

International Compost Awareness Week

From the onset of 2015, great progress for the spread of compost use was expected during International Year of Soils, and there have been few disappointments over that timeframe. While a wide variety of policy drivers (along with some costly policy barriers) have been implemented or been under development during the last year, the last remaining obstacle is the largest: “Who’s going to pay for it?!”

To answer this critical question it will require not only a clear understanding of the greenhouse gas benefits of removing organic resources from the landfills, but also a better education for policymakers on the benefits of compost use – from the resulting increase in soil organic matter – and the Soil & Water Connection, this year’s theme for International Compost Awareness Week.

Throughout 2015, CDFA worked to develop the process for advancing the Governor’s Healthy Soils Initiative. CDFA has continued working to establish agronomic rates for application of compost to agricultural soils, both on farmland and rangelands, engaging a wide array of government agencies and private interests in a stakeholder process, during regular meetings of the Environmental Farming Act Science Advisory Panel (EFA SAP). The draft documentation outlining the agronomic rate recommendations drew some criticism and substantial feedback; we are hopeful a new draft will be forthcoming soon that will more accurately portray the benefits of compost use, as well as identifying research needs, for which stakeholders can move forward with projects and studies which will fill in the gaps.

The Healthy Soils Initiative established both short- and long-term actions for enhancing soil health, and compost is front-and-center of many of the elements outlined.

Of primary importance to the composting industry,

short-term actions include:

- Establish a short- and long-term goal for building soil organic matter in California’s agricultural and degraded soils. As noted above, CDFA has continued to work towards meaningful agronomic rates for compost use; soil organic matter targets are MIA.

- Encourage organic diversions from landfills to more beneficial uses, including composting facilities, by a tiered tipping fee or complementary mechanism that incentivizes the diversion of organics. Unfortunately, the development of new funding mechanisms has lost momentum, given the requirement for a two-thirds approval by legislators.

Subsequent to the Governor’s initiative, SB 1350 (Wolk) has been introduced (among other measures) to establish and oversee a Healthy Soils Program to provide incentives, including loans, grants, research, and technical assistance, or educational materials and outreach, to farmers whose management practices contribute to healthful soils and result in net long-term on-farm greenhouse gas benefits. Currently, SB 1350 appears destined for the Governor’s desk.

While Cap & Trade fund revenues are expected to top \$3 billion in 2016, there is considerable controversy in the Legislature on how and when to spend this windfall.

Ideally, it would be invested immediately in early action items, with a focus on getting the most bang for the buck. Recent analysis by the Legislative Analyst’s Office has identified loans and grants for organics projects as among the most cost-efficient programs available.

One can only hope that logic will carry the day, that the science (Soil & Water Connection) and the cost/benefit analysis by their own staff will lead legislators to approve CalRecycle’s Cap & Trade stimulus funding for the best projects money can buy.



Advancing Healthy Soils in 2016

The Governor's Healthy Soils agenda is moving forward in 2016. Not only is the California Department of Food & Agriculture developing programs and policies that identify measures to take advantage of the soil and water connection, legislators have introduced several new bills that focus on some aspect of healthy soils.

In addition to SB 1350 (Wolk), CDFA has two bills in the pipeline: AB 1811 (Dodd) and AB 2511 (Levine), with AB 1826 (Stone) rounding out a foursome of solid efforts for building sustainable agriculture.

[SB 1350 \(Wolk\)](#)

This bill would increase the number and qualifications for members of the CDFA Environmental Farming Science Advisory Panel. It would further require the CARB to consult with CDFA Secretary and the EFSAP in developing the quantification methods to demonstrate and quantify on-farm greenhouse gas emissions reductions. The bill would require CDFA, in consultation with the panel, to establish and oversee a Healthy Soils Program to provide incentives, including loans, grants, research, and technical assistance, or educational materials and outreach, to farmers whose management practices contribute to healthful soils and result in net long-term on-farm greenhouse gas benefits. This bill, in conjunction with the approval of the Governor's proposed budget of \$20 million in Greenhouse Gas Reduction Fund for Healthy Soils, represent a HUGE step forward on further developing sustainable agriculture in California.

[AB 1826 \(Stone\)](#)

This bill is intended to expand organic agriculture under the renamed California Organic Food and Farming Act (COFFA). COFFA will update the California State Organic Program to cap fees, eliminate paperwork for certified organic producers, and create a state framework that better supports organic farmers and businesses.

[AB 2511 \(Levine\)](#)

Current bill language will establish standards for "biochar" which have been obscure, with a variety of market participants making claims about their products, without clarity as to specifications related to those claims. This bill defines biochar as a material derived from thermochemical conversion of biomass in an oxygen-limited environment containing at least 60 percent carbon. It also adds biochar to the definition of "auxiliary and soil plant substances" by including it in the list of products intended to be used for influencing soils, plant growth, or crop or plant quality.

[AB 1811 \(Dodd\)](#)

Current bill language is intended to make the Organic Input Materials Program more cost effective. Under existing statute, adopted under AB 856 (Caballero), CDFA lacks flexibility to target inspections based on need, and the growing popularity of organic foods has meant the program's requirement to inspect all manufacturers annually has led growing costs. This bill would eliminate the requirement for annual inspections of OIM manufacturers but allow for the random inspection of OIMs outside of the registration process.

[AB 1811 \(Dodd\)](#)

TOPIC: This bill modifies the requirements for the inspection of organic input materials to remove annual inspection requirements, but also allows inspection of organic input materials at times other than during registration process.

STATUS: In Senate Rules awaiting committee assignment.

SUPPORT

[SB 1350 \(Wolk\)](#)

TOPIC: This bill would make modifications to the CDFA Environmental Farming Science Advisory Panel. It would further require CARB and CDFA to cooperate in developing methodology for demonstration and quantification of on-farm greenhouse gas emissions reductions. The bill would require establish statute for Healthy Soils Program and recommend \$20 million be budgeted for allocation towards achieving its goals.

STATUS: To be heard in Senate Environmental Quality Committee on May 9, 2016.

SUPPORT

[SB 1383 \(Lara\)](#)

TOPIC: Would require CARB to approve and implement Short-lived Climate Pollutants strategy to achieve 40% reduction in methane, 40% reduction of hydrofluorocarbon gases, and a 50% reduction in anthropogenic black carbon below 2013 levels, by 2030.

STATUS: On suspense in Senate Appropriations.

SUPPORT

[AB 2511 \(Levine\)](#)

TOPIC: Defines "biochar" as a material derived from thermochemical conversion of biomass in an oxygen-limited environment containing at least 60 percent carbon. It also adds biochar to the definition of "auxiliary and soil plant substances" by including it in the list of products intended to be used for influencing soils, plant growth, or crop or plant quality.

STATUS: On suspense in Assembly Appropriations.

SUPPORT

[AB 1826 \(Stone\)](#)

TOPIC: This bill would reduce overly complex and duplicative requirements of existing law for the distribution and sale of organic products.

STATUS: In Assembly Appropriations Committee.

SUPPORT

In Chinese philosophy, yin and yang (also yin-yang or yin yang, "dark—bright") describes how opposite or contrary forces are actually complementary, interconnected, and interdependent in the natural world, and how they give rise to each other as they interrelate to one another.

The Soil & Water Connection

The degradation of soil has impacts on water quality and conservation in the following ways:

- Water holding capacity – soil organic matter is the most significant measure of soil quality and productivity. Soil uses humus to store water and nutrients.
- Erosion – soil removed by erosion has about three times more nutrients than the soil that is left behind. About 60% of lost soil is deposited in streams and rivers. Adding compost to soils helps prevent erosion.
- Soil compaction – caused by heavy machinery and grazing livestock, soil compaction reduces water infiltration and increases runoff. Increased runoff adds to surface water pollution. Adding compost to soils increases infiltration.
- Soil structure – organic matter creates pore space in the soil for air and water. Adding compost to soils enhances the soil structure, porosity and bulk density.
- Acidic soils are a problem in many areas. Soil pH can affect plant growth by depleting microbial activity and depleting nutrients. Adding compost helps moderate soil pH.

Reference: Composting Council Research & Education Foundation, 2014; *The Soil & Water Connection: A Watershed Manager's Guide to Organics*

More Bang for Your GHG Buck

In this year's budget CalRecycle is seeking \$100 million for organics projects - along with CDFA's \$20 million for Healthy Soils Initiative - and compost/AD is better positioned to receive grant dollars than many other state programs.

The LAO has determined that organics/recycling loans and organic composting/AD grants are among the most cost-effective (from \$4/ton to \$9/ton) where \$57/ton is the average and the high has been up to \$725/ton.

Since Dec. 2014, Edgar & Associates has provided similar data, utilizing a CO₂ reduction supply curve to the LAO, ARB and legislators, to show that compost/AD as one of the most cost-effective GHG reduction strategies, using the "marginal cost abatement" methodology. We are happy to see the LAO validate this work.

Estimated Average Cost Per Ton of Reduction Varies Greatly

Program	Cost Per Ton ^a
Organics and recycling loans ★	\$4
Forest health	4
Dairy digester research and development program	8
Organics composting/digestion grants ★	9
Forest legacy	10
Recycling manufacturing	15
Delta and coastal wetlands restoration	30
State water and efficiency and enhancement program	33
Clean vehicle rebates	46
Sustainable agricultural lands conservation	59
Mountain meadow ecosystems restoration	113
Urban and community forestry	116
Water-energy grant program	141
Affordable housing and sustainable communities	191
Single-family solar photovoltaics ^b	209
Transit and intercity rail capital	259
Single-family energy efficiency and solar water heating ^b	282
Large multifamily energy efficiency and renewables ^b	343
Enhanced fleet modernization program "plus-up"	414
Truck and bus voucher incentives	452
Incentives for public fleets pilot project for DACs	725
Overall Average	\$57

^a Calculated as the amount of cap-and-trade funds awarded to a program divided by the total estimated greenhouse gas (GHG) emission reductions from the projects that receive cap-and-trade funds.

^b Assumes GHG reductions at the midpoint of the administration's estimated range. DACs = disadvantaged communities.



WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING FACILITIES

The State Water Resources Control Board (SWRCB) has concluded its efforts to establish statewide regulations for composting facilities. The SWRCB officially released final language on August 31, 2015, which can be found on the Board's [composting website](#).

Existing composting operations, except those with individual WDRs, general WDRs, or conditional waivers of WDRs are required to seek coverage under this General Order by submitting a complete Notice of Intent (NOI), and a Technical Report with information requested in the General Order. The NOI, Technical Report must be submitted by August, 4, 2016 and shall include a proposed schedule for full compliance which must be as short as practicable but may not exceed 6 years from the date of the NOI.

Compost Facility Operators: There are only 4 months left to finalize and submit your Technical Report and NOI to the Water Board.

TITLE 14/27

Revision to Compostable Materials & Transfer/Processing Regulations.

CalRecycle has completed updating the Title 14/27 regulations to address a broad list of topics, mainly related to the expanding diversion of organic materials from landfills.

Required physical contaminant limits of 0.5% for compost begin January 2018. Additionally, land application of green waste to agricultural sites is subject to this new requirement and meetings between CalRecycle, CDFA, and the Water Board are taking a closer look on developing compliance mechanisms. The timing of these new contaminant limits is expected to coincide with the implementation of AB 901 regulations where requisite reporting will include mulch going to land application.

A well-conducted series of training workshops covering these new regulations has been ongoing statewide throughout this Spring, providing an excellent overview of the new requirements.

Follow up workshops are expected.

Organics Processing Capacity

The California Compost Coalition is a registered Lobbying Coalition with the Fair Political Practices Commission (FPPC), created in 2002 by a group of compost operators in response to demands for increased recycling of organic materials & production of clean compost, bioenergy, renewable natural gas, and biochar.

CCC Members

- Agromin
- Atlas ReFuel
- Burrtec Waste Industries
- Caglia Environmental
- California Wood Recycling
- CleanFleets.net
- Clover Flat Compost
- Cold Canyon Compost
- CT Bioenergy Consulting LLC
- Harvest Tulare
- Harvest Lathrop
- Marin Sanitary Service
- Mt. Diablo Recycling
- Napa Recycling Compost
- Northern Recycling Compost
- Organic Waste Solutions
- Phoenix Energy
- Quackenbush Mt. Compost
- Recology Blossom Valley Organics
- Recology Feather River Organics
- Recology Jepson Prairie Organics
- Sonoma Compost
- Tracy Delta Compost
- Upper Valley Recycling
- Vision Recycling
- Zanker Road Resource Management
- Z-Best Compost Facility
- Zero Waste Energy Development
- Zero Waste Energy, LLC

CCC Executive Committee

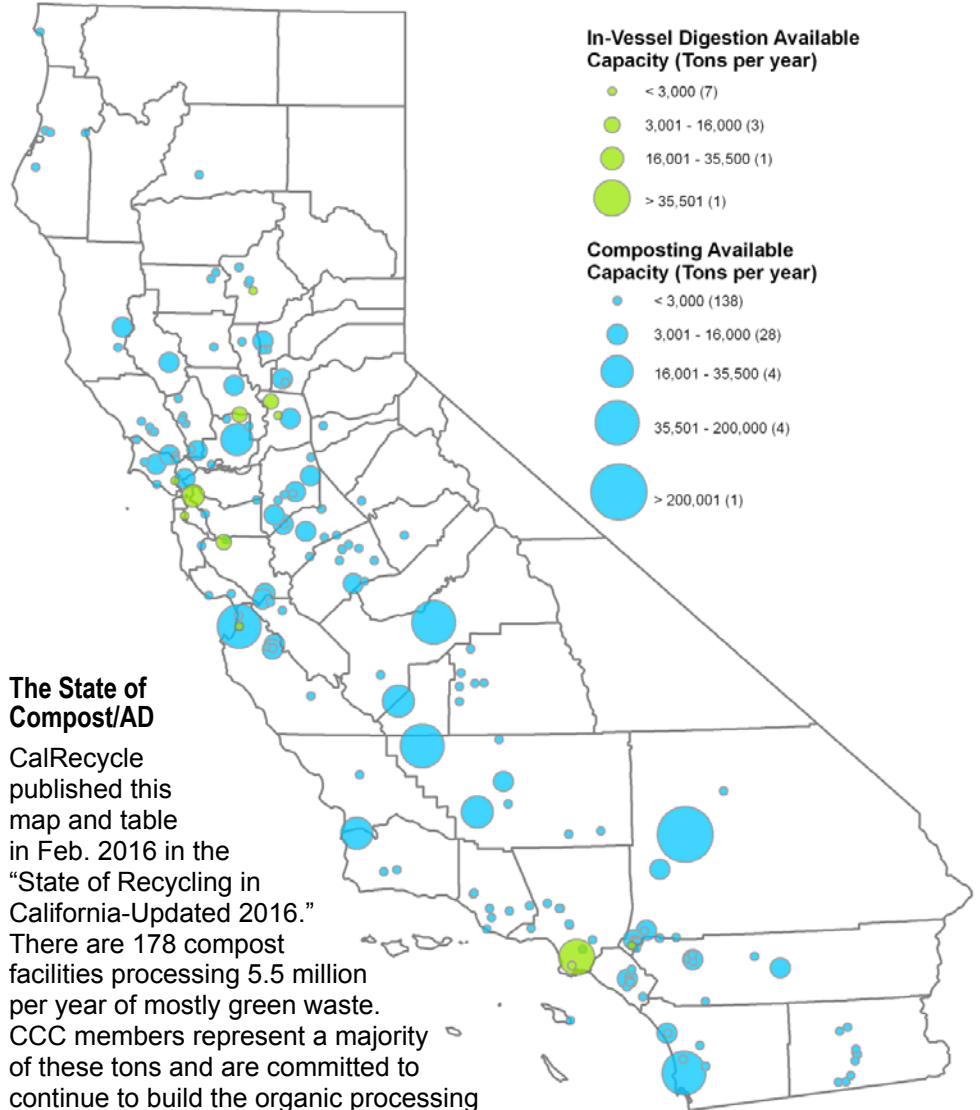
- Bill Camarillo, *Agromin*
- Greg Kelley, *Northern Recycling Compost*
- Eric Potashner, *Recology*
- Rachel Oster, *Recology*
- Will Bakx, *Sonoma Compost*
- Christy Pestoni Abreu, *UVR Compost*
- Michael Gross, *Z-Best Compost*

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- Evan Edgar, Regulatory Affairs
- Tony Cone, Financial Advisor
- Rick Moore, Peer Review Engineer
- Monica White, Sustainability Advisor
- Sean Edgar, Fleet Advisor

CCC Legislative Affairs

- Justin Malan, EcoConsult
- Neil Edgar, Edgar & Associates Inc.



The State of Compost/AD

CalRecycle published this map and table in Feb. 2016 in the "State of Recycling in California-Updated 2016." There are 178 compost facilities processing 5.5 million per year of mostly green waste. CCC members represent a majority of these tons and are committed to continue to build the organic processing infrastructure to meet the goals of AB 1826 and the proposed organic waste ban by 2025. There needs to be another 100 compost and anaerobic digestion facilities by 2020 to process another 5 million tons of organic waste with a cost of a few billion dollars, and another 100 more facilities by 2025. We are building the little green and blue dots as the big black boxes no longer make sense.

Facility Type	Statewide Active Facilities	Total Capacity (Tons/Year)	Current Throughput (Tons/Year)	Available Capacity (Tons/Year)
In-Vessel Digestion	13	560,000	146,000	414,000
Biomass Conversion	23	3,620,000	3,620,000	0
Composting	176	6,670,000	5,540,000	1,130,000
Composting - Research Operation	14	78,000	78,000	0
Chipping and Grinding	163	11,500,000	7,400,000	4,100,000
Other Organics Management	22	680,000	630,000	50,000