IMPLEMENTATION OF STATEWIDE TRASH PROVISIONS

Leo Cosentini
Municipal Stormwater Unit
State Water Resources Control Board

California Trash Monitoring Webinar Series 2021

January 21, 2021

CALIFORNIA
Water Boards

TRASH TO CREEKS

Discarded trash + rain

↓

Runoff + trash

↓

Storm drain system + runoff + trash

↓

Receiving water + runoff + trash

According to a 2014 Bay Area Stormwater Management Agencies Association report, about 70% of trash is composed of plastic.

WATER BOARDS HISTORY ADDRESSING TRASH

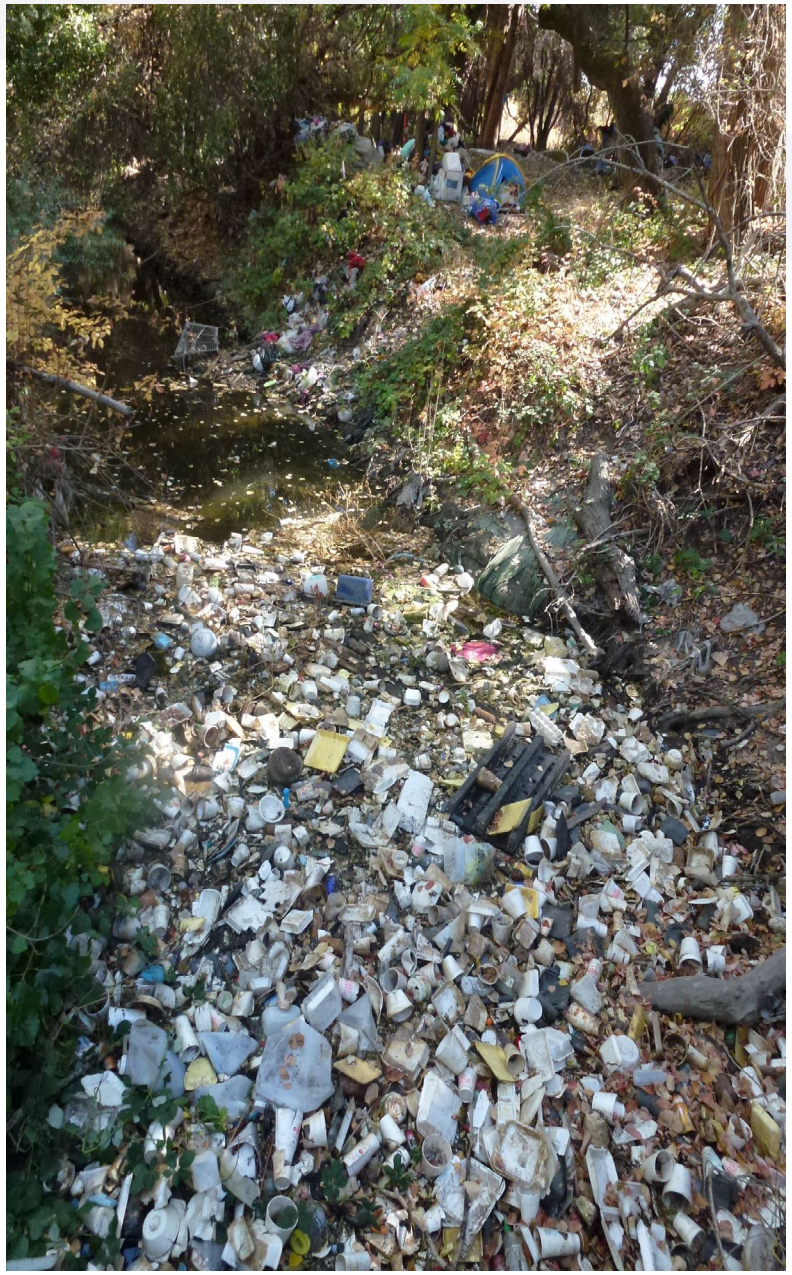
Los Angeles Regional Water Board

Since early 2000s:

- Determined Trash Total Maximum Daily Loads for 15 watersheds starting with Ballona Creek and Los Angeles River
  - Capture particles ≥ 5-mm from a peak flow generated by 1-year, 1–hour storm within urbanized watersheds
  - Calculated baseline trash volumes
  - Interim trash reduction targets

Since 2007:

- Included trash Total Maximum Daily Load requirements in Municipal stormwater permits
- Full capture systems required for all runoff



WATER BOARDS HISTORY ADDRESSING TRASH

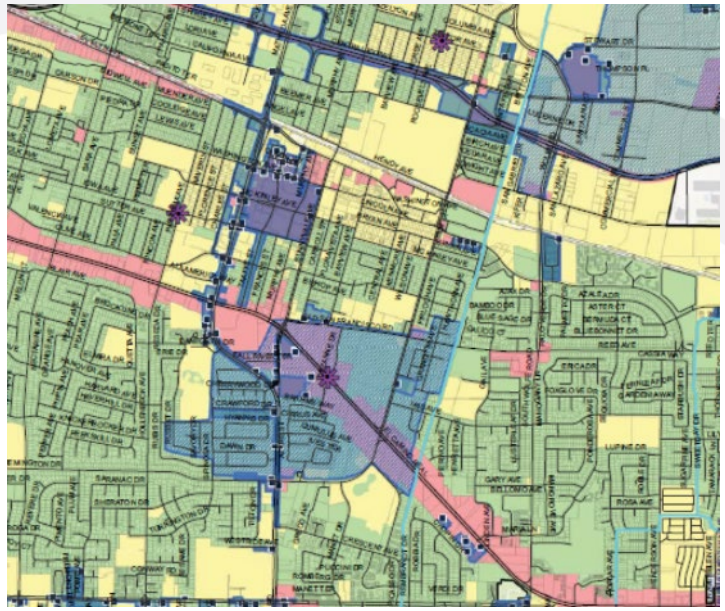
San Francisco Bay Regional Water Board

2002 - 2007: Collected data on trash impairments

2008: Listed 27 trash-impaired water bodies on Clean Water Act section 303(d) list

Since 2009: Regional Municipal Stormwater Permit implements trash control requirements

- Interim trash reduction targets
- Capture particles ≥ 5-mm from a peak flow generated by a 1-year, 1–hour storm
- Trash generation assessment and mapping



WATER BOARDS HISTORY
ADDRESSING TRASH
San Francisco Bay Regional Water Board

Trash Reduction Targets

- 40% by 2014
- 60% by 2016
- 80% by 2019
- 100% or “no adverse impact” goal by 2022

- Credits for source control (e.g., plastic bags, food foam ware)
- Required minimum creek and shoreline cleanups
- Credits for additional creek and shoreline cleanups as well as homeless encampments)

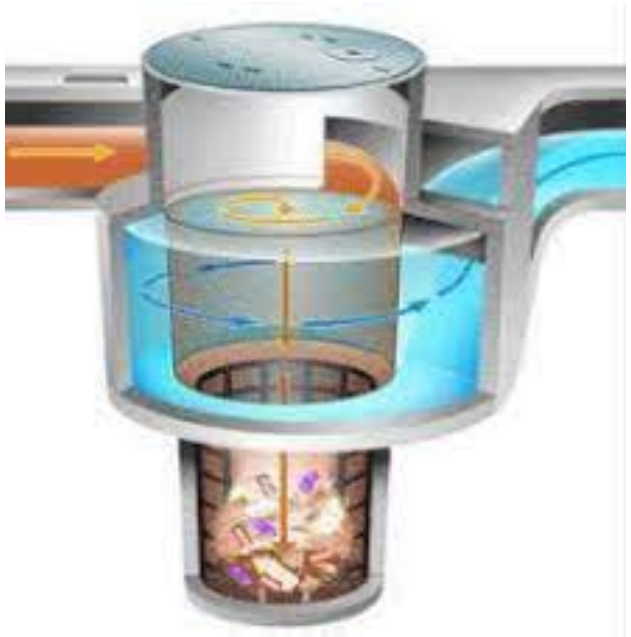
EOA, Inc photo

STATEWIDE TRASH PROVISIONS

State Water Resources Control Board

2015: Adopted Statewide Trash Provisions that:

- Are applicable to all regulated stormwater discharges to surface waters, including the ocean
- Replace the need for Regional Boards to adopt future trash Total Maximum Daily Loads
- Provide statewide regulatory consistency
- Implement a statewide trash prohibition with a 0% discharge goal by 2030
- Require capture of all particles 5-mm or greater from a peak flow generated from 1-year, 1–hour storm event from priority land uses or equivalent
- Only certified full capture trash systems may be used



STATEWIDE TRASH PROVISIONS
Compliance Tracks

Permittees required to:

- Select one of two compliance tracks:

  Track 1 – Full Capture.

  - 100 percent installation of full capture systems in storm drain systems serving **priority land uses**.
  - Jurisdictional map with priority land used and inlet locations

  Track 2 – Full Capture Equivalence.

  - Installation of combination of trash controls with an equivalent trash reduction as Track 1.
  - Jurisdictional map with priority land uses (and other locations) and inlet locations
  - Implementation plan

STATEWIDE TRASH PROVISIONS

What is a compliance track?

Track 1

Full Capture Systems Only

Jurisdictional Map with Priority Land Uses and inlet locations

Track 2

Combination of full capture systems, multi-benefit projects, other treatment controls, or institutional controls to achieve full capture system equivalency

Implementation Plan
Jurisdictional Map with Priority Land Uses and other locations, and inlet locations

STATEWIDE TRASH PROVISIONS
Initial Implementation and Current Status

<u>June 2017</u>: State and Regional Water Boards issued Water Code section 13383 Orders requiring municipal stormwater permittees to:

By September 2017: Submit selection of compliance track option and preliminary jurisdictional map

By December 2018: Submit final jurisdictional map. Submit Track 2 implementation plan (if applicable)

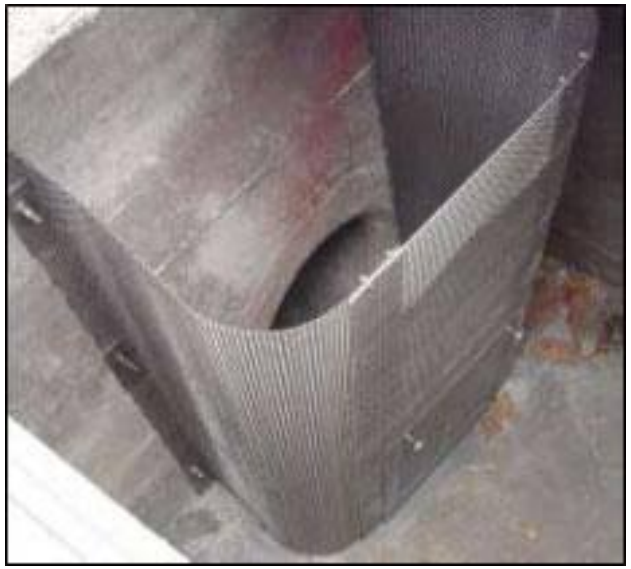
- Approximately 98% of all permittees complied with 13383 orders

STATEWIDE TRASH PROVISIONS

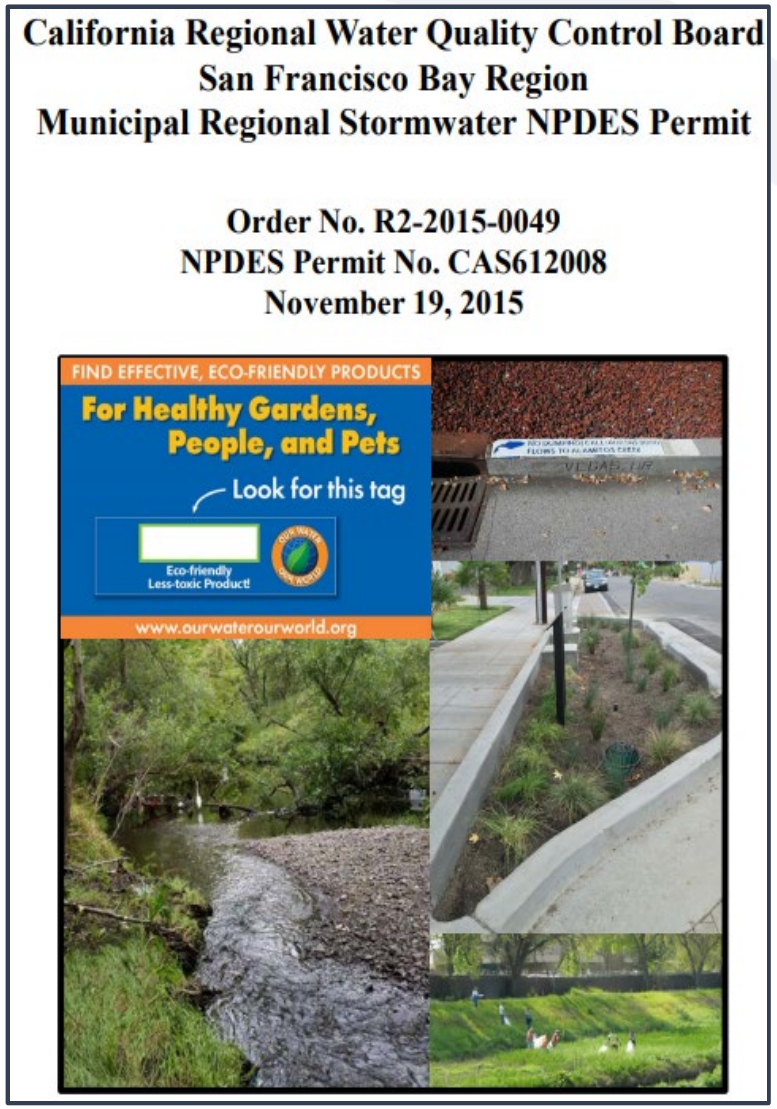
What are priority land uses?

- High-density residential areas of 10+ dwelling units per acre
- Industrial land uses
- Commercial land uses
- Mixed urban land uses (combination of above)
- Public transportation stations
- Equivalent Alternative Land Uses

FULL CAPTURE TRASH DEVICE CERTIFICATION



- 20 Grandfathered Full Capture Devices
- 5 Multi-benefit Full Capture Systems
- 30 New Applications Certified
- Full Capture Device Application Requirements’
- Project Specific Application Requirements
- Mosquito Vector Control Association of California (MVCAC) Approval required

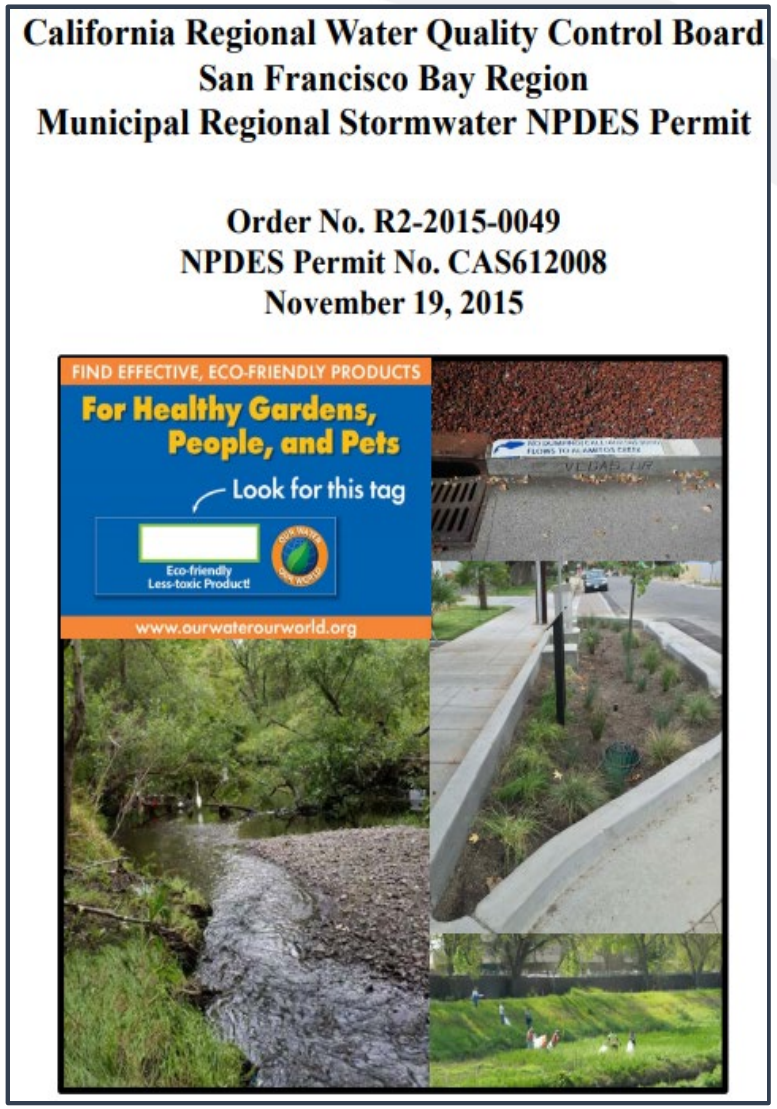


STATEWIDE TRASH PROVISIONS

Long-term Implementation in Progress

- Upcoming permits to include trash control requirements:
  - San Francisco Bay Water Board regional municipal stormwater permit
  - Los Angeles Water Board municipal stormwater permits
  - 13 other Regional Water Board municipal stormwater permits
  - Statewide Construction and Industrial Stormwater General Permits
  - Statewide CALTRANS Stormwater permit
  - Statewide Municipal Stormwater Permit for Small Municipalities

STATEWIDE TRASH PROVISIONS



PERMIT REQUIREMENTS

- Upcoming permits to include trash control requirements:
  - Include interim milestones
  - Maintenance reporting/maintenance interval adjustments
  - Annual installation reporting
  - Annual interim milestones reporting
  - For Track 2, demonstration of full capture equivalency
  - Compliance schedule: For both tracks, compliance is required within 10 years from when a permit is adopted but no later than December, 2 2030

STATEWIDE TRASH IMPLEMENTATION

Successes

Los Angeles Region

- Los Angeles River Watershed
  - Actual capture of over six million pounds of trash per year through 17,000 installed full capture systems
- Ballona Creek Watershed
  - Actual capture of over one million pounds of trash per year via 2,500 full capture systems

San Francisco Bay Region

- 90 percent permittee compliance with the 2020 goal of 80 percent trash reduction

STATEWIDE TRASH IMPLEMENTATION

Lessons Learned

- Getting to 100% trash reduction will be a financial challenge for some municipalities. Hot spot cleanup offset credits may be needed to meet the 100% target.
- Increased attention to operation and maintenance is needed to ensure full trash capture systems effectively trap trash.
- Some priority land uses do not discharge to municipal storm drain systems or are connected directly.
- Full capture devices are difficult to install at some stormwater locations
- Direct dumping, homeless encampments, and wind-blown trash are significant sources of trash for many water bodies.
- Many full capture systems require re-design in order to ensure adequate vector control accessibility.

STATEWIDE TRASH PROVISIONS

Trash "Hot Spot" Cleanup Along Creeks and Shorelines

- Outside a municipality's storm drain system
- Conducted in/on waterways and shorelines
- San Francisco Bay Water Board Municipal Regional Stormwater Permit requires baseline hot spot cleanup. Additional credit can be received for clean-ups above the baseline.
- Central Valley Regional Board is considering adding hot spot cleanup credit in reissued permits
- CALTRANS is coordinating homeless encampment cleanup within its right-of-way with local agencies

STATEWIDE TRASH PROVISIONS

Recap

Statewide compliance: No discharge of trash to surface waters or deposition of trash where it may be discharged to surface waters

Statewide compliance due date: Full compliance within 10 years of first implementing permit and no later than December 2, 2030 and demonstrate achievement via interim milestones

STATEWIDE TRASH PROVISIONS

Recap, continued

Permittees to show compliance by the deadline through:

- Installing, operating, and maintaining full capture systems that trap all particles 5-millimeter or greater and that meet the design peak flow

or

- Installing, operating, and maintaining any combination of full capture systems, multi-benefit projects, or other treatment controls and/or institutional controls that achieves full capture equivalency

PRE-PRODUCTION PLASTICS CONTROL

- California Water Code section 13367 applies to facilities that manufacture, handle, transport pre-production plastics, or raw materials used to produce plastic products.

- Facilities covered under the Industrial General Permit are required to implement Best Management Practices (BMPs) to eliminate discharges of pre-production plastics in storm water discharges.

Trash Implementation Program

Division of Water Quality
and
Regional Water Quality Control Boards

Visit our program website at
https://www.waterboards.ca.gov/water_issues/programs/trash_control/