

*American Academy of
Engineers and Scientists
(AAEES) Conference*

*“Attaining a Sustainable
Wet Infrastructure for
Southern California”*

October 22, 2015



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LA Sanitation



Overview

Agenda

- **Overview of LA Sanitation**
 - **Clean Water Program**
 - **Solid Resources Program**
 - **Watershed Protection Program**
- **Los Angeles Sustainability Infrastructure**
 - **Mayor's Executive Directives**
- **Open Discussion**

CLEAN WATER • HEALTHY NEIGHBORHOODS • SUSTAINABLE CITY



LOS ANGELES SANITATION

OUR MISSION:

“TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT”



Watershed Protection Program

Receiving water pollution prevention



Clean Water Program

Wastewater collection, conveyance, treatment, discharge and reuse

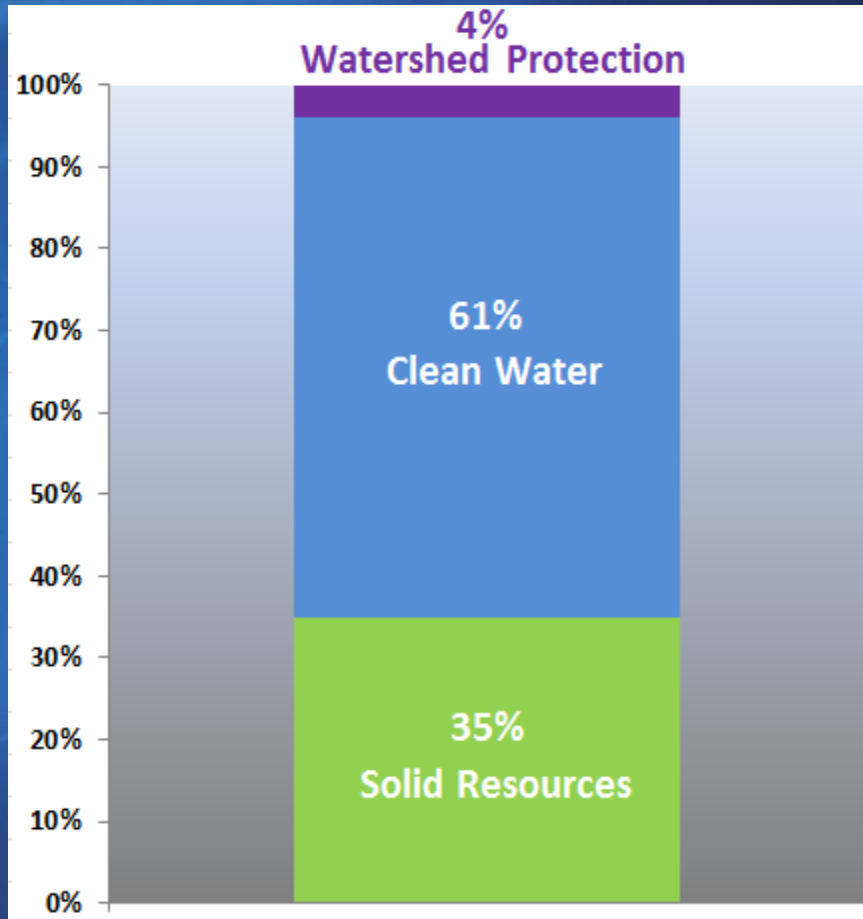


Solid Resources Program

Solid resources collection, recycling, conversion and disposal

Los Angeles Sanitation (LASAN)

FY 14/ 15 Total Revenues

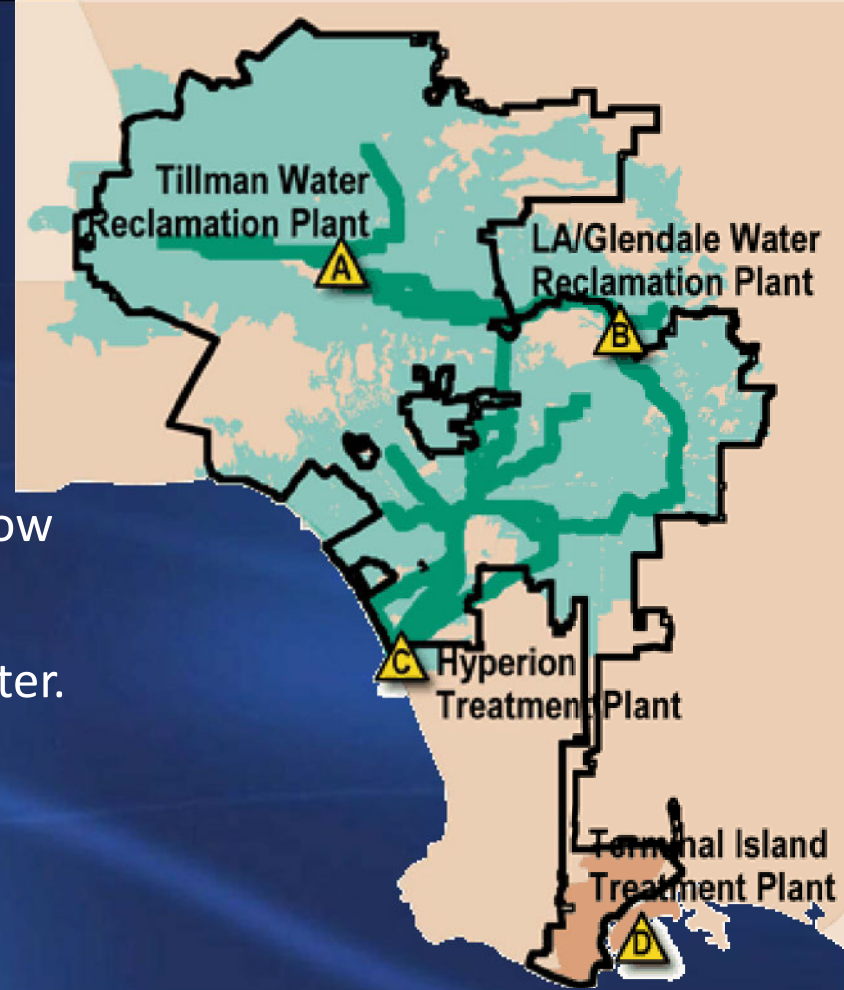


\$1 BILLION
Total Revenue
(rounded up)

LASAN diligently manages approximately one billion dollars in financial resources, including revenue and bond proceeds.

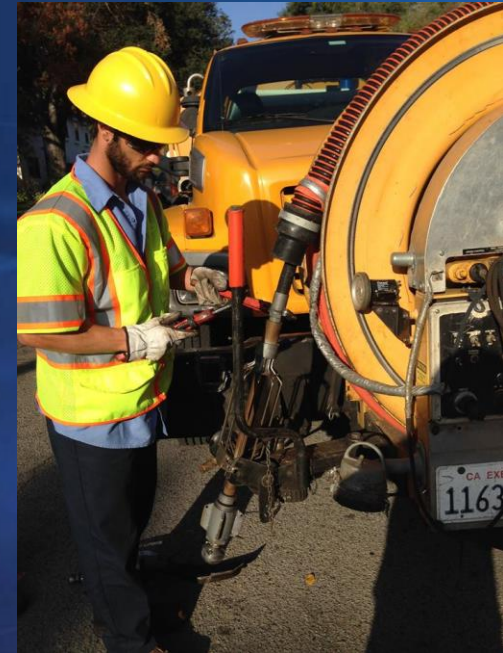
Clean Water Program

- Serves over 4 million people in L.A. and 29 contract cities.
- Service area of approx. 600 square miles.
- Operates 4 Wastewater Treatment Plants.
- Conveys and treats 550 million gallons of flow per day (mgd).
- Produces 80 mgd of reclaimed/recycled water.
- Beneficially reuse 100% (over 700 tons) of biosolids for 22 consecutive years.
- Operates 47 wastewater pumping plants.
- Invested over \$6.3 billion over the last 25 years.



Clean Water Program

- Operates and maintains 6,700 miles of sewer pipelines.
- Repaired and rehabilitated 436 miles of our oldest sewers over the past 8 years.
- Replaced 50 miles per year of all sewers (60 miles per year on a 3-year rolling average) over past 5 years.
- Treated 431 miles of sewers last year with chemicals to control root intrusion in sewers.
- Responds to over 6,000 customer service requests per year.



Clean Water Program:

\$4 Billion in projects over next 10 years

- Terminal Island Water Recycling Project Advanced Water Purification Facility (TIWRP AWPF):
~ \$103 million
- Donald C. Tillman Water Recycling Project Advanced Water Purification Facility (DCTWRP AWPF):
~ \$497 million
- Hyperion Water Reclamation Plant – Waste to Energy Program: ~ \$127 million
- Northeast Interceptor Sewer (NEIS) Phase 2A:
~ \$179 million



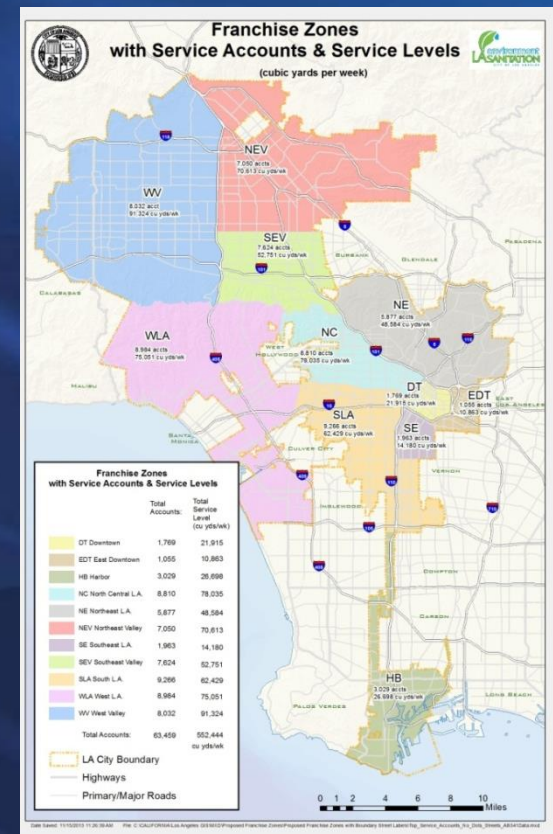
Solid Resources Program

- Serves over 4 million people and 29 contract cities.
- Collect 1 million tons of solid waste from over 750,000 costumers annually.
- 145 private haulers permitted in the City.
- Achieved recycling and reuse rate over 70% of our solid waste stream – 7 million tons, the highest percentage of any large US city.
- Produced 85,000 tons of compost and mulch for residential gardens landscapes from our collected green waste.
- Services 430,000 multi-family dwellings (largest in nation) with recycling and bulky item pickups.
- Converted over 500 refuse collection vehicles to clean fuel (LNG or CNG) supplied by 5 Bureau operated fueling stations citywide.



Solids Resources - Zero Waste LA: Commercial & Multifamily Franchise Hauling Program

- The City of Los Angeles is transitioning to a new waste and recycling system for all businesses and large apartment complexes.
- The goals of our new system - a franchise program called Zero Waste LA – include:
 - Higher Recycling (90% diversion from landfills by 2025)
 - Reduced Street Impacts and Cleaner Air
 - Fair Customer Rates
 - Superior Customer Service
- LASAN received 15 proposals in response to the Request for Proposal.
- Major milestones expected to be completed:
 - Proposal Evaluation & Negotiations – Early 2016
 - Contract Recommendations - Early 2016
 - Execution of Contracts – Late 2016
 - Begin Customer Transition – Early 2017



Watershed Protection Program

“Protect the beneficial uses of our receiving waters”

- Separate storm drain system - storm drains flow directly to the ocean.
- City’s storm drain system
 - 1,200 miles of pipes
 - 100 miles of open channels
 - 136 debris basins
 - 39,451 catch basins
 - 18 stormwater pump plants
- Managed by City, County, USACE & Caltrans.
- City Contributes:
 - 63% to LA River
 - 23 % to Ballona Creek
 - 9% to Santa Monica Bay
 - 5% to Dominguez Channel



— City of Los Angeles

Watershed Protection Program

- Protects the beneficial uses of our receiving waters.
 - Improve water quality
 - Capture rainwater for use and groundwater recharge
 - Reduce flooding
 - Enhance wildlife
 - Provide open space for habitat and recreation



- Prop “O” (2004): \$0.5 billion program
- Completed over 26 green infrastructure projects

Sources of untapped water...

Stormwater :

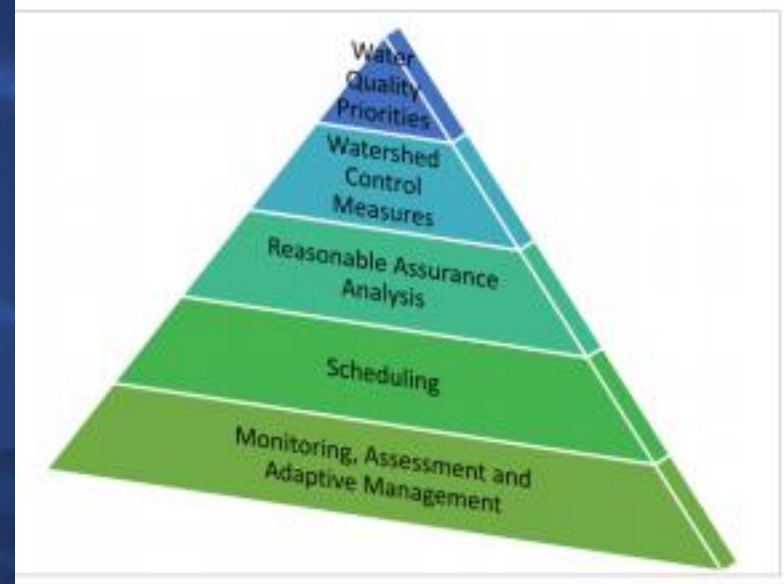
- *Average 15-in of rainfall annually*
- *Wet Weather: > 3 BG/day; ☀️ Dry Weather: 100 MG/day*

Wastewater: 300 MG/day goes to the ocean

Groundwater: BG of water (contaminated)

Watershed Protection Program - Enhanced Watershed Management Plans (EWMPs)

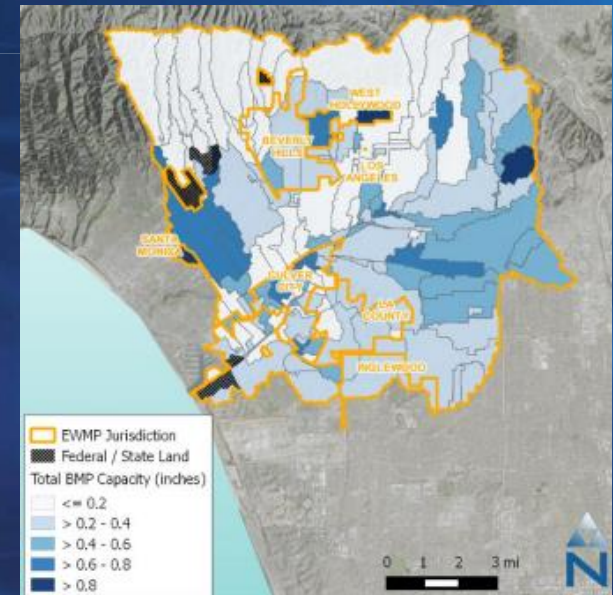
- Compliance pathway in the MS4 Permit to leverage and facilitate a robust, comprehensive approach to stormwater management while addressing the priority water quality conditions.
- Municipalities, non-governmental organizations and community stakeholders throughout the County of Los Angeles are working collaboratively:
 - Upper LA River
 - Ballona Creek
 - Santa Monica Bay
 - Dominguez Channel
 - Marina Del Rey
- Estimated cost to compliance is \$8 Billion over 20 years.



Watershed Protection Program - Enhanced Watershed Management Plans (EWMPs)

● Road to Compliance ...

- Regional Projects
 - Large upstream areas
- Distributed Projects
 - Green Streets
 - Parcel level (via LID Ordinance)
- Institutional Measures
 - Public Outreach / Street Sweeping



*Regional Projects
Edward Vincent Jr. Park*



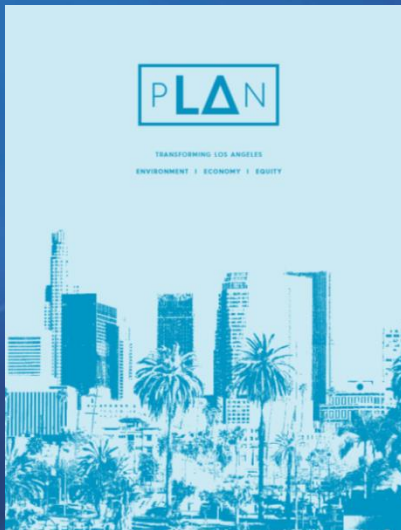
*Distributed Projects
Green Streets and on site BMPs*



*Institutional Measures
(Public outreach & good
house keeping activities)*

Mayor's Executive Directives For Sustainability

- Executive Directive No. 1: Great Streets Initiative (Oct 2013)
- Executive Directive No. 5: Emergency Drought Response - Creating a Water Wise City (Oct 2014)
- Executive Directive No. 7: Sustainable City pLAN (April 2015)
- Executive Directive No. 8: Clean Streets Initiative (April 2015)



Zero Waste



Reduce Water Supply – Increased Stormwater Capture



Green Infrastructure



Machado Lake Ecosystem Rehabilitation Project



Los Angeles Zoo Parking Lot - Vegetated bio-swale & Permeable pavers



Echo Park Lake Rehabilitation



Sun Valley Park Project - Infiltration galleries



Green Alley / Green Streets Program



Other Sustainability Projects

LA River Revitalization Plan



Clean Water Program (Wastewater Upgrades)

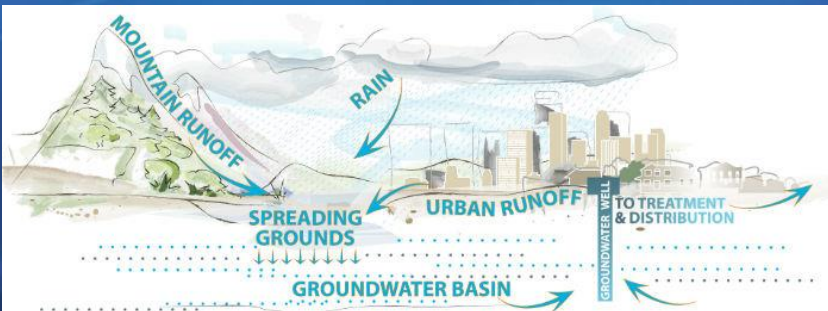


Treatment Plant Upgrades



Recycled water

Watershed Management & Green Infrastructure



Questions / Comments

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