Construction Site NPDES Compliance - The Perspective of a Construction Manager

Ali Pirouzian, PE - San Diego County Public Works
Dave Sluga, PE - TRC Companies

Thoughts for the Construction Manager from Folks that Specialize in NPDES Compliance at Construction Sites
This Morning’s Thoughts

- Quick Review of BMP Implementation & Monitoring for Each Risk Level
- New Draft Construction General Permit – What’s New?
- Planning and BMPs for County of San Diego CIP Projects
- Enforcement Actions – San Diego RWQCB
- Storm Drain Inlet Protection
- Soil Cover on Active Disturbed Soil Areas (DSAs)
- The Annual Report and Monitoring Documentation
- Constructability / Budgeting Review
Dave Sluga

Construction Manager Caltrans (1992)
Assisted with Caltrans Storm Water Program (1997)
Assisted Others with NPDES, Smaller Projects (2004)
Construction Manager Consultant (2009)
Stormwater IQA Manager Caltrans & S.D. County (2014)
BMP Implementation Requirements

- Risk Level 1

  B. Good Site Management “Housekeeping”
  C. Non-Storm Water Management
  D. Erosion Control – Wind, Cover Inactive DSAs, Limit Use of Plastic
  E. Sediment Controls – Effective Perimeter Controls, Stabilized Entrances
  F. Run-on and Run-off (-through) Controls
BMP Implementation Requirements

- Risk Levels 2 and 3

A. Effluent Standards – Sediment and pH
B. Good Site Management “Housekeeping”
C. Non-Storm Water Management
D. Erosion Control – Wind, Cover Inactive DSAs, Limit Use of Plastic
E. Sediment Controls – Effective Perimeter Controls, Stabilized Entrances, **Cover Active DSAs, Face of Slope Interrupters, More Tracking Controls**, Maintain various BMPs including DI Protection
F. Run-on and Run-off (-through) Controls
Monitoring Requirements

- Risk Level 1

1. Weekly Inspections plus Observations and Sampling & Analysis

* Non-Visible Pollutant Sample Collection
Monitoring Requirements

- Risk Level 2 as a RL 1 plus;

1. Weekly Inspections plus Observations and Sampling & Analysis

* Non-Visible Pollutant Sample Collection
Monitoring Requirements

- Risk Level 3 same as a RL2 plus:
  1. Weekly Inspections plus Observations and Sampling & Analysis

* Non-Visible Pollutant Sample Collection

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Quarterly Non-storm Water Discharge</th>
<th>Visual Inspections</th>
<th>Sample Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-storm Event</td>
<td>Post Storm</td>
<td>Storm Water Discharge</td>
</tr>
<tr>
<td>3</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>REAP</td>
<td></td>
</tr>
</tbody>
</table>

*Non-Visible Pollutant Sample Collection When Triggered*
Draft Construction General Permit

- Generally
- Removed:
  - Bioassessment Requirements
  - Post-Construction Calculations
Draft Construction General Permit

- Generally Added:

  Passive Treatment System (e.g. floc logs, spray tackifiers)
  Requirements
  TMDL Requirements
  Widens the Authorized Construction Dewatering Discharges
  Tightens up Requirements for Construction Site Debris and Trash
  No Averaging — NALs pH between 6.5-8.5 and Turbidity ≤ 250 NTUs
  NELs only apply to ATS
  Better Defines the Roles of the LRP, QSD (Wider Role), and QSP (Oversight)
  More Complicated SWPPP
Draft Construction General Permit

- Risk Level 1
  A. Effluent Standards - **NALs for Dewatering Discharges**
  B. Good Site Management “Housekeeping” - **Minor Additions**
  C. Non-Storm Water Management
  D. **Preserve Native Topsoil**
  E. Erosion Control – **Run-on and Run-off Controls, Downstream Erosion**
  F. Sediment Controls
  G. **Surface water Buffer**
  H. Pesticides Application
  I. **Demolition of Existing Structure**
Draft Construction General Permit

- Risk Levels 2 and 3
  A. Effluent Standards – NALs & NELs for Discharges Subject to TMDLs
  B. Good Site Management “Housekeeping”
  C. Non-Storm Water Management
  D. Preserve Native Topsoil
  E. Erosion Control
  F. Sediment Controls – RUSLE2 Calculations. Proving BMPs (Sediment Loss versus Natural Conditions)
  G. Surface water Buffer
  H. Pesticides Application
  I. Demolition of Existing Structure
Draft Monitoring Requirements

- Risk Level 1

1. Weekly Inspections plus Observations and Sampling & Analysis

No more Qualified Rain Event – All Precipitation that Causes Runoff
No Quarterly NSW Discharges to be included in all Inspections
Draft Monitoring Requirements

- Risk Level 2 same as RL1 plus:
  1. Weekly Inspections plus Observations and Sampling & Analysis

Table 2 - Summary of Monitoring Requirements

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Visual Inspections</th>
<th>Sample Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekly</td>
<td>Pre-Precipitation Event</td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Discharge

No more Qualified Rain Event – All Precipitation that Causes Runoff
No Quarterly NSW Discharges to be included in all Inspections
No more REAPs - REAP Information in Pre-Precipitation Event Inspections
Draft Monitoring Requirements

- Risk Level 3 same as RL2 plus:
  1. Weekly Inspections plus Observations and Sampling & Analysis

No more Qualified Rain Event – All Precipitation that Causes Runoff
No Quarterly NSW Discharges to be included in all Inspections
No more REAPs - REAP Information in Pre-Precipitation Event Inspections
Draft Monitoring Requirements

- Risk Levels 2 and 3

1. Minimum 3 Samples per Day of the Precipitation Event
2. First Sample within the first 2 hours of discharge (Business Hours)
3. Minimum 2 hours Interval for subsequent samples (Business Hours)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Method / Protocol</th>
<th>Discharge Type</th>
<th>Method Detection Limit</th>
<th>Reporting Units</th>
<th>Numeric Action Level (NAL)</th>
<th>Numeric Effluent Limitation (NEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Field test with calibrated portable instrument</td>
<td>Risk Level 2 Discharges other than ATS</td>
<td>0.2</td>
<td>pH units</td>
<td>lower NAL = 6.5 upper NAL = 8.5</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For ATS discharges</td>
<td>0.2</td>
<td>pH units</td>
<td>lower NEL = 6.0 upper NEL = 9.0</td>
<td></td>
</tr>
<tr>
<td>Turbidity</td>
<td>EPA 0180.1 and/or field test with calibrated portable instrument</td>
<td>Risk Level 2 Discharges other than ATS</td>
<td>1</td>
<td>NTU</td>
<td>250 NTU</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For ATS discharges</td>
<td>1</td>
<td>NTU</td>
<td>10 NTU for Daily Weighted Average &amp; 20 NTU for Any Single Sample</td>
<td></td>
</tr>
</tbody>
</table>
San Diego County Public Works – Construction Engineering Planning and BMPs for CIP Projects

- Ali Pirouzian, PE, PEng, CPESC, QSD/QSP - San Diego County Public Works
Experience

• Senior Civil Engineer - San Diego County Public Works Construction Engineering (13 years)
• Private Sector (14 years)
  • Vertical
  • Horizontal
• Stormwater Permit Coordinator – Construction Engineering
San Diego County Public Works Projects

• Average 3 to 4 SWPPP (>1 acre) projects per year with ranging from between $1M to $25M (2 projects last FY)

• Average 30 WPCP (<1 acre) projects per year with ranging $15K to $5M (38 projects last FY)

• We own the projects.
Key Ingredients

• Storm water pollution control during construction “Starts at the top” and trickles down to the field level
  • Director of Public Works (LRP) through Director’s Letter of Instruction (DLI)
  • Construction Program Manager, Construction Engineering (Approved Signatory) through weekly QA reports
  • CIP Construction Stormwater Permit Coordinator (SME) through Independent QA reports from third-party and weekly QA reports from Resident Engineers (REs) - This position created 8 years ago.
  • REs (QSP and/or QSD) through joint field inspections with project QSP and reporting

• One of major priorities for County DPW Director is: Stormwater Pollution Prevention (CGP and MS4 Compliance).
Key Ingredients

- Each project is given the tools for proper implementation water pollution controls
- Detailed specifications within the contract documents.
- SWPPP Templates for different Risk Levels and LUPs
- Identify the work and provide method of payment. All BMPs are paid by item unit price ensuring the contractor gets paid for work done right.
- Standard Plans for BMPs to ensure correct installations.
- Contract allows to add bid items and pay contractors by writing a change order if any BMPs is missed or something else would work better.
Key Ingredients

• Knowledgeable and Trained Staff representing San Diego County

• You’ll get to hear from a knowledgeable field person in a few minutes.
• Importance of QSD and/or QSP in the field. All RE’s (Civil Engineer and Sr. Civil Engineers) of the County are either QSD or QSP.
• Understands the importance of CGP Compliance and S.D. County attitude.
• Understands the job is to construct a quality facility.
• Combine CGP Compliance with construction activities planning to ensure one seamless operation
• Works with the contractor to achieve CGP compliance during construction (goodwill)
• Teamwork
Dashes of This and Pinches of That

- Independent Quality Assurance (IQA) Reviewer
- IQA Review Reports
- Personal site visits
- Sampling & Analysis follow-ups
- Work with San Diego County Watershed Department
- Interaction with Contractors / AGC, Agencies and Consultant
- Other
Money Gives CGP Compliance Its Taste
Payments to Contractors to Date

- SWPPP projects (1 acre<) have range between 70K to 825K (1.4% to 10% of the total contract cost)

- WPCP projects have range between 6K to 100K (1% to 14% of the total contract cost)
Recent Enforcements

• R9-2018-0065: Rail Projects Within the Lossan and Mid Coast Corridor - 2018 ($36,371)

• Description of Alleged Violations:

1. SANDAG violated Water Code section 13376; General Permit Discharge Prohibitions III. A and 111.8 , Section V.A.2 and Attachment D section A.1.b; Basin Plan Waste Discharge Prohibition No. 8; and Federal Water Pollution Control Act (Clean Water Act) (22 U.S.C.§ 1251 et seq.) section 301 (33 U.S.C. § 1311) by pumping sediment laden storm water from the project to Waters of the United States on January 9, 2018.
2. SANDAG violated section B.1.b of Attachment D to the General Permit by failing to berm stockpiled material on site on January 9, 2018.

3. SANDAG violated section E.1 of Attachment D to the General Permit by failing to maintain effective perimeter control at the site and failing to stabilize the construction entrance/exit in a manner that would control sediment discharges from the site on January 9, 2018.

4. SANDAG violated section F of Attachment D to the General Permit by failing to effectively manage all run-on and run-off from the site on January 9, 2018.
Rail Projects Within the Lossan and Mid Coast Corridor (SANDAG)

Photo shows the blue highline from the pump in the impounded sediment laden storm water up the site embankment, and onto Pacific Coast Highway. This photo also shows a lack of perimeter sediment controls, stockpile BMPs, erosion controls or tracking controls at the entrance/exit to the site. Photo shows the impounded storm water on the construction site with the pump in center.
Rail Projects Within the Lossan and Mid Coast Corridor (SANDAG) - 2018

Photos show the sediment laden storm water discharged from the site at Anna Avenue and Pacific Coast Highway.
Older Enforcement Actions

DEVELOPER SAN ALTOS-LEMON GROVE ISSUED $595,367 PENALTY FOR WATER QUALITY VIOLATIONS

August 2016 Articles
San Diego Regional Water Quality Control Board  San Altos-Lemon Grove LLC

Source: San Diego Regional Water Quality Control Board

August 30, 2016 (Lemon Grove) -- The San Diego Regional Water Quality Control Board has imposed a $595,367 penalty against San Altos-Lemon Grove LLC for water quality violations related to construction activities at its 18-acre Valencia Hills residential development.

Violations at the Valencia Hills site were brought to the San Diego Water Board's attention by Lemon Grove after its multiple warnings and enforcement efforts directed at the developer were met with minimal response.
Older Enforcement Actions

https://app.box.com/s/uupy9ckj6ngwul4m4im94lidzyj0hd8g

Stockpile Management
2016 CASQA “Ask the Regulator”

Christina Arias, PE
San Diego Regional
Water Quality Control Board

10/03/2019
Older Enforcement Actions

Water Board Compliance Interpretation

1. Does plastic sheeting meet Best Conventional Technology (BCT) standard for stockpiles?
2. When is a stockpile not actively being used?
Older Enforcement Actions

CGP Requirement-Erosion Control

• Provision D.3. of Attachment C [or D or E]:
  “...dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.”
Older Enforcement Actions

July 23, 2015

July 13, 2016
Plastic sheeting does not meet BCT standard in the long term!
Older Enforcement Actions

CGP Requirement-Stockpiles

• Provision B.1.b of Attachment C [or D or E]:
  “...dischargers shall implement good site management (i.e., “housekeeping”) measures for construction materials that could potentially be a threat to water quality if discharged...dischargers shall....[C]over and berm loose stockpiled construction materials that are not actively being used....”
San Diego Water Board Conclusions

• Unless materials are being moved onto or off of a stockpile, it should be covered and bermed.
Older Enforcement Actions

What about *actively being used*?

San Diego Water Board Conclusions

- Permit language trumps BMP guidance
- City photos/inspections admissible evidence
- Can infer ongoing violation based on totality of evidence
Storm Drain Inlet Protection

- Storm Drain Inlet is the Beginning of a Separate Conveyance System Designed to a Specific Standard

Fluid - Pipes
Storm Drain Inlet Protection

- Caltrans Hydraulics Manual

### Table 831.3
Desirable Roadway Drainage Guidelines

<table>
<thead>
<tr>
<th>HIGHWAY Type/Category Feature</th>
<th>DESIGN STORM (25 yrs)</th>
<th>10% (10 yrs)</th>
<th>Side or Parking Lane</th>
<th>1/2 Outer Lane</th>
<th>Local Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREEWAYS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through traffic lanes, branch connections, and other major ramp connections.</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Minor ramps.</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frontage roads.</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CONVENTIONAL HIGHWAYS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High volume, multilane Speeds over 45 mph.</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>High volume, multilane Speeds 45 mph and under.</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Low volume, rural Speeds over 45 mph.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Urban Speeds 45 mph and under.</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>ALL STATE HIGHWAYS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depressed Sections That Require Pumping:</td>
<td>Use a 2% (50 yrs) design storm for freeways and conventional State highways. Design water spread at depressed sections should not exceed that of adjacent roadway sections. A 4% (25 yr) design storm may be used on local streets or road undercrossings that require pumping.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Storm Drain Inlet Protection

Sediment Control

- Dam - Detain Stormwater and Precipitate Sediment
- Filter – Remove Sediment from Stormwater as it Passes Through
Storm Drain Inlet Protection

CGP and Sediment Control

- All Risk Levels

E. Sediment Controls

1. Risk Level 2 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

Area Drain
Storm Drain Inlet Protection

CGP and Sediment Control

- Risk Levels 2 and 3 only

E. Sediment Controls

6. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall ensure that all storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire washoff locations) are maintained and protected from activities that reduce their effectiveness.
Storm Drain Inlet Protection
Caltrans Construction Site BMPs Manual = SC-10

<table>
<thead>
<tr>
<th>Definition and Purpose</th>
<th>Devices used at storm drain inlets that are subject to runoff from construction activities to detrain and/or to filter sediment-laden runoff to allow sediment to settle and/or to filter sediment prior to discharge into storm drainage systems or watercourses.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appropriate Applications</strong></td>
<td>■ Where ponding will not encroach into highway traffic.</td>
</tr>
<tr>
<td></td>
<td>■ Where sediment-laden surface runoff may enter an inlet.</td>
</tr>
<tr>
<td></td>
<td>■ Where disturbed drainage areas have not yet been permanently stabilized.</td>
</tr>
<tr>
<td></td>
<td>■ Where the drainage area is 0.4 ha (1 ac) or less.</td>
</tr>
<tr>
<td></td>
<td>■ Appropriate during wet and snow-melt seasons.</td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td>■ Requires an adequate area for water to pond without encroaching upon traveled way and should not present itself to be an obstacle to oncoming traffic.</td>
</tr>
</tbody>
</table>
Storm Drain Inlet Protection

- Caltrans Standard Plan T- 61
Storm Drain Inlet Protection

- Caltrans Standard Plan T-62
Storm Drain Inlet Protection

- Caltrans Standard Plan T-63
Storm Drain Inlet Protection

- Caltrans Standard Plan T- 64
Storm Drain Inlet Protection

- Caltrans Standard Specifications 13-6.02B Rigid Plastic Barriers

A rigid plastic barrier must:

For an inlet with a curb opening but no grate, the rigid plastic barrier must be sized to fit the opening and have:

1. Horizontal flap of at least 6 inches with an under-seal gasket to prevent underflows
2. High-flow bypass
3. Vertical height of at least 7 inches after installation

For a grated inlet without a curb opening, the rigid plastic barrier must be sized to fit the inlet and:

1. Cover the grate by at least 2 inches on each side and have an under-seal gasket to prevent underflows
2. Have a high-flow bypass
3. Have a vertical height of at least 1.5 inches after installation

For a grated inlet with a curb opening, the rigid plastic barrier must be sized to fit and have:

1. Horizontal flap that covers the grate by at least 2 inches on the 3 sides away from the curb opening and must have an under-seal gasket to prevent underflows
2. High-flow bypass
3. Section that covers at least 5 inches vertically above the flow line of the curb opening after installation
Storm Drain Inlet Protection

Planned

Actual
Storm Drain Inlet Protection

Actual

Actual
Storm Drain Inlet Protection

Actual

Actual
Storm Drain Inlet Protection

Actual

Actual
Storm Drain Inlet Protection

Actual

Actual
Storm Drain Inlet Protection

Actual

Actual

Inlet protection devices play an important role in helping control debris.

Photos, this page and opposite, courtesy: Enter Environmental Systems
Storm Drain Inlet Protection

- **High-Flow Bypass**: Furnish low profile curb & grate inlet protection device with vertical filter height of 2 +/- 0.33 vertical inches to provide for a high-flow bi-pass. When water reaches the vertical height of the filter, the device shall allow water to flow over the filter with minimum impedance into the storm drain inlet.

    "Actual"
Storm Drain Inlet Protection
Storm Drain Inlet Protection


City of San Diego

**Sediment Control: Storm Drain Inlet Protection BMP**

- **Dry Weather** – implement at all inlets receiving runoff from active construction areas.

- **City ROW** – remove prior to rain or during emergency water main breaks to prevent flooding. Remove prior to end of day or weekend if rain is in forecast and replace prior to restarting construction.
Storm Drain Inlet Protection

- You are Responsible for the Project
- CGP Required Sediment Controls – Perimeter and Sweeping
- Inlet Protection – Drains Erodible Area (Construction)
- Limitations – Ponding Shall Not Encroach into Traveled Way or Overtop Curb or Dike ***
  Inlet Protection Shall Not Be an Obstacle - Bicyclist Hindrance

- Often Broken Bags
- Often Removed During Storms

*** Section 16.03C Temporary Drainage Inlet Protection
Soil Cover on Active DSAs

- Current General Construction Permit

**Inactive** DSAs – All Risk Levels

D. Erosion Control

2. Risk Level 2 dischargers shall provide effective soil cover for inactive\(^1\) areas and all finished slopes, open space, utility backfill, and completed lots.

\(^1\) Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.
Soil Cover on Active DSAs

• Current General Construction Permit

Active DSAs – Risk Level 2 & 3

E. Sediment Controls

3. Additional Risk Level 2 Requirement: Risk Level 2 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active\(^2\) construction.

\(^2\) Active areas of construction are areas undergoing land surface disturbance. This includes construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage.
Soil Cover on Active DSAs

- Current General Construction Permit

I’m no Lawyer, what does footnote 2 mean? Depends who is interpreting

My thoughts:

**APPROPRIATE** Erosion Control

1. Control DSA for wind erosion - Constantly
2. Control DSA for water erosion – Directly before a rain event.

One is out of CGP compliance when an event produces runoff upon uncovered DSAs.

QRE equals sampling.
Soil Cover on Active DSAs

Current General Construction Permit

What does footnote 2 mean to others?

Here is what I have heard – San Diego RWQCB:

**APPROPRIATE** Erosion Control

1. Control DSA for wind erosion - Constantly
2. Control DSA for water erosion – At the End of Each and Every Work Day, cover DSA with plastic.

QRE equals sampling.
Soil Cover on Active DSAs

- How do we comply?
  - Monitor the weather
  - Rain event is coming. What now?
    1. Scheduling
    2. Hydraulic Mulch – Cure period
    3. Hydroseeding – Growth period
    4. Straw Mulch - Studded roller or tackifier.
    5. Plastic – Large area prohibitive

Nope!!!
Soil Cover on Active DSAs

- Okay, what does work?
  - Synthetic (chemical) Tackifiers
    - Vinyl Copolymers
      1. Soiltac
      2. Gorilla-Snot
    - Polyacrylamides
      1. LiquiTack
      2. PM50/PM70
      3. EarthGuard
XVI. ANNUAL REPORTING REQUIREMENTS

A. All dischargers shall prepare and electronically submit an Annual Report no later than September 1 of each year.

B. The discharger shall certify each Annual Report in accordance with the Special Provisions.

C. The discharger shall retain an electronic or paper copy of each Annual Report for a minimum of three years after the date the annual report is filed.

D. The discharger shall include storm water monitoring information in the Annual Report consisting of:

7. the date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation (rain gauge); and

8. the visual observation and sample collection exception records and reports specified in Attachments C, D, and E.
6. Risk Level 3 – Visual Observation and Sample Collection Exemptions

a. Risk Level 3 dischargers shall be prepared to collect samples and conduct visual observation (inspections) until the minimum requirements of Sections 1.3 and 1.4 above are completed. Risk Level 3 dischargers are not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

i. During dangerous weather conditions such as flooding and electrical storms.

ii. Outside of scheduled site business hours.

b. If no required samples or visual observation (inspections) are collected due to these exceptions, Risk Level 3 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the sampling or visual observation (inspections) were not conducted.
D. GOOD SITE MANAGEMENT “HOUSEKEEPING” [CGP Attachment D, Section B]

1. Were required good site management “housekeeping” measures for construction materials fully implemented on-site?
   - YES
   - NO
   If NO Explain: 

F. EROSION CONTROLS [CGP Attachment D, Section D]

1. Were required erosion controls fully implemented on your site?
   - YES
   - NO
   If NO Explain: 

G. SEDIMENT CONTROLS [CGP Attachment D, Section E]

1. Were required sediment controls fully implemented on your site?
   - YES
   - NO
   If NO Explain:
Annual Report & Monitoring Documentation
Annual Report & Monitoring Documentation

L. WATER QUALITY SAMPLING AND ANALYSIS [CGP Attachment D, Section I.4]

1. How many qualifying storm events (producing precipitation of ½ inch or more at the time of discharge) occurred this past reporting year? __________

2. How many qualifying storm events (producing precipitation of ½ inch or more at the time of discharge) were sampled? __________

Explain Un-sampled events: ________________________________

2011-2012
RISK LEVEL 2 ANNUAL REPORT
FOR
STORM WATER DISCHARGES ASSOCIATED
WITH CONSTRUCTION ACTIVITIES (RISK LEVEL 2)

Reporting Period July 1, 2011 through June 30, 2012

In compliance with the Construction General Permit (CGP) an annual report is required to be submitted electronically via SMARTS by September 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company.

If you have any questions, please contact your Regional Board Storm Water Permit Contact. The names, telephone numbers and e-mail addresses of the Regional Board contacts, as well as the Regional Board office addresses can be found at http://www.waterboards.ca.gov/waterboards_map.shtml. To find your Regional Board information, match the first digit of your WDID number with the corresponding number that appears in parenthesis on the first line of each Regional Board office.
Annual Report & Monitoring Documentation
Annual Report & Monitoring Documentation

- Weather Alerts
- Electronic, Fillable Forms
- Easy Distribution of Reports
- Inspections Auto-Documented

Complete Package for Field Compliance

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Stormwater Form Tracking Sheet

<table>
<thead>
<tr>
<th>Contractor Site Inspection Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
</tr>
<tr>
<td>Pre-Storm</td>
</tr>
<tr>
<td>During Storm</td>
</tr>
<tr>
<td>Post-Storm</td>
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<td>Notice of Discharge Reports</td>
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Sample Project

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CMAA SAN DIEGO CHAPTER
Annual Report & Monitoring Documentation

- Weather Alerts
- Historical NOAA Weather Reports

Management Package
Annual Report & Monitoring Documentation

- Weather Alerts
- Project Weather – Summary Form
- Documents Required Monitoring Events with “Should Have Been Done” Logs

Management Package For Monitoring Compliance

<table>
<thead>
<tr>
<th>Weather Data</th>
<th>Jan 01</th>
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<th>Jan 05</th>
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<td>52%</td>
<td>95%</td>
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<td>84%</td>
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<td>58%</td>
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Constructability / Budget Review

• Public Works Construction - Caltrans
  • Soil Cover Quantities: Active and Inactive
  • Perimeter Control Quantities; Perimeter Control, Face of Slope Interrupters
  • Run-On/-Through Control Quantities: Check Dams, Other?

Don’t forget about various stages, and multiple seasons
Constructability / Budget Review

- Public Works Construction - Caltrans
  - Stabilized Construction Entrances
  - Concrete Washouts
  - Street Sweeping
- REAPs
- Storm Water Sampling and Analysis Day
- Storm Water Annual Report

Don’t forget about various stages, and multiple seasons
Do Not Implement Regulatory Insurance

• Last Thought on Drainage Inlet Protection in Public Areas

Questions for the Speakers?

Ali.Pirouzian@sdcounty.ca.gov

David.Slug@TRCcompanies.com

Up-and-Coming QSPs
Learning about Drainage Inlet Protection
Continuing Education Credit

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