

US EPA ARCHIVE DOCUMENT



SANITATION DISTRICTS OF LOS ANGELES COUNTY

**CASE STUDIES:**  
**Managing Biosolids and Municipal Solid  
Waste through Long-Haul Transportation  
to Distant Facilities**

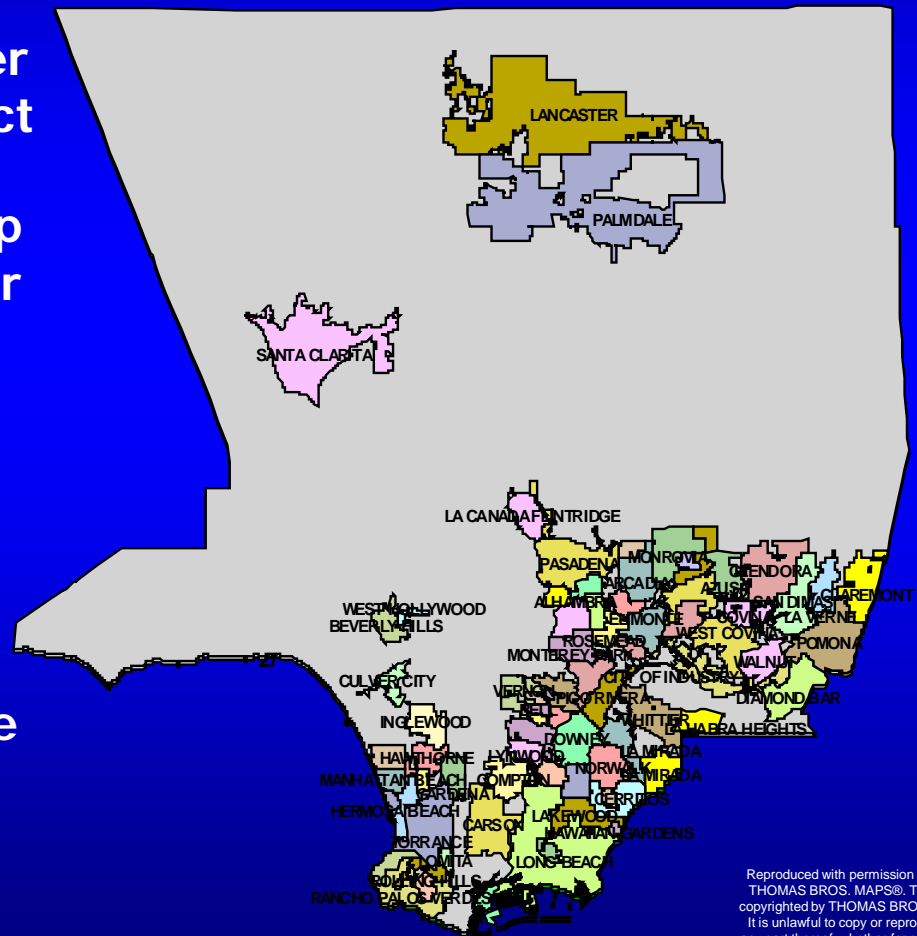
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**California Bioresources Alliance**

**September 13, 2011**

# County Sanitation Districts of Los Angeles County

- ⌘ 25 separate Districts working cooperatively under a joint administration district
- ⌘ Boards of directors made up of city mayors and the Chair of the County Board of Supervisors
- ⌘ Provide water pollution control and solid waste management for 78 cities and unincorporated areas of the County of Los Angeles



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# Sanitation Districts' Solid Waste Facilities

## Transfer Stations/ Materials Recovery Facilities

1. South Gate
2. DART
3. Puente Hills MRF

## Refuse-to-Energy Facilities

4. Commerce
5. SERRF

## Active Landfills

6. Calabasas
7. Scholl Canyon
8. Puente Hills

## Closed Landfills

9. Spadra
10. Mission Canyon
11. Palos Verdes



# Puente Hills Landfill

CSD OWNERSHIP: 1970

MAX DAILY TONNAGE: 13,200 TPD\*\*

Landfill will close in  
2013

\*\*Tonnage reduced  
due to recession



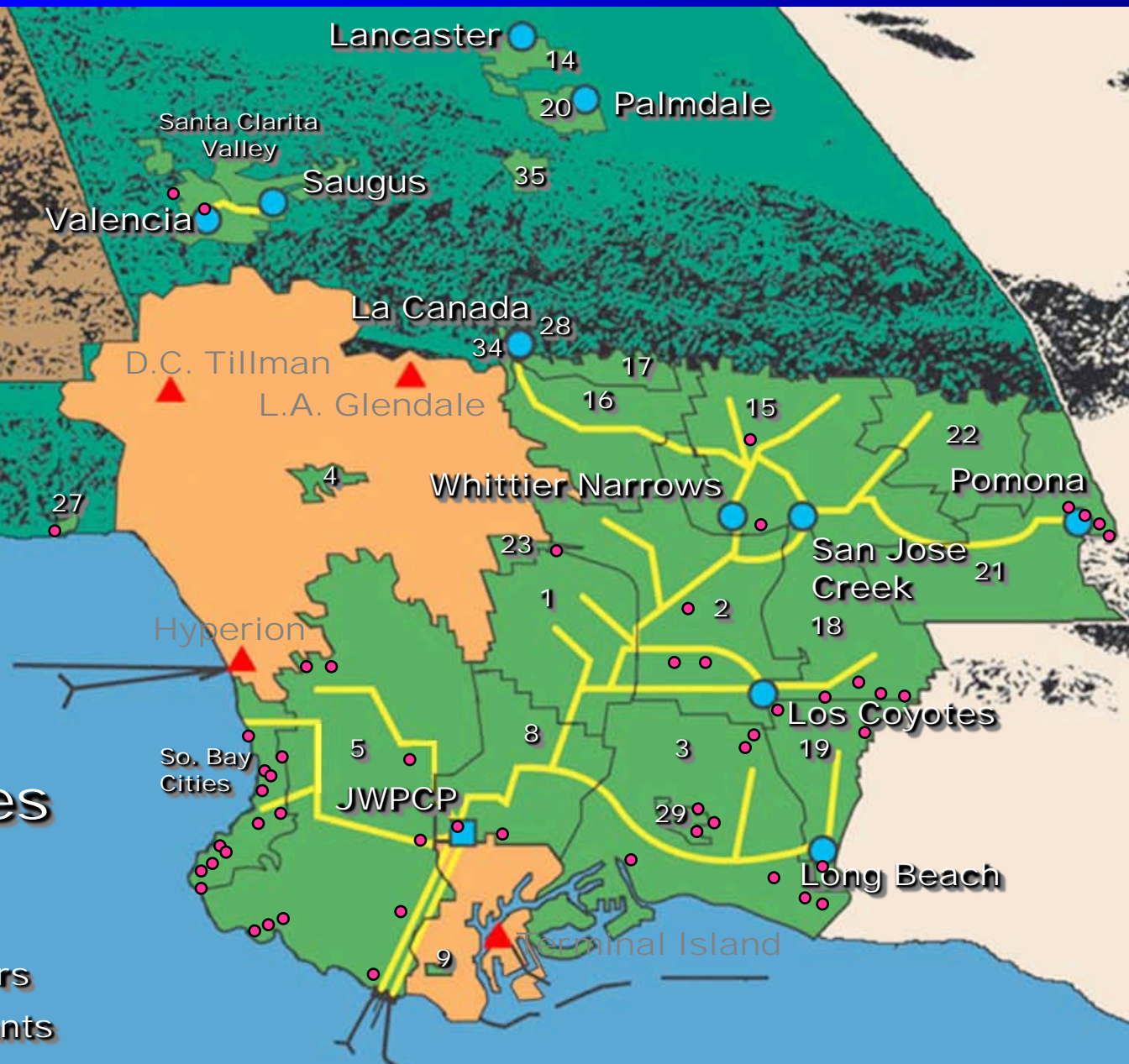
# IMPACT OF PUENTE HILLS LANDFILL CLOSING

- Limited ability of local landfills to absorb the waste
  - Waste-by-Rail system to desert landfill begins planning in the early 1990's
- Approximately 2,800 wt/week of biosolids must be managed out of the basin
  - Composting highly regulated in the SCAQMD
  - Facilities difficult to site in the basin

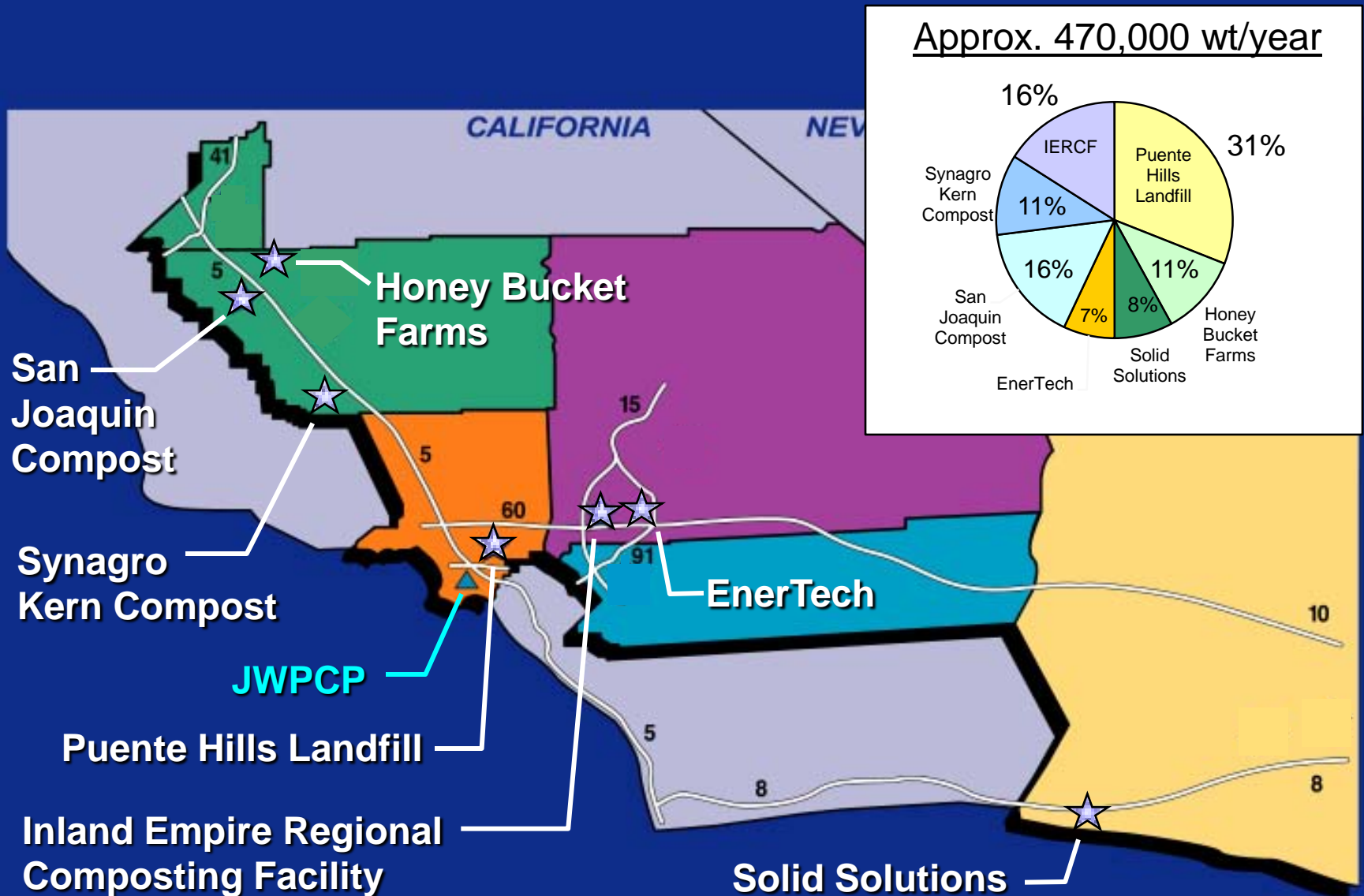
# Wastewater Treatment Facilities Map

Sanitation District of Los Angeles County

- Trunk Sewers
- Pumping Plants

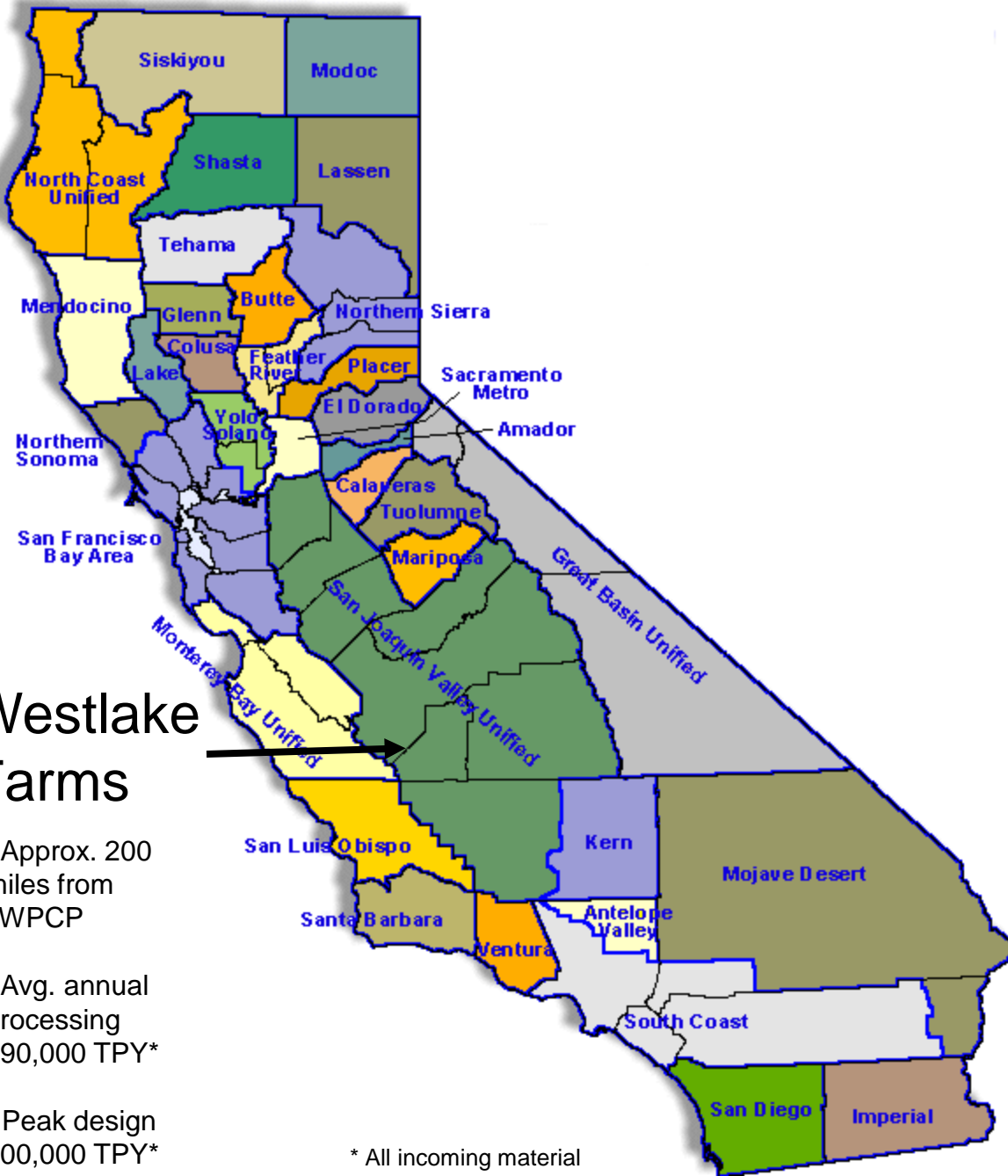


# Biosolids Management Sites





# California Air Districts



## Westlake Farms

- Approx. 200 miles from JWPCP
- Avg. annual processing 590,000 TPY\*
- Peak design 900,000 TPY\*

\* All incoming material

# TRANSPORTATION ASPECTS OF WESTLAKE

- At peak, can handle all of LACSD biosolids
  - Approx. 55 trucks per day of biosolids
  - Eliminates travel to several long-distant facilities
- Bulking agents must also be transported
  - Green waste will be trucked from the L.A. area
  - Local sources of agricultural waste will be contracted with
  - A pollution offset is avoiding agricultural burning
    - Burning ban?

# TRANSPORTATION ASPECTS OF WESTLAKE

- Use of alternative fuels will be utilized as practical
  - Availability of alt. fueled trucks
  - Availability of fueling stations
- Use of 2010 compliant diesel trucks will be maximized
- Finished compost will be used locally

# Waste by Rail



# Long Planning Horizon

- WBR system has been in the works for 20 years
- Ad Hoc Committee was formed in 1991 to address WBR needs
- County recognized the need and included provisions for it in the PHLF permit
- There is the commitment made to the cities to provide long term disposal capacity

# Need for Remote Disposal

- Difficult to expand or permit new landfills in urban areas
- Feasibility of alternative waste management technologies uncertain

# PHIMF & PHMRF System



# Mesquite Regional Landfill (MRL)





# Mesquite Regional Landfill (MRL)

- 20,000 TPD Capacity
- Over 600 years
- Up to approx. 5 trains per day (4,000 TPD each)
- Can handle direct truck haul
- Can accept waste from areas beyond Los Angeles County (most of Southern California)

# TRANSPORTATION ASPECTS OF MRL

- Primary transport is rail
- Commitments to use cleanest available locomotives within the SCAQMD
- Permitted to truck haul up to 4,000 TPD in addition local truck haul
  - Transitional until a full train can operate
  - Emergency hauling
  - Clean diesel trucks will be used – currently cleaner than then rail

# CONCLUSION: Minimizing Environmental Impacts

- Management of MSW and biosolids more difficult in urban areas – pushes facilities outward
- Regional remote facilities reduce transportation and other impacts (e.g., odors)

# CONCLUSION: Minimizing Environmental Impacts

- Transportation can't be avoided - optimize the use of clean transportation options
- The long planning horizon of these projects often require “adaptive management”