

Trash TMDL

Achieving compliance...

Presenter: Gary Hildebrand, P.E.

Date: 8/30/2011



Trash in the Flood Control System



- Storm events flush the watershed, depositing extensive amounts of trash into flood control channels and beaches

Trash TMDL Background

- **OBJECTIVES**
- **RESPONSIBLE AGENCIES**
- **WATERSHEDS**
- **SCHEDULE**
- **COMPLIANCE STRATEGY**





Trash TMDL Background

- **OBJECTIVES**

- Waste Load Allocations for all point and nonpoint sources of trash discharge is ZERO
- Responsible Agencies
 - Cities, County, CalTrans, National Forest Service
 - Must control trash from within their jurisdiction

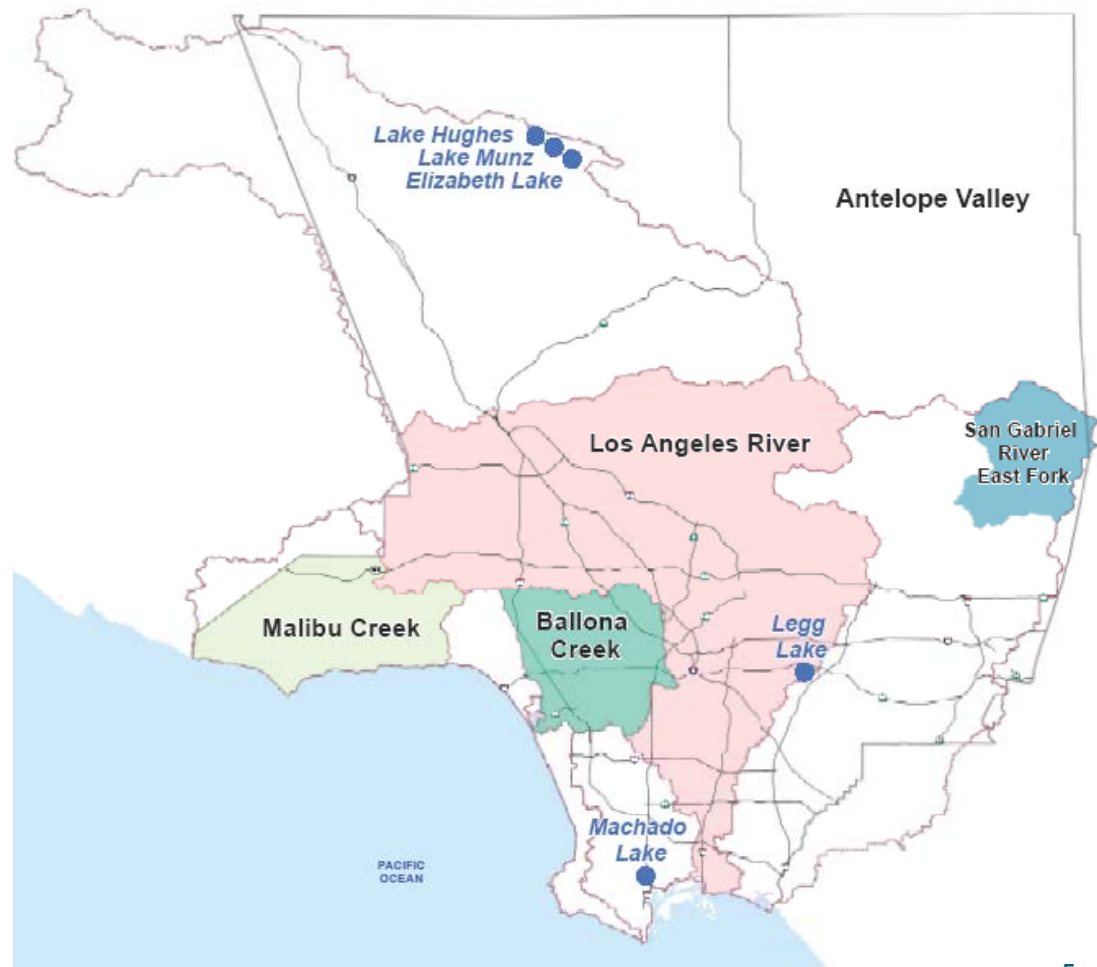
Trash TMDL Background

- **WATERSHEDS**

- Ballona Creek
- Los Angeles River
- Malibu Creek
- San Gabriel River
East Fork

- **LAKES**

- Lake Elizabeth,
Lake Hughes &
Munz Lake
- Legg Lake
- Machado Lake



Trash TMDL Background

- **IMPLEMENTATION SCHEDULE**

Watershed	Effective (Adopted) Date	Initial Compliance Date ¹	Final Compliance Date (0%)
Ballona Creek ²	8/11/2005	9/30/2006 (80%)	9/30/2015
Los Angeles River ^{2,3}	9/23/2008	9/30/2008 (60%)	9/30/2016
Malibu Creek	7/7/2009	7/7/2013 (80%)	7/7/2017
San Gabriel River East Fork	4/17/2001	7/16/2001	4/1/2003
Lake Elizabeth, Et Al	3/6/2008	3/6/2012 (80%)	3/6/2016
Legg Lake	3/6/2008	3/6/2012 (80%)	3/6/2016
Machado Lake	3/6/2008	3/6/2012 (80%)	3/6/2016

1. Initial Compliance Date allows time for Responsible Jurisdictions to implement plan. Compliance based on percentage of baseline trash load.
2. Legal challenges delayed certain Effective Dates.
3. Compliance is determined by the Regional Board NPDES Permit executive order.

Trash TMDL Background

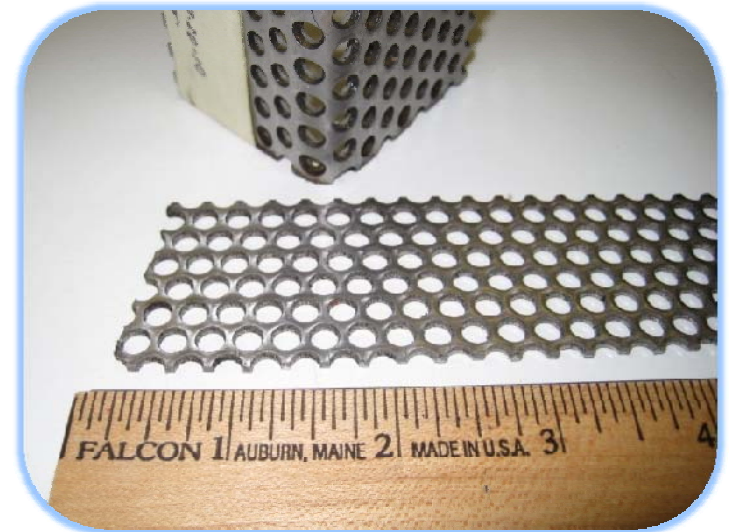
- **COMPLIANCE STRATEGY**

- Strategy for compliance is based on using the following approach:

- **Full Capture Systems**

- **Must** trap all debris particles larger than 5 millimeters **AND**
- Have a design treatment capacity for the peak flow of the 1-Year, 1-Hour Storm

- **Partial Capture Systems / Institutional Measures**



Structural BMPs

- **FULL CAPTURE SYSTEMS**

- Connector Pipe Screen (CPS)
- In-Line Continuous Deflective Separation Unit (CDS Unit)

- **PARTIAL CAPTURE SYSTEMS**

- Automatic Retractable Screen (ARS)
- Filter Basket Insert (FBI)
- Floating Trash Boom



Structural BMPs

● CPS

- CPS is a **Certified Full Capture Device**

**Material &
Installation**

Cost = \$300 / Unit

**Estimated Annual
Maintenance**

Cost = \$330 / Unit



Structural BMPs

- **CPS**



Structural BMPs

- **CPS**



Structural BMPs

● CDS Unit

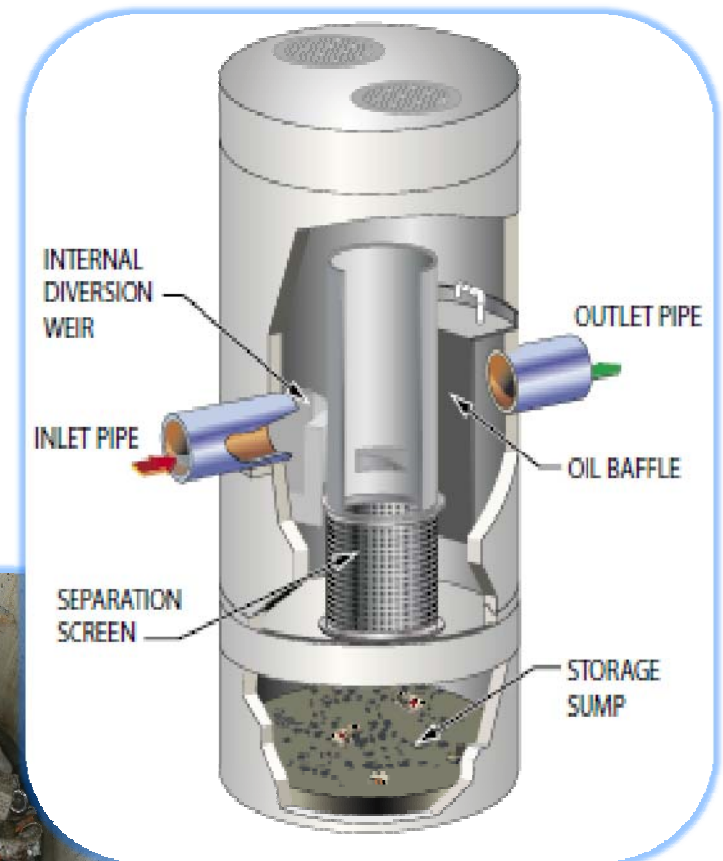
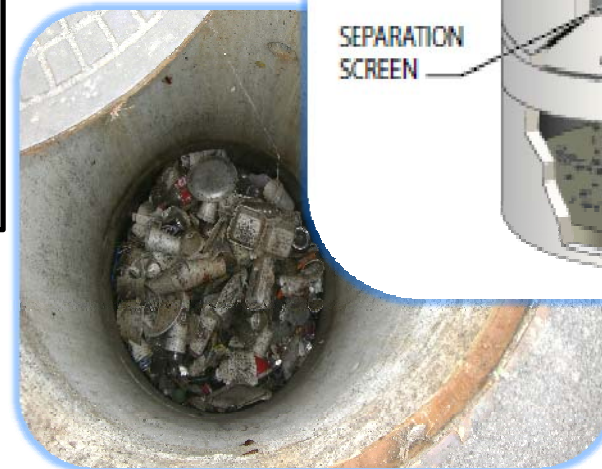
- CDS Unit is a **Certified Full Capture Device**

Material & Installation

Cost = \$10,000 to \$80,000 / Unit
(Treatment Capacity Dependent)

Estimated Annual Maintenance

Cost = \$2,500 to \$30,000 / Unit
(Treatment Capacity & Cleanout Frequency Dependent)



Structural BMPs

- **ARS**

- ARS is **not** a Certified Full Capture Device

**Material &
Installation**

Cost = \$300 to \$1,800 / Unit
(Width Dependent)

**Estimated Annual
Maintenance**

Cost = \$180 / Unit



Structural BMPs

- **ARS**



Structural BMPs

- **FBI**

- FBI is **not** a Certified Full Capture Device

**Material &
Installation**

Cost = \$360 / Unit

**Estimated Annual
Maintenance**

Cost = \$180 / Unit



Structural BMPs

● Floating Trash Boom

- Booms are **not** a Certified Full Capture Device

Material & Installation

Cost = \$30 to \$50 / Linear Foot
(Length Dependent)

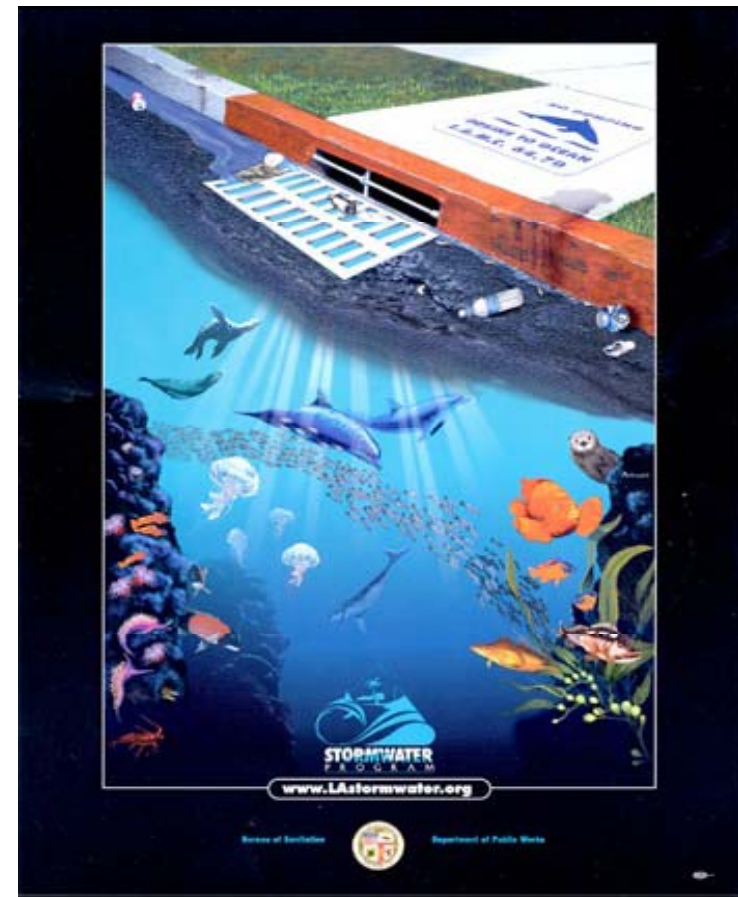
Estimated Annual Maintenance

Cost = \$800 to \$1,000 / Ton of
Debris Removed



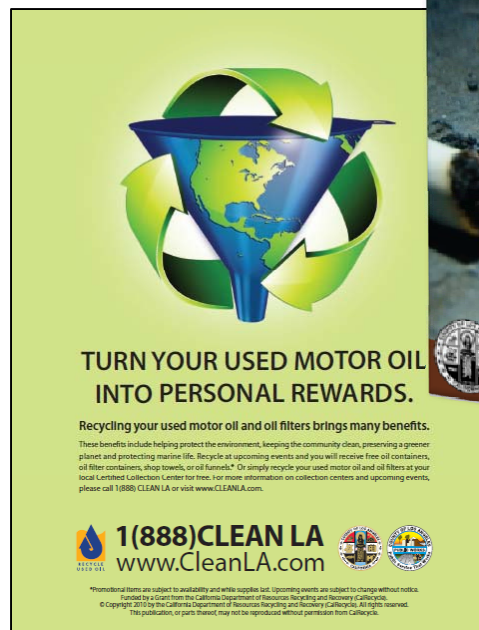
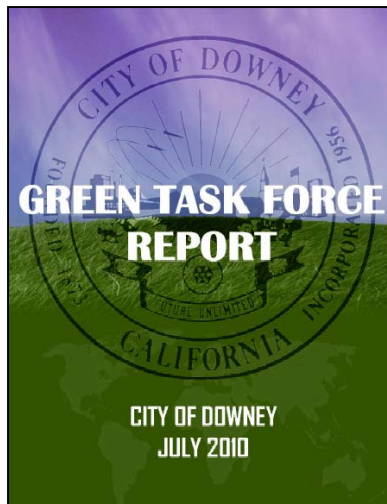
Institutional Measures

- Public Education/Outreach
- Ordinances/Enforcement
- Street Sweeping & Catch Basin Cleaning
- Source Control Programs



Institutional Measures

- **PUBLIC EDUCATION/OUTREACH**
 - **Ad Campaigns**
 - **Publications and Pamphlets**
 - **Earth Day Events**



Institutional Measures

- **ORDINANCES/ENFORCEMENTS**

- **Plastic Bag Ban**

- County of LA and four Cities



ATTENTION SHOPPERS
Carryout plastic bags will be history in your stores.

When: Beginning July 1, 2011
Where: Unincorporated
Los Angeles County
Why: To protect the environment and
help keep our communities clean

Bring your reusable bags every time you shop to
avoid a \$0.10 cent charge for paper bags.

For more information, visit:
www.aboutthebag.com
call 1(888) CleanLA

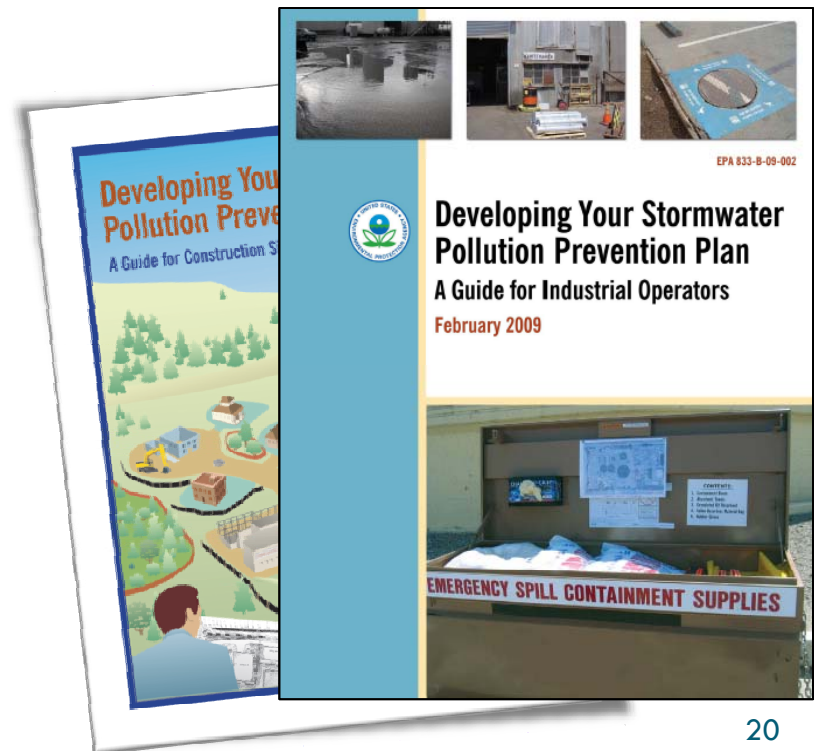


Be plastic bag free and help keep Los Angeles County clean!

Ordinance Number: 2010-0059 § 1, 2010

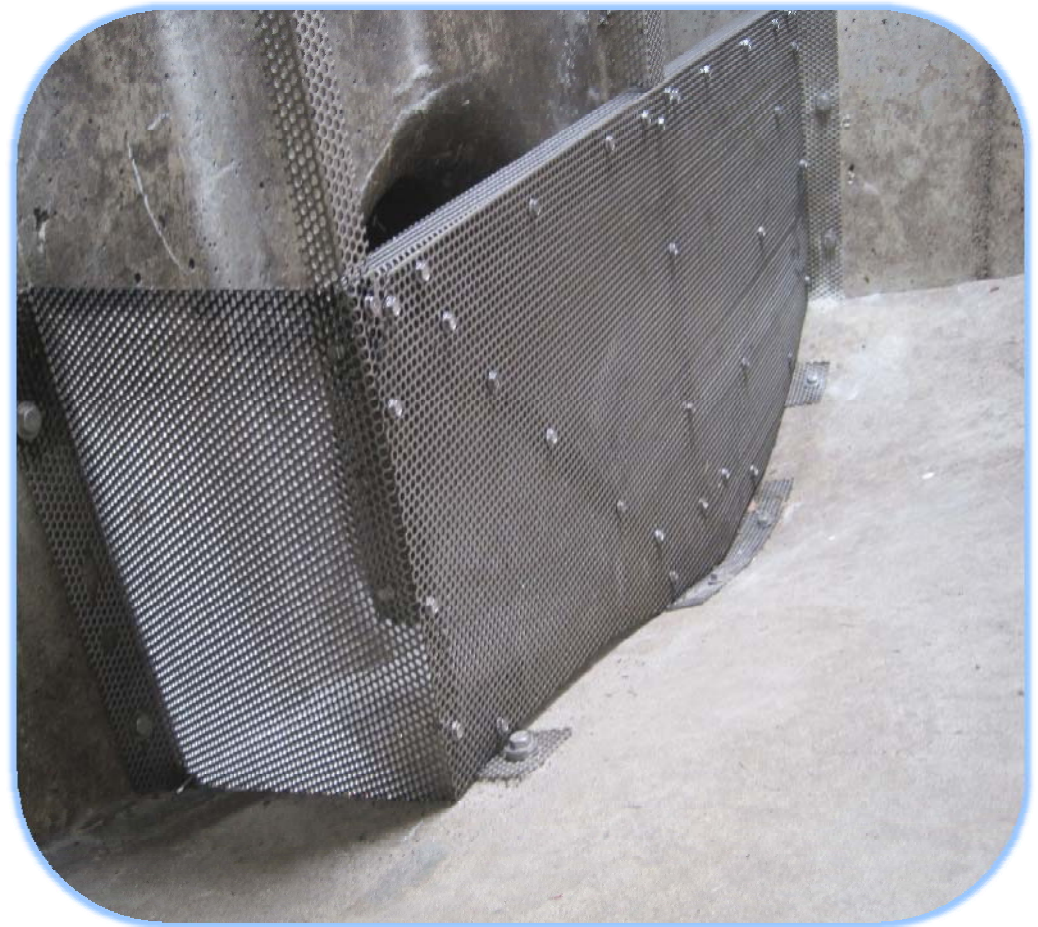
Institutional Measures

- **STREET SWEEPING & CATCH BASIN CLEANING**
 - **Enhanced & Aggressive Programs**
- **SOURCE CONTROL PROGRAMS**
 - **Stormwater Pollution Prevention Plan**



Status of Trash TMDL

- **COUNTY OF LOS ANGELES, LACFCD, & NUMEROUS CITIES HAVE INSTALLED TRASH INSERTS**
- **WATERSHEDS FOCUSED ON ARE:**
 - **Ballona Creek**
 - **Los Angeles River**

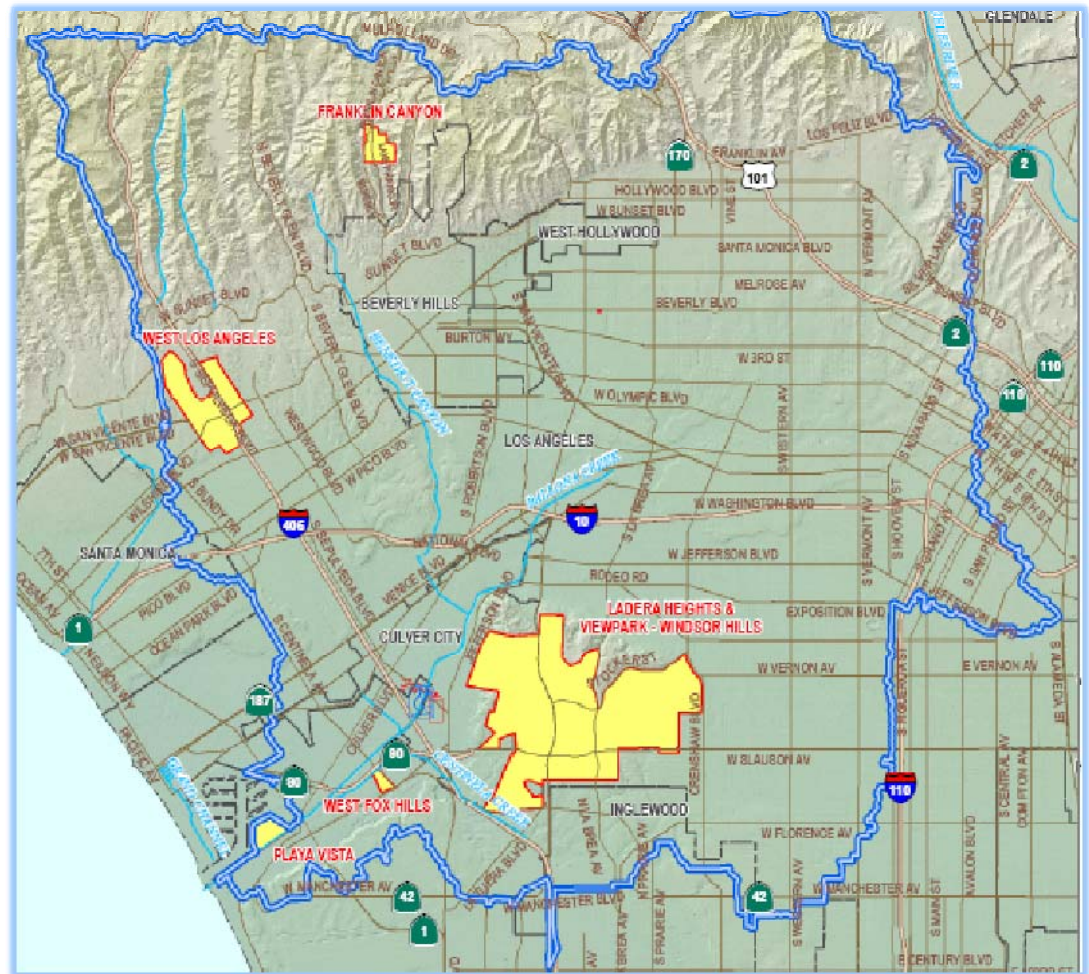


Status of Trash TMDL

- **BALLONA CREEK**

- Sept. 30, 2011
 - 80% Compliance

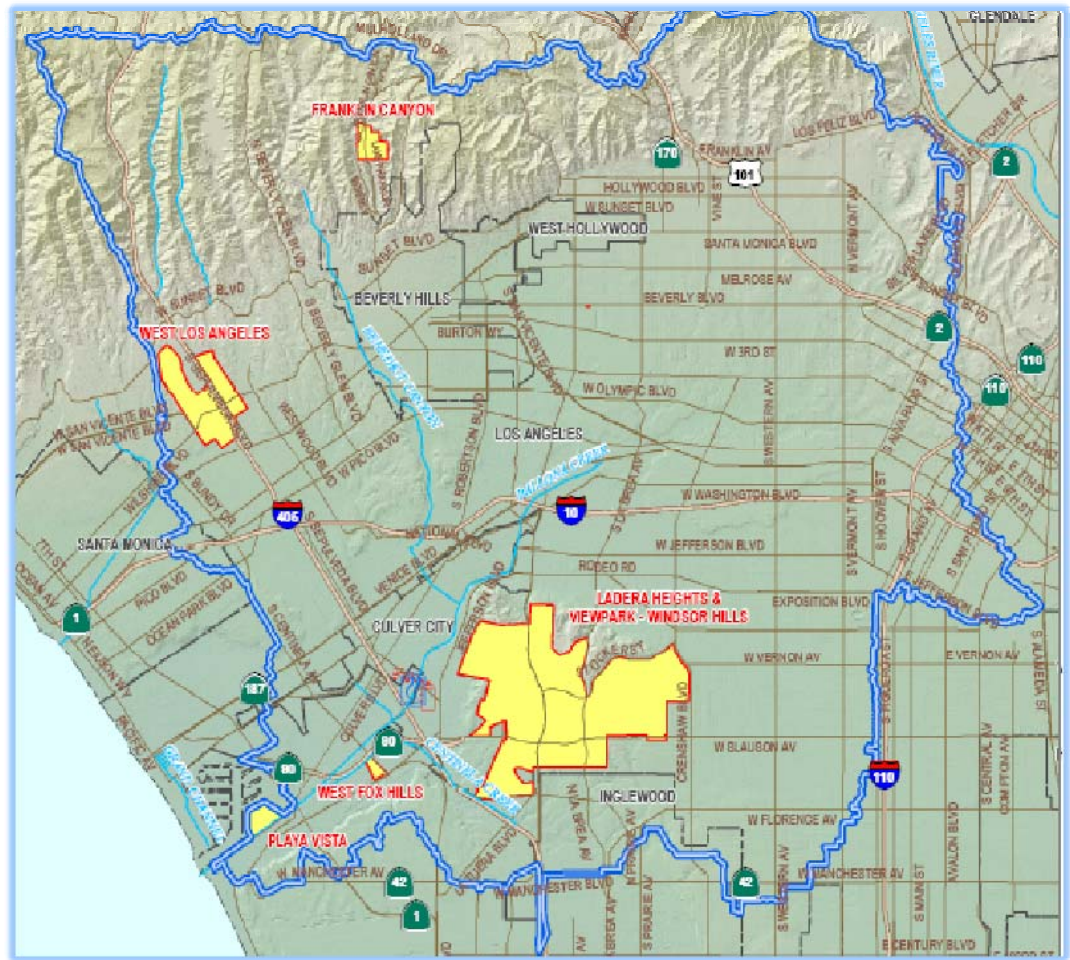
Device Installed	Counts
ARS	11,000
CPS	6,000
FBI	1,500
CDS Unit	80



Status of Trash TMDL

- **BALLONA CREEK**

- Institutional Measures
 - Public Service Announcements on local cable channels
 - Information presented on Responsible Agency's website
 - Earth Day Events
 - Inspections of construction and commercial/industrial sites for SWPPP compliance
 - Increased cigarette disposal & trash receptacles
 - Daily Street Sweeping

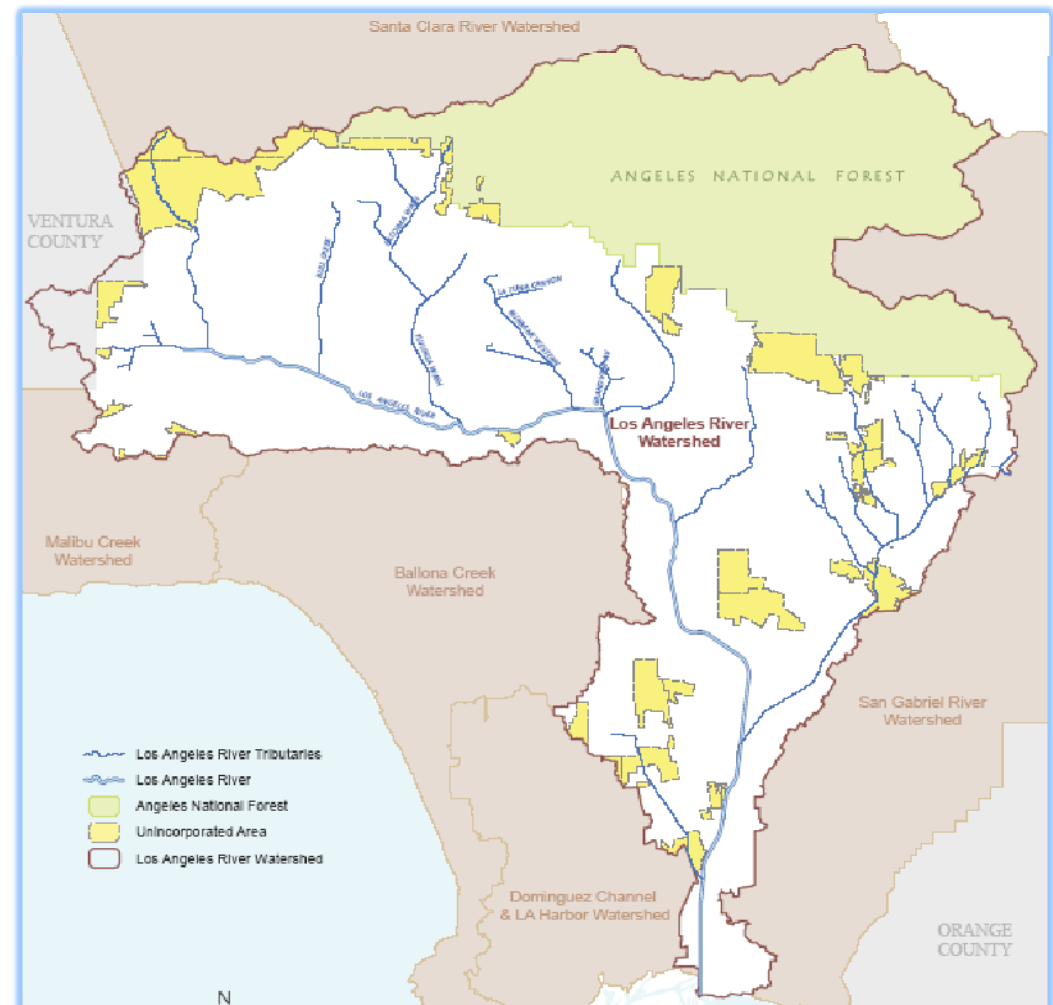


Status of Trash TMDL

- **LOS ANGELES RIVER**

- Sept. 30, 2011
 - 70% Compliance

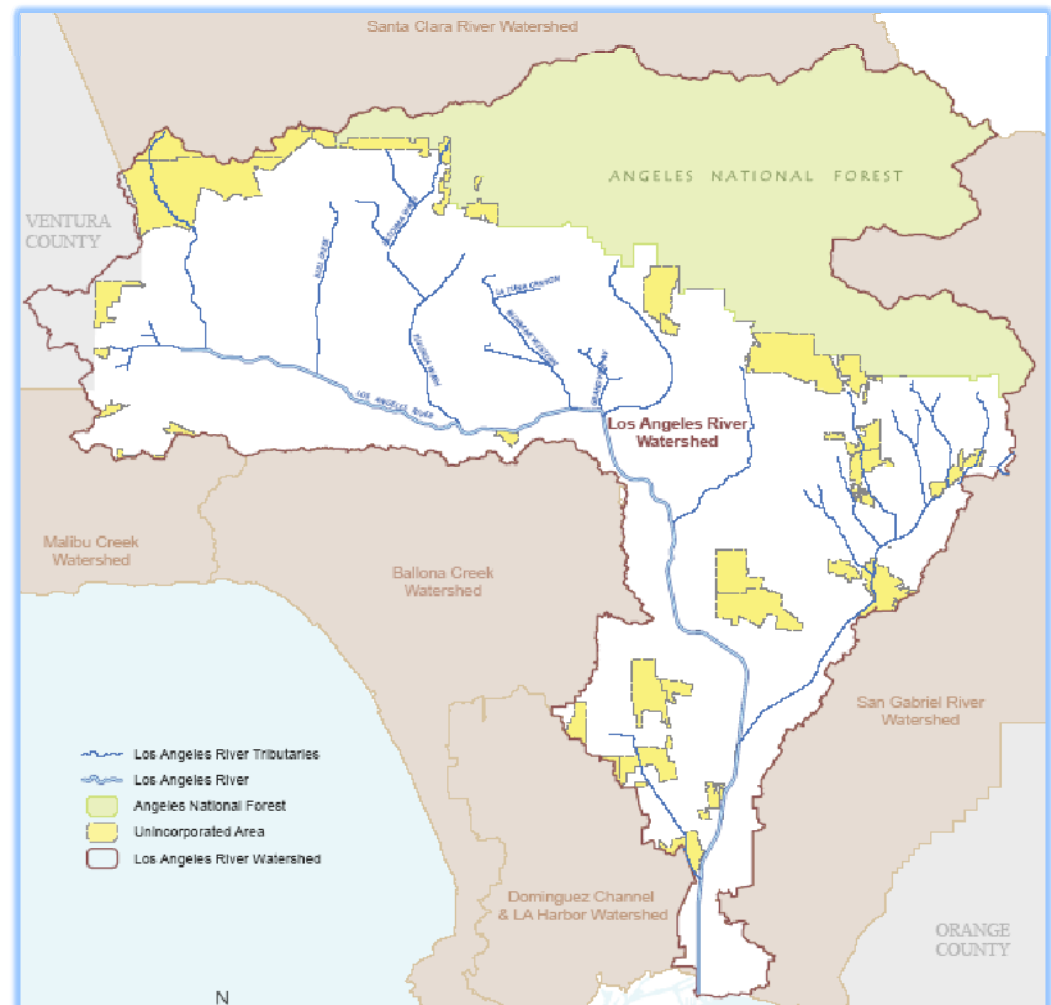
Device Installed	Counts
ARS	20,000
CPS	17,000
FBI	4,200
CDS Unit	200



Status of Trash TMDL

• LOS ANGELES RIVER

- Institutional Measures
 - Public Service Announcements on local cable channels
 - Stormwater pollution prevention articles published in local newspaper
 - Earth Day Events
 - Free annual spring-clean up for residents
 - Inspections of construction and commercial/industrial sites for SWPPP compliance
 - “No Dumping” markers offered for private drains
 - Aggressive Street Sweeping



Questions?

Website: www.lawatersheds.org

