

DODA
Food Waste Processing
Puente Hills MRF
Design – Construction - Operation

Presented to Los Angeles County
Alternative Technology Advisory Subcommittee

July 18, 2018

Background

Districts Food Waste Recycling Program

- Food Waste Co-Digestion: Bench-Scale Testing and Full-Scale Demonstration at JWPCP
- Districts expand program goal to 550 tons per day diverted food waste
- Components of the program include food waste processing and receiving stations, direct co-digestion at JWPCP and energy recovery options.
- Where does the Doda food waste processing facility fit in?

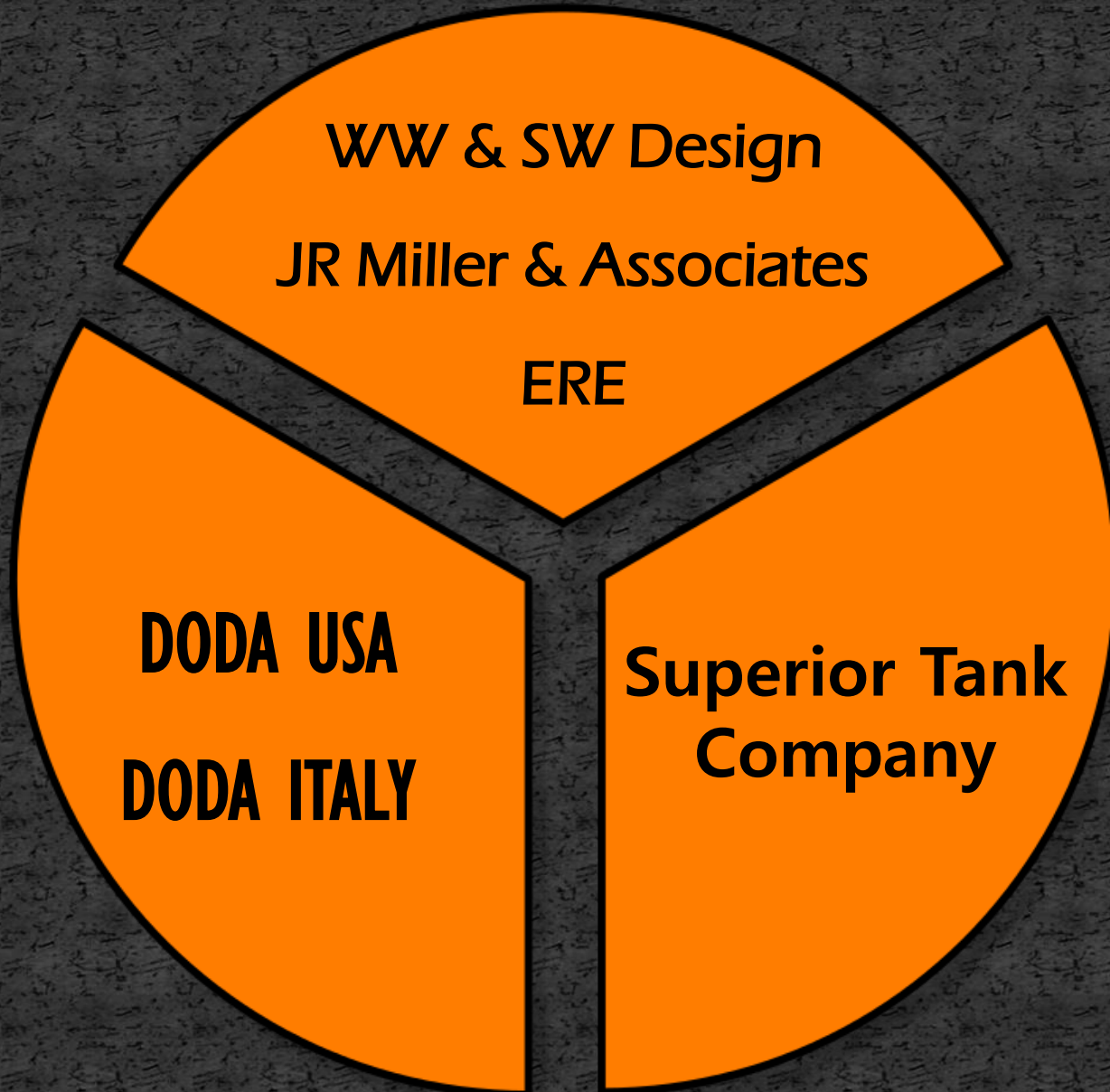


Food Waste Processing at PHMRF

- 14 Months from Project Approval to Completion
- Feb 2017 – Front Office approves project
- May 2017 – Design complete, Doda Equipment & Tanks ordered
- Sep 2017 – Construction begins
- Apr 2018 – Startup & commissioning complete
- Capital Cost \$2 million



Food Waste Processing – Design Team



ECI/Tamang Electric - Construction



Organics Processing Tank Construction



DODA Equipment - Construction



Doda Food Waste BioSeparator Facility

Major System Components

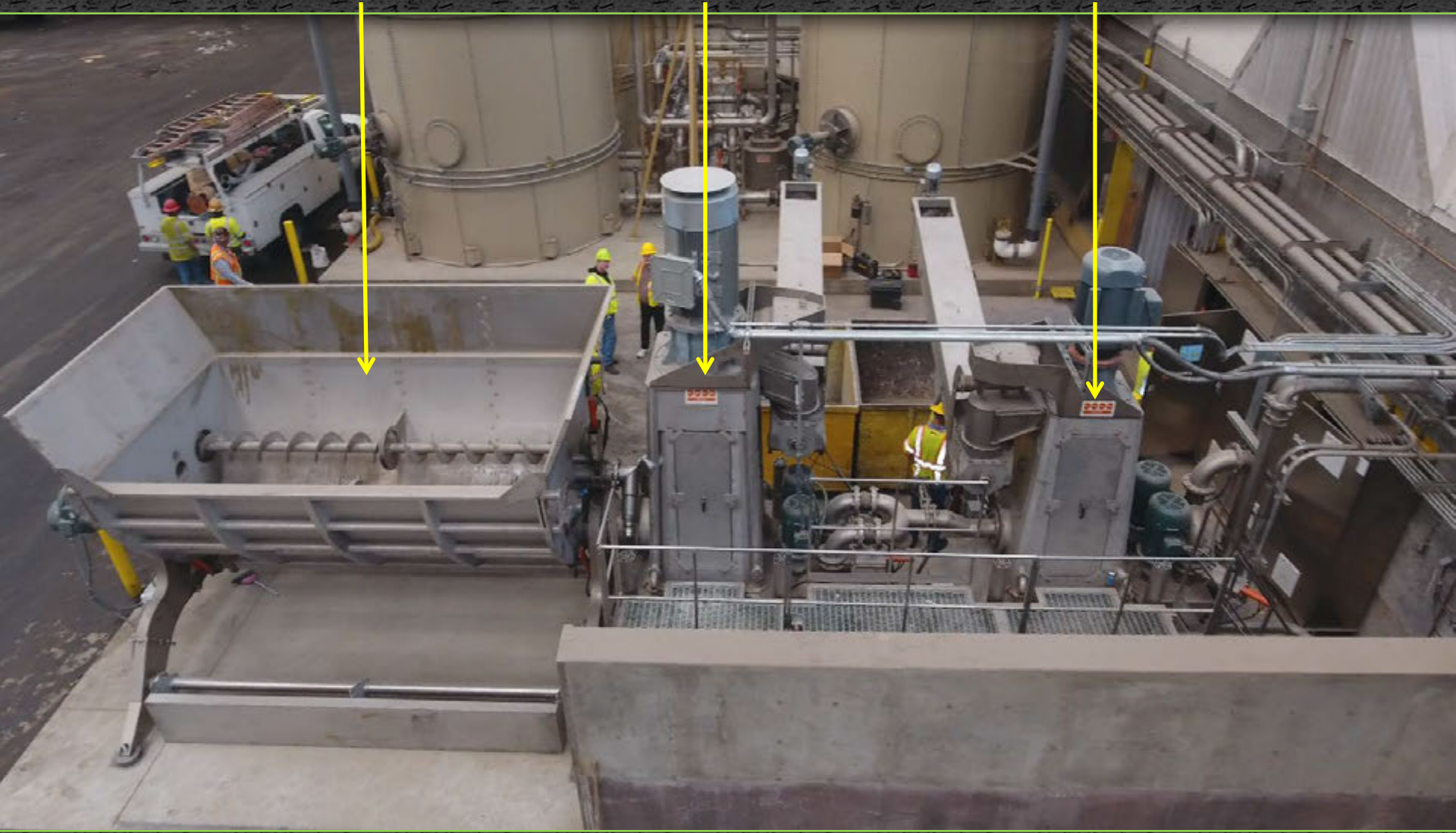


DODA Processing Area Inside PHMRF

Feed Hopper

Primary Separator

Secondary Separator



Food Waste Processing at PHMRF

Performance thus far...

- Processing 180 tons/week of diverted food waste
- Doda processing rate \sim 15 to 20 tons/hr



First Day of Operation - Video



Bioseparators Remove Inorganics



Making Food Waste Slurry - Video



DODA Operational Parameters

- PHMRF Processing Goal = 165 tpd
- Currently receiving 35 – 40 tpd
- Doda processing 3 days/week
- Processing approximately 15 – 20 tph
- Transporting 15 tanker trucks/week to JWPCP (4,500 – 5,000 gallons/tanker).
- Food waste slurry contains 12 – 14% TS

Maintenance Issues & Improvements

- No ability to pump slurry when Doda locked down for maintenance
- Operational efficiency will increase when hopper/tanks are isolated
- Cleaning/Maintenance on Primary Bioseparator averages 2 hrs/day
- Certain food waste clogging pumps (e.g. pinto beans)
- Improvements/upgrades to software have been made

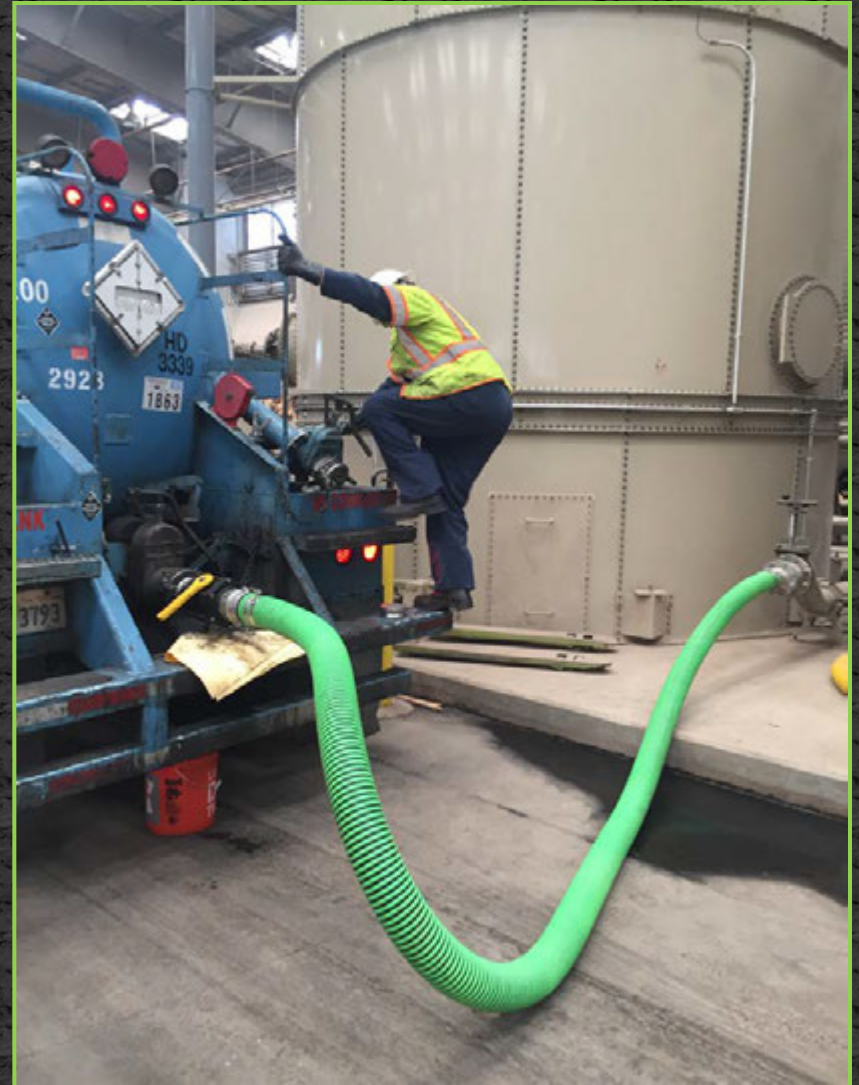
Lessons Learned and Take-Aways

- Reprogram controls for accurate water addition
- Separate electrical bus and breakers for segregating processing equipment from water and tank control
- Streamlined return of secondary rejects to the front end of processing system
- Pump modifications



Food Waste Slurry - Tanker Loading

First Tanker Truck Load of Food Waste Slurry taken from PHMRF for Delivery to JWPCP
April 25, 2018



Food Waste Delivered to JWPCP Liquid Waste Disposal Station (LWDS)

- Food waste slurry is transported to JWPCP LWDS
- PHMRF delivers 15 – 20 5,000 gallon tanker loads per week
- Every load is tested for pH, electrical conductivity, total solids and volatile solids.



Food Waste Slurry Processing/Trucking/Digestion Costs

Revised June 2018

COST COMPONENT	\$/TON-DIVERTED	BASIS FOR COST
DODA Processing @ PHMRF	\$ 30.04	DODA quote & Districts Labor Costs
Trucking slurry to JWPCP	\$ 25.14	Based on \$450/load United Pumping Services
Tip/Gate Fee @ JWPCP	\$ 22.95	Based on \$.07/gal-slurry JWPCP Plant Costs
TOTAL	\$ 78.13	

I didn't call for a vote to end the meeting.

