

# Alternative Technology Advisory Subcommittee

July 18, 2019

**Waste Resource Technologies, Inc. (Gardena, CA)**

**OWS, Inc. (CA and OH)**

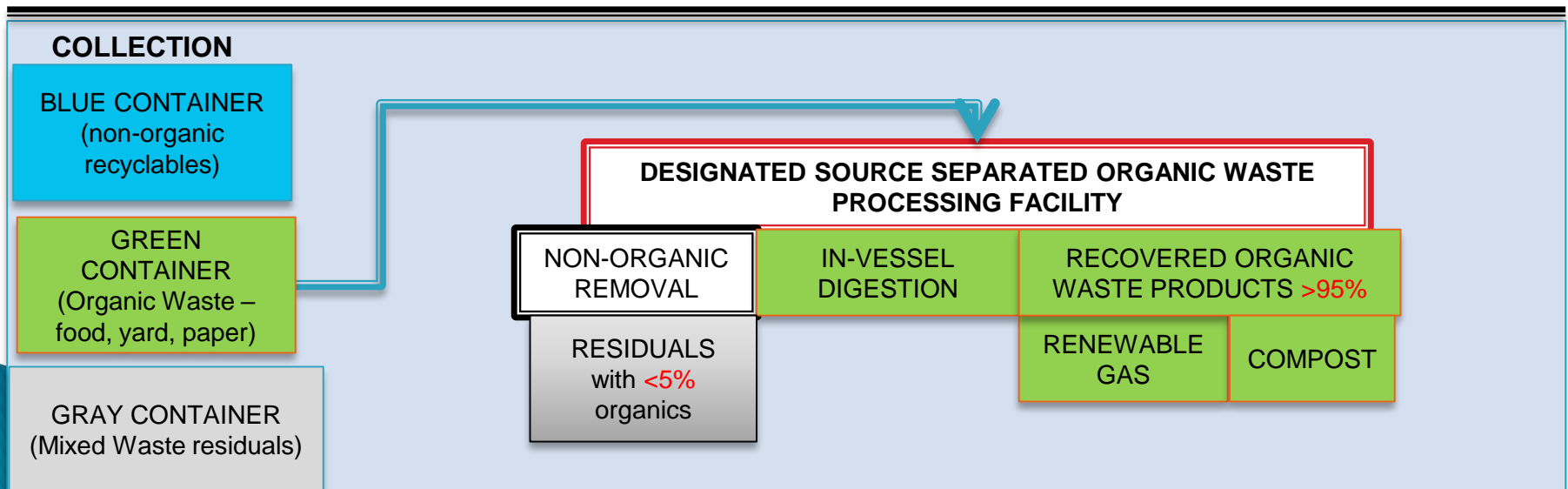
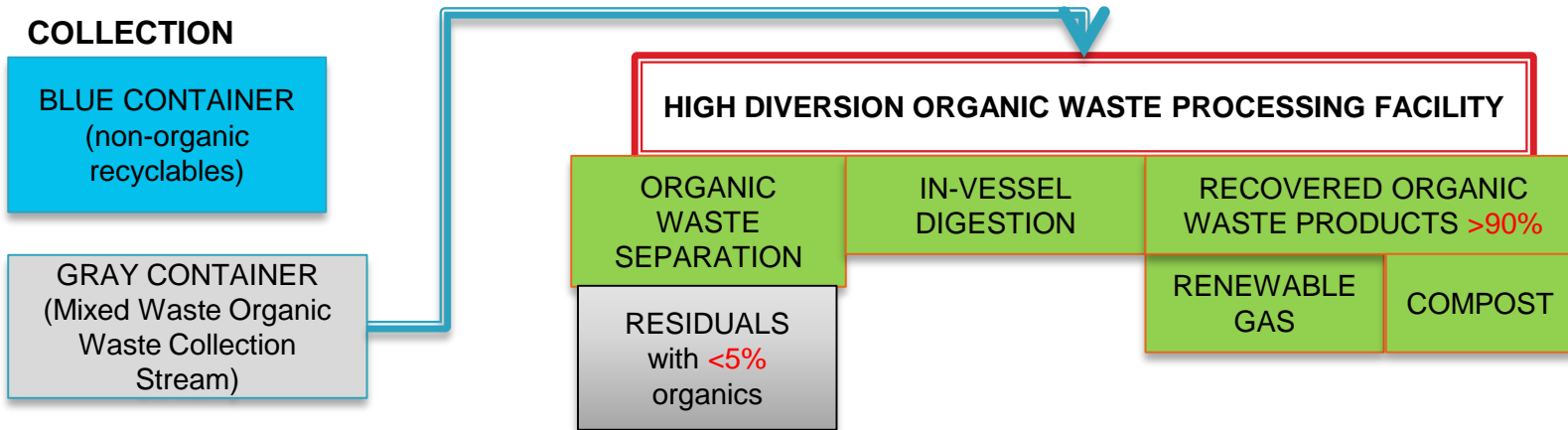
- ▶ Residential, Commercial, and Roll-Off Collection Services
  - Three Exclusive Franchises
  - One Non-Exclusive Franchise
  - Open Market Commercial
  - Fleet of CNG and NZCNG
    - NEW Electric Collection Vehicle
- ▶ MRF in Unincorporated Gardena
  - Expansion Project CEQA IS
    - Currently 500tpd
    - Expansion Designed for 4,800tpd

# OWS

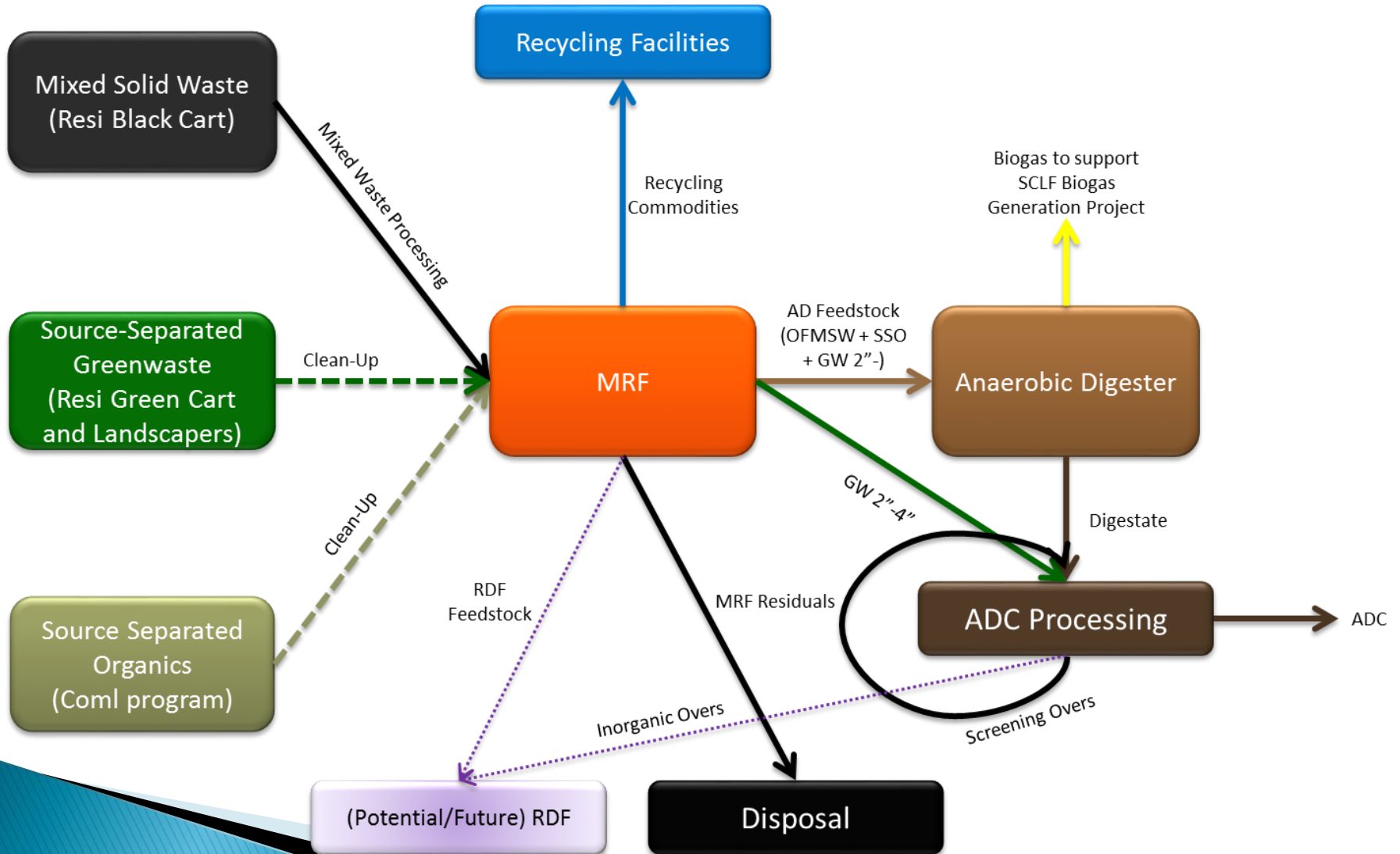


- ▶ Developer and owner of the DRANCO technology: dry continuous digestion technology developed in the early 80's
- ▶ Founded 1988: 30+ years experience in anaerobic digestion of household/municipal organic waste
- ▶ CA Licensed General Engineering Contractor
- ▶ 100 people
- ▶ Extensive laboratory
- ▶ HQ in Belgium, Subsidiaries in Dayton (OH), Germany, and Japan

# SB 1383 JURISDICTIONAL COMPLIANCE APPROACHES



# PROJECT DESIGN



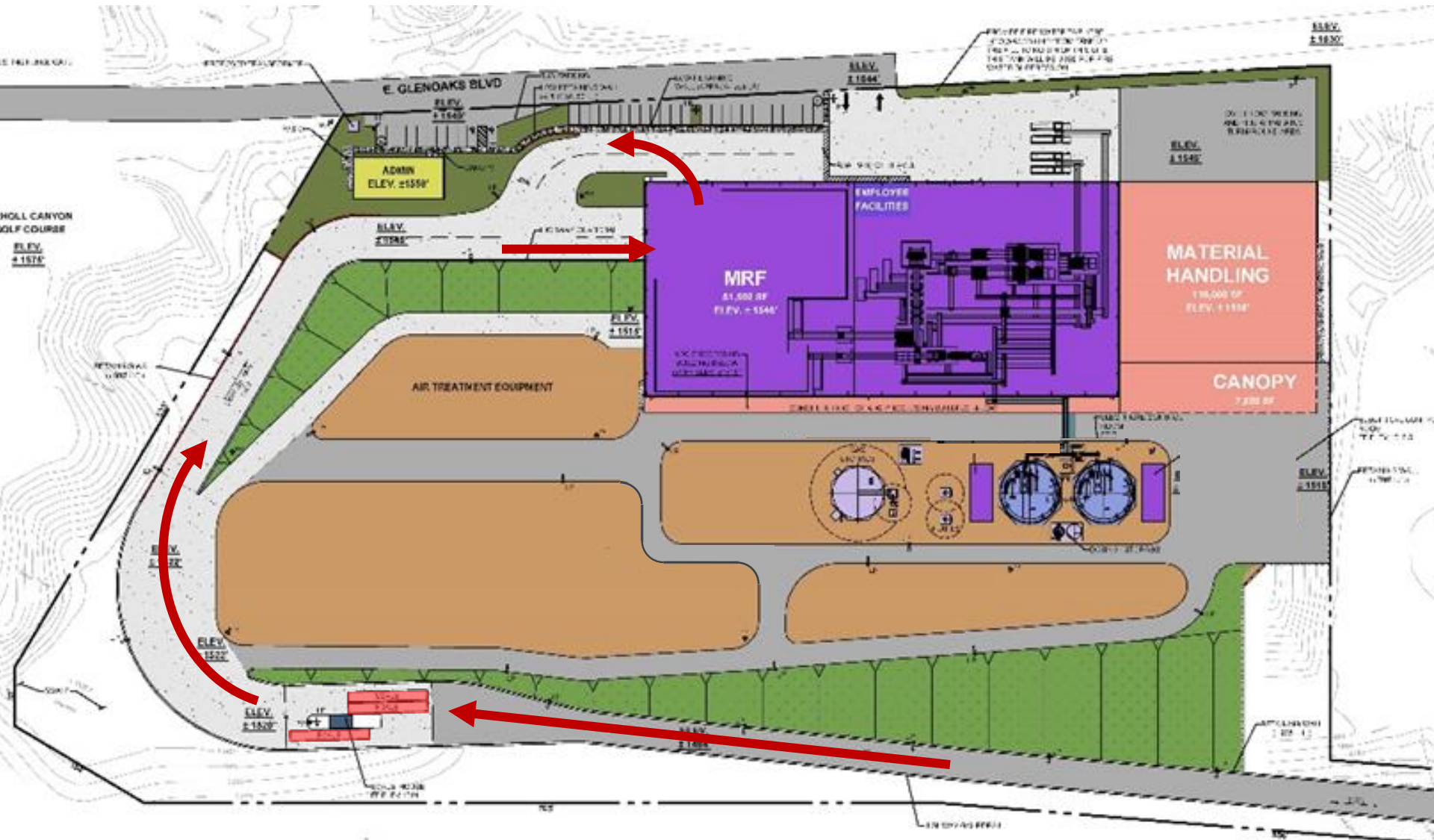
# ELEMENTS OF SCORE MRF DESIGN

- ▶ Designed to meet wasteshed's needs
  - SSO processing to avoid long-haul
  - MSW organics diversion to extend life of landfill
  - GW to meet 2020 ADC Regs
  - Managed City-collected material
  - Hyperlocal solid waste management and compliance with SB1383
- ▶ Designed to homogenize feedstock for DRANCO
  - Average 43% TS, ~4375 scf/ton biogas, <2"
  - Recover recyclables from MSW as a supplement to blue container service
- ▶ Recover paper for recycling and/or AD process

# MSW TREATED IN HIGH DIVERSION ORGANIC WASTE DRANCO PLANTS



# PROPOSED SITE LAYOUT





# PROPOSED FACILITY: 3D VIEWS



View from the golf course



View from western edge

# PROPOSED FACILITY: 3D VIEWS



View from northwest area



View from western landfill

# POTENTIAL FOR EXPANSION / ADAPTATION

- ▶ Double the throughput capacity
- ▶ Separate processing for gray and green container on same site
- ▶ Process only SSO or MSW
- ▶ Inclusion of SORDISEP technology with MSW to produce high quality compost from gray container and meet SB1383 residuals criteria

# SELECT OWS REFERENCE FACILITIES

## BRECHT, BELGIUM:

AD of SB1383 Organics

SSO: 77,000 tons per year

Digestion: 77,000 tons per year

Operating since 1992 (Brecht 1)  
and 2000 (Brecht 2)



## BOURG-EN-BRESSE, FRANCE:

AD of MSW Organics and GW

MSW: 73,000 tons per year

*OFMSW: 35,500 tons per year*

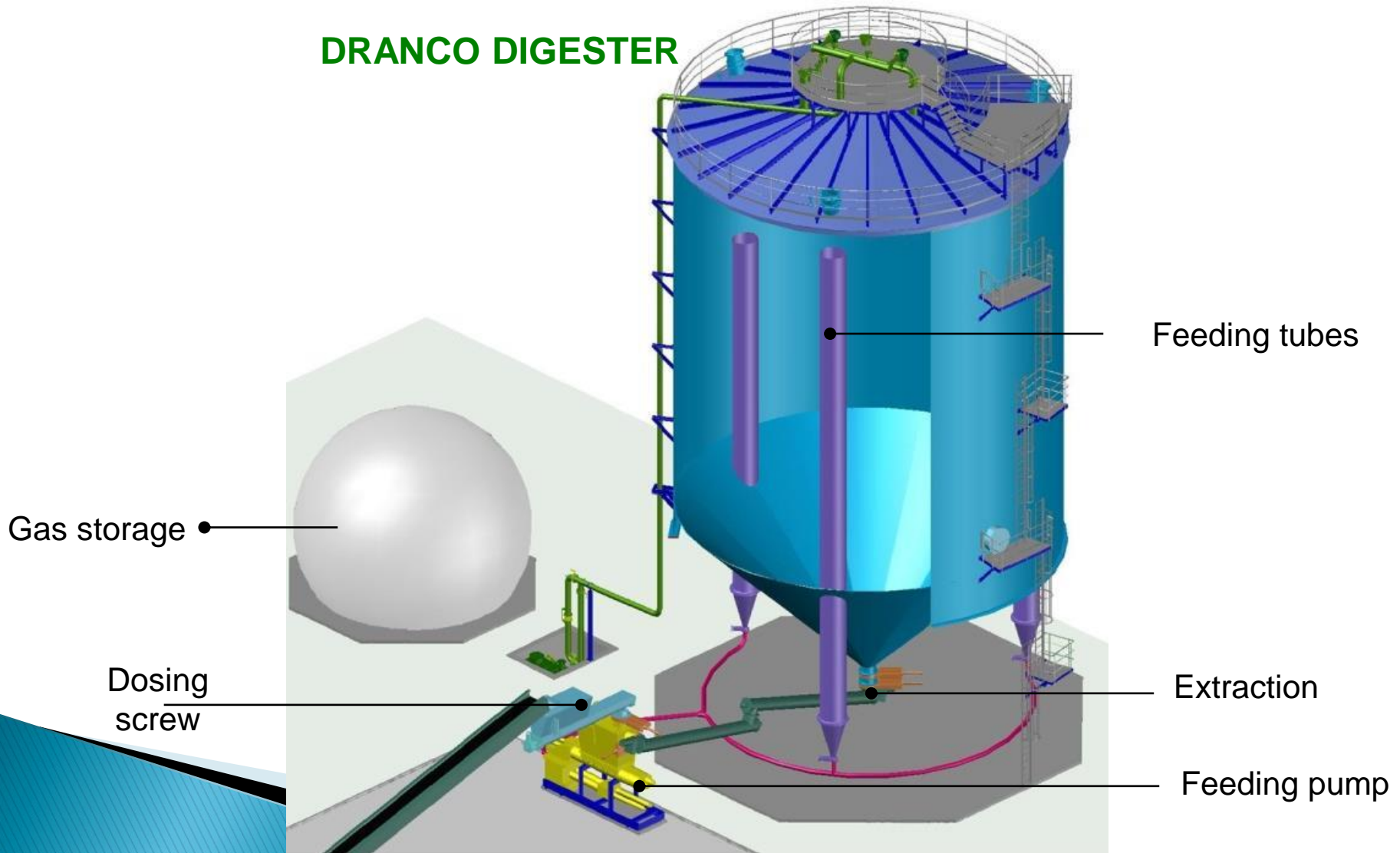
Greenwaste: 8,500 tons per year

Digestion: 44,000 tons per year



# DRANCO ANAEROBIC DIGESTION

## DRANCO DIGESTER



# ADVANTAGES OF DRANCO DIGESTION

- ▶ Small footprint – siting within LA County can work
- ▶ Processes complete range of organics per SB1383 for increased collection efficiency
- ▶ Tolerates contamination inside digester since no floating scum, no settling grit, no AD downtime
- ▶ Avoids forming small plastic fragments to meet CA compost regulations
- ▶ Digestate dewatering optional, already high TS
- ▶ Proven and Reliable on SB1383 feedstocks:
  - 334 years combined operations, 9.7 million tons processed, total energy = 181 million DGE

# HIGH DIVERSION ORGANIC WASTE PROCESSING USING SORDISEP

ENERGY/FUEL PRODUCTION

THERMAL  
CONVERSION

BIOGAS

**SORTING  
(MRF)**

**ANAEROBIC  
DIGESTION**

**S  
O  
R  
D  
I  
S  
E  
P**

Washed inerts

RDF fraction

Clean  
compost



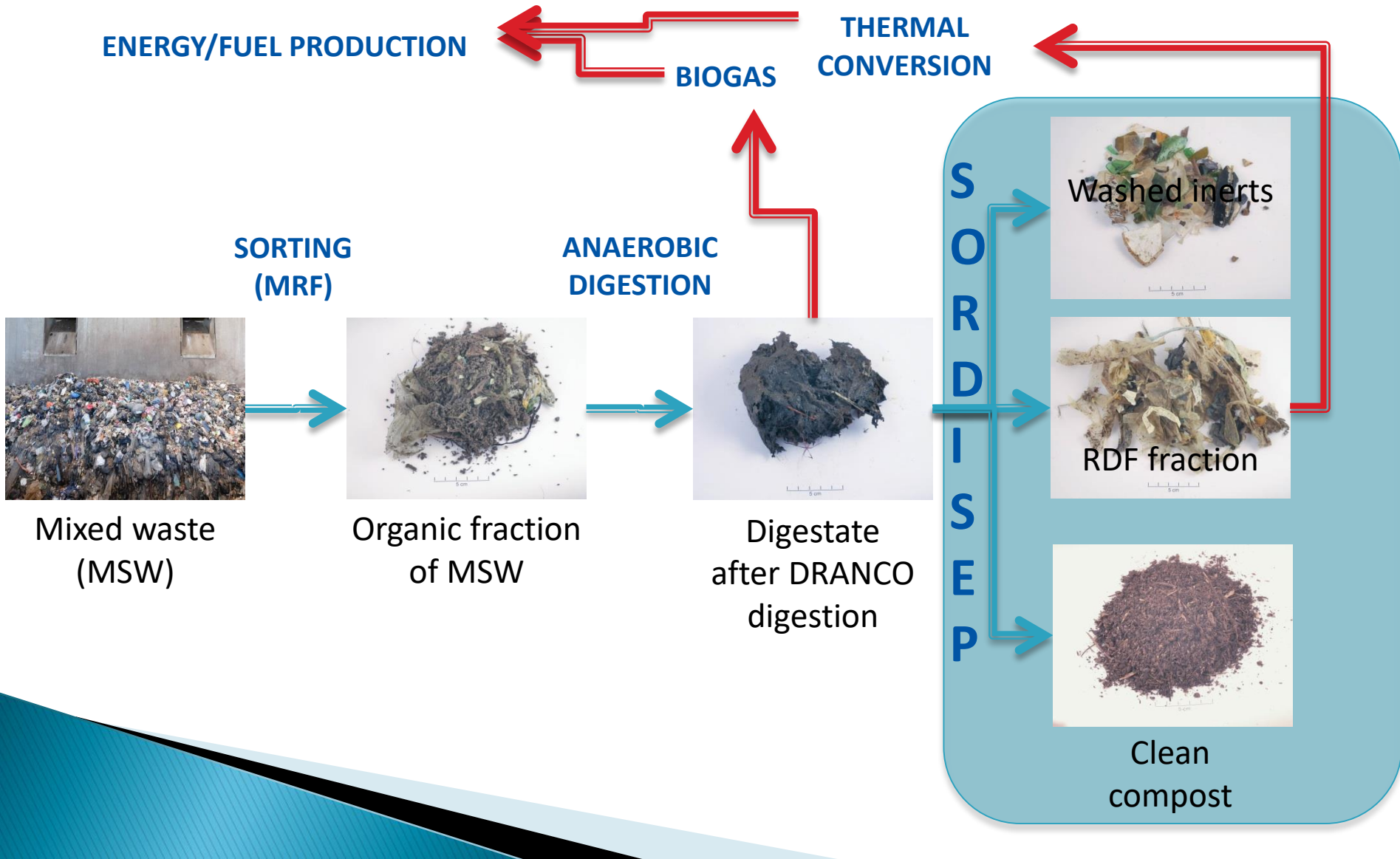
Mixed waste  
(MSW)



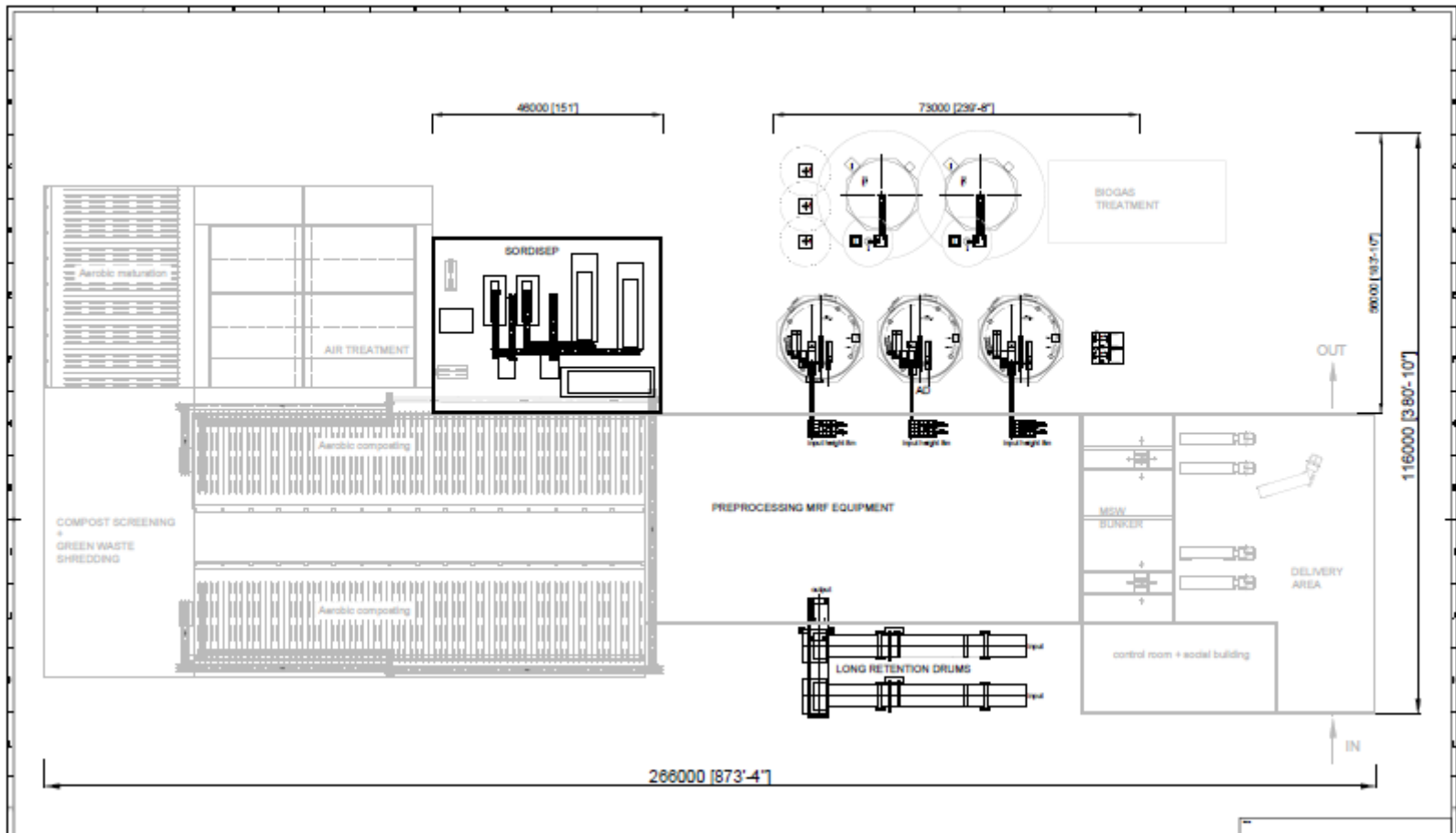
Organic fraction  
of MSW



Digestate  
after DRANCO  
digestion

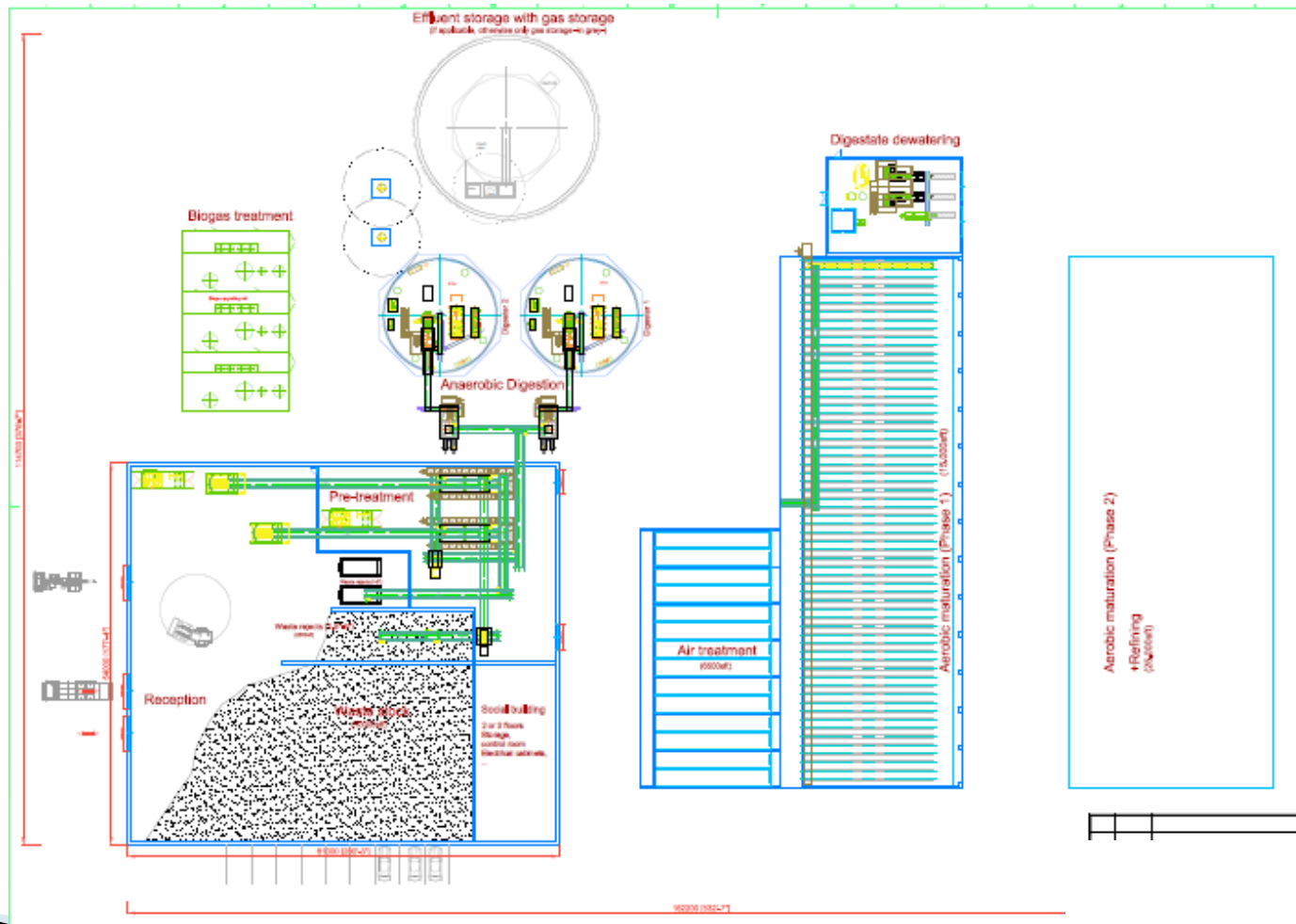


# HIGH DIVERSION ORGANIC WASTE PROCESSING FACILITY – 1000 TPD, ~8 ACRES





# DESIGNATED SSO WASTE PROCESSING FACILITY, ~350 TPD, 5 ACRES



# DISCUSSION

- ▶ Can this change outlook for sites within LA County?
  - ▶ Total system cost for different collection approaches – two or three container
  - ▶ Optimal facility size and capability
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