



SANITATION DISTRICTS OF LOS ANGELES COUNTY

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

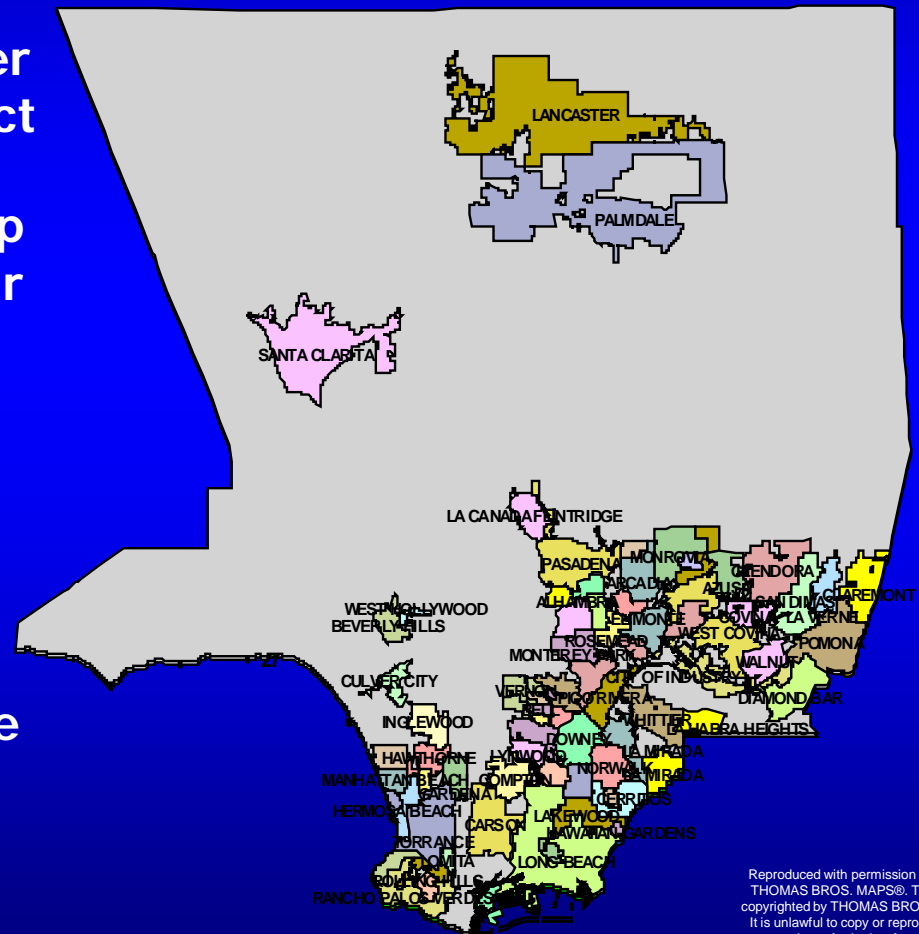
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California Bioresources Alliance

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

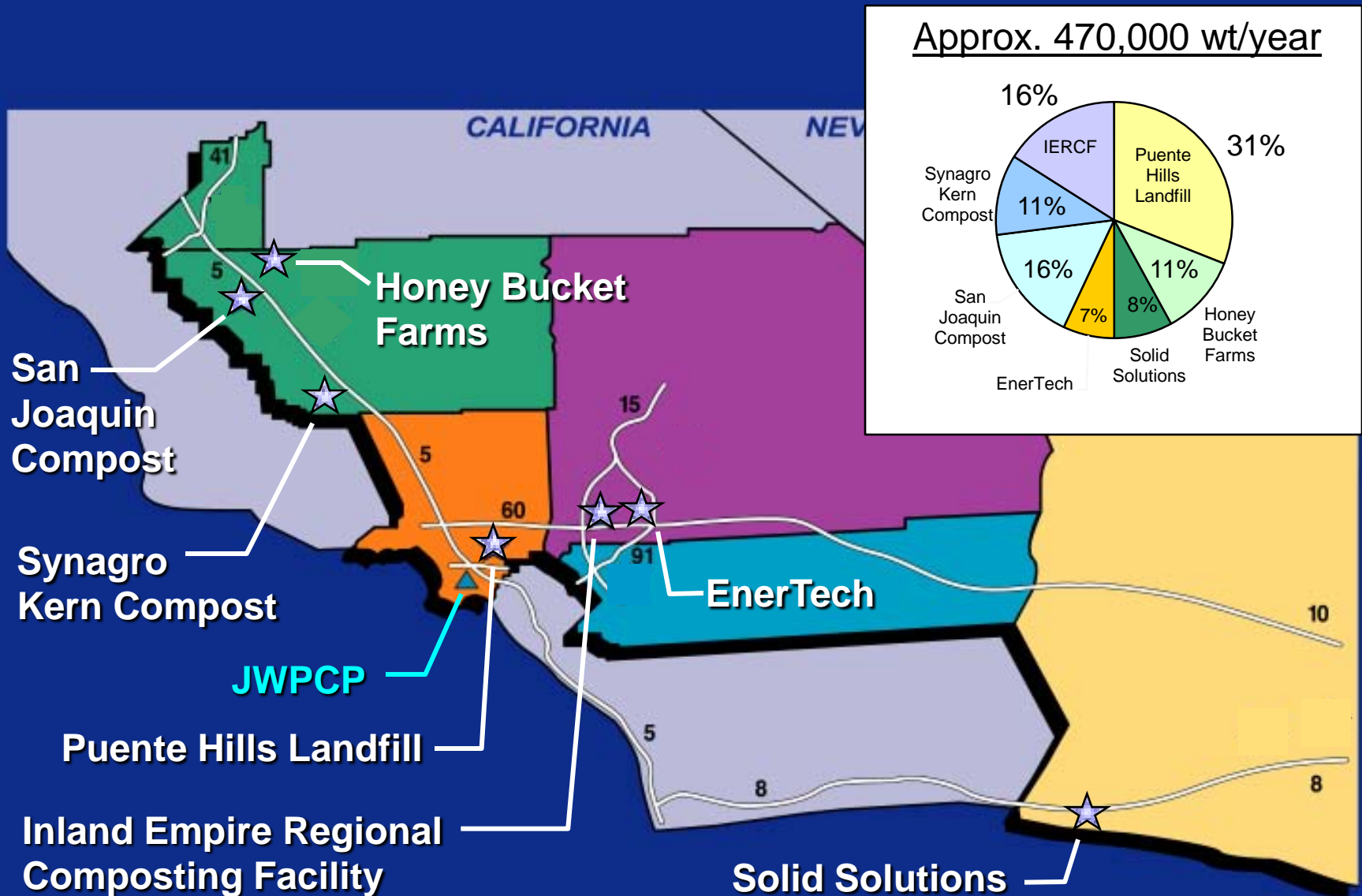
Wastewater Treatment Facilities Map



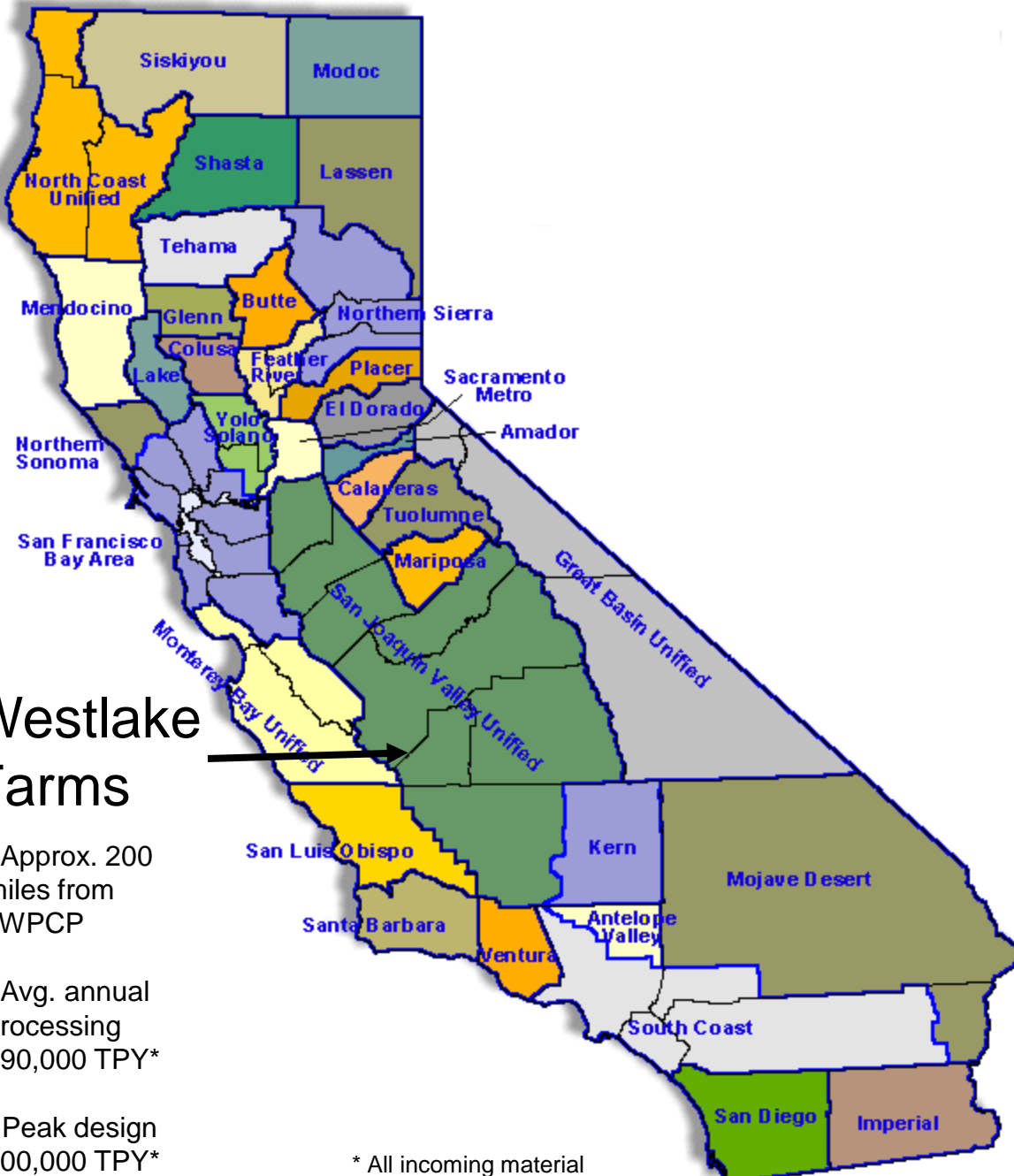
Sanitation
District of
Los Angeles
County

- 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”