Caltrans Stormwater Management Program

Mark Leja, State Construction Engineer

- Purpose of Stormwater Program
- Laws and Regulations
- Poor Stormwater Management
- Good Construction Site BMPs
- Project Level Evaluation
- Program Level Evaluation
Overall Purpose:

- Reduce Potential Impacts to the Environment and Human Health
- Comply with State and Federal Laws
Caltrans Stormwater Management Program
Caltrans Stormwater Management Program

Caltrans Goals

Safety – Provide the safest transportation system in the nation for users and workers.

Mobility – Maximize transportation system performance and accessibility.

Delivery – Efficiently deliver quality transportation projects and services.

Stewardship – Preserve and enhance California’s resources and assets.

Service – Promote quality service through an excellent workforce.
Laws, Regulations, and Permits

- NEPA/CEQA
- Construction General Permit
- Caltrans Statewide NPDES Permit
- Local Municipal Permits
- Litigations Against Caltrans
Who is watching us?

- EPA
- State Water Resources Control Board / Regional Water Quality Control Boards
- Local Agencies
- Private Citizens
- Watchdog Groups
  - Natural Resources Defense Council
  - Baykeepers
Elements of Caltrans Stormwater Management Program

- Public Education, “Don’t trash California”
- Design Stormwater Management Program
- Construction Stormwater Management Program
- Maintenance Stormwater Management Program
Construction Stormwater Management Program

Before Construction begins:

- Review design documents
- Concur with water pollution control strategies

During Construction:

- Administer contract
  - Evaluate contract compliance
  - Evaluate performance of Stormwater Pollution Prevention Plan (SWPPP)
Poor Stormwater Management
Poor Stormwater Management
Poor Stormwater Management

[Image of a road with water pooling]
Poor Stormwater Management
Poor Site Management
Poor Site Management
Poor Stormwater Management
Poor Stormwater Management
Poor Stormwater Management
Clean up crew
Good Construction Site BMPs

- Check Dam
- Straw Bale Barrier
- Fiber Rolls
- Gravel Bag Berm
- Stockpile Management
- Entrance/Exit
- Tire Wash
- Street Sweeping
Check Dam
Straw Bale Barrier
Fiber Rolls
Gravel Bag Berm
Stockpile Management
Entrance/Exit
Tire Wash
Tire Wash
Street Sweeping & Vacuuming
Evaluation of Construction Stormwater Management Program

- Individual Project Level Evaluation
- Overall Program Level Evaluation
Project Level Evaluation

- Contractor – Self Inspection
- Resident Engineer - evaluates compliance with the contract and permit requirements
- Evaluations occur many times during the life of each construction project
  - Daily – during storm events
  - Weekly – during the rainy seasons
  - Bi-monthly – during the non-rainy seasons
Project Level Evaluation

Self-Inspection Form:

- **Required by Contract**
- **Prepared by Contractor**
- **Submitted to RE**

<table>
<thead>
<tr>
<th>General Information</th>
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<tbody>
<tr>
<td>Project Name</td>
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<tr>
<td>Caltrans Contract N°</td>
</tr>
<tr>
<td>Contractor</td>
</tr>
<tr>
<td>Inspector’s Name</td>
</tr>
<tr>
<td>Inspector’s Title</td>
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<tr>
<td>Signature</td>
</tr>
<tr>
<td>Date of Inspection</td>
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<tr>
<td>Inspection Type</td>
</tr>
<tr>
<td>24-hr intervals during extended rain</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Rainy</td>
</tr>
<tr>
<td>Non-Rainy</td>
</tr>
<tr>
<td>Storm Data</td>
</tr>
<tr>
<td>Storm Start Date &amp; Time:</td>
</tr>
<tr>
<td>Time elapsed since last storm (Circle Applicable Units)</td>
</tr>
<tr>
<td>Approximate Rainfall Amount (mm)</td>
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<table>
<thead>
<tr>
<th>Project Area Summary and Disturbed Soil Area (DSA) Size Limits from Special Provisions</th>
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<tbody>
<tr>
<td>Total Project Area</td>
</tr>
<tr>
<td>Rainy Season DSA Limit</td>
</tr>
<tr>
<td>Field Estimate of Active DSAs</td>
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<tr>
<th>Other Requirements</th>
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<tr>
<td>Requirement</td>
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<tr>
<td>Preservation of Existing Vegetation</td>
</tr>
<tr>
<td>Is temporary fencing provided to preserve vegetation in areas where no construction activity is planned?</td>
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<tr>
<td>Location:</td>
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<td>Location:</td>
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Strewn Water Quality Construction Inspection Checklist

Caltrans Storm Water Quality Hanbooks
SWPPP/WPCP Preparation Manual
November 2000
RE Checklist:

- Prepared by RE
- Independent inspection
- Six-page checklist
Program Level Evaluation
Construction Compliance Evaluation Plan (CCEP)

CCEP evaluates the adequacy of:
- Stormwater Best Management Practices (BMPs)
- Specifications
- Contract administration
- Stormwater guidance and training
Construction Compliance Evaluation Plan (CCEP)

CCEP is web-based system and includes:

- Project sampling process
- Evaluation checklists
- Compliance ratings
- Trend analysis
Sampled projects are rated for compliance by using two separate standards:

**Numeric Rating:** water quality compliance

**Alpha Rating:** contract administration compliance

Numeric Rating begins with 1 (full compliance) and ends with 4 (seriously out of compliance)

Alpha Rating begins with A (full compliance) and ends with D (seriously out of compliance)
Construction Management Indicator Report

Water Quality Compliance Rating
(Numeric Rating)

- Green bars represent 1 Rating
- Blue bars represent 2 Rating
- Yellow bars represent 3 Rating
- Red bars represent 4 Rating

Districts and Number of Projects:

- D01: 11, 0, 3, 10, 0, 11
- D02: 42, 1, 0, 10, 0, 10
- D03: 37, 0, 7, 21, 0, 0
- D04: 29, 0, 23, 23, 0, 0
- D05: 21, 0, 12, 4, 0, 0
- D06: 21, 0, 7, 2, 0, 0
- D07: 37, 2, 12, 5, 0, 3
- D08: 2, 12, 3, 3, 0, 0
- D09: 25, 1, 3, 3, 0, 0
- D10: 40, 2, 2, 1, 0, 0
- D11: 42, 0, 2, 0, 0, 0
- D12: 11, 0, 2, 0, 0, 0
Average Water Quality Compliance Rating (Numeric Rating)

- Statewide: 1.3
- D01: 1.6
- D02: 1.2
- D03: 1.4
- D04: 1.3
- D05: 1.5
- D06: 1.2
- D07: 1.3
- D08: 1.2
- D09: 1.6
- D10: 1.3
- D11: 1.3
- D12: 1.3

Goal: 2.0
Construction Management Indicator Report

Contract Administration Compliance Rating
(Alpha Rating)

Number of Projects

Dist  Number of Projects

D01  15
     4  5
     2  0
     1

D02  42
     8  3
     0

D03  30
     14
     11

D04  20
     14
     12

D05  31
     21
     3

D06  23
     2
     1

D07  34
     3
     3

D08  34
     6
     1

D09  34
     7
     1

D10  23
     7
     1

D11  38
     3
     7

D12  36
     1
     1

A Rating
B Rating
C Rating
D Rating
Construction Management Indicator Report

Contract Administration Compliance Rating (Alpha Rating)

Average Alpha Rating

Goal

Statewide D01 D02 D03 D04 D05 D06 D07 D08 D09 D10 D11 D12
Construction Compliance Evaluation Plan (CCEP)

In Summary

- CCEP evaluates the status and health of the Construction Stormwater Program and provides Management Indicators.

- CCEP provides the data and trend analysis for:
  - Improving contract documents
  - Improving construction stormwater guidance documents
  - Improving training materials
  - Directing future research activities
An Annual Report is produced for the overall Program.
Questions?

Caltrans Construction Stormwater and Water Pollution Control Website:

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