

The State of the Compost - Big Soil, not Big Oil

The State of the State is “*Setting the Pace for America*,” proclaims Governor Brown. “*We should never forget our dependency on the natural environment and the fundamental challenges it presents to the way we live. We can’t fight nature. We have to learn how to get along with her. So we have to be ready with the necessary firefighting capability and communication systems to warn residents of impending danger. We also have to manage our forests — and soils — more intelligently.*” With climate change policies firmly in place, California is showing the way in growing their economy with less carbon intensity, and how cap-and-trade works. Resisting ‘beautiful’ clean coal, California leapfrogs over Washington DC, stuck in their catatonic state, to be the bellwether state for others to follow. Having signed into law SB 32 to reduce greenhouse gas reductions to 40% by 2030, and AB 398 to extend cap-and-trade to 2030, the California Air Resources Board (CARB) updated their Scoping Plan to 2030, where organic waste and compost deployment links all sectors to a robust economy and healthy soils.

The State of the Compost is steady and relaunching, having been fatigued by regulations and a slow start on program development to deliver new tons despite a slew of state mandates to collect and recycle organics. CalRecycle plans to adopt SB 1383 regulations in late 2018 or early 2019. Although the regulations will not take effect until 2022, adopting them in 2019 allows regulated entities approximately three years to plan and implement necessary budgetary, contractual, and other programmatic changes.

The compost industry is willing to be baselined once again in 2018, where we have been stuck with agonizing permitting and pricing inelasticity at the local level, to benchmark our way toward 2025 mandates. CalRecycle has authorized two major studies in 2018; the Fourth Assessment of California’s Compost and Mulch-Producing Infrastructure, and the 2018 Statewide Waste Characterization Study. CalRecycle and CARB should also baseline conditions as if all SB 1383-targeted organics stayed in the landfill and emitted criteria

pollutants and GHGs, then allow the composting industry to offset those pollutants, instead of being treated as a ‘new source’ and get no credit from the landfill diversion. AB 1036 (McCarty) would treat composting as an essential public service to do just that. A previously unrecognized source of nitrogen oxide is contributing between 25 and 41 percent of the NOx emissions in California, according to a study led by UC Davis researchers. The peer-reviewed study traces these emissions to fertilized soils in the Central Valley region, where compost use could reduce these agricultural emissions; as well reducing landfill emissions.

With the Fourth Assessment we hope to determine how much compost Caltrans uses since their market share has been stalled out at just 1%. We also hope to determine how much organic compost is being sold since CDFA requires product registration and a mil tax payment but without reporting the tons back. We have estimated that irrigated cropland uses 7.5 million tons of bulk compost each year, and would like that amount validated, as another 7.5 million tons need to be sold to agricultural markets by 2025 to reach the organic recovery mandates of SB 1383. Even with the strong compost references in the 2017 Scoping Plan Update, CDFA still needs to be pushed into modeling compost use on irrigated cropland given CARB-published emission reduction factors showing vast greenhouse gas benefits. We would like to see Cal-EPA take required action, under AB 1045 to streamline permits and provide market development coordination with CDFA, Caltrans, Department of General Services and CalRecycle.

Governor Brown’s vision of Big Soil, not Big Oil, is clear in the 2017 Scoping Plan Update, where the agricultural sector could become a major carbon sink with the use of compost and decrease the use of synthetic petroleum-based fertilizers. The compost industry is ready to transcend the current steady state condition and get the big bang out of agriculture with limited reliance upon Caltrans or local governments to deliver substantial markets, which have languished for decades despite the 1989 state procurement laws and the recent push by AB 1045 and SB 1383.

Compost Advocacy

Over the past several years California has enacted a suite of ambitious mandates and goals to transform how we handle organic material. Spurred by the landmark climate change legislation, AB 32 and its successor SB 32, along with organic waste recycling goals in AB 341 (2011) and AB 1826 (2014), California has amplified its commitment to conserve resources and cut methane and other GHG emissions. With the passage of SB 1383 in 2016, the state embraced a 75% reduction of organics disposal by 2025.

We now face the daunting challenge of meeting those goals. To this end, CCC will be working closely with the Legislature, regulatory agencies, local governments and other stakeholders to implement the laws that are already in place. We see three essential elements that are necessary for success:

- **Statutory certainty:** Perhaps most important is the assurance that the goalposts are not moved once set. California composters are an inventive and determined group and are well on their way to meet or exceed our organic management goals. Because investment capital and operation permits will only be secured if there is certainty in these policies, we must hold the line. While some course corrections are inevitable, we must resist backsliding on the organics recycling trajectory we have chosen.
- **Regulatory support:** The rules and regulations of the Executive Branch should be directed to assist in the

implementation of the State's statutory mandates and goals. Our industry expects the implementing rules to do just that – help, not hinder, the development of a robust infrastructure to recycle organic material for higher and better uses than landfill ADC or direct land application.

- **Public partnership:** Buy-in from local governments and the public at large are critical for success. Diverting this material stream back into the community, farms and energy plants calls for a shift in mindset as well as a willingness to pay for the new way of doing business.

At the time of this printing, only a handful of bills have been introduced in 2018, but they signal continued engagement by the authors to fund the necessary infrastructure. [AB 1933 \(Maienschein\)](#) is seeking \$100 million for organics infrastructure development from Cap and Trade proceeds and to better coordinate agency oversight of organics operations (AB 1981 – Limon). CalRecycle continues to craft regulations on methane mitigation (SB 1383 stakeholder meetings will next occur in early April) and diversion reporting (AB 901, which has entered formal rulemaking).

This year the Compost Coalition will continue to engage proactively in both the Legislative and regulatory arenas and will also be taking its message to local governments, farmers and the general public that the extensive climate, soil and resource benefits of converting organic material into high quality compost warrant their support.

What's in Your Compost?

For many who have lived through (so far) the potential disruption of compost markets by persistent herbicides (Clopyralid and Aminopyralid et al) and ant/termite killers (Bifenthrin), it will be no surprise that a new issue has arisen which may cause a stir. With the high-minded value proposition that more food materials can be captured from waste streams through the use of compostable food service ware, many packaging producers have pushed jurisdictions across the nation to adopt ordinances that mandate this more “sustainable” option for their restaurant takeout containers. Unfortunately, it is becoming evident that the pervasive use of perfluorinated compounds (which enhance product performance by repelling grease and moisture) in the “sustainable” fiber-based versions of these products may present another contamination challenge for composters. A recent study by the Center for Environmental Health, in Oakland, CA is raising awareness of this issue, while a recent academic study found evidence of perfluorinated compounds in finished compost from facilities who receive food and food-soiled containers.

Bill Watch

[AB 1036 \(McCarty\)](#)

TOPIC: Requires the California Environmental Protection Agency, in coordination with the Department of Resources Recycling and Recovery, the State Water Resources Control Board, the State Air Resources Board, and the Department of Food and Agriculture to assess the state's progress toward developing the organic waste processing and recycling infrastructure necessary to meet the state goals specified in existing law.

STATUS: Referred to Senate Environmental Quality Committee.
SUPPORT

[AB 1288 \(Eggman\)](#)

TOPIC: This current spot bill would increase the solid waste tipping fee from \$1.40 per ton to an as-yet-to-be-determined amount to help develop organic materials processing facilities and other market incentive programs that promote the highest and best use of recovered materials. The bill may also establish a generator charge to augment the existing disposal fee, which funds CalRecycle administrative costs.

STATUS: Referred to Senate Environmental Quality Committee.
SUPPORT

[AB 1981 \(Limon\)](#)

TOPIC: This spot bill may be a follow-up to AB 1045, utilized to stimulate activities to streamline permitting of organics processing infrastructure.

STATUS: Referred to Assembly Natural Resources Committee.
WATCH

[SB 1048 \(Allen\)](#)

TOPIC: This bill would state the intent of the Legislature to enact legislation that would add information about composting, food waste reduction, and reduction in the use of single use disposable plastics to the Office of Education and the Environment's education principles for the environment.

STATUS: Introduced. Read first time. To Com. on RLS. for assignment
WATCH

CARB SCOPES COMPOST IN ALL SECTORS

CARB adopted the 2017 Scoping Plan on Dec. 14, 2017. This is the third update of the Scoping Plan with the California Compost Coalition successfully placing organic waste and compost in all seven sectors (see Table 16 insert). Note the importance of the cross-sector relationships that organic waste can deliver for transportation fuels and renewable energy for industry, what compost can provide for water savings, for healthy soils to sequester carbon, and the use of compost on our Natural and Working Lands.

An anaerobic digestion to Renewable Natural Gas (RNG) facility can be designed without a PUC pipeline as a community-scale model. This model can produce carbon negative RNG for local collection fleet of heavy-duty trucks, and digestate for compost feedstock. The CNG engines would be near-zero on NOx emissions, and the certified organic compost would allow a farmer to be near-zero on pesticide use. These GHG facilities are net-zero, while serving a zero waste community and have shown to benefit disadvantaged communities (DAC) as well.

CARB is beginning to understand that our industry are the zero heroes and that the community-scale model is at the intersection of AB 32 and the Governor's Five Pillars, that California will: (Pillar 1) reduce today's petroleum use in cars and trucks by up to 50%; (Pillar 2) increase from one-third to 50% our electricity derived from

renewable sources; (Pillar 3) double the efficiency savings from existing buildings and make heating fuels cleaner; (Pillar 4) reduce the release of methane, which includes diverting organics from the landfill by 2025; and (Pillar 5) manage farms, rangelands, forests and wetlands so that they can use compost and store carbon. Organic recycling has been deemed the most cost-effective GHG reduction strategy that bonds all Five Pillars together and where 100% of the CalRecycle grants have benefitted DACs. The CA Legislative Analysts Office determined the cost of organics grants to be at just \$9/ton of GHG reduction while the overall average is \$57/ton. Incentives for electrification for public fleets in DACs and modernization is costing \$414/ton to \$725/ton

When confronted by the Environmental Justice Advisory Committee about stopping incineration of wood waste in old-line biomass plants, Chair Mary Nichols echoed that things should be composted first. Considering that the compost market cannot absorb all of the urban biomass, it was nice to hear agreement that composting is being placed on top of the environmental justice priorities. This Scoping Plan Update finally recognizes compost use on irrigated cropland as a strategy to meet SB 1383 (Lara, 2016). With just 11% of irrigated crop lands using compost, doubling the compost use to 22%, will create demand for another 7.5 million tons of compost, generated from 12 million tons of organic waste.

SHOW ME PERMIT STREAMLINING

AB 1045 (Irwin, 2015) was passed to assess the state's progress in developing the required compost infrastructure, assisting in developing the compost industry through permit streamlining, and promoting compost use. Cal-EPA was put in charge with CDFA to meet quarterly, develop recommendations and post them on their website no later than January 1, 2017, and update annually thereafter to 2021. CCC comments were provided where we are calling for a 2017 compost industry assessment, the first one since 2008, and to implement current law requiring compost use by CALTRANS, General Services and an array of state agencies. Plus, when applying for air permits, baseline conditions need to be recognized where the net benefit of both greenhouse gas reductions and criteria pollutants can be demonstrated when diverting food waste from landfills to composting and/or anaerobic digestion facilities.

SB 1383 - REGULATIONS

CalRecycle will hold its seventh in a series of workshops on April 4, 2018, at the California Dept. of Food and Agriculture Auditorium at 1220 N Street, Sacramento, CA 95814, and on April 6, 2018, in the Schulman Auditorium at 1775 Dove Lane in Carlsbad to discuss the SB 1383 implementation process. We hope to finally see some compost and wood material market development programs on The Road to Recovery. Topics will include an overview of the 2nd draft of the rulemaking text. CalRecycle plans to adopt the regulations in late 2018 or early 2019. Although the regulations will not take effect until 2022, adopting them in 2019 allows regulated entities approximately three years to plan and implement necessary budgetary, contractual, and other programmatic changes. Jurisdictions, haulers, and generators should consider taking actions to implement programs to be in compliance with the regulations on January 1, 2022. During 2019, CalRecycle will be networking, providing technical assistance, and developing tools, model ordinances, contracts, and case studies to support efforts at the local level to meet the organic waste reduction targets and comply with the regulatory requirements. With the draft regulations still in play, others in the industry are already calling for SB 1383 Reform this year. SB 1383 can provide MRF First! and deliver clean organics to the compost industry, where we are trying the best to make SB 1383 work.

AB 901 - REGULATIONS

Notice of the proposed regulations was published in the California Regulatory Notice Register by the Office of Administrative Law (OAL) on January 26, 2018, beginning the formal 45-day comment period of the rulemaking process. Instructions on submitting public comments in writing to CalRecycle are provided in the link above. A public hearing to receive public comments on the proposed regulations for recycling and disposal facility reporting has been scheduled for March 14, 2018 at 2:00 pm at the Cal-EPA Building in Sacramento.

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 Disposal
Burrtec Waste Industries
Caglia Environmental
California Waste Recovery Systems
California Wood Recycling
CleanFleets.net
Clover Flat Compost
Cold Canyon Compost
GreenWaste Recovery
Harvest Tulare
Harvest Lathrop
Marin Sanitary Service
Mt. Diablo Resource Recovery
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
ReFuel Energy Partners
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Sonoma Compost
Tracy Delta Compost
Upper Valley Recycling
Vision Recycling
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Cal-Waste Celebrates 90 Years In Business

CCC proudly welcomes its newest member, California Waste Recovery Systems (Cal-Waste). Starting out with collecting dry waste from local restaurants, businesses and residents in Lodi to feed pigs, Cal-Waste slowly grew to be one of the largest waste recovery and recycling companies in the northern Central Valley. Cal-Waste offers recycling programs for homes, businesses and communities. They provide convenient curbside recycling and waste collection services throughout Alpine, San Joaquin, Sacramento and Calaveras Counties. Cal-Waste has always been a family-run business, and for more than 90 years its focus has been on two things: its customers and the environment.

Cal-Waste was the first waste collection service in the region to introduce compaction trucks (which increased their effective capacity six-fold, cutting trips, carbon emissions and required landfill volume). It was also among the first in California to get a compost facility permitted in the early 1990s.

Continuing its track record of innovation and its commitment to a greener planet, Cal-Waste recently opened an \$11 million state-of-the-art High-Performance Material Recovery Facility (MRF) at its World Headquarters in the City of Galt. The MRF that handles about 200 tons of recyclables per day and transfers close to 150 tons of trash. With two shifts running at 18 hours per day, there is about 14 to 18 hours of uptime on the machine in order to get the cleanest product possible. The MRF has a combination of manual and mechanical sorting. Cal-Waste is committed to recovering valuable resources from the waste stream before they are forever landfilled. And Cal-Waste is on a never-ending mission to provide exceptional customer service while working to improve the environmental and economic health of the California

neighborhoods it serves.

Cal-Waste also provides the Concrete Washout System (CWS) and a Paint Washout System (PWS). Both are watertight containment system that controls, captures and contains all the caustic wastewater, concrete washout material, and water-based paint from construction projects, eliminating any possibility of an illegal discharge. The CWS conforms to Caltrans and California Stormwater Quality Association (CASQA) Best Management Practices (BMP's) for concrete waste and waste water management (WM8), and it is

100% Storm Water Pollution Prevention Plan (SWPPP) Compliant. This proven technology is capable of holding approximately 5.5 yards of material – equivalent to 38 trucks and 2 concrete pumps or washout from 350 yards of poured concrete. All

collected wastewater and concrete material is recycled.

Cal-Waste is mostly a diesel fleet; however, they recently acquired some hybrid diesel trucks that run off clean diesel and a combination of hydraulic power. The hydraulic hybrid reduces fuel consumption by 40 to 50 percent. The company acquired their first one in 2016 and now has three trucks on the job. Cal-Waste opted for this solution rather than CNG because of the diverse area that they are in. Its fleet of clean trucks services 16,000 customers twice a week, totaling more than 1.6 million visits per year.

With a rich history of premier service, this family-run business continues to show the highest level of dedication and care to its customers and works to improve the environmental and economic health of the California neighborhoods it serves. The company maintains an active awareness of public policy and environmental concerns and serves as a leader in its industry for over 90 years.



2017 Scoping Plan Update

TABLE 16: CROSS-SECTOR RELATIONSHIPS

Sector	Example Interactions with Other Sectors
 Energy	<ul style="list-style-type: none"> Hydroelectric power, cooling, cleaning, waste water treatment plant (WWTP) bioenergy Vehicle-to-grid power; electricity supply to vehicle charging infrastructure Biomass feedstock for bioenergy, land for utility-scale renewable energy (solar, wind) Agricultural waste and manure feedstocks for bioenergy/biofuels Organic waste for bioenergy
 Transportation	<ul style="list-style-type: none"> Electric vehicles, natural gas vehicles, transit/rail; more compact development patterns that reduce vehicle miles traveled (VMT) also demand less energy per capita More compact development patterns that reduce VMT also demand less water per capita and reduce conversion of natural and working lands Reducing VMT also reduces energy demands necessary for producing and distributing fuels and vehicles and construction and maintenance of roads Biomass feedstock for biofuels Agricultural waste and manure feedstocks for biofuels Organic waste for biofuels Greenfield suburban development on natural and working lands leads to increased VMT
 Industry	<ul style="list-style-type: none"> Potential to electrify fossil natural gas equipment, substitution of fossil-based energy with renewable energy Greenfield urban development impacts
 Water	<ul style="list-style-type: none"> Energy consumption for water pumping, treatment, heating; resource for cooling, cleaning; WWTP bioenergy Use of compost to help with water retention/ conservation / drought mitigation Land conservation results in healthier watersheds by reducing polluted runoff, allowing groundwater recharge, and maintaining properly functioning ecosystems
 Waste Management	<ul style="list-style-type: none"> Composting, anaerobic digestion, and wastewater treatment plant capacity to help process organic waste diverted from landfills Compost for carbon sequestration, erosion control in fire-ravaged lands, water conservation, and healthy soils Replacing virgin materials with recycled materials associated with goods production; enhanced producer responsibility reduces energy impacts of consumption Efficient packaging materials reduces energy consumption and transportation fuel use
 Agriculture	<ul style="list-style-type: none"> Crop production, manure management; WWTP biosolids for soil amendments Agricultural waste and manure feedstocks for bioenergy Compost production in support of Healthy Soils Initiative
 Natural and Working Lands	<ul style="list-style-type: none"> Healthy forestlands provide wood and other forest products Restoring coastal and sub-tidal areas improves habitat for commercial and other fisheries Sustainable management can provide biomass for electricity Sustainable management can provide biomass for biofuels Resilient natural and working lands provide habitat for species and functions to store water, recharge groundwater, naturally purify water, and moderate flooding. Forests are also a source of compost and other soil amendments. Conservation and land protections help reduce VMT and increase stable carbon pools in soils and above-ground biomass



California's 2017 Climate Change Scoping Plan

Executive Summary

The strategy for achieving California's
2030 greenhouse gas target