

It's 10:45, Does CalEPA Know Where Your Compost Is?

[AB 1045 \(Irwin, 2015\)](#) was passed over three years ago to assess the state's progress in developing the required compost infrastructure, assisting in developing the compost industry through permit coordination, and promoting compost use. CalEPA was put in charge with California Department of Food and Agriculture to meet quarterly, develop recommendations and post them on their website no later than January 1, 2017, and update annually thereafter to 2021. It's AB 1045, and [CalEPA just posted up a 29 page report](#) that restates the obvious in the compost world without breaking down the silos.

Meanwhile, departments and boards are issuing reports from their silos with substance. The State Water Board issued a Report on October 2018 on the implementation of the General Waste Discharge Requirements for Composting Operations, Order WQ 2015-0121 where 116 compost facilities have enrolled represent about 84% of the market. If all existing potential Tier II composting operations installed engineered concrete pads, ponds, and drainage conveyance, the statewide capital investment could be as much as \$450 million. The CAPCOA discussion paper – Addressing Air Quality Permitting and Regulatory Issues for Expanding Infrastructure - notes the need to purchase VOC emission reduction credits (ERCs) to offset the point source increases in VOC emissions from new or expanded compost where there is limited availability of ERCs in some air districts. Each 60,000 tons per year facility could cost over \$15 million dollars resulting in billions of investment. The Bay Area AQMD finally issued a Concept Paper discussing the development of Rule 13-2 and Rule 13-3 for organic waste handling and compost operation to provide needed regulatory certainty that has been elusive and expensive.

The California Compost Coalition calculated CASP emissions from the mandated new facilities spread around the Districts, and when compared to the landfilling baseline conditions, composting should not be considered a new source. ERCs could costs approximately \$54 million in offset costs while reducing VOCs by almost half from baseline landfill conditions. Compost facilities should be considered an essential public service since VOCs are cut in half and should not bear the costs of ERCs, or have cap-and-trade

dollars pay for ERCs since composting is one of the most cost-effective GHG reduction strategies.

CalRecycle has posted the AB 876 compost capacity calculator and is ready to release the SB 1383 Infrastructure and Market Analysis, along with a SB 1383 regulations for local government to actually procure compost. In May 2018, the Concept Paper – California 2030 Natural and Working Lands Climate Change Implementation Plan was released and the USDA developed the COMET-Planner, but where is the irrigated cropland compost use goal of doubling down by 2025 to accommodate SB 1383 organic waste diversion?

Since AB 1045 was passed, CARB adopted the 2017 Scoping Plan on Dec. 14, 2017. This is the third update of the Scoping Plan with the California Compost Coalition was successful in 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.

The Legislature adopted three new laws regarding compost this year, using the recent wildfires and drought to make their point. AB 1981 was adopted to add CalFire to the list of agencies for implementation of AB 1045, that stalled out years ago. AB 2062 and AB 2411 were passed to add drought tolerant and climate-appropriate vegetation on Caltrans right-of-ways, as well as for erosion control on fire ravaged lands, on top of the Caltrans compost use statute from 1991 that has only garnered 40,000 tons per year of compost use, just 1% of the market.

With the new administration, its 10:45 and we need to tell them where our compost is. It's siloed in the reports and studies by the Water Board, the Air Districts, and CDFA. CARB scoped compost and organic waste out in all sectors weaving an AB 32 story that CalEPA needs to cross silos and designate compost facilities as an essential public service to make SB 1383 work to mitigate climate change. 'Damn the torpedoes, full steam ahead!', and damn the silo mentality as cross-sector solutions are here with compost.

Cal EPA

AB 1045 was passed over 3 years ago and there is still nothing on the Cal-EPA Web site as required and those quarterly meetings are not being held. [CCC keeps on providing comments](#) to no avail. AB 1045 required Cal-EPA, in coordination with the CalRecycle, SWRCB, CARB, and CDFA to develop and implement policies to aid in diverting organic waste from landfills by promoting composting and the appropriate use of that compost. AB 1045 required the Cal-EPA to promote a goal of reducing at least 5 million metric tons of GHGs per year through the development and application of compost on working lands, and would require Cal-EPA to work with the CDFA to achieve this goal. AB 1045 required Cal-EPA and CDFA to ensure proper coordination of agency regulations and goals to implement these requirements and would require Cal-EPA, CalRecycle, SWRCB, and CARB to perform. AB 1981 (Limon, 2018) added the Department of Forestry and Fire Protection. This group is to meet at least quarterly and consult with stakeholders, including the compost industry, local governments, and environmental organizations, to encourage the continued viability of the state's organic waste processing and recycling infrastructure; hold at least one public workshop annually to inform the public of actions taken to implement this section and to receive public comment; and develop recommendations for promoting organic waste processing and recycling infrastructure statewide, which shall be posted on the Cal EPS's Web site no later than January 1, 2017.

Cal Recycle

CalRecycle is ready to release the SB 1383 Infrastructure and Market Analysis, which was designed primarily to conduct research and analysis of the organics recycling and diversion infrastructure, barriers to infrastructure development, and the status of markets for products generated by organics recycling. The draft Report is ready to be reviewed in December 2018, will be finalized in early 2019, and should feed into the stalled out AB 1045 process. CalRecycle also has been receiving the Annual Reports each August whereby each County needs to provide an estimate of the amount of organic waste disposed over a 15-year period and additional facility capacity needed to process that material. CalRecycle has developed a tool to help counties and regional agencies estimate projected tonnage information. This [AB 876](#) tool provides default values using data from CalRecycle's FacIT database, the 2014 statewide waste characterization study, and population projections from the California Department of Finance. The tool provides also allows the user the flexibility to enter their own information for a more refined estimate. Local government procurement of recovered organic waste products is being proposed in the draft SB 1383 regulations. Recognizing the importance in developing compost use, CCC has been out in front supporting the inclusion in the regulation. CalRecycle has presented a fair share calculation with flexibility.

CDFA

In May 2018, the [Concept Paper – California 2030 Natural and Working Lands Climate Change Implementation Plan](#) was released. The Plan set a goal to maintain a resilient carbon sink on the natural working lands to reduce GHG emissions by at least 15-20 million metric tons (MMT) by 2030. Goals in AB 1045 for compost use are set to reduce GHGs by 5 MMT amounting to about 9 million tons of compost use. The COM-ET-Planner was developed by USDA and will now be used for modeling compost use where [CCC will continue to provide testimony and metrics](#). CCC has been on the organic highway promoting the need to double down on compost use by 2025. Compost use should not be just for grasslands, but also for irrigated croplands. The Working Lands presentation by Lawrence Berkeley National Laboratory using CALAND had modeling inputs with low and high management scenarios for an incremental 10,000 acres each year, both for croplands and grasslands, and would be adopting sustainable agriculture practices, adding a total of 260,000 acres by 2030. CCC supports the use of metrics and goal setting to get to 2030, and specifically identifying compost use on irrigated cropland can accommodate a new 7 million tons in California. CCC added that 40,000 acres per year to 80,000 acres per year should be identified as low and high management scenarios and tied it back to SB 1383.

Water Board

On August 4, 2015, the State Water Board adopted the [General Waste Discharge Requirements for Composting Operations, Order WQ 2015-0121 - DWQ \(Composting General Order\)](#). There are 116 compost facilities enrolled or are in process of enrolling under the Composting General Order, operating pursuant to individual WDRs. The Water Board estimates that 84% of the statewide composting throughput, or approximately 4.8 million tons per year, occurs at composting operations enrolled or being enrolled. The State Water Board directed staff to work with stakeholders to develop performance measures and report on implementation of the Order and issued a [Report in October 2018](#). This Report includes a discussion of performance measures. The Permitting Process time comparison to adopt individual WDRs is approximately 230 calendar days compared to an average of 169 calendar days of the enrollment process for the Composting General Order. As a mid-range estimate, the statewide initial capital investment of installing a lime/cement treated pad, pond, and drainage conveyance system at all existing potential Tier II composting operations could be approximately \$140 million. On the high end, it was estimated that if all existing potential Tier II composting operations installed engineered concrete pads, ponds, and drainage conveyance, the statewide capital investment could be as much as \$450 million.

Air Districts

The [CAPCOA](#) discussion paper – Addressing Air Quality Permitting and Regulatory Issues for Expanding Infrastructure – reflects a collaborative effort by CARB's California Air Pollution Control Officers Association (CAPCOA), the 35 air districts and CalRecycle to define the current state of composting in California, discuss the associated air quality and regulatory issues for siting new and expanded large-scale composting facilities, and find ways to overcome the challenges of building the necessary composting infrastructure. There needs to be over 100 new or expanded facilities by 2025. State-of-the-art composting facilities that can meet air and water quality protection standards can cost over \$15 million for a 60,000 ton per year facility at a cost of billions from the state of California. The directed focus of the paper is on volatile organic compound (VOC) emissions, and explores a range of permitting options. The need to purchase VOC emission reduction credits (ERCs) to offset the point source increases in VOC emissions from new or expanded compost facilities is the significant challenges in implementing SB 1383's mandate, because of the limited availability of ERCs in some air districts. One option to help facilitate the permitting of compost facilities is to redesignate these facilities as an essential public service, and in some cases this designation could result in the facility's owner/operator not being required to offset the facility's emissions. Essential Public services should be pursued in 2019.

BAAQMD

BAAQMD has concerns that more organic waste will be diverted from landfills to composting given concerns over their recent odor compliance. BAAQMD is developing [Regulation 13, Rule 2: Organic Material Handling and Rule 3: Composting Operations](#) that aims to minimize emissions, and is part of the Air District's Basin-Wide Methane Strategy (as outlined in the 2017 Clean Air Plan). Methane is a potent short-lived GHG with a global warming potential is 86 times stronger than that of carbon dioxide (CO₂), when compared on a 20-year time horizon. Rule 13-2 may include requirements for best management practices, odor impact monitoring, and enhanced odor control standards. A series of workshops were held in early October, 2018 on the development of Rule 13-2. Other rule development activity addressing climate pollutants, odors, VOCs, and toxics is planned for late 2018. A Concept Paper discussing the development of Rule 13-2 and Rule 13-3 provides a framework and a process to get involved. This control measure would reduce emissions of greenhouse gases (GHGs) and volatile organic compounds (VOCs), which may include best management practices derived from measures adopted by the South Coast Air Quality Management District and the San Joaquin Valley APCD. Additionally, the district expects reductions in secondary PM emissions caused by ammonia. Curbing methane emissions would reduce emissions of associated co-pollutants.

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, anaerobic digestion, renewable natural gas, and biochar.

CCC Members

Agromin
Atlas Disposal
Burrtec Waste Industries
Caglia Environmental
California Waste Recovery Systems
California Wood Recycling
CleanFleets.net
Clean Fleets Advocates
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
Soiland Co, Inc.
Sonoma Compost
Tracy Material Recovery Compost
Upper Valley Recycling
Vision Recycling
Zanker Road Resource Management
Z-Best Compost Facility
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Breaking Out of the Silos in 2019!

The departments have prepared new policy documents, assessments, discussions drafts, and models, all staying in their own silo. Finally, at press time, CalEPA releases their long-awaited report, [Enhancing Organic Materials Management by Improving Coordination, Increasing Incentive & Expediting Decision-Making](#), just in time for the new Administration and new 2019 legislative session. The most important concept of designating compost facilities as an 'essential public service' is not even mentioned by CalEPA, which would be the solution to complex air permitting by allowing a net-benefit of diverting organic from landfills to be fully realized.

Every year at this time, CCC staff and our Executive Committee set our policy agenda for the coming year. Over the past several years the Governor has signed into law a number of bills with mandates and goals limiting the landfilling of organic material, with some lessor efforts to help develop markets and infrastructure. Spurred by landmark climate change legislation, with organic waste recycling requirements in AB 341 (2011), AB 1826 (2014), AB 1594 (2014), and SB 1383 (2016), California has amplified its commitment to conserve resources and cut methane and other GHG emissions.

While CalRecycle continues its quest to conclude the regulatory process dictated to them under SB 1383, targeting a 75% reduction of organics disposal by 2025 with requisite, aggressive actions that many find to be daunting, we now face the challenge of meeting these 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 primary elements that will be necessary for success: implementation (of funding mechanisms to develop infrastructure),

implementation (of existing regulatory controls on feedstock streams and market development measures), and...wait for it...implementation (of monitoring/measurement/feedback systems to inform progress and make savvy adjustments). As mentioned here elsewhere, stabilizing the permitting process would be helpful.

During 2018, incrementally helpful bills were enacted: AB 1933 (Maienschein), putting into statute authorization of organics infrastructure development funding from cap-and-trade proceeds; AB 1981 (Limon) and AB 2411 (McCarty), intended to benefit markets for compost application and to better coordinate agency oversight of organics operations; all additional measures to implement.

On December 6, the CCC team will meet in Sacramento to solidify our policy direction, considering the following potential issues:

- Development of workable SB 1383 regulatory language;
- Funding for organics processing infrastructure and healthy soils from Greenhouse Gas Reduction Funds or other options, including a landfill tip fee surcharge;
- Land application enforcement – funding for compliance with CalRecycle, Department of Food and Agriculture, and State Water Resource Control Board regulations all designed to protect the environment and farmers from contamination and invasive pests, among other concerns;
- Continued enhancement and implementation of CDFA's Healthy Soils Program;
- Implementation of AB 901 reporting regulations;
- Prepare a statewide public affairs insert on compost issues; and
- Make AB 1045 really happen with permit coordination and breaking the silos.

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