



# **Thermochemical Conversion Gasification**

**This is not traditional gasification but  
it's what California needs.**

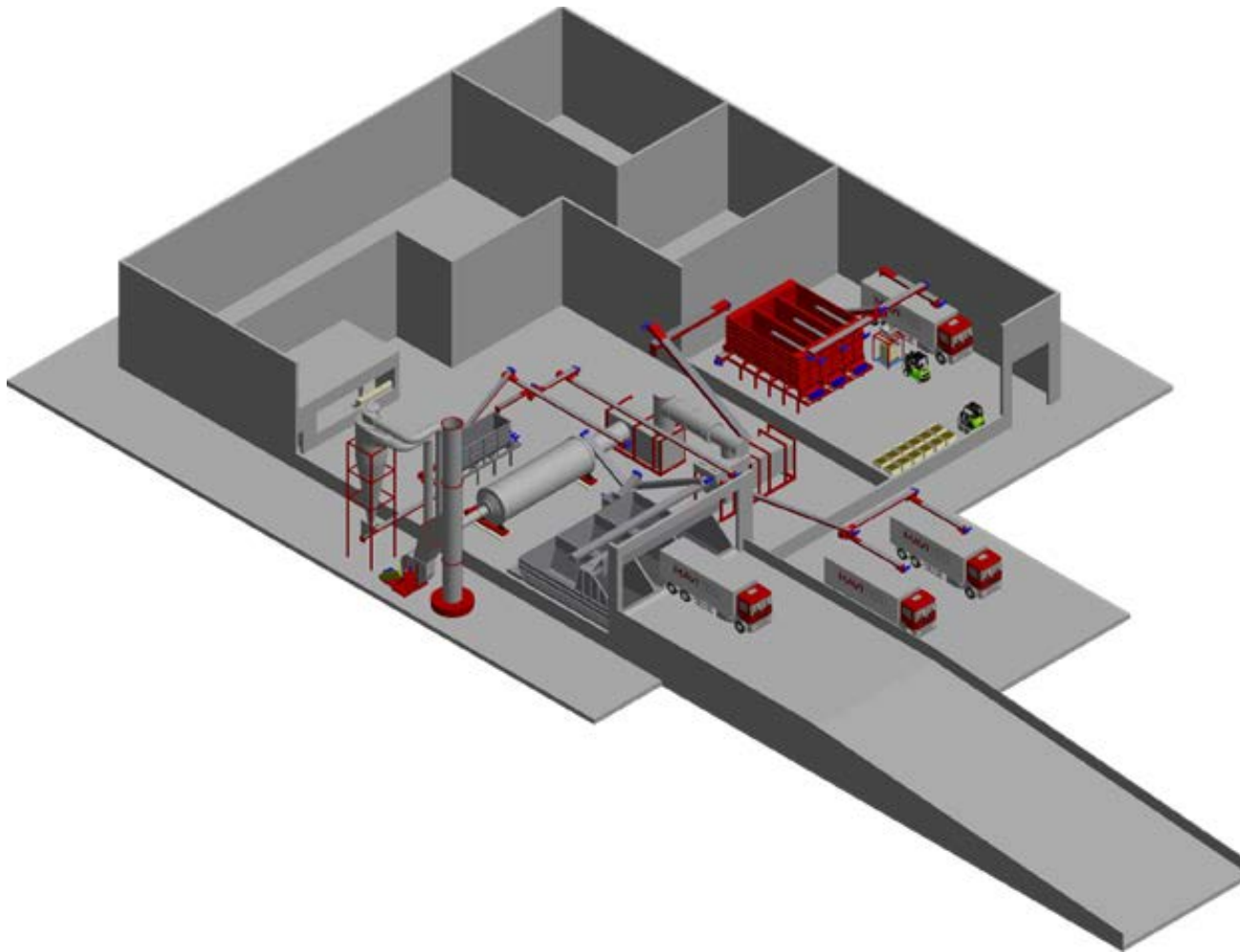
**This is why...**

An EarthCare system requires a minimum of two acres with in & out truck logistics, a building of 25,000 square feet minimum with a ceiling height of at least 28 feet. In a (3) gasifier unit operation, EarthCare can process 300 tons of food waste and

165 tons of green waste each 24 hour day.

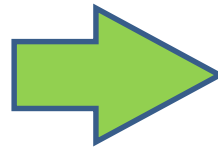
Systems operate best 24/7.

Material volumes are reduced by 90% with the remaining 10% being biochar.



EarthCare systems convert the most environmentally harmful organic waste materials into a beneficial carbon base product in a matter of hours. The end result is called biochar.

Biochar added to soils has been proven to dramatically reduce water consumption, remediate contaminated soils, reduce the need for chemical pest controls and fertilizers while sequestering carbon in soil for thousands of years.



# Environmental Mandate Compliance

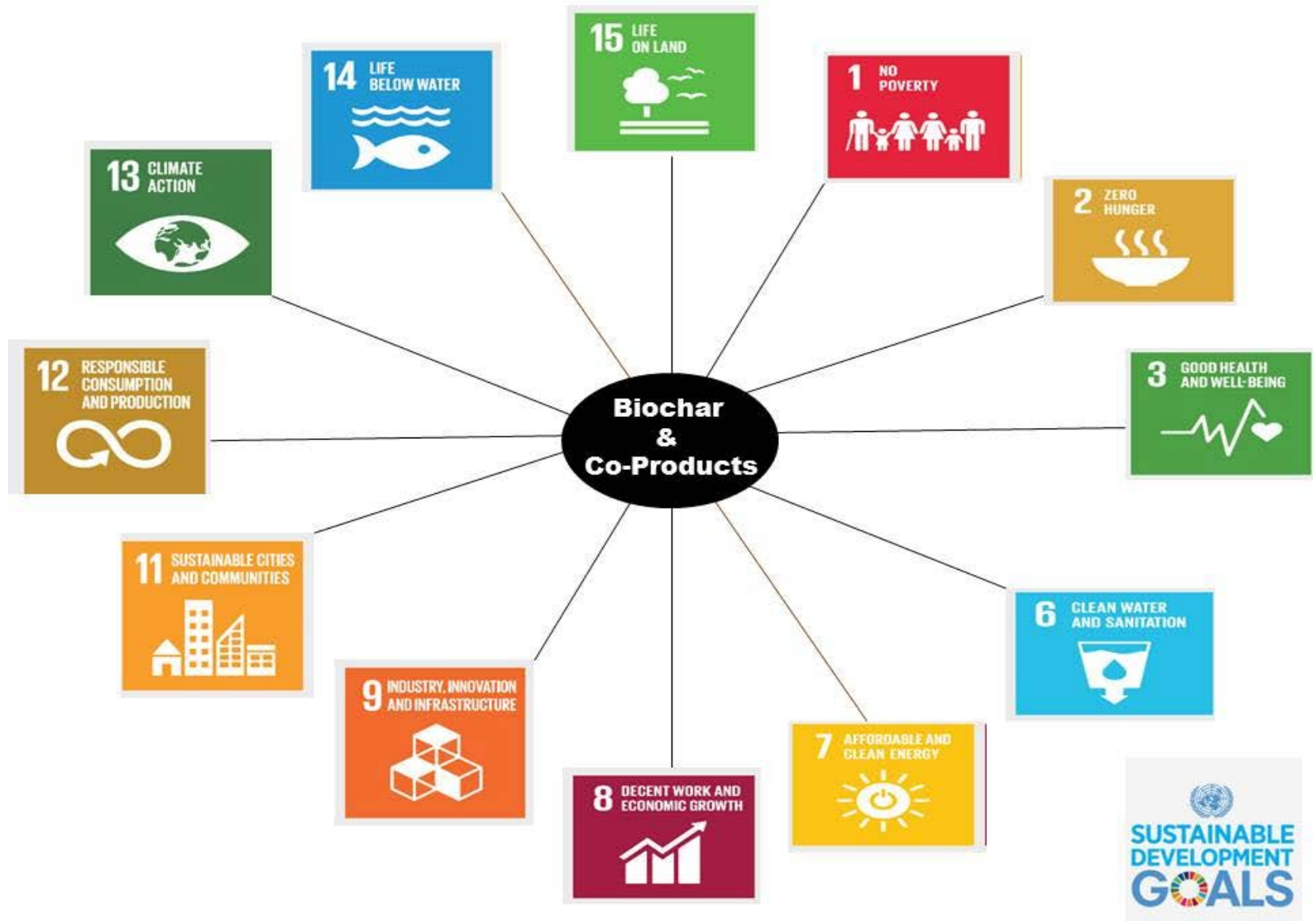
California's state legislation has many environmental mandates and they all point to the same basic goals.

Reduce waste, reduce our carbon footprint, reduce green house gases and increase soil health.

EarthCare systems address the need to reduce material volumes regionally, divert organic waste from landfills without the use water while creating a carbon base material (biochar) that eliminates GHG's in organic waste, sequesters carbon and saves water while reducing trash truck traffic and the need for source separated organics.

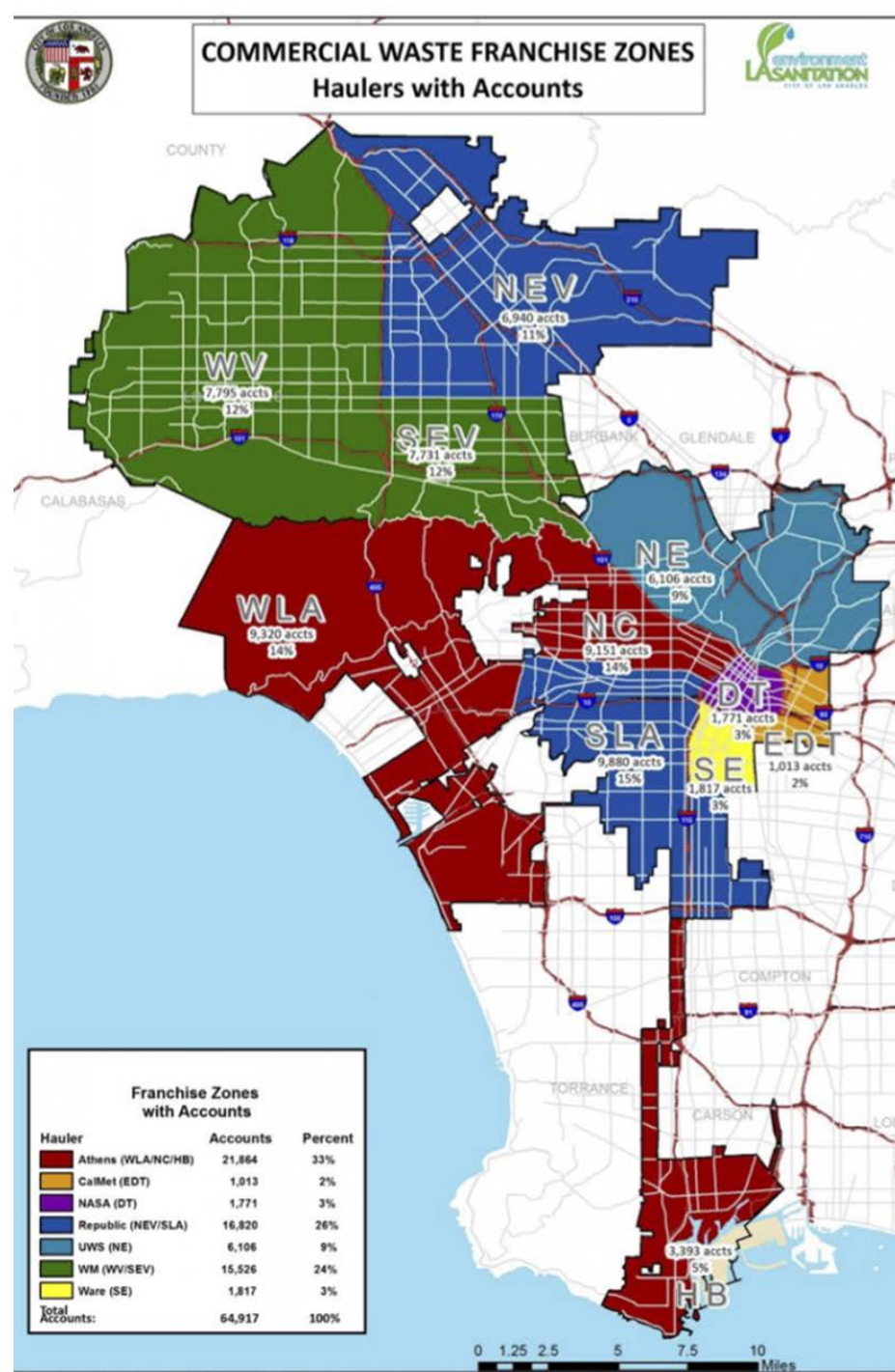
- SB-32
- AB-341
- AB-939
- AB-1594
- AB-1826
- AB/SB-1383

# Biochar has a variety of benefits



If each one of Los Angeles County's waste hauling franchise regions has an EarthCare system it would enable each region to reduce 90% of the organic waste volume on the same day it gets collected and convert the remaining 10% of material into a valuable biochar product that has many uses and benefits.

This would greatly reduce the impact on Los Angeles truck traffic. It would dramatically extend landfill life while creating a by product that helps to heal our eco-system by putting carbon back in our soils and would provide a product to benefit all Los Angeles communities.



# Capital Equipment Costs

CAPITAL EQUIPMENT	COST
Gasification system -3 standard units - i	\$4,500,000
Rotary dryer, Cyclone, etc	\$1,350,000
Biofilter	\$1,750,000
Material handling system	\$500,000
Civil works and building	\$600,000
Engineering and project management	\$400,000
Ducting	\$250,000
Electrical for balance of plant	\$250,000
Installation for balance of plant	\$300,000
PLC for balance of plant	\$150,000
Programming, commissioning, training,	\$200,000
Fan, Stack, Dampers	\$400,000
Contingency	\$350,000
Green Waste Grinder - Lease \$12,000 / month	
Tractor - Lease \$6,000 / month	
Scale & Scale House - Lease \$5,000 per month	
<b>Total</b>	<b>\$11,000,000</b>
Working Capital Estimate	\$500,000
<b>Project Funding Required</b>	<b>\$11,500,000</b>

# Short P&L

PROJECT:

## EarthCare West Sample Project

Three Gassifier System

Capital Investment \$12.5M

	Fee Per Ton	Tons Per Day	Daily	Monthly	Annually
Green Waste	\$45	165	\$ 7,425	\$ 222,750	\$ 2,673,000
Tipping fee for Food Waste	\$80	300	\$ 24,000	\$ 720,000	\$ 8,640,000
Biochar Sales 20 tons per day	\$50	20	\$ 1,000	\$ 25,000	\$ 303,750
Less 10% downtime / repair			\$ (3,307)	\$ (9,922)	\$ (1,190,700)
<b>Total Income</b>		<b>485</b>	<b>\$ 29,118</b>	<b>\$ 957,828</b>	<b>\$ 10,426,050</b>

	Expense Percentage	Daily	Monthly	Annually
<b>Total Project Expenses</b>	<b>22%</b>	<b>\$ (6,406)</b>	<b>\$ (210,722)</b>	<b>\$ (2,293,731)</b>

Annual Net Income \$ 22,712 \$ 747,106 \$ 8,132,319

Capital Investment \$12.5M

tons per year food waste	90000
tons per year green waste	49500
<b>total tons per year</b>	<b>139500</b>

Total Annual Expenses	Total Tons Processed per Year	Cost per Ton to Process
\$ 2,293,731	139,500	\$ 16.44

Quality Biochare Output 6,075 Tons Annually

Note:

1. Assumptions: Operate 300 days per year, 24 hours per day.
2. These are standalone project estimates, not incorporated with a transfer station or landfill facility.
3. If incorporated with a transfer station/ landfill, expenses would be reduced. Reduced labor & equipment costs reduces the cost per ton to process by about \$4.
4. Location Requirements: 2 acre site with 25,000 sq ft building (minimum height 28')

EarthCare West - Contact Information

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EarthCare believes the best solution to processing organic waste materials is to either re-use them or dramatically reduce them at the point of generation or at least regionally whenever possible.

Our projects are commercially viable and do not require state subsidies, grants, etc. Earthcare is currently looking to fund projects that meet property location, tipping fees and feedstock qualifications.

EarthCare has project models for purchase, joint venture or fully funded investor opportunities. We see this as a great fit for LA communities.



**QUESTIONS**