



LOS ANGELES COUNTY
SANITATION DISTRICTS

A Century of Service

Converting Waste into Resources

SCWC Innovation Matters

Sep. 21, 2023

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LACSD Solid Waste Energy Recovery



OUR SERVICE AREA

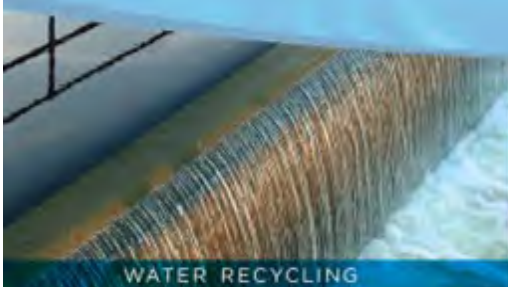
Waste into Resources



LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

OUR MISSION

To protect public health and the environment through innovative and cost-effective wastewater and solid waste management and, in doing so, convert waste into resources such as recycled water, energy, and recycled materials.



WATER RECYCLING



GREEN ENERGY



MATERIALS RECYCLING

Drivers

Food Waste Recycling

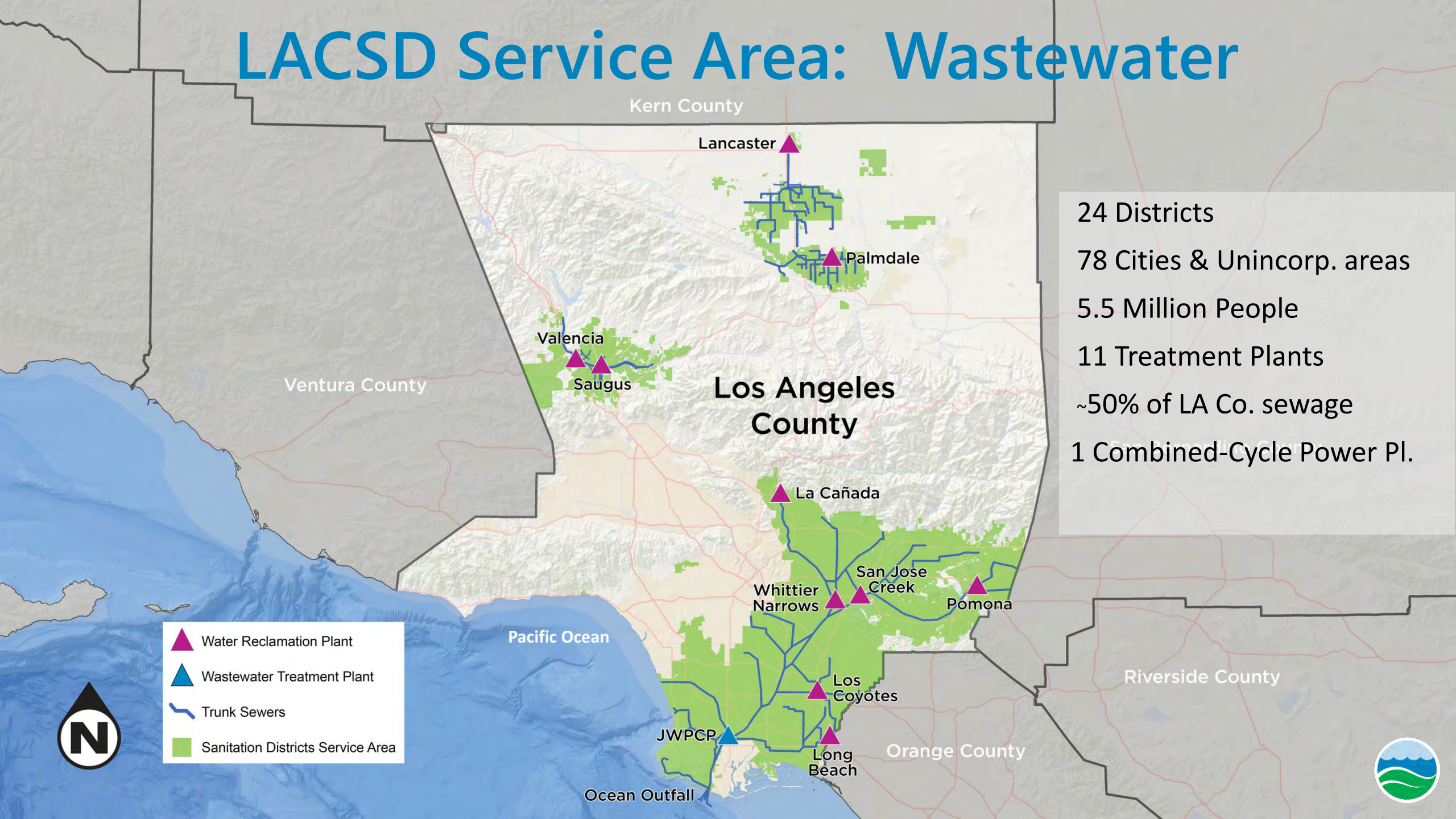
Solar & Energy Storage

Water Reuse



Challenges



LACSD Service Area: Wastewater

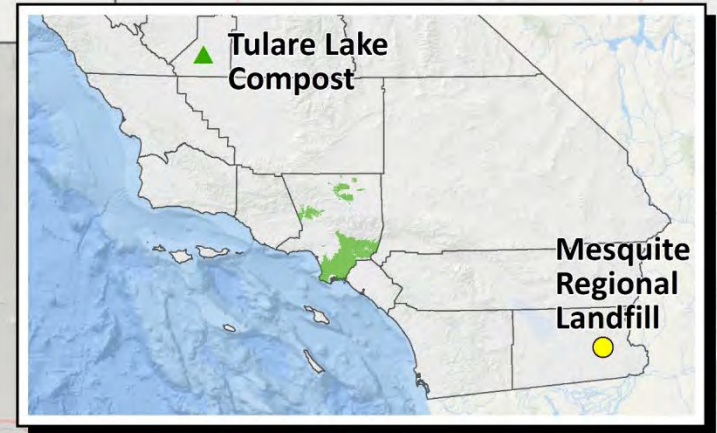


24 Districts
78 Cities & Unincorp. areas
5.5 Million People
11 Treatment Plants
~50% of LA Co. sewage
1 Combined-Cycle Power Pl.

-  Water Reclamation Plant
-  Wastewater Treatment Plant
-  Trunk Sewers
-  Sanitation Districts Service Area



Solid Waste Facilities



Los Angeles County

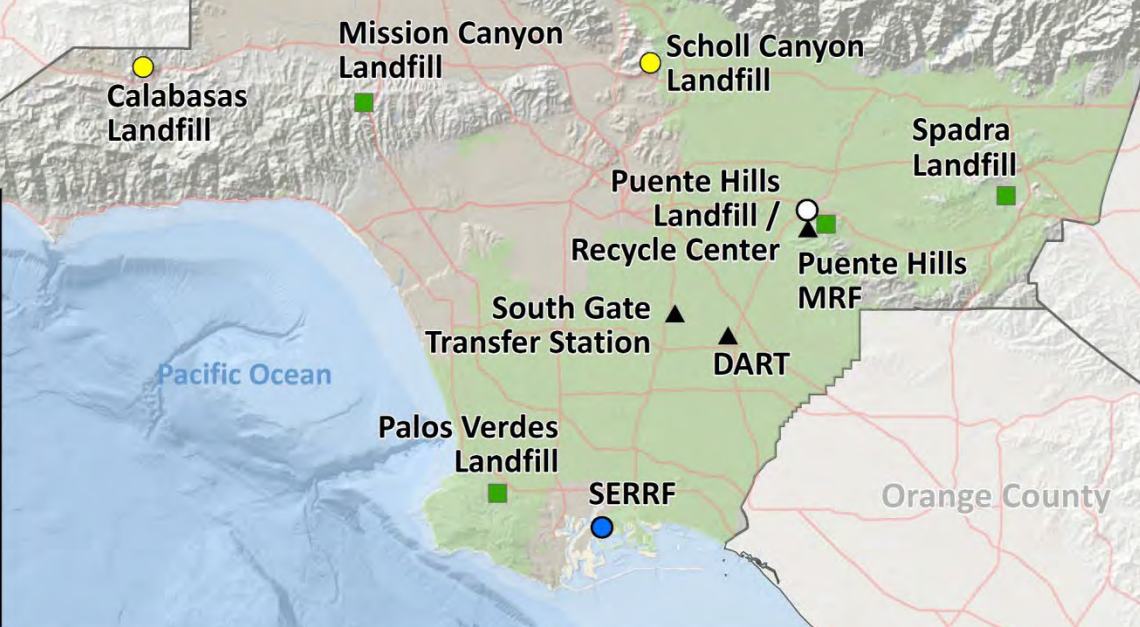
2 Active Landfills
 3 MRF/Transfer Stations
 ~20% of LA Co. disposal

Legend

- Active Landfill
- Closed Landfill
- ▲ Composting Facility
- ▲ Material Recovery Facility / Transfer Station
- Recycle Center
- Refuse-to-Energy Facility

0 5 10 20 Miles

Date: 10/2/2020



Inland Empire Regional Composting Facility

2 LF Gas-to-Energy
 1 Refuse-to-Energy
 2 Biosolids Composting



Drivers



AB 1826



- Mandatory commercial organics recycling
- Composting or anaerobic digestion if more than 4 cubic yards per week is generated

SB 1383



- 50% reduction in landfilled organic waste by 2020
 - 75% reduction in landfilled organic waste by 2025
- Compared to 2014 levels*

Organics Diversion, Renewable Products

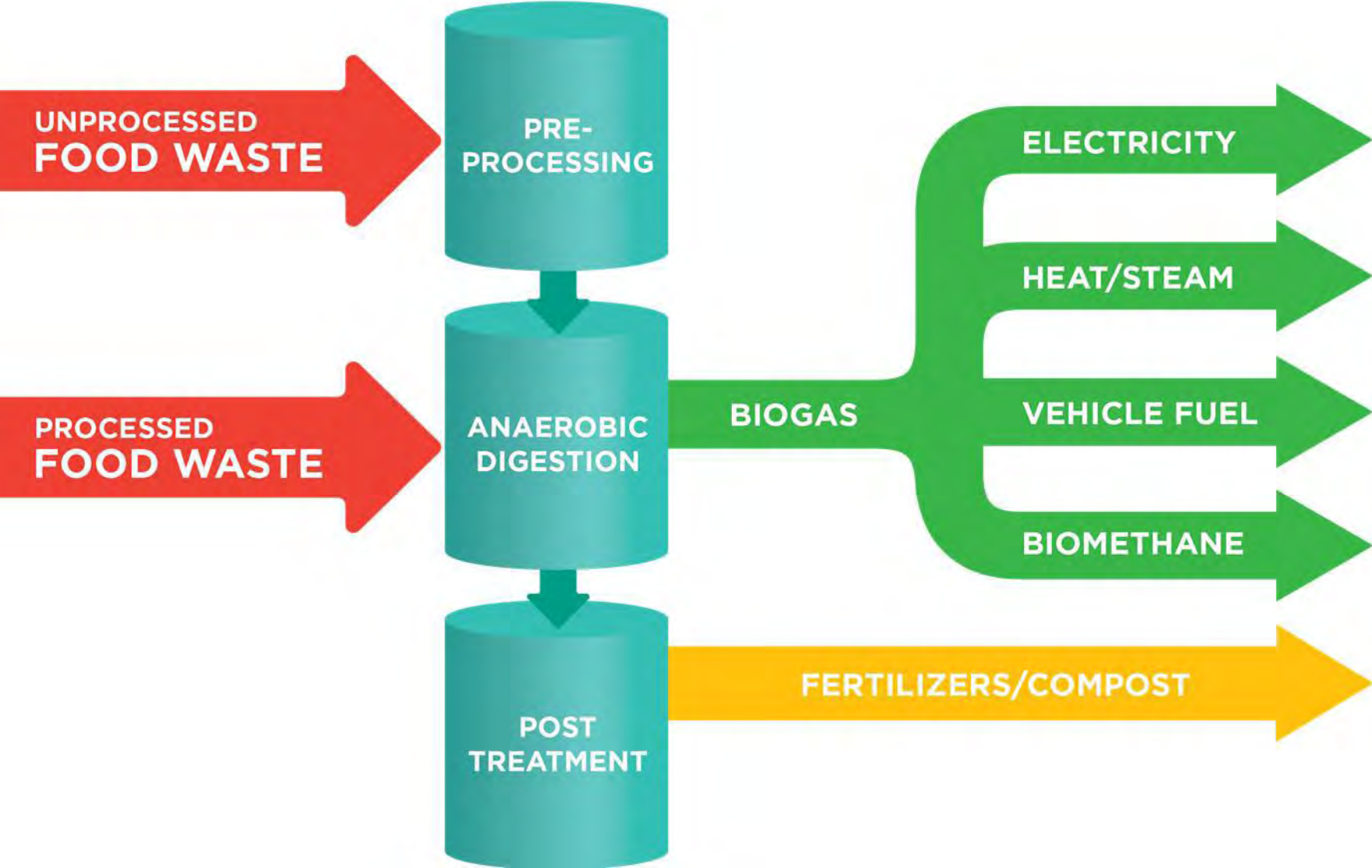
Transportation Credits: LCFS, RFS (RINs)

CARB Advanced Clean Fleet Rule, etc.

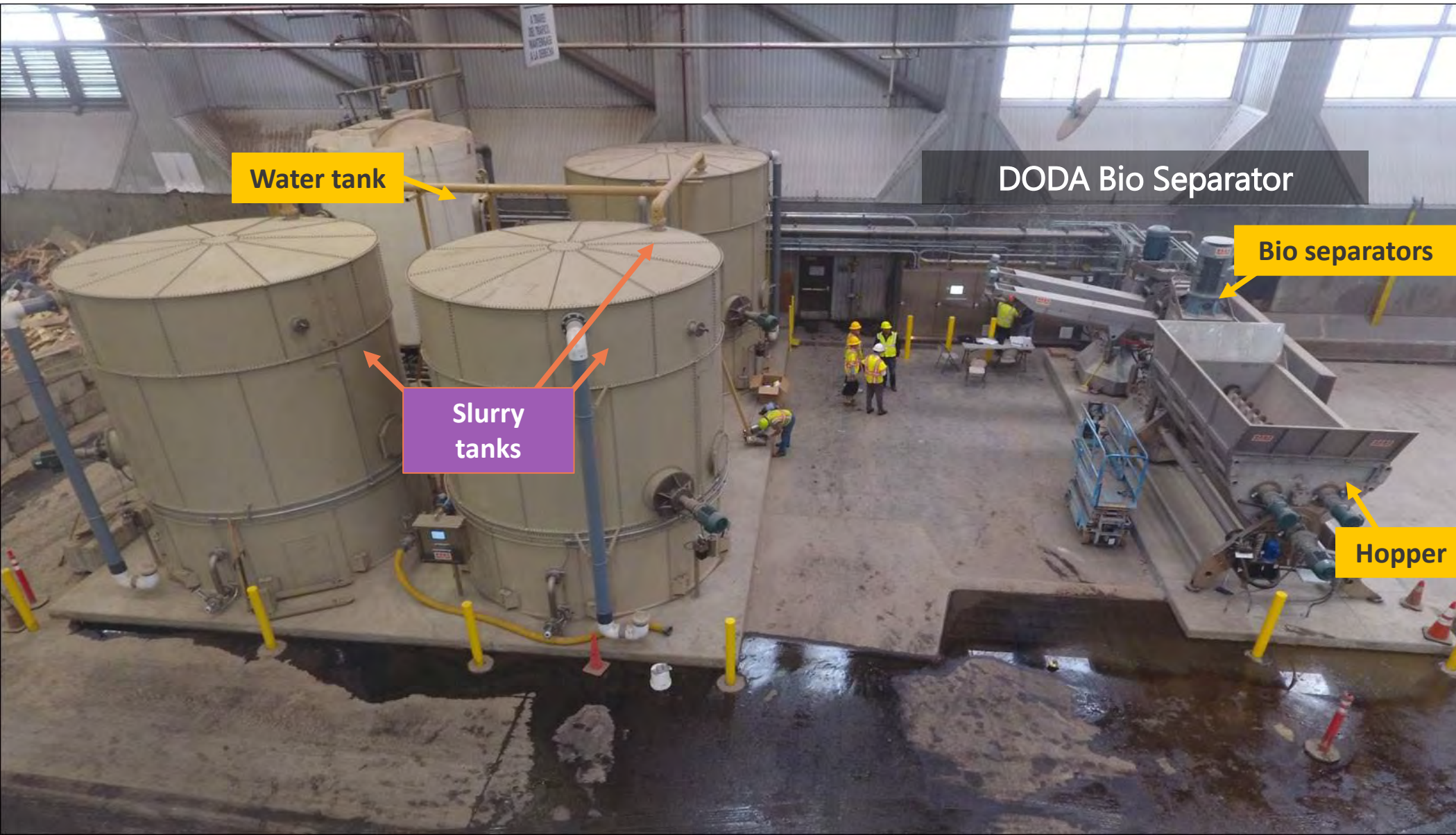
SB 1440 Biomethane Procurement Targets



Food Waste Recycling



Food Waste Processing



Food Waste Co-Digestion

Full-scale Demonstration
2014-2018



Liquid Waste Disposal Station
2017-present



Slurry Receiving Facilities 1&2
2021/2022-present



Anaerobic Digesters



Food Waste Program Direction

In Development

- CNG Station Expansion
- Biogas to Biomethane
- Pipeline Injection

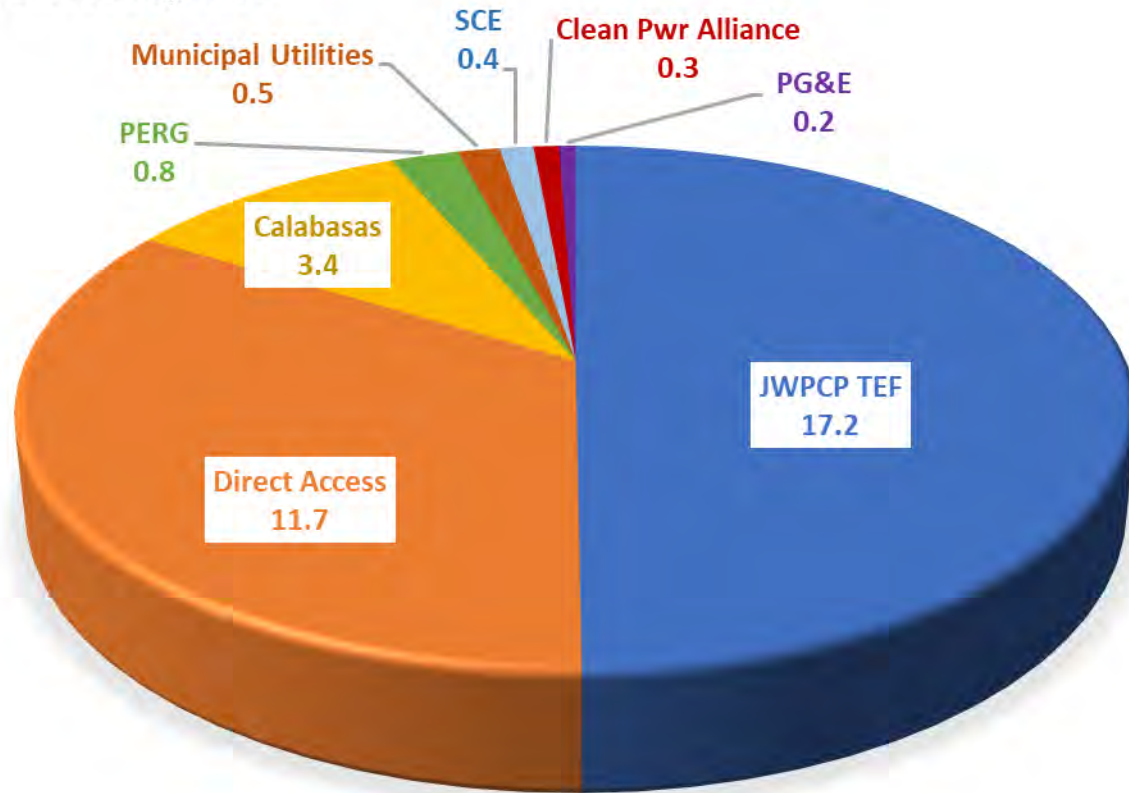
Future

- Increase organics receiving
- Off-take via pipeline or locally
- Hydrogen Pilot, Fuel Cells
- Other LACSD facilities

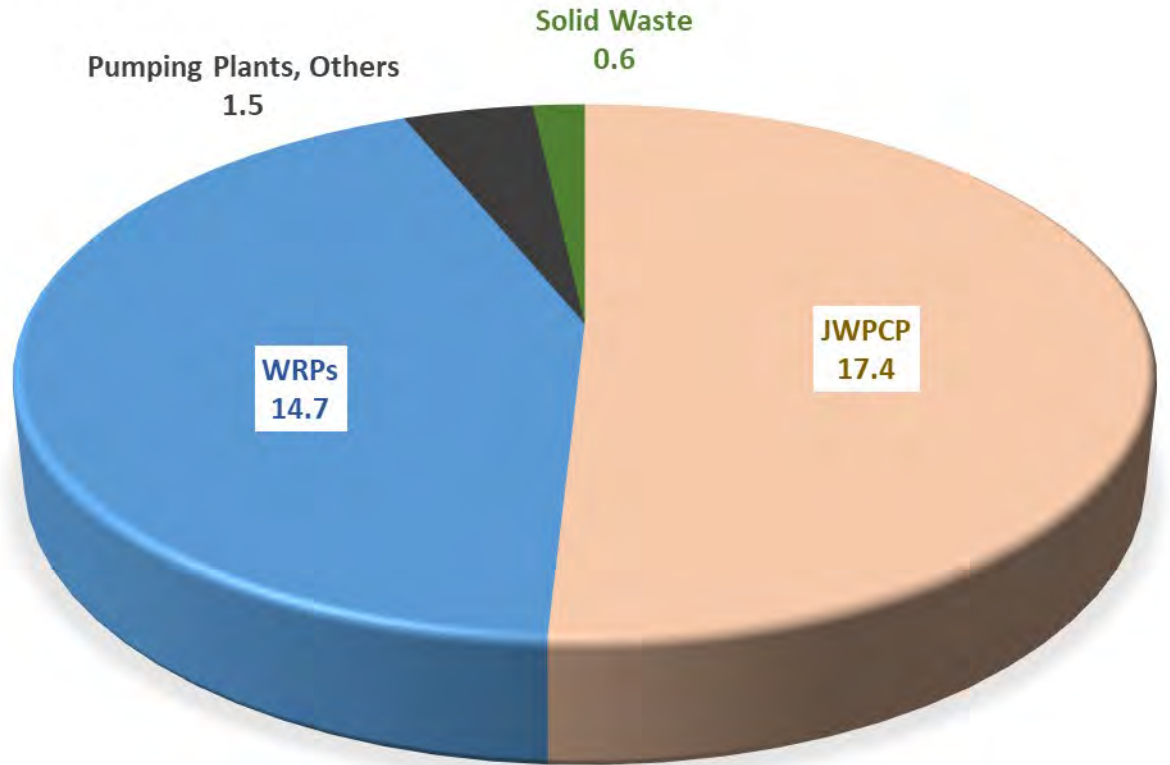


Power Sources & Uses

SOURCES, MW



USES, MW



Total = 34.5 MW



Solar & Energy Storage

Solar in Development

- Lancaster 5,850 kW-ac
- Palmdale 3,300 kW-ac
- Both 490 kW, 4-hr Batteries
- 25-Year PPAs

Future

- Admin Office Solar
- Energy Storage at Landfills with Energy Facilities



Water Reuse & Ground Water Recharge



**PURE
WATER**
SOUTHERN
CALIFORNIA



**LOS ANGELES COUNTY
SANITATION DISTRICTS**
Converting Waste Into Resources

Partner with MWD

150 MGD Facility Planned

0.5 MGD Demonstration



60+ Yrs Groundwater Recharge

800+ Reuse Sites

100 MGD Recycled Water



Challenges



Food Waste Co-Digestion Development

- Volume and SB 1383 Enforcement
- Contaminants, FW quality
- Competition & economics

Regulatory Uncertainty

- Tremendous change & challenge to decarbonize
- Hydrogen definition & policy
- Incentive programs and funding
- Future of biomethane / RNG

Permitting

Emerging Contaminants (PFAS)





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Thank you!

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OUR SERVICE AREA