

# Caltrans Stormwater Permit

## Compliance Units

*“a new way of doing business”*

AASHTO Stormwater Practitioner's Meeting  
Session 7 – TMDL Implementation / Watershed Approach  
July 31, 2014

Scott McGowen  
Chief Environmental Engineer, Caltrans



# Permit Amendment

- Permit Reopener Used
- Incorporate TMDL implementation requirements into Attachment IV
- Modified Region Specific Trash requirements into Attachment V
- TMDL Compliance requirement
  - 1650 units (acres) per year
- Board Adoption on May 19, 2014
- Effective July 1, 2014





## Caltrans TMDL Area

Currently named - 84 TMDLs

- Over 4100 centerline miles of Caltrans highway
- 28% of State Highway
- 56,000 acres estimate total TMDL right-of-way
- 2/3 of the state drains to impaired water bodies, many do not currently have a TMDL
- TMDLs are likely to double in the next five years

# Past vs. Present TMDL Requirements

(Result of collaboration: a new way of doing business)

## Past

- **Prescriptive Individual Requirements**  
(84 ways of doing business)
  - Basin Plan/Watershed-specific
  - CT Waste Load Allocations
  - Time lines varied (10 to 30+ yrs)
- **Three-pronged approach**
  - Retrofits (SHOPP & Capital Projects)
  - Institutional Controls
  - Public Education
- **Unsustainable**
  - Everything, Everywhere
  - Prioritized High/Med/Low

## Current

- Model Practices by Pollutant
  - Consistent Statewide Approach
  - 20 year timeline
- Objective Compliance Measure
  - Acres treated
  - Credit starts at programming
- Greatest WQ Benefit per Dollar Spent
- Flexibility in Implementation
- Credit for Some Region-Specific Retrofits





# Past vs. Present TMDL Requirements

(Result of collaboration : a new way of doing business)

## Past

- Prescriptive Individual Requirements (85 ways of doing business)
  - Basin Plan/Watershed-specific
  - CT Waste Load Allocations
  - Time lines varied (10 to 30+ yrs)
- Subjective approach
  - Retrofits (SHOPP & Capital Projects)
  - Institutional Controls
  - Public Education (DTC)
- Unattainable (Everything, Everywhere)
  - Prioritized High/Med/Low

## Current

- **Model Practices by Pollutant**
  - Consistent Statewide Approach
  - 20 year timeline
- **Objective Compliance Measure**
  - Compliance Unit = Acre treated
  - Credit starts at programming
- **Greatest WQ Benefit per \$**
  - Clear Performance Measures
- **Flexibility in Implementation**
  - SHOPP 335
  - Additional Post Treatment
  - Cooperative Implementation
  - Other



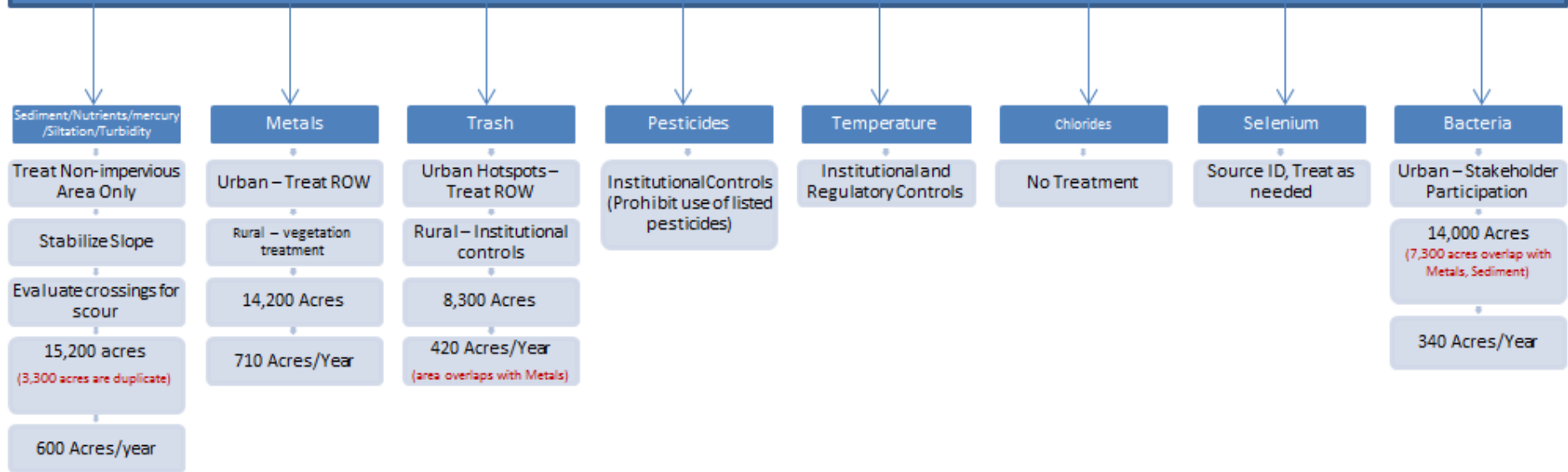
# Watershed Management

- Coordination
  - State and Regional Boards
  - Caltrans Districts and Functions
  - Local Municipal NPDES Agencies (Cities and Counties)
  - Other Stakeholders
  - Watershed Manager
- Compliance Credit and Tracking of 1650 Units/Yr
  - Project Delivery –Post Construction BMPs
  - Maintenance -Activities
  - SHOPP -335 Stormwater (Stand alone retrofit projects)
  - Cooperative Implementation –Cooperative Agreements, MOUs, etc.
  - other



# TMDL Implementation Framework

## Reach Prioritization Analysis



## TMDL Compliance

$$[\text{Sediment } 600 \text{ ac/yr}] + [\text{Metals } 710 \text{ ac/yr}] + [\text{Bacteria } 340 \text{ ac/yr}] = \mathbf{1650 \text{ Acres/Year}}$$

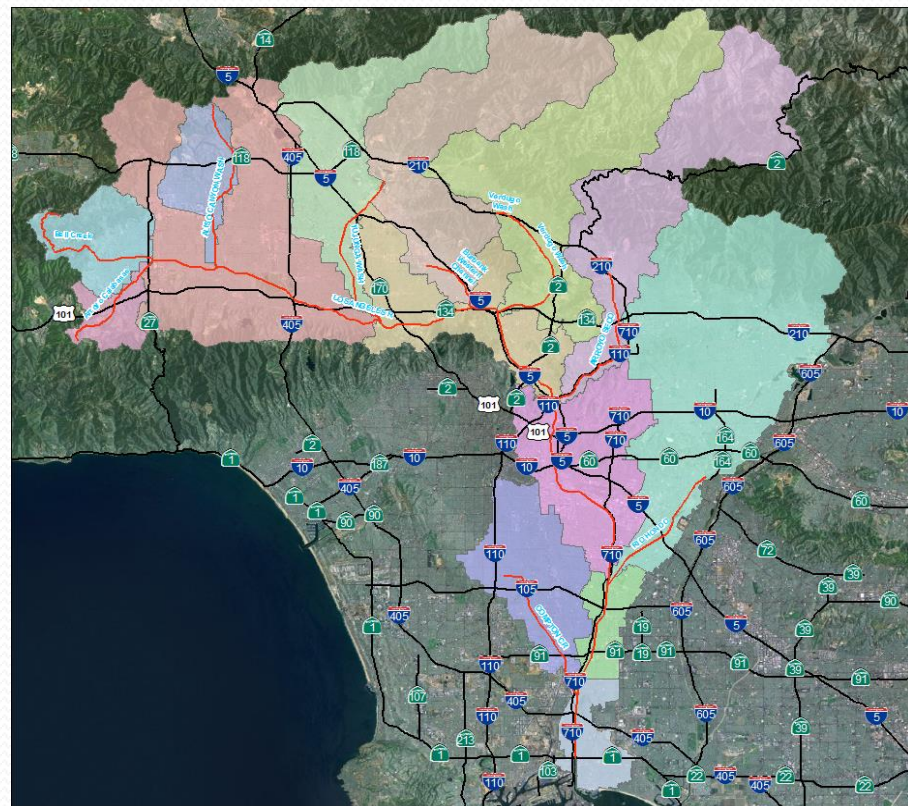
- Compliance is either through implementation of treatment devices or source control (type noted above)
- Assumed as 20 Year Compliance
- Trash TMDLs are in same watershed as Metals TMDLs. BMPs to be implemented will address both pollutants.
- Bacteria TMDLs overlap with other TMDL watersheds categories (Metals and Sediment).

Urban land use designation determined by Census Tract

# TMDL– Reach Prioritization

## Reach Prioritization for Each Of Eight Pollutant Category

- Identify Reaches (In Most Watersheds)
- Prioritize Reach Criteria
  - Impairment Status
  - CT percent of Drainage Area
  - Connectivity to Receiving Water
  - Community Environmental Health Impact





# Attachment IV – Cooperative Implementation

- Collaboration with MS4s
  - Implementation activities
  - \$88,000 = 1 compliance unit (acre)
- Examples
  - Bay Area (Trash and Hg)
  - LA Watershed Programs (EWMP or WMP)
  - San Diego Watershed Program (WQIPs)
- Programmatic Agreements
  - SWRCB Grant Program through Interagency Agreement
  - Potential Third-Party Brokers



# Potential Actions for Compliance Units (Credits)

- Stand-alone BMP retrofits
- Cooperative implementation
  - Monitoring program-related retrofits
  - Other Monitoring Efforts, which Leads to Implementation
- Post-construction treatment beyond permit requirements
- Other pollution reduction practices?
  - Institutional controls (e.g., hot spots litter pickup, slope stabilization, sweeping, etc.)
  - True source control (e.g., Brake-Pad Partnership, OGAC)

# Post Construction Treatment Requirement

- Treat the added impervious areas when equal to or greater than one acre, or 5000 sqft for facilities
  - Treating “more than the minimum” will help
  - If a project can treat more impervious area, than credit can be banked for use within the same watershed
  - Banked credits can be used for future projects that trigger treatment, but cannot construct treatment for a variety of reasons. eg.:
    - Unbalanced Cost/Benefit ratio for the BMP
    - Environmental or Right of Way constraints


# Retrofit of Treatment BMPs in TMDL Watersheds

- Minimum of 1650 Compliance Units per Year
  - Credits for impervious AND pervious areas of right of way
  - Post-construction treatment beyond permit requirement is helpful and can be credited
  - Treatment of more than 1650 CUs within a given year, is banked for future year credit
  - Caltrans does not know how much supplemental “extra” credit can be documented with convention capital projects. Standalone retrofit projects will have to make up the remainder. Is 1650 annual CUs reasonable. Time will tell.





# Tracking and Reporting Compliance




THE CALTRANS STORMWATER MANAGEMENT  
LEADING THE WAY

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go

## Caltrans Stormwater Portal

[Home](#) [Environmental Analysis/NPDES](#) [Design](#) [Construction](#) [Maintenance](#) [Third Party Activities](#) [SDSI](#) [SWAT](#) [TMDLs](#) [Training](#) [Reporting](#)




[Cooperative Agreements for Water Quality Monitoring Sites](#)  
[Incident Reporting](#)  
[TMDL Activities](#)  
[TMDL Compliance](#)  
[TMDL Database](#)  
[TMDL Map Tool](#)  
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### Welcome

- [About the Caltrans Stormwater Portal](#)
- [How to Use this Website](#)
- [About the Caltrans NPDES Permit](#)
- [Where to get Help](#)
- [Contact the webmaster](#)

### References

- » [Caltrans Statewide NPDES Permit](#)
- » [Stormwater Management Plan \(SWMP\)](#)
- » [Stormwater Annual Report and District Work Plans](#)



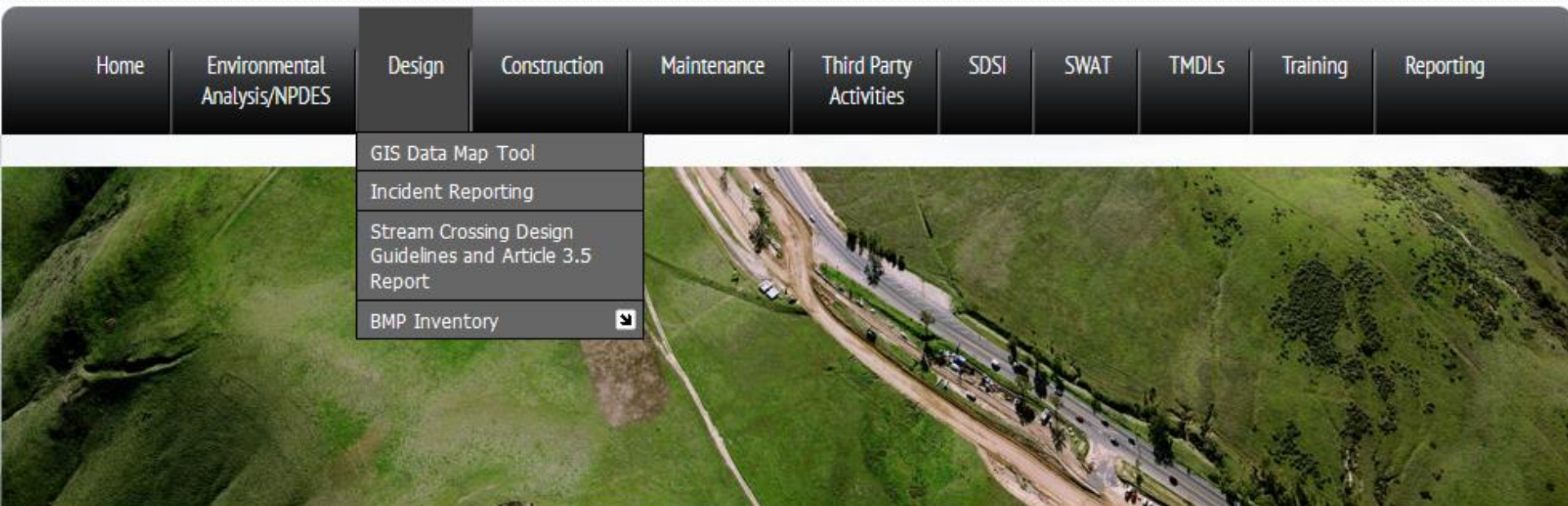
# Environmental Analysis/NPDES

- Administration
- Project Schedule
- Map Tools
- Enforcement Tracking
- Measurable Objectives
- Monitoring
- Municipal Coordination
- Program Development
- SWMP Revisions
- Upload Report or Plan

The screenshot displays the Caltrans Stormwater Portal website. At the top is a dark navigation bar with the following menu items: Home, Environmental Analysis/NPDES, Design, Construction, Maintenance, Third Party Activities, SDSI, SWAT, TMDLs, Training, and Reporting. The 'Environmental Analysis/NPDES' menu is expanded, showing a list of sub-options: Administration, Anticipated Project Development and Construction Schedule, ASBS Map Tool, GIS Data Map Tool, Enforcement Tracking, Measurable Objectives, Monitoring, Municipal and Agency Coordination Activities, Program Development, SWMP Revisions, and Upload a Report or Plan. The main content area features a large aerial photograph of a green landscape with a road and a dirt path. Below the photo, there is a 'Welcome' section on the left and a 'References' section on the right. The 'References' section lists two items: 'Caltrans Statewide NPDES Permit' and 'Stormwater Management Plan (SWMP)'. In the bottom right corner, there is a circular logo for the California Department of Transportation (Caltrans) with the text 'CALIFORNIA DEPARTMENT OF TRANSPORTATION' and 'Caltrans'.

# Design

- Caltrans GIS Data Layers Map
- Stream Crossing Design
- Treatment BMP Inventory





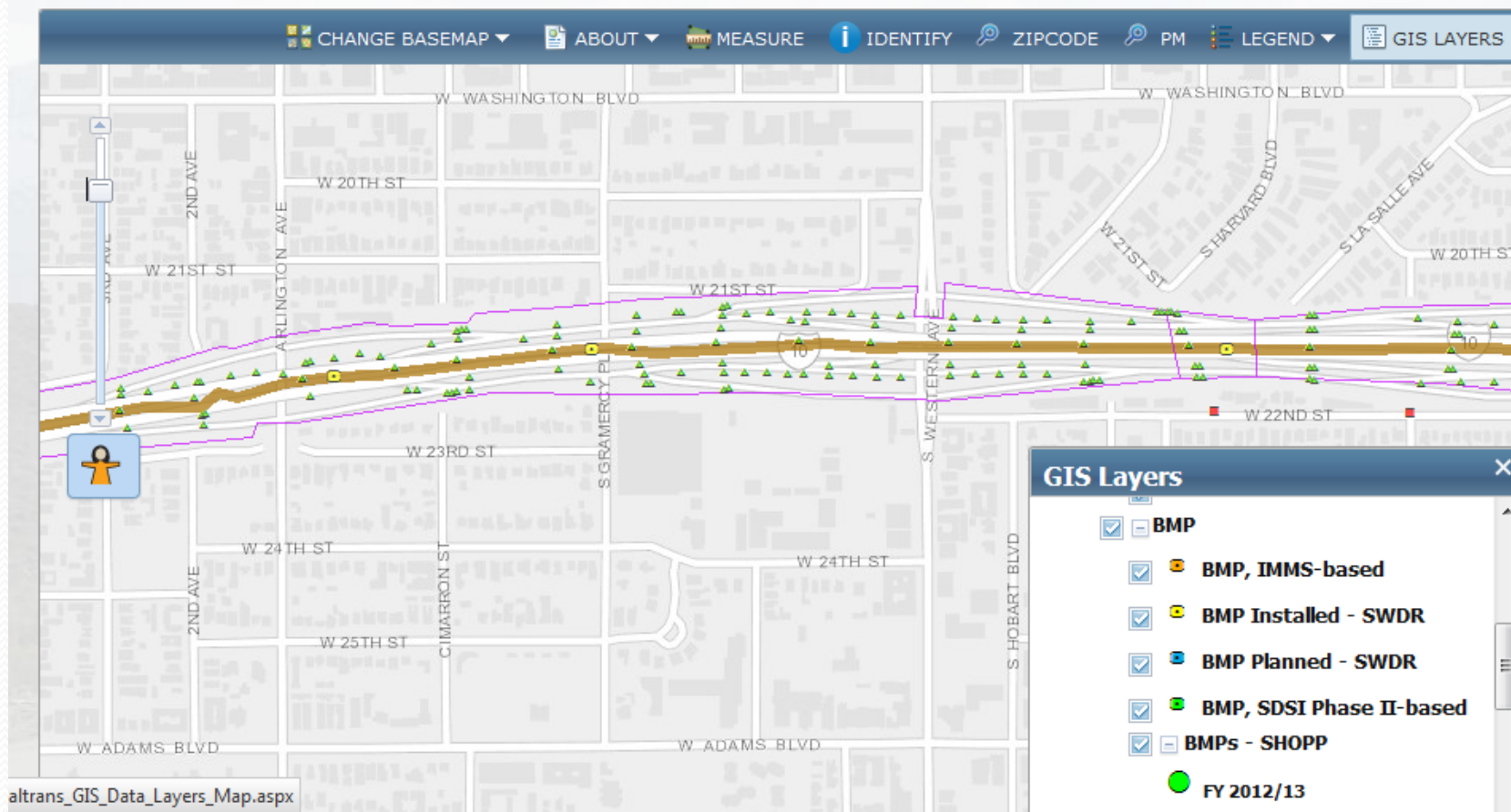
[Home](#)[Environmental  
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Activities](#)[TMDLs](#)[Training](#)[Reporting](#)

# Design

## Caltrans GIS Data Lay

[Caltrans GIS Data Layers Map](#)[Incident Reporting](#)[Stream Crossing Design  
Guidelines and Article 3.5  
Report](#)[Treatment BMP Inventory](#)

Use this map to view the various types of Caltrans geographic information related to stormwater. Click **GIS Layers** to add or remove map items. If layers are grayed out, zoom in further on the map to activate that layer.







Welcome, Caltrans Headquarters | LOG OUT



# Caltrans Stormwater Portal



Home

Environmental  
Analysis/NPDES

Design

Construction

Maintenance

SDSI

SWAT

Third Party  
Activities

TMDLs

Training

Reporting

## BMP Location

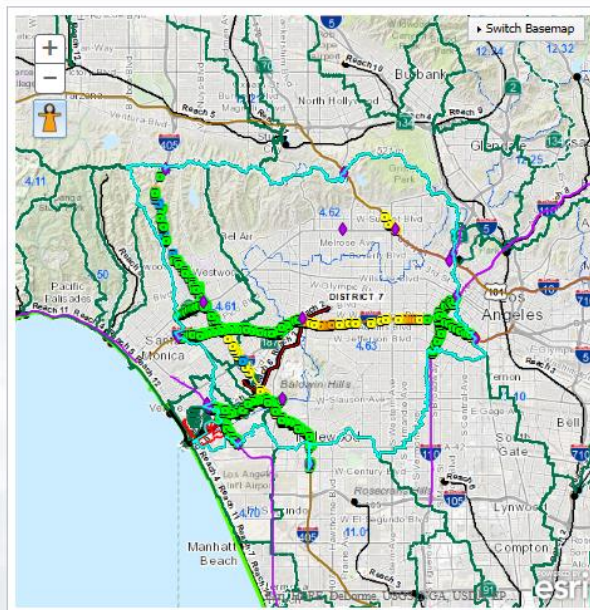
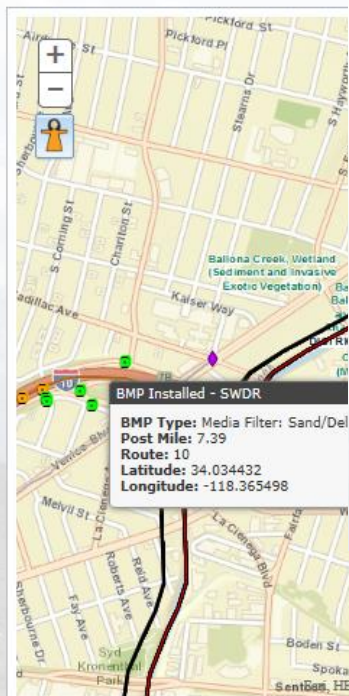
### TMDL Tool

#### TMDL Map Tool

Use this map to view the various types of Caltrans geographic information related to TMDLs. Click **GIS Layers** to add or remove map items. Click on a **District**, then **Zoom to view TMDLs** for that District. Click **Switch Basemap** to change the base GIS map.

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#### TMDL Search



**TMDL:**  
Ballona Creek (Metals (AG, Cd, Cu, Pb, Zn) and Selenium)

**Watershed Area:**  
81795.06 Acres

**Caltrans Impervious Area:**  
831 Acres

Open Database

Route	From PM	To PM	Miles
2	10.62	12.73	2.11
1	29.16	30.71	1.54
1	31.16	31.37	0.2
2	2.52	3.68	1.16
5	13.75	13.88	0.13

#### Legend

TMDL Keyword Search

Measurement

Latitude/Longitude

Zip Code Search

Post Mile Lookup

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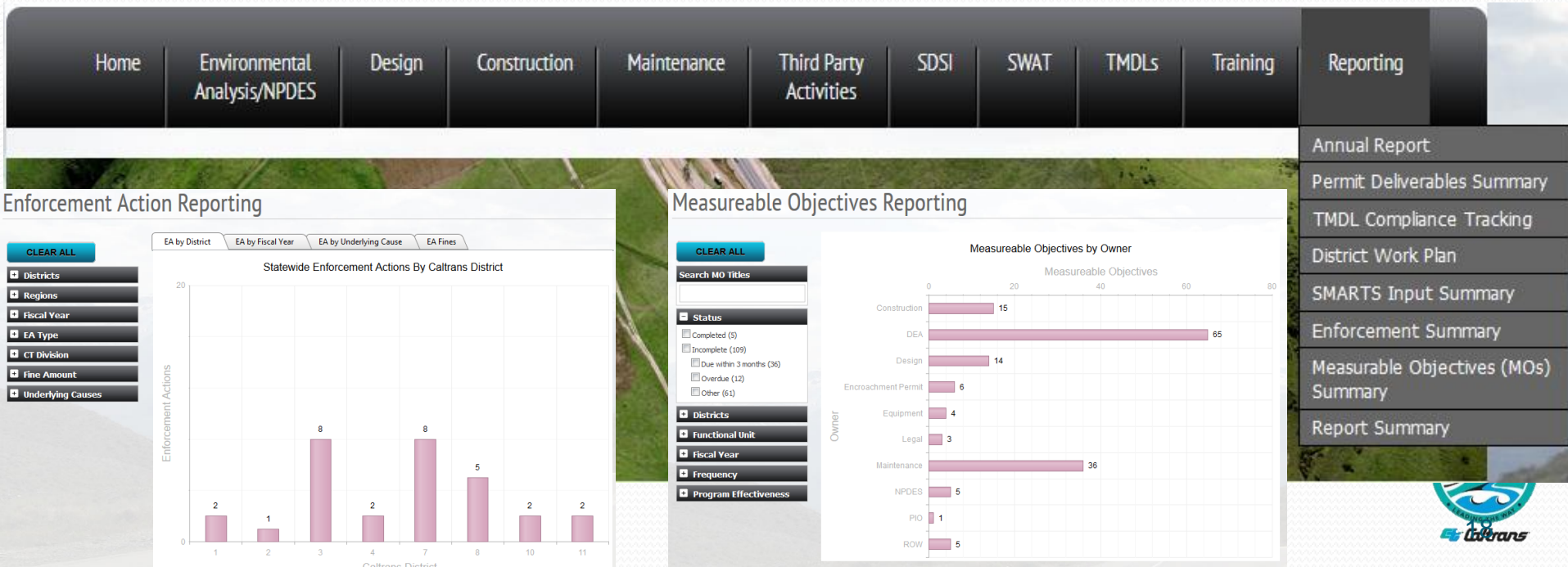
Zip Code Search

Post Mile Lookup

605/91 BMP Location

# Reporting

- Annual Report
- Permit Deliverables Summary
- TMDL Compliance Tracking
- District Work Plan
- SMARTS Input Summary
- Enforcement Summary
- Measureable Objectives (MOs) Summary
- Report Summary



# Resources for Stormwater Compliance

**FY 13-14**

**Governor's Enacted Budget**

2660-007-0042

\$99,722,000

Capital Outlay Support

Maintenance

Traffic Operations

Legal

**2014**

**State Highway Operation  
Protection Plan (SHOPP) (201.335)**

\$90,000,000 (constrained need)  
per 2013 Ten Year SHOPP

FY 2014-15

FY 2015-16

FY 2016-17

FY 2017-18

**Capital Projects**

STIP, SHOPP, and Local Assistance

Construction BMPs  
(Temporary)

Design Pollution  
Prevention (Permanent)

Post Construction BMPs  
(Permanent)

Orders & Enforcement  
Actions



# Questions or Comments?

Scott McGowen

[scott.mcgowen@dot.ca.gov](mailto:scott.mcgowen@dot.ca.gov)

Chief Environmental Engineer

