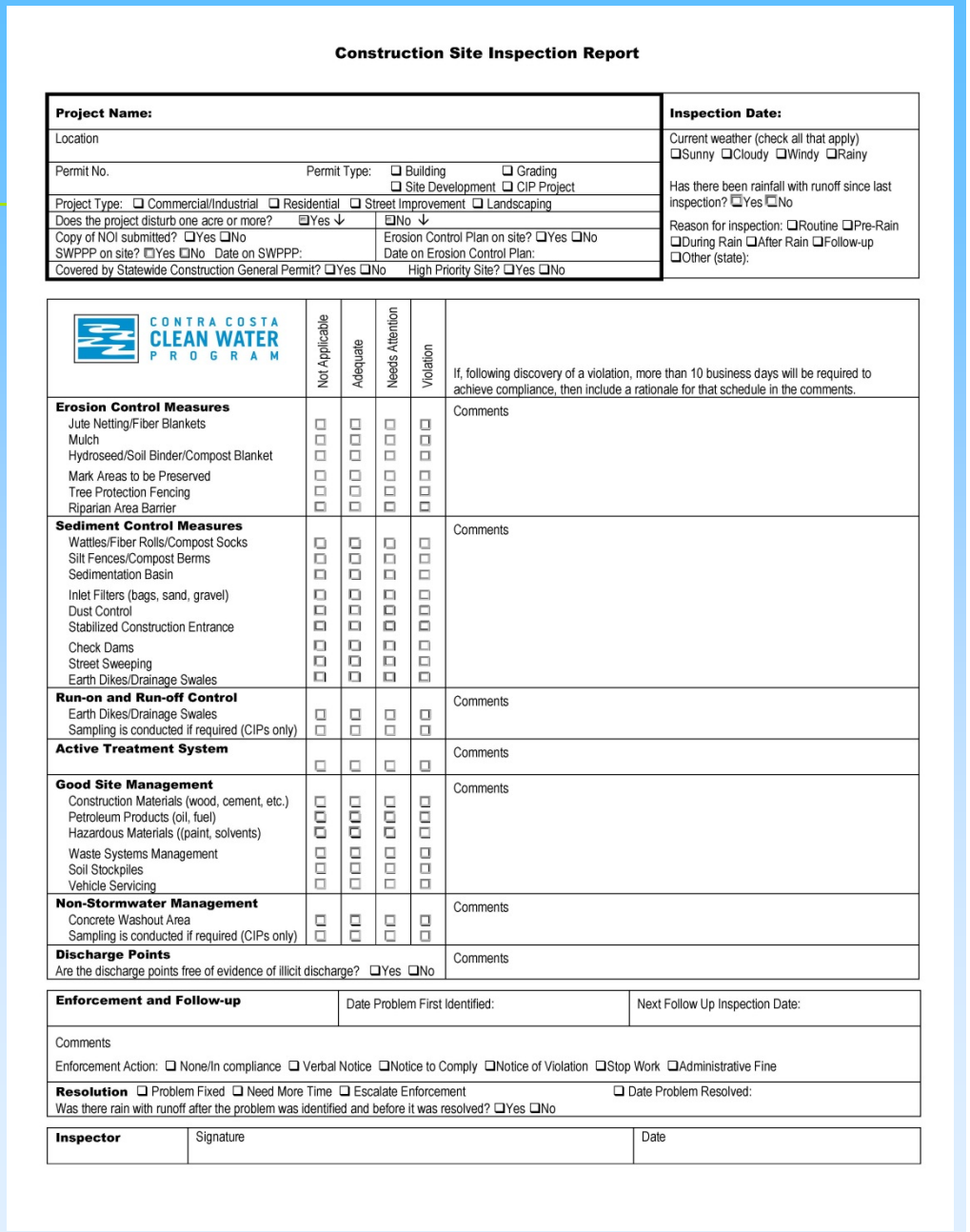
- Meet with Superintendent, Qualified SWPPP Practitioner (QSP) or their designee (if available)
- Outline requirements and expectations
- Review site plan and SWPPP
  - Confirm where they are in the schedule, what BMPs are in place and what is planned
  - Review their inspection logs, sampling results
- Ask Superintendent and QSP (designee) to accompany you on the inspection
- Check on safety concerns

Conducting the Inspection

- Have a plan for the site walk to cover all your areas of interest
- Point out good and poor practices as you go
  - note violations
  - areas that could be improved
  - good practices
- Photograph notable and poor practices
- Conclude inspection by reviewing findings with the Superintendent and QSP (designee)
  - Note violations, time to correct, and enforcement

Documenting the Inspection

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



Construction Site Inspection Report

Project Name:	**Inspection Date:**
Location	Current weather (check all that apply) ❑Sunny ❑Cloudy ❑Windy ❑Rainy
Permit No. Permit Type: ❑ Building ❑ Grading ❑ Site Development ❑ CIP Project	Has there been rainfall with runoff since last inspection? ❑Yes ❑No
Project Type: ❑ Commercial/Industrial ❑ Residential ❑ Street Improvement ❑ Landscaping	Reason for inspection: ❑Routine ❑Pre-Rain ❑During Rain ❑After Rain ❑Follow-up ❑Other (state):
Does the project disturb one acre or more? ❑Yes ↓ ❑No ↓	
Copy of NOI submitted? ❑Yes ❑No / Erosion Control Plan on site? ❑Yes ❑No	
SWPPP on site? ❑Yes ❑No Date on SWPPP: / Date on Erosion Control Plan:	
Covered by Statewide Construction General Permit? ❑Yes ❑No High Priority Site? ❑Yes ❑No	

CONTRA COSTA CLEAN WATER PROGRAM	Not Applicable	Adequate	Needs Attention	Violation	If, following discovery of a violation, more than 10 business days will be required to achieve compliance, then include a rationale for that schedule in the comments.
Erosion Control Measures					Comments
Jute Netting/Fiber Blankets	☐	☐	☐	☐	
Mulch	☐	☐	☐	☐	
Hydroseed/Soil Binder/Compost Blanket	☐	☐	☐	☐	
Mark Areas to be Preserved	☐	☐	☐	☐	
Tree Protection Fencing	☐	☐	☐	☐	
Riparian Area Barrier	☐	☐	☐	☐	
Sediment Control Measures					Comments
Wattles/Fiber Rolls/Compost Socks	☐	☐	☐	☐	
Silt Fences/Compost Berms	☐	☐	☐	☐	
Sedimentation Basin	☐	☐	☐	☐	
Inlet Filters (bags, sand, gravel)	☐	☐	☐	☐	
Dust Control	☐	☐	☐	☐	
Stabilized Construction Entrance	☐	☐	☐	☐	
Check Dams	☐	☐	☐	☐	
Street Sweeping	☐	☐	☐	☐	
Earth Dikes/Drainage Swales	☐	☐	☐	☐	
Run-on and Run-off Control					Comments
Earth Dikes/Drainage Swales	☐	☐	☐	☐	
Sampling is conducted if required (CIPs only)	☐	☐	☐	☐	
Active Treatment System	☐	☐	☐	☐	Comments
Good Site Management					Comments
Construction Materials (wood, cement, etc.)	☐	☐	☐	☐	
Petroleum Products (oil, fuel)	☐	☐	☐	☐	
Hazardous Materials ((paint, solvents)	☐	☐	☐	☐	
Waste Systems Management	☐	☐	☐	☐	
Soil Stockpiles	☐	☐	☐	☐	
Vehicle Servicing	☐	☐	☐	☐	
Non-Stormwater Management					Comments
Concrete Washout Area	☐	☐	☐	☐	
Sampling is conducted if required (CIPs only)	☐	☐	☐	☐	
Discharge Points Are the discharge points free of evidence of illicit discharge? ❑Yes ❑No					Comments

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

Inspector	Signature	Date

Construction Site Inspection Report

Project Name:	**Inspection Date:**
Location	
Permit No. Permit Type: ❑ Building ❑ Grading ❑ Site Development ❑ CIP Project	Has there been rainfall with runoff since last inspection? ❑Yes ❑No
Project Type: ❑ Commercial/Industrial ❑ Residential ❑ Street Improvement ❑ Landscaping	Reason for inspection: ❑Routine ❑Pre-Rain ❑During Rain ❑After Rain ❑Follow-up ❑Other (state):
Does the project disturb one acre or more? ❑Yes ↓ ❑No ↓	
Copy of NOI submitted? ❑Yes ❑No / Erosion Control Plan on site? ❑Yes ❑No	
SWPPP on site? ❑Yes ❑No Date on SWPPP: / Date on Erosion Control Plan:	
Covered by Statewide Construction General Permit? ❑Yes ❑No High Priority Site? ❑Yes ❑No	

CONTRA COSTA CLEAN WATER PROGRAM	Not Applicable	Adequate	Needs Attention	Violation	If, following discovery of a violation, more than 10 business days will be required to achieve compliance, then include a rationale for that schedule in the comments.
Erosion Control Measures					Comments
Jute Netting/Fiber Blankets	❑	❑	❑	❑	
Mulch	❑	❑	❑	❑	
Hydroseed/Soil Binder/Compost Blanket	❑	❑	❑	❑	
Mark Areas to be Preserved	❑	❑	❑	❑	
Tree Protection Fencing	❑	❑	❑	❑	
Riparian Area Barrier	❑	❑	❑	❑	
Sediment Control Measures					Comments
Wattles/Fiber Rolls/Compost Socks	❑	❑	❑	❑	
Silt Fences/Compost Berms	❑	❑	❑	❑	
Sedimentation Basin	❑	❑	❑	❑	
Inlet Filters (bags, sand, gravel)	❑	❑	❑	❑	
Dust Control	❑	❑	❑	❑	
Stabilized Construction Entrance	❑	❑	❑	❑	
Check Dams	❑	❑	❑	❑	
Street Sweeping	❑	❑	❑	❑	
Earth Dikes/Drainage Swales	❑	❑	❑	❑	
Run-on and Run-off Control					Comments
Earth Dikes/Drainage Swales	❑	❑	❑	❑	
Sampling is conducted if required (CIPs only)	❑	❑	❑	❑	
Active Treatment System	❑	❑	❑	❑	Comments
Good Site Management					Comments
Construction Materials (wood, cement, etc.)	❑	❑	❑	❑	
Petroleum Products (oil, fuel)	❑	❑	❑	❑	
Hazardous Materials ((paint, solvents)	❑	❑	❑	❑	
Waste Systems Management	❑	❑	❑	❑	
Soil Stockpiles	❑	❑	❑	❑	
Vehicle Servicing	❑	❑	❑	❑	
Non-Stormwater Management					Comments
Concrete Washout Area	❑	❑	❑	❑	
Sampling is conducted if required (CIPs only)	❑	❑	❑	❑	
Discharge Points Are the discharge points free of evidence of illicit discharge? ❑Yes ❑No					Comments

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

Inspector	Signature	Date

Project Information

Inspection Day Information

BMP Observations

Illicit Discharge Observations

Follow-up Actions

Sign & Date Form

Project Information

- Complete in office

Project Name:		
Location		
Permit No.	Permit Type: ❑ Building ❑ Grading ❑ Site Development ❑ CIP Project	
Project Type: ❑ Commercial/Industrial ❑ Residential ❑ Street Improvement ❑ Landscaping		
Does the project disturb one acre or more? ☑Yes ↓		☑No ↓
Copy of NOI submitted? ❑Yes ❑No SWPPP on site? ☐Yes ☐No Date on SWPPP:		Erosion Control Plan on site? ❑Yes ❑No Date on Erosion Control Plan:
Covered by Statewide Construction General Permit? ❑Yes ❑No		High Priority Site? ❑Yes ❑No

Inspection Day Information

Inspection Date:

Current weather (check all that apply)
❑Sunny ❑Cloudy ❑Windy ❑Rainy

Has there been rainfall with runoff since last inspection? ❑Yes ❑No

Reason for inspection: ❑Routine ❑Pre-Rain ❑During Rain ❑After Rain ❑Follow-up ❑Other (state):

Document BMP Observations

- ☑ Not Applicable
- ☑ Adequate
- ☑ Needs Attention
- ☑ Violation
- ■ Comments
  - Document needed actions for BMPs identified as Needs Attention or Violations
  - For violations give a time-frame to correct, if longer than 10 business days, must provide justification for schedule

BMP Observations

Erosion Control Measures					Comments
Jute Netting/Fiber Blankets	☐	☐	☐	☐	
Mulch	☐	☐	☐	☐	
Hydroseed/Soil Binder/Compost Blanket	☐	☐	☐	☐	
Mark Areas to be Preserved	☐	☐	☐	☐	
Tree Protection Fencing	☐	☐	☐	☐	
Riparian Area Barrier	☐	☐	☐	☐	
Sediment Control Measures					Comments
Wattles/Fiber Rolls/Compost Socks	☐	☐	☐	☐	
Silt Fences/Compost Berms	☐	☐	☐	☐	
Sedimentation Basin	☐	☐	☐	☐	
Inlet Filters (bags, sand, gravel)	☐	☐	☐	☐	
Dust Control	☐	☐	☐	☐	
Stabilized Construction Entrance	☐	☐	☐	☐	
Check Dams	☐	☐	☐	☐	
Street Sweeping	☐	☐	☐	☐	
Earth Dikes/Drainage Swales	☐	☐	☐	☐	

BMP Observations

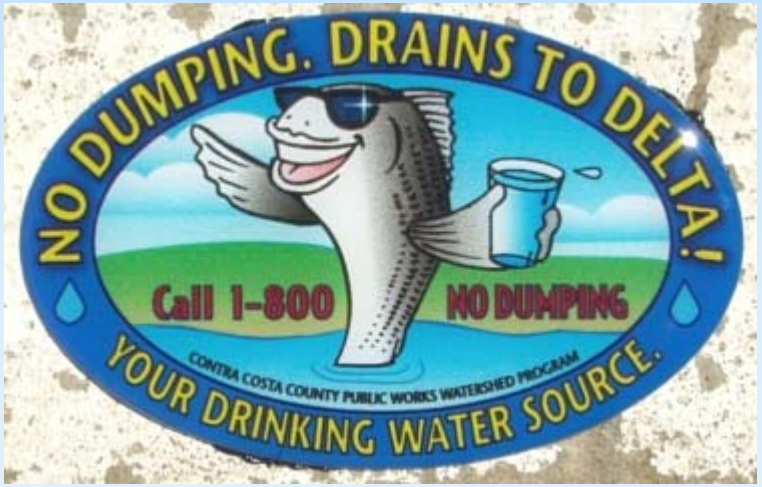
Run-on and Run-off Control					Comments
Earth Dikes/Drainage Swales	☐	☐	☐	☐	
Sampling is conducted if required (CIPs only)	☐	☐	☐	☐	
Active Treatment System					Comments
	☐	☐	☐	☐	
Good Site Management					Comments
Construction Materials (wood, cement, etc.)	☐	☐	☐	☐	
Petroleum Products (oil, fuel)	☐	☐	☐	☐	
Hazardous Materials ((paint, solvents)	☐	☐	☐	☐	
Waste Systems Management	☐	☐	☐	☐	
Soil Stockpiles	☐	☐	☐	☐	
Vehicle Servicing	☐	☐	☐	☐	
Non-Stormwater Management					Comments
Concrete Washout Area	☐	☐	☐	☐	
Sampling is conducted if required (CIPs only)	☐	☐	☐	☐	

Illicit Discharge Observations

Discharge Points

Are the discharge points free of evidence of illicit discharge? ❑Yes ❑No

- The MRP prohibits or conditions most non-stormwater discharges



Typical construction non-stormwater discharges

- Wash water
- Dewatering excavations
- Concrete washouts
- Excess irrigation water
- Dust control water
- Rinse water – concrete, paint, stucco
- Street washing
- Portable toilets
- Saw cutting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SANITATION
723-6334
888-6036

DOCUMENTING A SITUATION


Situation
How would you document it?

Erosion Control Assessment

Erosion Control Measures	Not Applicable	Adequate	Needs Attention	Violation
Jute Netting/Fiber Blankets	☑	☐	☐	☐
Mulch	☐	☐	☐	☑
Hydroseed/Soil Binder/Compost Blanket	☑	☐	☐	☐
Mark Areas to be Preserved	☑	☐	☐	☐
Tree Protection Fencing	☑	☐	☐	☐
Riparian Area Barrier	☑	☐	☐	☐

Example comments

Comments

No erosion control evident. Directed Superintendent to apply straw mulch per SWPPP BMP (between curb and silt fence, along lot side cuts) within 10 business days of inspection or before predicted rain event if it occurs sooner.

Sediment Control Assessment

Sediment Control Measures	Not Applicable	Adequate	Needs Attention	Violation
Wattles/Fiber Rolls/Compost Socks	☐	☐	☑	☐
Silt Fences/Compost Berms	☐	☑	☐	☐
Sedimentation Basin	☑	☐	☐	☐
Inlet Filters (bags, sand, gravel)	☐	☑	☐	☐
Dust Control	☑	☐	☐	☐
Stabilized Construction Entrance	☐	☐	☐	☑
Check Dams	☑	☐	☐	☐
Street Sweeping	☐	☐	☐	☑
Earth Dikes/Drainage Swales	☑	☐	☐	☐

Example comments

Comments

1) Missing fiber rolls along curbline. Install before COB today.
2) No stabilized entrance. Install stabilized construction entrance per CASQA or CalTrans BMP sheet no later than 10 business days after inspection. At the end of each work day install perimeter control across entrance until it is stabilized.
3) Tracking onto adjacent road. Immediately sweep road, no later than COB today. Assign staff to observe and sweep anytime material is tracked onto road until entrance is installed.

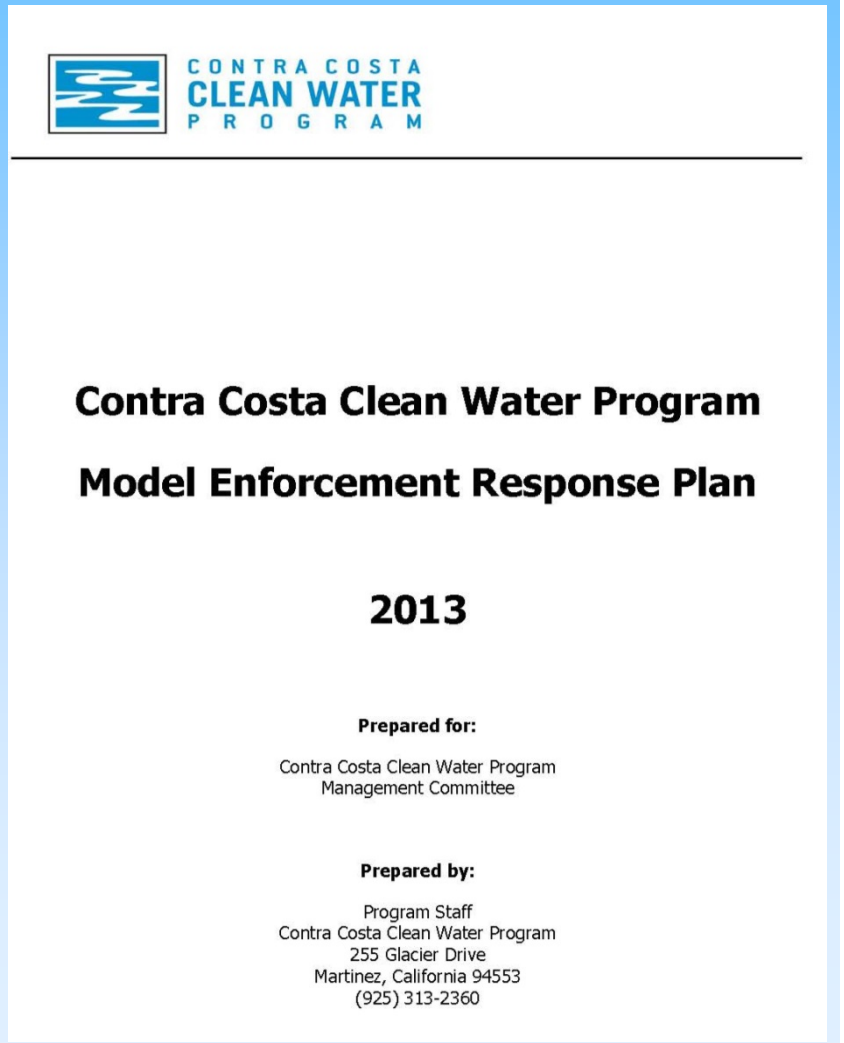
CONTRA COSTA CLEAN WATER PROGRAM

Using the ERP

ENFORCEMENT AND REPORTING

Each Agency has an ERP

- Based on the countywide program model
- Framework for consistent enforcement
- Addresses the MRP requirements
  - Progressive Enforcement – appropriate and escalating responses to situations
  - Response timeframes



CONTRA COSTA CLEAN WATER PROGRAM

Contra Costa Clean Water Program

Model Enforcement Response Plan

2013

Prepared for:

Contra Costa Clean Water Program
Management Committee

Prepared by:

Program Staff
Contra Costa Clean Water Program
255 Glacier Drive
Martinez, California 94553
(925) 313-2360

Level & Type of Action	Examples	Follow-up
I. Verbal Warning, Warning Notice, Education	1st observation of potential discharge, historic evidence, poor practices	Within 30 days, re-inspect or require discharger to submit confirmation of correction.
II. Notice of Violation (Can issue Stop Work, Cease & Desist, Clean & Abate orders or Notices to Clean)	Active non-stormwater discharge. Failure to comply with Level I action.	Correction before next rain event but no longer than 10 business days. Must document rationale for longer correction periods.
III. Formal Enforcement	Gross violation warranting agency citations, cost recovery. Failure to comply with Level II action	Same as Level II
IV. Legal Action and Referral	Inadequate action to correct Level III. Violation poses imminent threat.	Refer to City/County District Attorney Refer to OES, RWQCB, EPA, CA Fish & Wildlife

Use 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: ❑ None/In compliance ❑ Verbal Notice ❑Notice to Comply ❑Notice of Violation ❑Stop Work ❑Administrative Fine		
Resolution ❑ Problem Fixed ❑ Need More Time ❑ Escalate Enforcement ❑ Date Problem Resolved: Was there rain with runoff after the problem was identified and before it was resolved? ❑Yes ❑No		
Inspector	Signature	Date

Documenting Enforcement

- For all situations documented as less than adequate on the inspection form
  - Take the appropriate level of enforcement
  - Failure to correct previous issues should result in escalated enforcement – moving up the enforcement tree
- Identify the timeframe for correcting the situation on the inspection form

Inspection Results are Rolled Up

- Each agency needs to track all inspections and enforcement actions
- Information tracked is summarized and reported annually to the Regional Water Board

1	2	3	4	5	6	7		8	9	10	11	12	13	14
Enter 1 per inspection	Enter 1 for each site	Site Name	Inspectn Date	Weather During Inspectn	Rain with Runoff Since Prev. Inspectn? Y/N	ANSWER ONCE PER SITE: Project Disturbs 1 acre or more? (Y/N/See Previous Entry)[1]		Problems (Refs 13-19)						
								Erosion Control	Sediment Control	Run-on & Runoff	Active Treatmt	Site Mgt.	Non Stormwtr Mgt	Illicit Discharge
1	1	**EXAMPLE:** Nirvana Estates	**EXAMPLE:** 12/12/09	**EXAMPLE:** Light Rain	**EXAMPLE:** Yes	1	**EXAMPLE:** Yes	1	1	1	1	1	1	1
1	0	**EXAMPLE:** Nirvana Estates	**EXAMPLE:** 12/19/09	**EXAMPLE:** Clear	**EXAMPLE:** No	0	**EXAMPLE:** See previous entry							
1	1	**EXAMPLE:** Serenity Subdivision	**EXAMPLE:** 12/13/2009	**EXAMPLE:** Clear	**EXAMPLE:** No	0	**EXAMPLE:** No							1
1	0	**EXAMPLE:** Serenity Subdivision	**EXAMPLE:** 12/20/2009	**EXAMPLE:** Heavy rain	**EXAMPLE:** Yes	0	**EXAMPLE:** See previous entry							

15	16	17	18	19	20	21	22	23	24	25	
	Resolution (Ref 21)				Enforcement Response Level (Ref 21)					Violation Co (Ref 2	
Specific Problem(s) (Ref 13-19)	**Problem Fixed**	**Needs More Time**	**Escalate Enforcement**	**Comments (including rationales for longer compliance times)** (Ref 21)	**Verbal Warning**	**Written Warning/ Notice of Vioation**	**Notice to Comply/ Stop Work Order**	**Notice to Comply with $ penalty**	**Legal Action**	**Within 10 Business Days**	
EXAMPLE: Hydroseed washout, Straw wattles/silt fence not working, Excessive run-on from upslope, Active treatment daily log not kept, Soil stockpile not covered, concrete washwater in storm drain		1		**EXAMPLE:** Superintendent began corrections. Follow up inspection in 1 week.		1					
EXAMPLE: All problems observed on 12/12/09 were fixed	1			**EXAMPLE:** No problems identified.						1	
EXAMPLE: Sawcutting slurry in stormdrain.		1		**EXAMPLE:** Follow up inspection in 1 week.	1						
EXAMPLE: No problem	1			**EXAMPLE:** No problems identified.						1	

Counting Violations and Enforcement Actions

- Violations are counted and tracked by BMP category
  - One inspection that notes 3 sediment control violations and 2 erosion control violations count as 2 violations
- Enforcement actions are counted by inspection/action
  - Multiple violations documented in one NOV is 1 enforcement action

Example of Information Reported to Regional Water Board

	Number of Violations[51] excluding Verbal Warnings	% of Total Violations[52]
Erosion Control	5	31.25%
Run-on and Run-off Control	2	12.5%
Sediment Control	6	37.5%
Active Treatment Systems	0	0%
Good Site Management	3	18.75%
Non Stormwater Management	0	0%
Total[53]	**16**	**100%**

Situation

How many violations are counted for reporting?

Erosion Control Measures	Not Applicable	Adequate	Needs Attention	Violation
Jute Netting/Fiber Blankets	☑	☐	☐	☐
Mulch	☐	☐	☐	☑
Hydroseed/Soil Binder/Compost Blanket	☑	☐	☐	☐
Mark Areas to be Preserved	☑	☐	☐	☐
Tree Protection Fencing	☑	☐	☐	☐
Riparian Area Barrier	☑	☐	☐	☐

- 1 Erosion control violation

Sediment Control Measures	Not Applicable	Adequate	Needs Attention	Violation
Wattles/Fiber Rolls/Compost Socks	☐	☐	☑	☐
Silt Fences/Compost Berms	☐	☑	☐	☑
Sedimentation Basin	☑	☐	☐	☐
Inlet Filters (bags, sand, gravel)	☐	☑	☐	☐
Dust Control	☑	☐	☐	☐
Stabilized Construction Entrance	☑	☐	☐	☑
Check Dams	☑	☐	☐	☐
Street Sweeping	☐	☐	☐	☑
Earth Dikes/Drainage Swales	☑	☐	☐	☐

- 2 sediment control violations
- 1 Needs attention

Tallying the violations

BMP Category	Number of Violations
Erosion Control	1
Run-on and Run-off Control	
Sediment Control	1
Active Treatment System	
Good Site Management	
Non-stormwater Management	
Total Counted for this inspection	2

The Information Inspectors Collect is Critical to Compliance

- Inspection forms are the basis for the Tracking Table
- Tracking Table is the basis for the Annual Report

USING INSPECTION TOOLS

Exercise

- Working in groups, use the map and the accompanying photos to document the depicted situations on the Construction Site Inspection Form
- Note that you do not have information to fully complete the inspection form
  - Focus on how you would describe the situations in the photographs

Basic Site Information

- Site: New Homes, Walnut Creek
- Developer/Contractor: Cotter Pin Construction
- Risk Level 2 Project Site
- Receiving water: Indirect to Tice Creek via city storm drains
- QSD: John S. Planner
- Erosion Control Contractor: EC Installations
- QSP: Sally W. Doozer
- Sampling Contractor: Cotter Pin QSP conducts field tests

Project Site Information

- Vertical Construction Phase – Single family residential development. Streets and utilities have been installed. Roads are paved. Approximately 50% of site is built out and stabilized; the remainder is under construction. Additional information is shown on the Vertical Phase Map. Active Construction is in various stages:
  - Lots are all at finish grade;
  - Framing
  - Stucco
  - Painting
  - Landscaping
  - Roofing

Inspection Information

- The local agency inspected the site on March 3, 2014
- The weather was clear on the day of the inspection and there had been no rain for 10 days preceding the inspection

VERTICAL PHASE BMP MAP

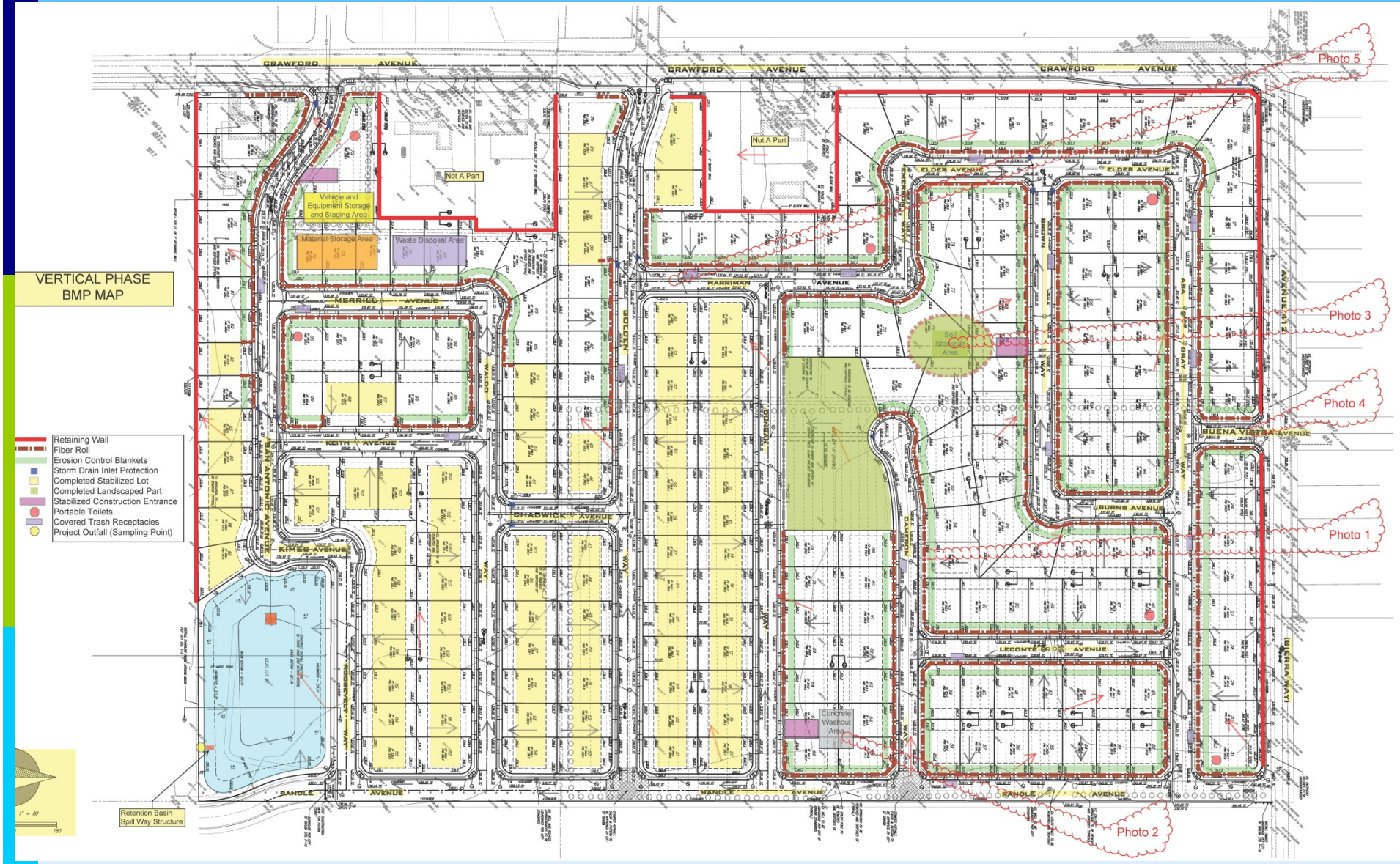


Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Construction Site Inspection Report

Project Name: New Homes, Walnut Creek	**Inspection Date:** 03/03/14
Location	Current weather (check all that apply) ☑Sunny ☐Cloudy ☐Windy ☐Rainy
Permit No. Permit Type: ☐ Building ☐ Grading ☑ Site Development ☐ CIP Project	Has there been rainfall with runoff since last inspection? ☐Yes ☑No
Project Type: ☐ Commercial/Industrial ☑ Residential ☐ Street Improvement ☐ Landscaping	Reason for inspection: ☑Routine ☐Pre-Rain ☐During Rain ☐After Rain ☐Follow-up ☐Other (state):
Does the project disturb one acre or more? ☐Yes ↓ ☐No ↓	
Copy of NOI submitted? ☑Yes ☐No / Erosion Control Plan on site? ☐Yes ☐No	
SWPPP on site? ☑Yes ☐No Date on SWPPP: / Date on Erosion Control Plan:	
Covered by Statewide Construction General Permit? ☑Yes ☐No High Priority Site? ☑Yes ☐No	

CONTRA COSTA CLEAN WATER PROGRAM

	Not Applicable	Adequate	Needs Attention	Violation	If, following discovery of a violation, more than 10 business days will be required to achieve compliance, then include a rationale for that schedule in the comments.
Erosion Control Measures					Comments
Jute Netting/Fiber Blankets	☐	☑	☐	☐	
Mulch	☑	☐	☐	☐	
Hydroseed/Soil Binder/Compost Blanket	☐	☐	☐	☐	
Mark Areas to be Preserved	☑	☐	☐	☐	
Tree Protection Fencing	☑	☐	☐	☐	
Riparian Area Barrier	☑	☐	☐	☐	
Sediment Control Measures					Comments
Wattles/Fiber Rolls/Compost Socks	☐	☐	☐	☐	P1. Sweeping: Minor amounts of sediment on road and sidewalks. Directed Superintendent to sweep before COB. Check dams: Do not appear sufficient to control sediment. Have QSD review and update SWPPP/BMP. P5. Violation. Need to immediately SWPPP street. Correct source of tracking before rain or 10 days. Superintendent plans to speak to/educate new contractor about driving on to unstabilized lots.
Silt Fences/Compost Berms	☐	☐	☐	☐	
Sedimentation Basin	☐	☐	☐	☐	
Inlet Filters (bags, sand, gravel)	☑	☐	☐	☐	
Dust Control	☑	☐	☐	☐	
Stabilized Construction Entrance	☑	☐	☐	☐	
Check Dams	☐	☐	☑	☐	
Street Sweeping	☐	☐	☐	☑	
Earth Dikes/Drainage Swales	☑	☐	☐	☐	
Run-on and Run-off Control					Comments
Earth Dikes/Drainage Swales	☑	☐	☐	☐	NA for this photo example
Sampling is conducted if required (CIPs only)	☑	☐	☐	☐	
Active Treatment System	☑	☐	☐	☐	Comments NA for this example
Good Site Management					Comments
Construction Materials (wood, cement, etc.)	☑	☐	☐	☐	P2 provide perimeter control for soil/debris stockpile before rain or 10 days.
Petroleum Products (oil, fuel)	☐	☐	☐	☐	
Hazardous Materials ((paint, solvents)	☐	☐	☐	☐	
Waste Systems Management	☐	☐	☐	☐	
Soil Stockpiles	☐	☐	☑	☐	
Vehicle Servicing	☐	☐	☐	☐	
Non-Stormwater Management					Comments
Concrete Washout Area	☐	☐	☑	☐	P2. Bin is full. Schedule clean out/new bin before rain or 10 days.
Sampling is conducted if required (CIPs only)	☑	☐	☐	☐	
Discharge Points Are the discharge points free of evidence of illicit discharge? ☐Yes ☐No					Comments NA for this photo example

Enforcement and Follow-up Violation for tracking at one location	Date Problem First Identified: 03/03/14	Next Follow Up Inspection Date: 3/17/14
Comments		
Enforcement Action: ☐ None/In compliance ☑ Verbal Notice ☐Notice to Comply ☑Notice of Violation ☐Stop Work ☐Administrative Fine		
Resolution ☐ Problem Fixed ☐ Need More Time ☐ Escalate Enforcement ☐ Date Problem Resolved: Was there rain with runoff after the problem was identified and before it was resolved? ☐Yes ☐No		

Inspector	Signature	Date

Sandra Mathews, CPESC, QSD, ToR
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Sandy is a Senior Scientist with Larry Walker Associates, managing their office in Oakland California. She has more than 22 years of experience in developing and implementing water quality and storm water compliance programs.

Sandy assists various public agency clients with the construction stormwater programs and led the effort to update CASQA's Construction BMP handbook in 2009. Working and working with CASQA and the State Water Board in 2009, Sandy led the team that developed the curricula for the QSD/QSP training program.

Sandy is a Certified Professional in Erosion and Sediment Control and a Qualified SWPPP Developer and Practitioner, and a CGP Trainer of Record.

Prior to joining LWA, Sandy worked with Lawrence Livermore National Laboratory, where she assisted facility managers identify and mitigate potential water quality issues associated with facility operations and construction, including building their construction stormwater program, and subsequently developed, reviewed, and implemented SWPPPs and BMPs.