Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals

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CalRecycle

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Executive Summary

Senate Bill (SB) 1383 (Lara, Chapter 395, Statutes of 2016) established ambitious but necessary short-lived climate pollutant reduction mandates. To meet those mandates, SB 1383 required CalRecycle, in consultation with the California Air Resources Board (CARB), to develop regulations to reduce the disposal of organic waste 50 percent below 2014 levels by 2020 and 75 percent by 2025. In addition, recognizing the significant levels of food insecurity in the state, the Legislature further required that CalRecycle include requirements to increase food recovery by 20 percent by 2025.

Reducing disposal of organic waste is a critical part of the Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), which was mandated by SB 1383 and outlines the State's plans to meet the SB 1383 requirements and goals, and is essential to achieving California's climate goals. Organic waste, as defined by SB 1383, includes materials primarily comprised of carbon such as food scraps, food-soiled paper, paper products, green material, landscape and pruning waste, organic textiles and carpets, and wood waste.

Organic waste in landfills accounts for 20 percent of the methane generated in California. Methane, a powerful greenhouse gas 72 to 84 times more potent than carbon dioxide, has a short-term atmospheric life, but a long-term impact on the climate. By recycling these materials into compost, fuel, and other products, California can avoid generating 4 million metric tons of CO2 equivalent (MMTC02e) annually by 2030 while also generating jobs and producing valuable resources in the state. Beyond avoiding methane generation at landfills, compost has demonstrated benefits for soil health, food security, and climate stabilization, and it is a critical tool for meeting California's goal for carbon neutrality by 2045.[1] Ensuring organic material is directed to its highest and best use, such as compost creation and use, rather than going to landfill, will help California meet many of its goals, including but not limited to those in SB 1383.

CalRecycle estimates that approximately 27 million tons of organic material will need to be redirected from landfills in 2025 to meet the SB 1383 reduction goal, including edible food and approximately 18 million tons of organic waste that will need to be processed at compost, anaerobic digestion (AD), chip-and-grind, or other organic waste processing facilities.[2] Reducing the amount of organic waste generated, producing compost, generating electricity and renewable gas through AD, recovering edible food for human consumption, and recycling of paper and cardboard are critical strategies to achieve the goal.

While organics recycling and recovery infrastructure is growing, significant expansion is necessary to provide the recycling capacity needed to meet the SB 1383 disposal reduction goals. Based on current capacity projections, the infrastructure in the state will be able to process about 10 million tons of the 18 million tons. However, with greater focus on mandatory organics recycling programs, procurement, and other policies and

investments, California can achieve the reductions in methane generation envisioned in SB 1383.

CalRecycle recognizes COVID-19 has dramatically impacted the lives of all Californians and created additional economic challenges for local governments. However, to meet climate change goals and to protect human health and the environment from negative impacts of greenhouse gas emissions, California must not delay the implementation or change the diversion or compliance goals set in SB 1383. CalRecycle is committed to providing technical assistance to entities so SB 1383 compliance is achieved.

Progress Analysis

SB 1383 requires CalRecycle to conduct an analysis of waste sector, state government, and local government progress toward meeting the 2020 and 2025 organic disposal reduction goals. Public Resources Code (PRC) §42653 requires the analysis to include:

1. The status of new organics recycling infrastructure development
2. Commitment of state funding and appropriate local service rate increases to support organics recycling infrastructure expansion
3. Progress in reducing regulatory barriers to siting organics recycling facilities
4. The timing and effectiveness of policies that will facilitate permitting of organics recycling facilities
5. The status of markets for compost, biomethane, and other products generated by facilities, including cost-effectiveness of electrical interconnection and common carrier pipeline injection

SB 1383 permits CalRecycle to include incentives or additional requirements in the regulations adopted pursuant to SB 1383. The statute additionally states that the department may, upon consultation with stakeholders, recommend to the Legislature revisions to the organic waste reduction goals.

Findings

In consultation with CARB, CalRecycle staff identified and analyzed data and information to gauge the progress that has been made toward achieving the 2020 and 2025 goals. This data included a survey of organics recycling and processing infrastructure, waste characterization data, markets for recovered organic waste products, funding sources, local rate structures and organic waste recycling policies, and edible food recovery programs.

The analysis indicates that:

1. Organics recycling and recovery infrastructure is growing, but still needs significant expansion to provide the recycling capacity necessary to meet the SB 1383 disposal and methane reduction goals.

2. Mandatory collection programs are critical for organics recycling and recovery infrastructure development and to help attract private investments.
3. The permitting and regulatory requirements in place are necessary to protect human health and the environment and to ease community concerns regarding organics recycling facilities.
4. The procurement requirements in SB 1383 regulations are necessary to develop markets for compost and biomethane and are essential components of achieving the overall methane reduction goals.

CalRecycle recommends maintaining the disposal reduction targets set forth in SB 1383. The SB 1383 regulations build on the state's previous organic waste reduction targets and create a compliance road map. The state has funded $140 million in grants and loans for organic waste infrastructure, and adoption of the regulations will provide regulatory certainty for continued investment from the private sector. In addition, CalRecycle will release a customizable model franchise agreement and model enforcement ordinance for jurisdictions. The SB 1383 procurement requirements will also increase markets for recovered organic waste products by providing certainty for demand of the finished product.

Successfully meeting the organics reduction goals of SB 1383 by the dates set in statute is a critical component of the statewide strategy to avoid the most extreme climate consequences of global climate change. Sustainably managing organic waste will strengthen California's economy and provide national and global leadership on the fight against climate change.

Introduction

The implementation of the state's organic waste reduction regulations adopted under SB 1383 is a critical step to protect Californians, our environment, and our economy from the impacts of climate change. Organic waste in landfills accounts for 20 percent of the methane generated in California. Methane, a super-pollutant 72 to 84 times more potent than carbon dioxide, has a short-term atmospheric life, but a long-term impact on the climate. Targeting reductions in methane emissions is an effective mechanism for combating climate change and moving toward a more sustainable future.[3]

Californians have seen what a changing climate means for our state:

- Record heat
- Devastating wildfires
- Cyclical droughts
- Rising seas
- Coastal erosion
- Extreme weather events
- Unhealthy air

Action Now Could Mitigate Devastating Climate Impacts

California's latest Climate Change Assessment projects even more intense impacts by the year 2100, especially if we don't act now.[4] The most likely and devastating impacts reported include:

- Average daily maximum temperature could increase by 5.6 to 8.8 degrees Fahrenheit
- 77 percent more of the state could experience devastating wildfires that endanger lives and structures
- 31 to 67 percent of Southern California's beaches could completely erode because of sea level rise
- Heat-related deaths could triple
- Snowpack, which is California's largest water reserve, could decline by 75 percent by 2050

California needs to take immediate action to turn our trajectory from this probable future.

SB 1383 Reduces Methane and Extends Landfill Life

California needs to reduce its organic waste disposal as part of its strategy to lower statewide greenhouse gas (GHG) emissions to 40 percent below 1990 levels by 2030, a goal outlined in SB 32 (Pavley, Chapter 249, Statutes of 2016). Implementation of SB 1383 is one of the most essential actions the state will take to reduce the disposal of

organics, which make up two-thirds of the waste stream. By significantly reducing the amount of organic waste sent to landfills, we can lower one of the top sources of methane contributing to climate change, maximize landfill life spans, and transform organic waste into value-added resources like compost, biofuel, and electricity. Doing so will contribute to our state's economic health by creating jobs and strengthening the circular recycling economy within our state.

SB 1383 Directs Edible Food to California's Food-Insecure

SB 1383 also established a goal to recover at least 20 percent of the edible food that is destined for landfills and redirecting it to needy Californians by 2025. Achieving this goal requires the development of robust edible food recovery programs that will combat hunger in communities throughout the state. More than 5.5 million tons of food waste are disposed in California landfills each year, which is especially tragic when there are currently 1 in 5 children who go hungry every night.[5]

COVID-19 Related Impacts

More Residential Food Waste

COVID-19, and the resulting economic downturn expected, will likely impact disposal, but it is difficult to estimate by how much and for how long. During the Great Recession from 2007 to 2009, landfill disposal dropped by 21 percent, illustrating the correlation between disposal and economic activity.[6] However, as the generation of food waste temporarily moves from the commercial sector to the residential sector—due to restaurants shifting from dine-in to take-out and customers buying groceries in bulk—the volume of food waste, and associated packaging waste, may increase.[7,8] A survey of 195 California jurisdictions found that 32 percent of the respondents offer food waste collection to single-family residences and 38 percent offer it to multi-family residences, compared to 59 percent that offer food waste collection to commercial businesses.[9]

Cardboard Packaging Increase from Online Ordering

Old corrugated cardboard (OCC) disposal has increased dramatically between 2014 and 2018, possibly due to the combination of higher e-commerce sales and lower commodity prices (See Finding 5-3). The amount of packaging disposed will likely increase temporarily due to increased demand for online sales during Shelter in Place orders. For instance, in March 2020, Amazon announced it would hire 100,000 new employees to meet a surge in online sales.[10] However, if demand for online purchases continues to rise, California could see an even greater rise in the amount of packaging generated and ultimately disposed of in landfills.

Process for Determining Progress

SB 1383 requires CalRecycle to conduct an analysis of waste sector, state government, and local government progress toward meeting the 2020 and 2025 organic disposal reduction goals. In consultation with CARB, CalRecycle staff identified and analyzed the following data and information to gauge the progress that has been made toward achieving those goals:

- A survey of the organics recycling and processing infrastructure, including:
  - The number of facilities, feedstock sources and types, products, and markets for compost, mulch, digestate, biogas, and other products
  - Technology approaches to managing potential environmental impacts to air and water
  - Barriers to facility expansion, including regulatory, statutory, local land use, market, and other economic barriers
- A comparison of data from the 2014 Statewide Waste Characterization Study with data from the 2018 Waste Characterization Study
- An analysis of the infrastructure and markets for other organic waste handling processes (e.g., biomass conversion, animal feed production, and alternative daily cover)
- State agency funding and incentives to support organics recycling infrastructure development
- Other funding sources, including local incentives and private investments that are available to fund organics recycling infrastructure development
- Local rate structures and other policies that encourage organics recycling infrastructure development
- Edible food recovery and food waste prevention programs, including an estimate of edible food that is disposed, recycled, or recovered for human consumption.

Analysis and Findings

Analysis Item 1: Status of New Organics Recycling Infrastructure Development

Finding 1-1: Achieving the SB 1383 Disposal Reduction Goals Requires Expansion of Organics Recycling and Recovery Infrastructure

California's organics recycling and recovery infrastructure is growing, but it still needs significant expansion to provide the recycling capacity necessary to meet the SB 1383 disposal reduction goals. Available capacity in 2025 for composting, AD, and chipping and grinding of previously disposed material is estimated in Table 1. CalRecycle estimates that 27 million tons will have to be redirected from landfills in 2025, including edible food and approximately 18 million tons of organic waste that will need to be processed at compost, AD, or chip-and-grind facilities. However, based on current capacity projections, the state will only be able to process about 10 million tons of this material.

Table 1. Estimated Composting, Anaerobic Digestion, and Chip-and-Grind Capacity in 2025 (Million Tons)

Technology	Estimated Anticipated Capacity, 2025*	Estimated Needed Capacity, 2025	Difference
Compost	5.3	9.6	(4.3)
Anaerobic Digestion	1.0	2.7	(1.7)
Co-Digestion†	0.21	2.4	(2.2)
Chipping and Grinding	3.5	3.3	0.2
Total	10.0	18.0	(8.0)

* Estimated anticipated capacity to divert *additional* tons from landfills to compost, anaerobic digestion, and chip and grind.
† The State Water Resources Control Board estimates that WWTPs have digester capacity to co-digest at least 2.4 million tons of food waste. For more information, see the section on *Co-Digestion at Waste Water Treatment Plants* below.

Composting

Composting is the process of controlled aerobic decomposition of organic material such as leaves, twigs, grass clippings, and food scraps. Finished compost is a soil amendment with a wide variety of nutrients, micronutrients, and organic matter, all of which benefit the soil. CalRecycle estimates that the state composted about 6 million tons of organic waste in 2017. We will need to compost an additional 9.6 million tons in 2025 to meet the disposal reduction goal required by SB 1383. Based on current capacity projections, the state will only be able to process about 5.3 million tons of this material.

Existing Compost Capacity

Currently, there are approximately 180 compost facilities in California. Many of these facilities are small, or operate under a tier that limits the type of feedstock they can accept (e.g. limited to agricultural materials). Of these 180 facilities, approximately 80 actively receive material from the municipal solid waste stream (e.g. commercial and residential collection services). There are currently 35 compost facilities that accept and recycle food.

CalRecycle conducted research and determined that California compost facilities composted approximately 6 million tons of solid waste in 2017. These composting facilities have permitted capacity to compost an additional 4 million tons of material. While available annual permitted capacity is significant, other factors, including operational capacity, air and water permitting, access to feedstock, and hauler competition, may limit the feasibility of using that capacity.[11]

Expanding Compost Capacity

Since 2018, new and expanded compost facilities brought an additional 200,000 tons of annual capacity into operation statewide. Fourteen compost facilities are anticipated to begin operations for additional capacity of 1 million tons of organic waste recycling within the next few years. CalRecycle has awarded grants to 12 of these facilities. In March 2020, CalRecycle announced grant awards to an additional three compost facilities that are projected to add another 100,000 tons of capacity per year.

Full use of existing capacity, along with the projected expanded capacity, would allow California to compost an additional 5 million tons of organic waste in the next few years.

Anaerobic Digestion

Stand-Alone AD Facilities

AD is a biological process in which microorganisms break down biodegradable material in the absence of oxygen. Materials that are suitable for AD include food waste, green

waste, and manure. AD results in the generation of a solid material called digestate, which can be composted; and biogas, which consists mostly of methane and carbon dioxide. Methane generated from AD, referred to as biomethane, is used to produce electricity, heat, and low carbon transportation fuels, such as compressed renewable natural gas (RNG).

CalRecycle estimates that approximately 350,000 tons of solid waste was recycled at stand-alone AD facilities in 2017. Annual AD capacity in 2017 was approximately 400,000 tons‡. Since 2017, two AD facilities began operations with an estimated combined annual capacity of 90,000 tons. Eight AD facilities are anticipated to begin operations with new or expanded capacity within the next few years, including three that received grants from CalRecycle. These facilities will bring an additional 850,000 tons of annual recycling capacity into operation within the next few years. Finally, in March 2020, CalRecycle announced grant awards to an additional three AD projects expected to add 300,000 tons of capacity per year.

In the next few years, full utilization of existing annual permitted capacity, and use of projected expanded capacity coming online, will provide the ability to digest approximately 1 million tons of organic waste currently disposed of in landfills.

Co-Digestion at Wastewater Treatment Plants

Approximately 26,000 tons of food waste were diverted from landfills and co-digested at three wastewater treatment plants (WWTPs) in 2017. However, if fully utilized, these three facilities could manage an additional 74,000 tons of material. Six WWTPS are anticipated to start co-digesting food waste and will bring an additional 140,000 tons of capacity online by 2025.

A forthcoming State Water Resources Control Board (State Water Board) report estimates that California WWTPs have enough existing excess digester capacity to accommodate between 2.4 and 8.6 million tons of municipal food waste. This range reflects different assumptions regarding digester operating conditions, including system redundancy, varying retention times, and loading rates. Maximizing the use of excess capacity would require expanding the capacities of other key wastewater treatment components, such as biosolids dewatering, and biogas utilization systems.[12]

Using this existing infrastructure could reduce the number of new AD facilities that need to be built, and potentially significantly lower the capital investment needed to add new capacity. CalRecycle estimates that the state needs to divert approximately 3.8 million tons of food waste to AD by 2025. Given that the forthcoming State Water Boards report estimates that statewide WWTPs have digester capacity for at least 2.4 million tons of food waste, local jurisdictions should consider working with these facilities to determine the upgrades necessary to co-digest food waste. Jurisdictions should also consult with

‡ Includes estimates for several facilities that did not respond to the 2018 survey.

WWTPs to determine the most feasible way to collect and deliver food waste to the facility. Many sewer districts do not want food waste conveyed through the sewer because it can increase corrosion and methane generation within the sewer lines.

Edible Food Recovery

The CalRecycle 2018 Waste Characterization Study estimated that approximately 1.1 million tons of potentially donatable food is currently disposed in landfills.[13] SB 1383 set a goal to divert 20 percent of this edible food and instead recover it for human consumption by 2025. The study results suggest that at least 225,000 tons of edible food would need to be recovered in 2018 to meet the SB 1383 metric. The study provides the first indication of the minimum level of food recovery necessary to achieve the SB 1383 food recovery target. Future waste characterization studies, data reported under the SB 1383 regulations, and additional analyses will be necessary to determine how much food was edible and could have been consumed at the time of disposal. Achieving the 2025 goal may require more aggressive food recovery efforts, and CalRecycle will assess if additional regulatory tools are needed.

Organizations that received food recovery grants from CalRecycle provided information that report the capacity to rescue at least 80,000 tons of edible food per year statewide. Additional work is needed to determine the existing and needed capacity for edible recovery to achieve the reduction goals established by SB 1383. CalRecycle will also release a model edible food agreement that will reflect the requirements of SB 1383 to increase food recovery efforts.

Additionally, as a portion of the edible food recovery education and outreach requirements, local jurisdictions are required to provide commercial edible food generators with information about actions that commercial edible food generators can take to prevent the creation of food waste.

Chipping and Grinding

Chipped and ground organic material has not gone through the decomposition process of composting, and therefore it is not a soil amendment, like compost. It may be used as a protective layer over the soil to control weeds, retain moisture, prevent erosion, and buffer temperature extremes.

CalRecycle estimates that an additional 3.5 million tons of organic materials, including green waste, lumber, and branches and stumps, will need to be processed at chip-and-grind facilities by 2025 to meet the SB 1383 disposal reduction goal. However, CalRecycle does not anticipate a significant expansion in chip-and-grind capacity will be needed. This is because chip-and-grind operations are not necessarily anchored to permanent infrastructure, and mobile chip-and-grind operations can fluctuate in capacity by relocating their operations to meet current demand in different regions.

Chipped and ground wood and green waste meet the definition of recovery in SB 1383 regulations when used for the following:

- Mulch
- Biomass conversion
- Land application of uncomposted organics
- A soil amendment for erosion control, revegetation, slope stabilization, or landscaping at a landfill

Biomass Conversion

Biomass conversion uses controlled combustion, or noncombustion thermal technologies, to convert organic waste materials into heat, fuels, or electricity. Organic waste used for biomass conversion includes green waste, lumber, and branches and stumps. Biomass conversion of urban wood and green materials has decreased in recent years. At one time, California had more than 60 biomass-to-energy plants. These plants processed woody materials from sawmills, agricultural residues, and urban sources. Many chip-and-grind and compost facilities sent the woody fraction of their feedstocks (including composting overs) to biomass plants to diversify markets and to generate revenue. Historically, biomass markets were a critical outlet for chip-and-grind operations and an important outlet for composting facilities. In 2010, compost facilities sent almost 600,000 tons of material to biomass (about 10 percent of all products produced by compost facilities). In 2017, this number was down to 170,000 tons, or about 3 percent. The 2018 Waste Characterization Study indicates that approximately 5 million tons of material is disposed of in landfills each year that could be sent to biomass conversion.[14]

Biomass Cost Exceeds Sell Price of Renewable Power

From 2000 to 2017, the amount of urban wood waste consumed by biomass facilities decreased by 1 million tons, and the downward trend continued in 2018, with biomass facilities accepting just over 1 million tons of urban woody waste.[15,16] This decline is due to a combination of factors, though the most important is that electricity from other renewable sources (e.g., solar, wind) is cheaper.

SB 1383 May Increase Demand for Biomass Conversion

In 2016, the legislature passed SB 859 (Chapter 368, Statues of 2016) to facilitate biomass plants processing dead and dying trees in response to the tree mortality crisis in California. However, while SB 859 increased demand for forest sources of biomass, it did not increase demand for urban woody wastes. The procurement requirements in the SB 1383 regulations (discussed in Analysis Item 4 below) may increase demand for urban sources of biomass at biomass conversion facilities that are adjacent to urban areas and have excess capacity.

Notably, combustion of biomass results in criteria pollutant emissions, which negatively affect human health. That is why any biomass conversion should be conducted consistent with permitting and at facilities that do not increase criteria pollutant emissions, particularly in areas that are out of attainment for criteria pollutant emissions, and especially in disadvantaged communities.

Animal Feed

Using organic waste for animal feed is another way to recycle it and further reduce the amount sent to landfills. To analyze animal feed opportunities, the California Department of Food and Agriculture (CDFA) conducted a survey of commercial feed licensees regulated by CDFA's Commercial Feed Regulatory Program. Sixty-four surveys were returned with an average tonnage per year reported from all 64 firms totaling 12.5 million tons of livestock feed in 2019. The survey represents more than half of the 22.5 million tons of livestock feed reported to have been sold within California. The survey offers valuable insight into the types of byproducts, coproducts, and waste that could be diverted from landfills and then repurposed as livestock feed in a typical year of feed commerce within California.

Surveyed producers report that approximately 37.5 percent of their feedstock is grain or other products specifically grown or manufactured for animal feed, while another 62.5 percent of their feedstock is categorized as byproducts or coproducts. Much of the material in the byproduct/coproduct category is organic material that has not traditionally been landfilled, is unlikely to become solid waste, and therefore would not be counted as a reduction in disposal. This includes spent brewers' grains, vegetable culls from packing operations, and almond hulls. These materials are typically never commingled with solid waste and can be sold as a product to animal feed operations. In the absence of animal feed markets, the material can be recycled by being tilled into the soil (land application). A substantial amount of the animal feedstock used by surveyed operators (4.7 million tons) is grown or manufactured for animal feed, often out of state. The animal feed industry could potentially replace some of that material with municipal organic waste that is currently disposed.

Quality Standards to Turn Food Waste into Animal Feed

Processing organic waste from the commercial or residential solid waste stream for animal feed may require investments in equipment capable of separating feed-quality organic waste from contaminants in the collection stream. Such processing should occur at a location with a solid waste facility permit authorizing the facility to separate and process solid waste. However, if such processing investments enable a solid waste facility to produce feed-quality material from organic waste, there is potentially a significant amount of capacity and demand for the final product. In order to protect and preserve public health and safety, animal feed is strictly regulated by CDFA and must meet quality standards, such as pathogen destruction, that are necessarily higher than quality standards for material recycled and used as a soil amendment. At the time of

this analysis, there is only one operation in the state licensed by CDFA to process commercial solid waste into animal feed. If this market expanded, the amount of additional, new end-use organics recycling (e.g., compost AD facilities) capacity could be mitigated. Additional market conditions such as location and transportation distances, which impact all facilities, would also affect this method of organic waste recycling.

CalRecycle will continue to work with stakeholders and CDFA to determine the types and quantities of organic waste material that could potentially be diverted from landfills to animal feed production.

Paper Processing and Recycling

Background

Unlike other organics that are processed locally due to transportation costs associated with putrescible materials, California paper has historically been exported to other countries to be processed into recycled paper products. In 2018, California exported 8.5 million tons of paper, of which 67 percent was old corrugated cardboard (OCC), 32 percent was mixed paper, and 1 percent was high grade paper.[17] CalRecycle assumes that 70 percent of the material exported from California ports was generated in the state. Total paper exports have been generally decreasing since 2011. With global markets demanding paper bales with low contamination, exports of mixed paper material are expected to continue declining.[18] The decline in newspaper generation and the explosion of e-commerce has also significantly changed the makeup and the nature of paper recycling.

While the total generation of paper in California is unknown, paper is a significant component of our disposal stream as well as our recyclable exports. Paper is the second-largest class of materials sent to disposal in 2018, with an estimated 6.5 million tons landfilled.[19] Though more paper was disposed of in 2018 than in 2014, the proportion of paper in the overall waste stream has decreased from 17.4 percent to 16.6 percent.

For this analysis, CalRecycle focuses on the capacity to produce “bales of paper” used as feedstock for manufacturing. Due to California’s prominent curbside collection programs, there is a robust infrastructure for producing paper bales.

Existing Paper Processing Capacity

The move toward single-stream recycling (all recyclables in one bin) in California over the last 20 years has necessitated a parallel growth in sorting and processing facilities. Materials recovery facilities (MRFs) accept material that is aggregated from residential and commercial curbside recycling bins and moved through a series of positive or negative sorts, where machines and/or workers remove and segregate the recyclable

from the non-recyclable material. Though single-stream recycling collection is the most common collection method in California, some jurisdictions have mixed-waste collection, in which customers place solid waste and recyclables in the same bin. A small number have dual-stream recycling, where paper is placed in separate bins apart from other recyclables to reduce contamination.

It is difficult to estimate the capacity for producing paper bales for many reasons. California has 319 material recovery and mixed-waste processing facilities.[20] The capacity of any one facility is generally determined by its size and the operator's ability to move material quickly through and off the property. While facilities have a permitted maximum capacity, many do not operate at this level. Facilities also have some flexibility to sort and segregate different materials based on current markets and demand from brokers, so the production of paper bales will not be consistent from month to month or year to year. In addition, operational capacity is generally determined by the availability of workers, the speed of the sorting lines, and the amount of available space for storing bales of sorted material.

Other factors that influence the production of paper bales are the availability of non-contaminated material and seasonal demand of paper. Globally, contamination standards for paper bales are becoming more stringent. In response, facilities are slowing down their sorting lines to remove more potential contaminants that could result in more residual paper being sent to disposal. In winter, paper contamination increases because more paper is wet and cannot be recovered. Seasonal trends in e-commerce also impact the amount of paper coming into sorting facilities.

Expanding Paper Processing Capacity

Expanding capacity to produce paper bales would result from new processing facilities coming online or retrofits of existing facilities. CalRecycle is not aware of any large-scale projects for new facilities processing paper from curbside or specialized collection programs. There has been increased discussion about secondary processing facilities (often called secondary MRFs) that re-sort residuals sent from MRFs. A recent report published by Titus Services, a company that runs a pilot facility in Los Angeles, states that its facility recovers 50 percent of the residual stream. Of this, 30 percent is fiber. After Titus' Pacific Northwest Secondary Sorting Demonstration Project, the company estimated that it could recover 23,000 tons of mixed paper and 2,800 tons of cartons from Oregon and Washington.[21]

Retrofits of existing facilities to expand paper capacity include increasing a facility's physical footprint to build more storage and holding space or technological upgrades. Common improvements include adding optical sorters, specialized screens, and robotics. Many of the upgrades made in the last two years have been in response to international demand for reduced contamination in paper bales. A Recology facility in San Francisco completed a $14 million upgrade in 2018 that included new optical

sorters and equipment for sorting smaller materials that will help the company meet new quality standards.[22]

Because processing facilities have some flexibility in production, there is the opportunity for facilities to increase the amount of paper bales produced. This is bounded by the quality and amount of the incoming material as well as the value of the bales on the domestic and international markets. When scrap paper value is high, processors are incentivized to make more of these bales.

Expanding Markets for Bales

The capacity to use paper bales is growing in North America. Seventeen planned projects being built through 2022 will add about 3.5 million tons of capacity for OCC and mixed paper recycling. This includes new paper mills and changes to existing mills or machines brought out of retirement or converted to make different products. Most of the increasing capacity is for OCC, but mixed paper (specifically residential) will be accepted by at least six of the facilities. Two others will accept beverage cartons, aseptic packages, and commercial food-contaminated paper.[23] Two of the 17 expansions are in Mexico. Further growth in the export of paper to Mexican facilities may be forthcoming, as Los Angeles Sanitation has publicly stated that it is pursuing trade agreements with mills in Baja California.[24]

Finding 1-2: Collection Programs Are Critical for Infrastructure Development

The SB 1383 Infrastructure and Market Analysis report found the following:

1. Developing mandatory organics collection programs is key to growing the state's organics processing infrastructure.
2. Facilities only expand when new collection programs are implemented or existing programs broaden.
3. Seventy-eight percent of respondents cited new processing contracts as a reason to enlarge their facility.[25]

According to a CalRecycle survey of compost operators, economic barriers to facility expansion include challenges acquiring feedstocks (18 percent). Respondents also reported that competition from lower-priced disposal alternatives is a barrier to expansion, including direct land application (16 percent) and alternative daily cover (ADC) (12 percent)[§]. The report states that dedicated feedstock contracts are necessary to overcome the cost and risk faced by compost facility developers when creating new processing capacity.[26]

[§] Note that organic material used for ADC is not considered a reduction in landfill disposal under the SB 1383 regulations.

Likewise, AD operators have noted the importance of obtaining long-term feedstock agreements. Several operators have had to scale back or delay expansion plans, delay start of operations, or shut down completely due to lack of feedstock agreements. For AD facilities, consistent biogas production—a primary source of revenue—depends on consistent sources of quality feedstock.[27]

The requirement in the SB 1383 regulations that jurisdictions implement mandatory organics collection programs for all organic waste generators is designed to facilitate organics processing infrastructure expansion and development. Collection of source-separated organic waste, and feedstock agreements between haulers and organic waste processing facilities, will help facilities justify the expenditures necessary to expand and develop additional capacity.

Analysis Item 2: Commitment of State Funding and Adjustment of Local Rate Structures for Solid Waste and Recycling Services to Support Infrastructure Expansion

Finding 2-1: The State Has Awarded Nearly $140 Million in Grants to Organics Recycling and Recovery Projects

The state has awarded nearly $140 million in grants to organics recycling and recovery projects, in the form of grants and loans to encourage infrastructure development. These investments are largely funded through California Climate Investments using Cap-and-Trade auction proceeds.

Since 2014, CalRecycle has received 185 applications seeking $338 million in grant funding. To date, CalRecycle has awarded $72.5 million in grants to 16 compost and nine AD infrastructure projects, expanding total annual capacity to recycle organic material by about 1.5 million tons. Nearly $20 million has been awarded to 64 food prevention and rescue grants. The 2020 Annual Report to the Legislature on California Climate Investments reports CalRecycle's Waste Diversion programs are among the most cost-effective mechanisms to reduce greenhouse gas generation.[28]

CalRecycle is one of several state agencies investing in organics processing infrastructure. The California Energy Commission (CEC) has awarded $48 million in grants to AD and AD-related projects. The California Clean Water State Revolving Fund (CWSRF) has funded a handful of co-digestion projects and should be explored as a potential source of funding for future co-digestion projects.

The California State Treasurer's Office provides additional incentives. The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) provides sales and use tax exclusions to projects that create jobs and reduce greenhouse gas emissions, and the California Pollution Control Financing Authority (CPCFA) provides tax-exempt private activity bonds that facilitate low-cost financing to qualified waste and recycling projects. Both CAEATFA and CPCFA are administered by the State Treasurer's Office.

As the state looks toward economic recovery after the fallout of COVID-19, continued and expanded investment in developing organics recycling collection and infrastructure provides unique opportunities to create reliable, in-state jobs while also achieving our climate goals.

The federal government offers funding programs for green infrastructure that could be utilized by local jurisdictions and facility operators. In June 2020, the U.S. House of Representatives released H.R. 2, the Moving Forward Act, which, if passed, would include tax incentives that could be utilized for biogas projects.[29,30] In addition, CalRecycle has 13 shovel-ready organics projects if the federal stimulus money is made available and directed toward organics infrastructure development. These compost and anaerobic digestion grant projects passed CalRecycle's Organics Grant Program scoring criteria; however, there was not enough funding available for the projects.

Achieving the goals of SB 1383 will require continued and expanded investments from the public sector, including federal, state, and local government funding, and the private sector. Funding should continue to include incentive programs and market development, in addition to grants and loans.

At the state level, expanded funding could be generated through increases to the landfill tip fee. The landfill tip fee is the Integrated Waste Management Act's (IWMA's) principal funding source and supports CalRecycle programs and oversight cost. It was derived from a per ton disposal fee that was capped at $1.40 in 1995 and remains one of the lowest fees in comparison to other states and developed countries. If the tip fee were modernized and adjusted for inflation, it could provide a sustainable funding stream at the state level to support organic waste recycling and disincentivize disposal.

Finding 2-2: Expansion of Local Programs for Residential and Commercial Collection, Recycling, and Recovery of Organic Waste Will Be Necessary

Building on statewide efforts to implement AB 341's Mandatory Commercial Recycling Law (Chesbro, Chapter 476, Statutes of 2011) and AB 1826's Mandatory Commercial Organics Recycling Law (Chesbro, Chapter 727, Statutes of 2014), achieving the goals of SB 1383 will require increased participation in residential and commercial organics collection programs. To meet the SB 1383 goals, the regulations mandate that all organic waste generators—residents and businesses—must receive and actively participate in organic material collection programs. While most of the state's jurisdictions already require mandatory residential organics collection service, that is not the case with respect to commercial collection services. Jurisdictions that are implementing mandatory commercial organics recycling programs are better positioned to meet the requirements of the regulations. Currently, there are more than 200 jurisdictions that are expanding their commercial collection programs to provide for mandatory commercial organics recycling collection programs. These jurisdictions are addressing rate changes, education, and monitoring activities necessary to improve overall participation in commercial collection programs. By implementing mandatory collection programs, these jurisdictions will likely be able to meet regulatory requirements before January 1, 2022.

Jurisdictions that have not made progress in planning and implementing organics recycling programs under previous statutes will require more significant actions to implement and fund programs to meet the requirements of SB 1383. Importantly, SB 1383 regulations allow implementation flexibility to help these communities achieve compliance. For example, jurisdictions can choose to meet the collection services requirement by having residents and businesses source-separate their material or by having a more robust processing facility that separates the material.

While some jurisdictions may need to expand their services to comply with SB 1383, there will be economic benefits to local jurisdictions and ratepayers through economic development and improved environmental quality. Direct economic benefits include the creation of more than 12,000 permanent recycling and manufacturing jobs and will provide job opportunities to disadvantaged and low-income communities.[31] There will be increased revenues from sales of products including recycled content paper, cardboard, compost, and renewable gas. This will be especially important for economic recovery after the COVID-19 pandemic ends. Environmental benefits include improved air quality and therefore decreased health impacts—such as premature deaths and hospital visits—especially for sensitive groups such as children, the elderly, and people with chronic heart or lung disease. This will result in hundreds of millions of dollars saved in health care costs throughout the state.

Analysis Item 3: Progress in Reducing Regulatory Barriers to Siting Organics Recycling Facilities and Timing and Effectiveness of Policies to Facilitate Permitting of Organics Recycling Facilities

Significant expansion in infrastructure is needed to provide the recycling capacity necessary to meet the SB 1383 disposal reduction goals. To ease community concerns on new or expanded solid waste facilities, the SB 1383 regulations updated Title 27 Regulation, to require a facility operator to hold a public meeting with any affected disadvantaged communities within 180 days of submittal of a permit application package. The enforcement agency also must hold informational meetings for new and revised full solid waste facilities permit applications; the meetings must be located close to the facility and close to affected disadvantaged communities.

Finding 3-1: Regulatory, Permitting, and Land-Use Challenges and Policies to Facilitate Permitting of Compost Facilities

Composters seeking to expand their facilities face a number of challenges. Compost facilities are ideally located between areas where organic waste is generated—which is often in dense urban centers—and the primary market for finished compost, which is agriculture. Appropriate organic materials management includes complying with state and local requirements and regulations that are designed to protect air quality, water quality, and public health. These requirements are also necessary to ease community concerns and address local land-use issues.

To support the goals and requirements of California legislation—including AB 1045 (Irwin, Chapter 596, Statutes of 2015), AB 341, and SB 1383—CalEPA, CalRecycle, the State and Regional Water Boards, CARB, air districts, and CDFA have been collaborating to effectively develop organic waste processing and recycling infrastructure and promote product uses to increase the diversion of organic wastes from landfills.

CalEPA has recommended these agencies continue to address technical barriers to constructing and permitting compost facilities statewide.[32] Since statewide laws and planning requirements set minimum pollution control standards that apply to organic materials management infrastructure, and local and regional authorities establish the rules and enforce the laws, technical and complex processes are required to develop protective solutions.

Air Quality Requirements

State agencies, air districts, the composting industry, and stakeholders have acknowledged the challenges inherent in siting and permitting new and expanded organics recycling facilities while protecting air quality. In response to these challenges, CalRecycle and CARB convened a Compost Working Group, which also includes many of the air districts and the California Air Pollution Control Officers Association (CAPCOA). The Compost Working Group collaboratively developed a discussion paper that identified specific action items to assist composting project planners with the air permitting process.[33] To support this effort, CalRecycle is in the process of implementing a research contract that will assist both compost facility operators and regional air district staff on how composting operations can be managed to reduce air pollutants. CalRecycle recognizes the importance of working with all agencies and stakeholders involved to achieve statewide goals that reduce greenhouse gas emissions while also protecting the environment, public health, and communities.

While diverting organic waste from landfills reduces methane, the composting process and the equipment used at compost facilities can, at the local level, generate criteria air pollutants such as volatile organic compounds (VOCs), nitrogen oxides (NOx), and particulate matter. Equipment used at compost facilities can generate NOx and fine particulates. Based on federal and state ambient air quality standards and attainment status, local air districts may require best management practices (BMPs) or implementation of Best Available Control Technologies (BACT) to reduce emissions. BMPs to reduce pile emissions include feedstock holding-time limits, maintaining adequate moisture and oxygen content, and controlling dust. Emissions control technologies typically include forced aeration with full enclosure, fabric covers, or biofiltration. BMPs to reduce emissions from equipment used at compost facilities include replacing old diesel engines with newer ones or converting diesel engines to electric-powered equipment. Converting a facility to forced aeration or bringing three-phase electric power to a relatively remote composting site are generally multi-million-dollar projects.

Two Types of Commercial Composting

There are two basic types of commercial composting methods: open windrows and aerated static piles (ASP). According to a 2018 survey, about 71 percent of compost facilities in California use an open-windrow composting system.[34] Research has shown that ASP composting systems can lower emissions compared to open-windrow systems.[35]

ASP systems use electric blowers to either push or pull air through the compost pile using various fabric covers, finished compost caps, or biofilters that can significantly reduce VOCs and ammonia during the composting process. ASP systems with compost caps are also effective at reducing VOCs and ammonia, but need to be re-applied with

every new pile. ASP systems with a fabric cover are increasingly popular. ASP systems with adequate air flows and a minimum of 80 percent reduction in VOC emissions are mandatory for new facilities in some air districts and will soon be required in others. ASP systems are fast becoming the industry standard. About 25 percent of the compost facilities surveyed in 2018 used an ASP composting system.[36] All new composting sites funded by CalRecycle greenhouse gas grants use a variation of ASP.

Water Quality Requirements

CalRecycle worked closely with the State Water Boards, Regional Water Boards, and various stakeholders to develop the State Water Boards' General Order for Composting Operations (General Order). Compost operations in California must comply with Waste Discharge Requirements (WDRs) to protect water from leachate produced during the composting process. While some compost facilities operate under individual WDRs, most are enrolled in the General Order. The requirements to protect water quality include installing engineered concrete pads, ponds, and drainage conveyance for facilities that process more than 25,000 cubic yards. The General Order assists the permit processing by providing standardized requirements that are both predictive and protective of the environment and public health.

Finding 3-2: AD Facilities Experience Fewer Regulatory, Permitting, and Land-Use Challenges than Composting Facilities

While AD facilities must comply with all federal, state, and local environmental regulations, operators have reported very few challenges with permitting or meeting air or water quality requirements when siting facilities. However, several proposed AD projects have either been delayed or have not moved forward because of concerns from the public, including proposed projects in Anaheim, Glendale, and Glenn County. Local land-use concerns about AD projects include increased traffic, odors, fire or explosion from a methane gas leak, and potential groundwater pollution from runoff.

Analysis Item 4: Status of Markets for Compost, Biomethane, and Other Products Generated by Facilities, Including Cost-Effectiveness of Electrical Interconnection and Common Carrier Pipeline Injection

To create markets for products generated by organic waste recycling facilities, the SB 1383 regulations will require local governments by January 1, 2022, to purchase a

percentage of diverted organic waste in the form of recovered organic waste products. CalRecycle will notify each jurisdiction annually of its recovered organic waste product procurement target based on a formula described in the regulations. Jurisdictions may procure the following recovered organic waste products to comply with the requirements:

- Compost
- Mulch that meets the land application requirements in SB 1383 regulations
- Renewable gas used for fuel for transportation, electricity, or heating applications
- Electricity generated from biomass conversion of municipal-solid-waste-derived organic waste

Finding 4-1: While Markets and Demand for Compost Are Currently Strong, SB 1383 Will Substantially Increase Production, thus Driving a Need for Expanded Demand

Approximately 1.8 million tons of compost were produced by permitted compost facilities in 2017.[37] While markets and demand for compost are currently strong, SB 1383 will substantially increase compost production. With successful implementation of SB 1383, CalRecycle estimates that an additional 5.5 million tons will be produced by 2025. As described further in Finding 4-4, increased end-use markets will be required to avoid disposal of compostable material.

Compost facilities produce a variety of products, including compost, mulch, and fuel for biomass facilities, as well as "overs" that are often sent to landfills for use as ADC[**] and other beneficial uses including erosion control and slope stabilization. Overs are produced at the end of the composting process when the finished compost is sorted by size through mechanical screens. The finer material is what most people think of as compost, while the rest is considered the overs. Overs are commonly recycled back into the compost process, although they can be contaminated with plastics and other non-organic material. Contamination, which is more common in waste streams that contain food waste, impacts the marketability of compost. Thirty-eight percent of respondents to the 2018 survey stated that they limit contamination by not accepting food scraps.[38]

Thirty percent of the respondents stated that contaminated feedstock is a barrier to expanding their facility.

The 2018 survey of compost facilities found that about 65 percent of the compost produced by survey respondents in 2017 was sold to agriculture, including both conventional and organic farmers. Certified organic farmers operate under an approved

[**] Note that organic material used for ADC is not considered a reduction in landfill disposal under the SB 1383 regulations.

organic system plan that ensures that compost meets United States Department of Agriculture National Organic Program (NOP) standards, administered in California by CDFA. These plans include documentation of compost use. Approximately 40 percent of the respondents to the 2018 survey receive organic certification from CDFA's Organic Input Material Program (OIM) and the Organic Material Review Institute's (OMRI) compost registration program.[39] In 2016, there were more than 1 million acres in organic farming production in California with crops worth nearly $3 billion.[40]

Nurseries, landscapers, California Department of Transportation (Caltrans), and local municipal programs are also important markets for compost. California's Model Water Efficient Landscape Ordinance requires compost application at a rate of 4 cubic yards per 1,000 square feet for all planted areas for new or remodeled landscapes.[††] Low impact development is a growing field, and compost can be an important part of engineered soil mixtures to reduce runoff and promote water percolation. Caltrans used about 80,000 tons of compost in 2016 along state highways to reduce erosion and support vegetation. According to the 2018 survey, 5 percent of the compost produced by respondents in 2017 was used by Caltrans.[41]

Co-Benefits of Compost Use

Governor Brown signed Executive Order B-55-18, setting a goal of achieving carbon neutrality no later than 2045 and directing the California Natural Resources Agency, the California Environmental Protection Agency, CARB, and CDFA to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Beyond reducing methane generation in landfills, composting organic waste has demonstrated benefits for soil health, food security, and climate stabilization, and is a critical tool to meeting California's goal for Carbon Neutrality by 2045. Applying compost to rangelands can sequester carbon for up to 30 years, enhance productivity, increase water infiltration, and recharge groundwater.[42] CalEPA found that applying compost can sequester carbon and enhance water-holding capacity, forage production, and nutrients in soil.[43] Finally, CARB found that application of compost can reduce irrigation and landscaping water demands and help with erosion control after fires.[44]

Requirements for State Departments to Use Compost

AB 2411 (McCarty, Chapter 238, Statutes of 2018) requires the Department of General Services (DGS) and CalRecycle to maintain specifications for the purchase of compost by the state and allows CalRecycle to develop a program to increase the use of compost products in agriculture applications. AB 2411 also requires the Department of Forestry and Fire Protection (Cal Fire), the Department of Parks and Recreation (Parks), and DGS to initiate programs to restore public lands using compost and other

[††] Compost use is not required if soils have greater than 6 percent organic matter in top six inches of soil.

products wherever possible, and requires CalRecycle to evaluate compost, co-compost, and chemically fixed sewage sludge as landfill cover materials. CalRecycle staff will provide an update on specifications for the purchase of compost by the state, programs to increase use of compost products in agriculture, utilization of compost by Cal Fire, Parks, and DGS to restore public lands, and an evaluation of compost, co-compost, and chemically fixed sewage sludge as landfill cover materials at CalRecycle's monthly meeting by December 2020.[45]

Municipal Markets

The 2018 survey found that 3 percent of the compost produced by respondents in 2017 was sold to municipal projects.[46] The procurement requirements in the SB 1383 regulations will require local governments to procure products made from organic waste, and are intended to help drive demand for the increase in the production of compost and mulch to create end-use markets. This will ensure that the goals of SB 1383 are met by ensuring diversion of organic material from disposal.

Finding 4-2: Procurement Requirements and Market Mechanisms Will Help Fuel Energy Markets and Reduce Economic Barriers for AD Projects

While AD facilities experience fewer regulatory challenges to building and expanding capacity, uncertainties about markets for biomethane create economic and market barriers. Due to high capital expenses, AD facilities often rely on revenue from renewable energy incentives to make projects economically feasible. The SB 1383 procurement requirement will be an additional important tool to help increase demand for energy and fuel derived from biomethane generated by AD facilities. There are three primary markets for biomethane utilization: vehicle fuel or as a feedstock to produce a vehicle fuel; general use including industry, commercial and residential heating; and stationary electricity generation (large power plants or distributed generation, e.g., small engine generators and fuel cells).

Vehicle Fuel

While upgrading biogas to RNG for use in natural gas vehicles (as CNG or LNG) remains a strong market for biomethane generated from AD, there are uncertainties that create potential economic and regulatory barriers. The cost to produce RNG fuel is higher than the cost to produce fossil fuels (compressed natural gas and diesel) and, therefore, the price of RNG fuel would be higher than the price of fossil fuels in the absence of a carbon credit market or other incentives. As the supply of RNG fuel increases with SB 1383 implementation, the procurement requirements will help to increase demand. As RNG becomes more accessible, jurisdictions with fleets (e.g., buses) that already use compressed natural gas (CNG) can easily switch those vehicles to RNG if they have not already done so. According to CARB, currently, more than 70

percent of CNG and LNG demand for transportation in California is already met by RNG.[47]

Credit markets are an important mechanism to help offset the higher costs of production and lower the price of RNG fuel. There are two credit markets that RNG fuel producers can take advantage of: The Federal Renewable Fuel Standard (RFS) and the California Low Carbon Fuel Standard (LCFS).

Renewable Fuel Standard (RFS)

The Renewable Fuel Standard (RFS) is a federal regulation mandating that transportation fuel sold in the United States contain a minimum volume of renewable fuel. Biofuels are tracked and traded with Renewable Identification Numbers (RINs) issued by the Environmental Protection Agency (EPA). Obligated parties under the RFS are refiners or importers of gasoline or diesel fuel, and compliance is achieved by either blending renewable fuels into transportation fuel, or by obtaining RINs to meet an EPA-specified Renewable Volume Obligation (RVO).

AD projects may be eligible to generate RINs under the RFS if the biogas is processed into a transportation fuel and used in the transportation sector. Each fuel type is assigned a D-code based on the feedstock, fuel type produced, energy inputs, and GHG reduction thresholds. Cellulosic biofuel, D3, is the most valuable RIN currently available. RNG from landfill gas projects and projects that digest animal manure, crop residues, separated yard waste, or wastewater sludge are eligible for the higher-value Cellulosic Biofuel D3 RIN, which between January and April of 2020 was priced from $0.88 to $1.51/RIN.[48] However, projects that digest food waste (that is not predominantly cellulosic) are eligible for the far less valuable Advanced Biofuel D5 RIN, which was priced from $0.39 to $0.62/RIN for the same time period. The fact that fuel produced from landfill gas is eligible for D3 RIN value creates a disincentive for food waste diversion through AD. Further, if a wastewater treatment plant or green waste digester receives any amount of food waste, they are no longer eligible for D3 RIN and instead earn D5. There are currently two stand-alone digesters in the state that receive RINs.

Food waste digestion facilities producing transportation fuel are negatively impacted financially because they receive less valuable RINs, and the RFS program's prioritization of incentives for landfill gas projects is at odds with California's landfill diversion goals. The statutory definition of cellulosic biofuel excludes food waste, and therefore Congress would have to revise the definition of food waste for it to be eligible for D3 RINs.

Low Carbon Fuel Standard (LCFS)

The goal of the Low Carbon Fuel Standard (LCFS) is to reduce the carbon intensity of transportation fuels by at least 20 percent by 2030. Under the LCFS, the "carbon

intensity" (CI) value of a fuel is calculated using life cycle analysis (LCA), which considers the GHG emissions during the entire fuel cycle, including feedstock production, conversion to fuel, transport to market, and fuel use. Credit generation is calculated based on the alternative fuel's CI relative to the annual CI standard (benchmark). Each credit represents 1 metric ton CO_2 equivalent. Credit prices averaged $192 per credit in 2019. Credit price can be translated to a dollar value per unit of alternative fuel with a given CI using the LCFS Credit Value Calculator available on the LCFS Dashboard; RNG can earn LCFS credit value ranging from $8 to more than $80 per MMBtu of fuel. Recently approved amendments to the LCFS would set a price cap at $200 per credit in 2016 dollars, adjusted for inflation, as a cost containment measure. CARB estimated that for a 100,000-ton-per-year AD facility to be economically viable, LCFS credit prices need to be between $150 and $200 per credit, assuming a RIN price of $0.50 per RIN and a carbon intensity of -15 gCO_2/MJ.[49]

LCFS pathway applicants may obtain a certified CI score by submitting an application with a minimum of three months of operational data to CARB through the LCFS Alternative Fuels Portal. The applicant calculates a CI using one of CARB's Simplified CI Calculators for LCA models and documentation. The operational data must be validated by an accredited third party, and CARB reviews and certifies the application. Once certified, the CI can be used to report quarterly fuel transactions and generate credits in the LCFS Reporting Tool and Credit Bank and Transfer System (LRT-CBTS). To maintain a valid CI, fuel pathway holders are responsible for supplying annual CI data. A third party must verify the CI data, which is an additional cost for the applicant. Two stand-alone food and green waste AD facilities in California are participating in the LCFS program as of May 2020 and are generating credits.

Under the LCFS, opportunities for biogas are not limited to their use as renewable CNG and LNG. In addition, hydrogen and electricity produced from biogas is eligible for LCFS crediting.

Low-CI electricity produced from biogas can be used in transportation including electric vehicle charging, fixed guideways, transit buses, electric forklifts and other electric cargo handling equipment, and electricity for ocean-going vessels at berth. Such projects must supply biogas directly to the generator, and may either use the electricity onsite or supply it to the California electrical grid. The LCFS requires retirement of renewable electricity certificates (RECs) to demonstrate deliverability and ensure that the low-CI electricity is not also counted under the state's renewables portfolio standard (RPS) or other voluntary programs. This option allows for remote AD projects that lack access to the natural gas common carrier pipeline to supply transportation fuel and participate in the LCFS.

Hydrogen is commonly produced from natural gas using steam methane reformation (SMR). An AD project may pipeline inject or directly supply RNG to a hydrogen production facility to displace its use of fossil natural gas. The renewable hydrogen fuel is eligible for LCFS crediting when used in fuel cell vehicles, or when used in the

production of another transportation fuel that is consumed in California. For example, hydrogen is used in hydrotreating to produce renewable diesel and jet fuel from used cooking oil or inedible animal fats. Under the LCFS, the renewable diesel's CI would reflect the decreased GHG emissions from its use of RNG, rather than NG, to produce hydrogen. Similarly, conventional petroleum refineries can generate credits for using RNG-derived hydrogen in place of natural gas.

General Use Including Industry, Commercial, and Residential Heating

Injecting biomethane into the common carrier pipeline is an effective way to distribute RNG for a variety of uses, including for use as fuel for transportation. AB 1900 (Gatto, Chapter 602, Statutes of 2012) required the California Public Utilities Commission (CPUC) to adopt standards for biomethane specifying concentrations of constituents of concern (COCs) to protect public health and ensure pipeline integrity and safety, as well as requirements for monitoring, testing, reporting, and recordkeeping. The bill required the four investor-owned utilities (IOUs) to comply with those standards and requirements and to develop tariffs that incorporated them. The bill also directed the CPUC to develop programs and policies to encourage in-state production and distribution of biomethane.

In January 2014, the CPUC issued Decision 14-01-034, which identified concentrations for 12 COCs to protect human health and five to protect pipeline safety and integrity, for which monitoring, testing, reporting, and recordkeeping are required.[50]

The cost to connect to the common carrier pipeline is expensive. Southern California Gas Company (SoCalGas) estimates that the interconnection capacity study and preliminary and detailed engineering studies could cost up to $680,000 combined, and that these studies could take up to 275 days to complete.[51] Pacific Gas & Electric (PG&E) estimates that interconnection costs $2 million to $5 million and could take up to 24 months, depending on the project's scope, the season during which construction happens, and the location of the project.[52] SoCalGas and San Diego Gas & Electric Company (SDG&E) estimate the costs of monitoring and testing could be as high as $39,000 the first year and $25,000 in subsequent years. They also project the post-injection ongoing costs of maintaining and operating the biomethane facility at $3,500 per month.[53]

In 2015, the CPUC authorized funding of $40 million for a monetary incentive program that allowed biomethane producers that successfully inject into the pipeline as much as 50 percent of a biomethane project's interconnection costs, up to $1.5 million.[54] In 2016, AB 2313 (Williams, Chapter 571, Statutes of 2016) increased this monetary incentive from $1.5 million to $3 million and extended the incentive program from June 11, 2020, to December 31, 2021.

Currently there is one municipal solid waste (MSW) AD facility in California that injects biomethane into the pipeline. The CR&R Waste and Recycling Services AD facility in

Perris, Calif., invested more than $7 million to install 1.4 miles of pipeline and gas upgrading and monitoring equipment.[55]

On January 27, 2020, the CPUC initiated Rulemaking 20-01-007, which states that state and local climate change policies will result in reduced demand for natural gas over the next 25 years. One of the stated goals of the order is to "implement a long-term planning strategy to manage the state's transition away from natural gas-fueled technologies to meet California's decarbonization goals."[56] Although state laws and policies promote the production and distribution of biomethane, it is unclear how this transition away from natural gas will impact AD in the future. CalRecycle will continue to monitor this rulemaking and analyze its impact on biomethane pipeline injection from digestion of MSW at AD facilities in California.

Electricity Generation

Most AD facilities in California, including five stand-alone AD facilities and three WWTPs, currently generate electricity, which is sent to the electrical grid

The Bioenergy Market Adjusting Tariff (BioMAT) program was established through SB 1122 (Rubio, Chapter 612, Statutes of 2012). BioMAT is a feed-in tariff program, requiring California's major electrical IOUs (SDG&E, PG&E, and SCE) to collectively procure up to 250 MW of bioenergy from small bioenergy renewable generators. These generators are defined as less than 5 megawatts (MW) in nameplate capacity, export less than 3 MW to the grid, and must utilize organic waste feedstocks from eligible Fuel Resource Categories (i.e., Category 1, 2, and/or 3). At least 110 MW of the required 250 MW must be procured from eligible generators that utilize the Category 1 fuel sources to produce electricity. These fuel sources are municipal biogas from wastewater treatment, municipal organic waste diversion, food processing wastes, and co-digestion.

Electricity procured by the IOUs through a BioMAT Power Purchase Agreement (PPA) will be purchased at a fixed contract price over the delivery term (10-, 15-, or 20-year terms) and counts toward the utilities' RPS targets. The contract price for each Fuel Resource Category began at the first BioMAT auction in February 2016 at a set floor price of $127.72/MWh, but each category's price is independently adjusted each period depending on the market response and interest.

In general, participation in BioMAT has been minimal, especially for Category 1 Biogas, which remains at the floor price of $127.72/MWh. Seven Category 1 PPAs have been signed to date: Zero Waste Energy Development (ZWED) in San Jose, Kompogas San Luis Obispo, Central California Fuel Cell 2 in Tulare County, Organic Energy Solutions in San Bernardino, Napa Recycling & Waste Services' Napa Recycling Biomass Plant, Tajiguas Resource Recovery Project AD Facility in Santa Barbara County, and Lakeside Biogas.

BioMAT is currently undergoing a program review at the California Public Utilities Commission with the intent to simplify the program, expand participation, address program barriers, and better align it to help achieve statewide goals. Current barriers of significance for the BioMAT program include interconnection burdens and high costs and the contract pricing mechanism, both of which are under evaluation in the BioMAT program review underway.

One of the most significant barriers for the BioMAT program is interconnection costs and timelines. Currently, projects are required to complete an interconnection study to apply for participation in BioMAT. Then, they will stay in their IOU's interconnection queue and the BioMAT queue until they accept a contract price. This means projects must pay for the interconnection studies and queue costs without a signed PPA, which is a significant financial burden for small generators. The sometimes lengthy process and potential delays of interconnection can also create uncertainty about whether a project can meet its operation date outlined in their PPA. These delays could inhibit a project from meeting its contracted operational date, causing a project to be in breach of its PPA. This could result in PPA termination and substantial monetary losses. This uncertainty further limits program participation and increases financing costs for projects that do participate.

Some of these interconnection hurdles, however, were addressed in the CPUC's 2016 implementation of SB 840 for Category 3 projects (i.e., sustainable forest biomass projects, which utilize feedstocks from high hazard zones for wildfire and falling trees). These projects can now leave the interconnection queue while remaining in BioMAT. This measure was intended to provide streamlined interconnection requirements and accelerated price adjustments for sustainable forest biomass projects. CPUC's SB 840 Proposed Decision states that legislative changes for Categories 1 and 2 will "be the subjects of further development of the record and subsequent Commission decisions."[57]

Another barrier under review is the market depth pricing mechanism. This currently requires that, after at least one of three projects has accepted a contract price, at least five additional applicants are needed to trigger another price adjustment. However, due to low participation in the program and a low number of projects entering these queues, PPA contract prices for the purchase of electricity have remained low, especially for Category 1 Biogas projects. Consequently, multiple projects have entered into BioMAT Fuel Resource Category queues but have not yet accepted offer prices or executed PPAs because they are waiting for the price adjustment. Requiring a higher market depth before a price adjustment will be made could cause applicants to not accept a contract price and to instead wait in their respective queue for a contract price increase. This may put these renewable bioenergy projects on hold from development.

Finding 4-3: Commodities Prices, National Sword, and E-Commerce Align with the Increase in Disposal of Cardboard

According to the 2018 Waste Characterization Study, the amount of paper disposed in California increased by 1.4 million tons between 2014 and 2018. Eighty-three percent of this increase was from old corrugated cardboard (OCC), which increased 122 percent, from just under 1 million tons to 2.1 million tons.[58] During the same time period, the amount of OCC recovered domestically at U.S. paper and board mills increased by only 10 percent, or 2.1 million tons[59], and the amount of OCC exported from California increased by only 15 percent, or 737,891 tons.[60]

All U.S. exports of OCC and kraft paper increased 30 percent in 2018, but this was not enough to keep up with consumption. Exports (from California ports) to China increased in the last quarter of 2018 as Chinese importers attempted to purchase as much material as possible before new quotas took effect in 2019.[61] In 2019, U.S. OCC exports declined by 1.9 million tons,[62] and California OCC exports declined by 526,996 tons.[63] Recent statements by China's Ministry of Ecology and Environment suggest that China is likely to ban imports of recovered fiber, including OCC, by 2021.[64] Due to these import restrictions on recovered paper, many North American paper mills have announced plans for expanded domestic processing capacity. However, these expansions are not expected to be operational for at least several more years.[65, 66]

Average OCC domestic commodity prices for the Bay Area in December 2018 ($55 to $60 per ton) were about half what they were in January 2014 ($110 to $120 per ton), and prices continued to drop in 2019. As of February 2020, the domestic price was $20 to $25 per ton. The price for OCC exported to China also dropped by about 15 percent from January 2014 ($180 to $183 per ton) to December 2018 ($152 to $155 per ton).[67, 68, 69]

Consumption of OCC has increased dramatically as e-commerce sales have increased. According to RISI, the amount of OCC used in e-commerce and mail-order retail is seven times higher per dollar of sales than in traditional retail sales. In 2018, 17 percent of retail sales came from e-commerce and mail order sales.[70] The U.S. Department of Commerce estimates that e-commerce sales have increased by 68 percent, from $305 billion in 2014 to $514 billion in 2018.[71, 72] This dramatic increase in e-commerce, combined with a decline in domestic prices and import quotas that limit the amount of OCC China accepts, could explain why disposal of OCC increased so significantly between 2014 and 2018.

While these materials are technically recyclable, the amount of paper and OCC disposal in 2018 alone exceeds the 5.7-million-ton disposal target required by SB 1383. This suggests additional measures may be necessary to address this specific portion of the waste stream.

Finding 4-4: SB 1383 Procurement Requirements Are Necessary to Help Achieve the Organic Waste Diversion Goals by Driving Markets for Compost and Biomethane

CalRecycle estimates that in 2025 there will be an additional 5.5 million tons of compost and more than 14 billion cubic feet of biomethane produced as a result of SB 1383 implementation. Strong end-use markets must be encouraged and developed to absorb this increase in recovered organic material to meet the goals of SB 1383. Increased end-use markets will ensure that this substantial increase in recovered organic material remains diverted from disposal. SB 1383 regulations require jurisdictions to annually procure a quantity of recovered organic waste products including compost, renewable gas for transportation, electricity from biomass conversion, or mulch. These procurement requirements will increase markets for compost by providing certainty for demand of the finished product. Purchasing and using compost and mulch increases carbon storage and water retention in soils and thus reduces the need for fertilizers, pesticides, and water. The procurement requirements will also help drive demand for products derived from biogas generation at AD facilities.

The procurement requirements will motivate local jurisdictions to ensure food and green waste generated by their citizens has very few contaminants, as it would cost them much more to have it removed from the product they are required to procure. It would be unacceptable to the public for jurisdictions to use material in public spaces, parks, and landscaping that has visible contamination. Through education, monitoring, and enforcement, jurisdictions will be well positioned to ensure their generators do not contaminate the feedstock.

Several state policies support procurement of products produced by organics recycling. AB 1045 (Irwin, Chapter 596, Statutes of 2015) required CalEPA—in coordination with CalRecycle, SWRCB, CARB, and CDFA—to "develop and implement policies to aid in diverting organic waste from landfills by promoting the use of agricultural, forestry, and urban organic waste as a feedstock for compost and by promoting the appropriate use of that compost throughout the state."

In its November 2018 report, CalEPA recommended that "CalEPA, CalRecycle, CARB, and CDFA should consider working with other state offices to determine if opportunities exist to enhance state and local government procurement of compost and other value-added soil amendments, as well as biogas products for the transportation sector to help drive the market for such products." The report further recommended that CalRecycle "consider including local government procurement requirements in its SB 1383 regulations as an additional incentive to help to foster a more vibrant market for value-added organic materials products."[73]

SB 1383 required the California Energy Commission include recommendations for the development and use of renewable gas, including biomethane and biogas, as a part of its 2017 Integrated Energy Policy Report (IEPR). The 2017 IEPR includes the recommendation that "state agencies should consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas" and that "CalRecycle and CARB should determine methods for promoting the use of renewable gas from organic waste recycling in the waste sector."[74]

Compost

A CalRecycle study found that 36 percent of compost facilities sold about 3 percent, or 32,000 tons, of the compost produced in 2017 to municipal projects.[75] CalRecycle estimates that in 2025 local governments would need to procure about 400,000 tons of compost to meet the procurement requirements. This would be enough compost to amend 40,000 acres of parklands per year at an estimated cost of about $12 million to jurisdictions statewide.

Procurement requirements are supported by findings in the SB 1383 Infrastructure and Market Analysis Report. Forty percent of survey respondents said they believe that there will need to be more market development to manage the increase in available compost after SB 1383 regulations are implemented; 24 percent of respondents said they need expansion of existing markets prior to committing to expanding their facilities; and 52 percent responded that the state should work to increase markets for compost. Thirty-six percent already sell compost to municipal markets.[76]

Biomethane

Increased demand for biomethane used for transportation fuel because of the procurement policy, coupled with LCFS and RFS credit markets, could help offset the cost of biomethane fuel production, thereby decreasing the price of fuel at the pump. CalRecycle estimates that the procurement requirements could result in the production of up to 28 million diesel gallon equivalents (DGE) annually—enough to fuel more than 3,000 CNG transit buses per year—at a cost of $10-13 million per year statewide.

CalRecycle estimates that the procurement requirements could result in at least 200 megawatts (MW) of electricity from biomethane production annually—enough electricity to power the Los Angeles City Hall building for 10 years—at an annual cost of about $6.5 million. As more AD facilities come online and participate in the BioMAT program, and as California moves toward 100 percent renewable electricity by 2045 as required by California's Renewables Portfolio Standard (RPS), procuring electricity from biomethane will become more widespread and cost-effective for local governments.

Conclusions

California is the fifth-largest economy in the world, and the state's commitment to the climate-protecting goals of SB 1383 will drive innovation and influence organics policy throughout the nation. As the state looks toward economic recovery after the fallout of COVID-19, building the next generation of recycling infrastructure will create 12,000 permanent green jobs in California.[77] Redirecting organic waste to cleaner activities such as composting and anaerobic digestion will clean our air and prevent $10.4 billion in costs associated with emergency room visits, hospitalization, and mortality.[78]

SB 1383 states that, if this analysis shows that significant progress has not been made, CalRecycle may include incentives or additional requirements in the regulations promulgated pursuant to the statute or provide further recommendations to the Legislature regarding revisions to the organic waste reduction goals. Importantly, the SB 1383 procurement requirements will increase markets for compost, biofuel, and electricity by providing certainty for demand of these finished products, which will ensure significant progress will be made in meeting the state's organic waste reduction goals. CalRecycle estimates that in 2025 there will be an additional 5.5 million tons of compost and more than 14 billion cubic feet of biomethane produced as a result of SB 1383 implementation. This makes it necessary for the state to encourage strong end-use markets to absorb this increase in recovered organic material remains diverted from disposal.

While organics capacity has increased over the past four years by nearly 400,000 tons, disposal of organics increased by more than 2 million tons between 2014 and 2018. California will need to make significant progress to meet the goals of SB 1383. However, recent surveys indicate that the adoption of regulations and new feedstock contracts drive the development of new and expanding organics recovery facilities. [79]

Considering the urgency of reducing short-lived climate pollutants and the importance of regulatory certainty, CalRecycle recommends maintaining the disposal reduction targets set forth in SB 1383. Since the regulations are not effective until January 1, 2022, and entities are currently in the planning or early implementation stages, CalRecycle cannot conclude at this time whether the targets need to be adjusted. The SB 1383 regulations provide jurisdictions with multiple options to comply with SB 1383. For example, the procurement requirements allow for multiple recovered organic waste products (compost, mulch, RNG, electricity) to qualify, and jurisdictions have the flexibility to meet the collection services by having entities source separate or by having a more robust processing facility.

Even after the regulations take effect, there are opportunities for entities to come into compliance rather than being issued a penalty immediately. The regulations build in a

compliance evaluation and enforcement process that provides substantial timelines for jurisdictions to come into compliance before penalties are issued.

As to additional requirements in the regulations, as mentioned in Finding 4-3, existing trends suggest that a more comprehensive approach may be necessary to reduce the disposal of paper and OCC in California. Going forward, CalRecycle may need to place a greater focus on the diversion of the organic portion of packaging waste to meet the SB 1383 targets. Through CalRecycle's packaging workshops and analysis, the department has identified tools that would assist in reducing the disposal of paper and paperboard, such as requiring manufacturers to produce new products with minimum recycled content.

Implementation of SB 1383 is critical to protecting communities from the risks of short-lived climate pollutants and should not be delayed. The adoption and implementation of the regulations will be the leading driver for organics infrastructure development and associated job creation in California. Meeting the state's organic diversion goals by the dates set in law will protect public health, support economic development, and demonstrate California's leadership in the fight against climate change.

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Addendum to
Analysis of the Progress Toward the SB 1383 Waste Reduction Goals: Public Comments Received

The department is deeply appreciative of all the stakeholders who provided comments on the SB 1383 Market Analysis report. All the stakeholder comments received have been included in the report. The department will take these comments and suggestions into consideration as we begin SB 1383 program implementation, develop education and outreach tools, and provide resources for our website including FAQS.

From: Carrie Baxter <cbaxter@r3cgi.com>
Sent: Tuesday, August 25, 2020 7:43 PM
To: Hall, Timothy@CalRecycle <Timothy.Hall@calrecycle.ca.gov>; Morgan, Cara@CalRecycle Cara.Morgan@CalRecycle.ca.gov

Subject: Great job today!

Hey Tim and Cara,

I just wanted to say congrats on completing the progress report. I know it probably took a lot of work! I did have one comment for you that I wanted to mention – hopefully it's ok to bring it directly to you rather than through the public comments portal.
There's a reference to the data collected from the work that R3 did (pg. 5 of the report) that says "A survey of 195 California jurisdictions found that only 4 percent of the respondents offer food waste collection to single-family residents…" This is misleading and is only representative of those jurisdictions that offered source-separated food waste collection as a separate collection option from green waste collection. A more appropriate reference here would be the "Mixed Organics" category that includes both food and green waste collection.

Thanks,
Carrie Baxter | *Project Manager*
R3 CONSULTING GROUP, INC.
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From: Claiborne. Jennifer
Sent: Tuesday, August 25, 2020 12:16 PM
To: 'Teresa.Bui@calrecycle.ca.gov' <Teresa.Bui@calrecycle.ca.gov>

Subject: Education tool recommended for 1826 & 1383

Hi Teresa,

It would be very helpful to have a brochure for businesses to understand how they could set up food waste collection in their business. They need very detailed “how to” instruction with visuals on what is expected in back of house and front of house with customers. Such as, using food waste collection containers and emptying them daily, or using small tote bins, etc. Many businesses have language barriers and visuals would be helpful. Please let me know if this exist already.

Also, the sign making tool does not seem to work… perhaps you can send me a working link?

Thank you!

Best Regards,

Jennifer Claiborne
Waste Management Program Manager | County of Sacramento
Department of Waste Management & Recycling
Office: (916) 875-6620 |Cell: (916) 628-5274

From: DPW-EPD TaskForce <taskforce@dpw.lacounty.gov>
Sent: Tuesday, September 8, 2020 2:09 PM
To: Yee, Ashlee@CalRecycle <Ashlee.Yee@calrecycle.ca.gov>
Cc: Coby Skye <CSKYE@dpw.lacounty.gov>; Carlos Ruiz <CARUIZ@dpw.lacounty.gov>; Patrick Holland <PHOLLAND@dpw.lacounty.gov>; mikemohajer@yahoo.com

Subject: COMMENTS ON THE ANALYSIS OF THE PROGRESS TOWARD THE SENATE BILL 1383 ORGANIC WASTE REDUCTION GOALS

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE/
INTEGRATED WASTE MANAGEMENT TASK FORCE

TO: Ms. Ashlee Yee
Materials Management and Local Assistance Division
California Department of Resources Recycling and Recovery

Please see attached letter dated September 8, 2020, from the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force to California Department of Resources Recycling and Recovery regarding Comments on the Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals. Also enclosed is the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force Detailed Comments on the Report "Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals.

If you have any questions regarding the subject matter, please contact Mr. Mike Mohajer of the Task Force at MikeMohajer@yahoo.com or at (909) 592-1147. For questions regarding the Task Force, please contact Ms. Carol Oyola at (626) 300-4594 or at coyola@pw.lacounty.gov.

September 8, 2020

Secretary Jared Blumenfeld
California Environmental Protection Agency (CalEPA)
P.O. Box 2815
Sacramento, CA, 95812

Acting Director Ken DaRosa
California Department of Resources Recycling and Recovery (CalRecycle)
P.O. Box 4025
Sacramento, CA 95812

SUBJECT: Comments on SB 1383 Progress Report

Dear Secretary Blumenfeld and Acting Director DaRosa,

Thank you for the opportunity to provide comments on CalRecycle's recently released *Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals* ('progress report'). The undersigned represent local governments throughout California who have been actively engaged in the SB 1383 implementation process for years. As jurisdictions ultimately responsible for the implementation of the bulk of SB 1383's substantive requirements, we've been looking forward to the release of this report since the statutory deadline of July 1st. We see this milestone in the implementation process as an opportunity to engage with the state directly regarding the requirements of the original legislation, the structure of CalRecycle's proposed implementation regulation, and the unique and significant challenges facing jurisdictions across the state charged with adopting and enforcing the SB 1383 program.

SB 1383 is a landmark law and would be complex and costly to implement under normal conditions, but will be nearly impossible for jurisdictions to comply with as it is currently structured amid the unprecedented economic challenges of the COVID-19 global pandemic. Fortunately the legislature anticipated potential difficulties and included language in the SB 1383 statute providing flexibility in implementation ("on or after January 1, 2022"[1]) as well as provisions encouraging adaptation if CalRecycle "determines that significant progress has not been made" toward achieving SB 1383's 2020 and 2025 goals.[2] It is now clear that the state will *not* meet the SB 1383 goal of a 50% reduction in statewide disposal of organic waste from the 2014 level by 2020, and this should be clearly stated in the progress report.

Although SB 1383 is good policy and an important component of the state's climate strategy, meeting its goals will require a wholesale shift in the way California manages its waste, and for a variety of reasons this shift simply has not occurred yet. It is crucial at this juncture that CalRecycle include a thorough analysis of this program and the existing barriers to compliance in this report, as well as an accurate portrayal of the state's implementation status to date, in order to inform compliance efforts going forward.

[1] Public Resources Code §42642.5(a)(6).
[2] Public Resources Code §42653(b).

We completely agree significant expansion in infrastructure is needed, however, the report fails to identify which types and why, how much is already built or planned, and how much statewide implementation of SB 1383 will cost? The progress report does not answer these questions. Although the document contains helpful information, as a progress report we believe it falls short. It should be revised to include clear quantitative benchmarks for both infrastructure and waste processing capacity, as well as the cost of these projects, and include context supporting the numeric estimates as well as explanations for how these capacity and cost gaps will be filled. Structured in this way, the report will provide actionable information to stakeholders and the public and will also support the state's determination regarding whether to consider adjusting the program, as allowed by the SB 1383 statute.[3]

Specific comments and questions about the progress report, as well as suggested revisions, can be found below.

1. **Quantitative benchmarks are needed to assess progress and support compliance strategies**

The progress report lacks the quantitative benchmarks and expectations needed to provide actionable information on the state's progress in meeting SB 1383's goals. In order to accurately assess the status of existing projects and what remains to be done, more numbers are needed. It would be helpful to have tables or some other type of visual demonstration of key numeric elements of this effort, including:

1. 2014 organic waste disposal totals statewide
2. What the state has deemed the 50% and 75% goals to be, in volumetric figures[3]
3. What the state's organic waste disposal rate is today
4. Assuming the disposal rate is lower today than the 2014 benchmark rate, details on what diversion approaches have been used, as well as successes and challenges regarding each, to inform future planning.
5. If the disposal rate is higher today than the 2014 benchmark rate, details as to why this is occurring, including if any particular waste types are responsible for the increase.[4]
6. Information regarding bi-product beneficial use efforts (compost, mulch, biogas, renewable energy) that have been implemented to date, compared to each other by relative prominence as well as geography, and other parameters as needed, such as demographics.

2. **Progress report should feature case studies**

Each jurisdiction is unique and will tailor its SB 1383 solution to its own circumstances. Given the cost and difficulty of constructing these kinds of facilities, it would be helpful to stakeholders and the public if the progress report highlighted some examples of local organic waste recycling and edible food recovery projects to help guide others'

[3] Public Resources Code §42653(b).

[3]This is especially important as some types of waste defined as organic in the proposed regulation were not included in past Waste Characterization studies by CalRecycle. As a result, clarity on specific baseline and target values is needed so that all responsible parties are on the same page regarding what is required.

[4]The progress report does discuss the dramatic increase in old corrugated cardboard (OCC) and packaging as a result of e-commerce trends, but for many jurisdictions waste generation has increased even further since the beginning of pandemic stay-at-home orders as of March 2020.

implementation research efforts. Novel and innovative initiatives that have already come online deserve the state's support through effectively highlighting their projects. Case studies of existing pilot or full-scale projects that are currently operational can serve as informative examples. These case studies should include information regarding the type/s, source/s, and volume of food recovered, organic waste processed, as well as any beneficial use of biproducts like compost or biogas.

3. **Pandemic's impact on jurisdictions must be acknowledged and addressed**

The progress report notes that the current COVID-19 pandemic "will likely impact disposal, but it is difficult to estimate by how much and for how long."[5] We disagree with this statement and believe information is currently available to demonstrate the impacts of the virus response on waste generation and recycling in California. Increased waste generation rates will mean that even more diversion will be necessary to meet the SB 1383 goals, driving up jurisdictions' compliance costs. This challenge is compounded by the significant losses in revenue, as well as operational complications, that local governments are grappling with as the pandemic continues. It is imperative that CalRecycle appropriately acknowledge the fundamental impacts this will have on jurisdictions' ability to comply.

4. **The infrastructure development gap must be acknowledged and addressed**

The progress report states that 27 million tons per year of organic material will need to be redirected from landfills annually by 2025 to meet SB 1383's goals,[6] but does not contain a clear breakdown of how this total amount will be managed. It indicates that an estimated 18 million tons of waste will need to be directed to compost, anaerobic digestion, chip-and-grind, or other facility types, but does not articulate where the remaining 9 million tons will go. After explaining that only an estimated 10 million tons of capacity of the 18 million tons needed will exist in 2025, the report is silent about the fate of the additional 8 million tons. This apparent gap in statewide processing capacity should be explained in the analysis, including potential solutions or impediments to be addressed so that the capacity can be identified.

5. **Edible food goals and strategies need clarification**

One of the main components of SB 1383 is the requirement to recover at least 20% of currently landfilled edible food by 2025. However, information about this component of the program is in different places in the report, making it difficult to develop figures and draw conclusions.

The progress report notes on page 5 that over 5.5 million tons of food waste is thrown away annually but doesn't contain any information regarding the status of food recovery efforts in the state today. Later in the document, on page 10, it states that CalRecycle estimates that 1.1 million tons of edible food is currently disposed in landfills but does not include the actual amount of food the state believes must be recovered to meet the SB 1383 goal. Based on the 1.1-million-ton figure on page 5, it would seem to be 220,000 tons, but that is not stated in the report. The report does mention that the 2018 Waste Characterization Study results "suggest" that at least 225,000 tons of edible food would need to be recovered in 2018 to meet the SB 1383 goal but doesn't fully endorse this figure as the target. It then states that future studies and data will be needed to determine how much food is edible and recoverable. The progress report should be updated to

[5] Progress report, 5.

[6] Progress report, 1.

include these validated baseline targets, as without them it is impossible to gauge the state's progress on this element of SB 1383. The report should also be revised to include information about the state's progress to date toward meeting the food recovery goal.

6. Composting figures and expectations need clarification

Comparing the narrative regarding composting to the page 7 table in the report, it is difficult to tell how much additional composting capacity CalRecycle is estimating will be needed by 2025. The table indicates that 5.3 million tons is estimated to be available in 2025 under current conditions, and that 9.6 million tons will actually be needed by then in order to meet the SB 1383 goal. This yields a difference of 4.3 million tons/year in additional composting capacity that must be developed, which is noted on the page 7 table. However, the text on page 8 says the state "will need to compost an additional 9.6 million tons in 2025" in order to meet the SB 1383 goal. The difference in these figures is significant, and clarification on this point is requested. This discrepancy could be addressed if CalRecycle were to more thoroughly document the quantitative benchmarks and expectations throughout the progress report, as requested above.

As an example of the type of figures and analysis we believe would be helpful to support the state's compliance effort, the compost section notes that 6 million tons of solid waste was composted in 2017[7], and another 200,000 tons of capacity was added in 2018, while 1 million tons is expected "within the next few years," as well as an additional 100,000 tons that received funding earlier this year. These figures sum to 7.3 million tons/year in composting capacity statewide, which is 2.3 million tons short of the amount the progress report states will be necessary. Unfortunately, this capacity gap is not addressed in the progress report.

Finally, it would be helpful for CalRecycle to provide qualitative context supporting its quantitative expectations throughout the progress report, including detailing why it expects compost to be the biggest solution to SB 1383 compliance, as is shown on the table on page 7. No explanation for this is given. This information could help to explain why the progress report seems to contradict itself, first outlining the many factors that can limit the feasibility of using of composting facilities' entire permitted capacity, then two paragraphs later stating that "full use of existing [composting] capacity" will be needed if the state is to meet the expected demand for compost production statewide by 2025. Outlining current, needed, viable, and missing composting capacity in a graphic or list format would more clearly communicate the state's estimates and expectations on this component of SB 1383.

7. Anaerobic digestion capacity figures need clarification

The anaerobic digestion (AD) section of the report would also benefit from clarification of the capacity figures listed. The table on page 7 states that 1 million tons of AD capacity is expected to be available in 2025, with an additional 1.7 million tons needed at that time. The description on page 9 though does not correlate with the figures in the table. It would be helpful if the text throughout the report were tied to the numbers listed in the table, so that readers can understand and compare existing capacity to that expected in the future, as well as what portion may still be needed in 2025 in order to meet SB 1383's goals.

8. Co-digestion capacity figures need clarification

[7] Progress report, 8.

Co-digestion of food waste at existing wastewater facilities is a compelling strategy to help the state meet its organic waste recycling goals. However, as with prior sections, the figures in the description here do not match the numbers in the table on page 7.

As requested regarding the Compost section, the progress report should include qualitative context behind CalRecycle's estimated needed capacity figures here as well. It would be helpful to know how the state came to the page 9 figure of 3.8 million tons per year of AD capacity needed, since the combined total of estimated needed capacity for Anaerobic Digestion and Co-Digestion in the table on page 7 sums to 5.1 million tons/year. These discrepancies make it difficult for readers to get an accurate assessment of the state's needs and progress on SB 1383 thus far.

With co-digestion being a relatively novel and developing technology, it would also be helpful to have case studies of co-digestion projects operating in California today. This would provide insight and contact information for other jurisdictions exploring this option for compliance. The report as drafted refers to nine different co-digestion projects but does not name them.

9. The carbon benefits of biogas should be more substantively recognized

Many types of organic waste processing technologies yield recoverable biogas, a product with sustainable applications as well as distinctive carbon benefits. Biogas-derived fuels are often carbon-negative on a life-cycle basis, but the progress report does not note this. Since reduction of net GHG emissions is at the core of SB 1383, greater support for the capture and beneficial use of biogas—for renewable power, renewable gas, or sustainable transportation—is well-aligned with the program. Moreover, harnessing the carbon-negative attributes of biogas will be an essential component of any viable plan to meet the state's 2045 carbon-neutrality goal.[8] The progress report should be revised to properly recognize the beneficial aspects of biogas, which if adequately supported can help make organics recycling projects economically viable.

10. Biomass conversion should be more thoroughly explored as a potential solution

Although the report includes a finding that 5 million tons of landfilled organic waste per year could be sent to biomass conversion facilities, this strategy is not included as an expected SB 1383 compliance pathway in the table on page 7. Biomass conversion capacity appears to be available, and this approach also has the benefit of producing renewable power.

The report notes that one limitation to biomass facilities is that other types of renewable energy such as solar and wind are "cheaper."[9] It is unclear whether this energy source is actually more expensive to generate than these other renewables, or if instead those alternatives enjoy financial support and other regulatory incentives that make them a more attractive option for utilities, community choice aggregators and other procuring entities. If the latter is the case, it may be helpful to enhance the state's support of biomass facility capacity, as well as the value accorded to its product power. This would help to provide a greater range of options to jurisdictions throughout the state working to develop compliance plans that meet their unique circumstances and waste stream feedstock types, while also generating renewable energy.

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[8] Livermore Lab Foundation, "Getting to Neutral: Options for Negative Carbon Emissions in California", December 2019, https://livermorelabfoundation.org/2019/12/19/getting-to-neutral/.

[9] Progress report, 11.

Finally, as the report notes on page 11, there are different types of biomass conversion facilities, many of which do not rely on combustion. These types of facilities do not tend to have the same issues with criteria pollutant emissions as can be experienced by actual combustion facilities. This should be noted in the progress report, where air quality issues related to biomass conversion are discussed.

11. The funding gap should be acknowledged and addressed

Although it is clear that compliance with SB 1383's goals will be an expensive endeavor, the progress report fails to include any holistic estimate of the statewide cost of the program. As a result, it is impossible to gauge the effectiveness of funding allocations made to date. We request that CalRecycle's estimated costs for implementation of SB 1383 be included in the SB 1383 progress report, along with a thorough outline of how this funding need will be met.

During the public presentation on the progress report on August 25th, staff indicated the statewide implementation cost was estimated to be approximately $3.7 billion, and $1 billion to operate annually. The report notes that to date CalRecycle has awarded approximately $140 million in funding to organics recycling projects. While this support is greatly appreciated, it is relatively small when compared to the level of funding that will be needed across the hundreds of jurisdictions in California required to comply with SB 1383.

The report also shows that the need for funding already far exceeds the resources available, as CalRecycle documents receipt of applications seeking nearly $350 million, despite having just $140 million available. This funding gap demonstrates both the willingness of jurisdictions to build organics infrastructure, as well as the clear need for dramatic increases in financial support for these projects.

Finally, we agree that all available funding strategies merit consideration, including potentially increasing landfill tip fees. The report fails to note though that this is a politically divisive issue that has been tried repeatedly over recent decades, without success, and as a result is not a guarantee of sufficient revenue for jurisdictions to support SB 1383 projects.

12. Biproduct market development requires more than a mandate

Although the procurement requirement contained in the draft SB 1383 implementation regulation is intended to address the need to enhance the market value of the various biproducts of organic waste recycling, there are considerable limitations that exist for the use of each biproduct type. If these limitations are not effectively addressed, they will continue to hinder the value of these biproducts, thereby driving up the cost of organics recycling projects and infrastructure for jurisdictions and ratepayers. Alternatively, aggressively expanding opportunities to use biogas, compost, mulch, and other biproducts can spur investor interest these projects, enhancing their financial viability.

The progress report outlines a number of existing barriers that limit the ability to use recycling biproducts most effectively. The state can support the enhancement of these back-end value propositions through efforts such as expanding compost application opportunities, enhancing credits available for biofuels (including supporting advocacy to address the current inequity in federal Renewable Fuel Standard RIN allocation that acts as a powerful disincentive against food waste co-digestion projects), increasing the financial support available for costly renewable gas pipeline injection projects, and working to expand BioMAT program participation.

Real market development will require more than a mandate on local governments to procure these biproducts. The state has a responsibility to properly allocate value to the resources that result from organics recycling projects, to support SB 1383 compliance.

Conclusion

California's local governments support the policy behind SB 1383 and believe in our duty of conscious stewardship of our shared earth and its climate. A sustainable future for California will require a significant expansion of recycling of both organic and inorganic wastes, and jurisdictions have been working diligently to develop and construct this infrastructure in recent years. A revised SB 1383 progress report that quantifiably documents the state's record to date and includes thorough qualitative analysis of the history, barriers and opportunities that exist in the organic waste recovery sector can serve as a foundation for the development of a reasonable and well-rounded statewide compliance strategy.

The projects needed to bring SB 1383 to life must be built, but we cannot construct infrastructure of this scale and magnitude based on a mandate alone. Local budgets have been hit hard by the current pandemic, and our ratepayers are struggling with job losses and other economic shocks during this downturn and cannot be asked to shoulder all of these costs at this time. It is imperative that the state fully acknowledge the challenges of these times in the progress report. Coupled with an accurate assessment of the status of SB 1383 implementation, the document will support our ongoing effort to collaborate with CalRecycle on solutions that work for the entire state.

Thank you again for the opportunity to comment on this document. Please note that the short time period allowed for comment affected the number of signatories that could be secured for this letter. Though fifteen (15) jurisdictions are represented below, we are actively engaging with over twenty-nine (29) government entities in our coalition. We look forward to continuing to work with you on this important policy issue.

Sincerely,
City of San Diego
City of Oceanside
City of Chula Vista
City of Santee
City of San Dimas
City of Del Mar
City of Escondido
Merced County Association of Governments / Regional Waste Authority
City of La Verne
City of Reedley
City of Elk Grove
City of San Jose
City of Ventura

CC:
Ashlee Yee, Senior Environmental Scientist, CalRecyle

Mindy McIntyre, Deputy Director for Legislative Affairs, CalRecycle

Zoe Heller, Deputy Director of Policy Development, CalRecycle
Matt Henigan, Deputy Director, Materials Management and Local Assistance, CalRecycle

Christine Hironaka, Deputy Cabinet Secretary, Office of Governor Gavin Newsom
Melissa Immel, Deputy Legislative Secretary & Chief of Legislative Operations, Office of Governor Gavin Newsom
Caroline Godkin, Deputy Secretary for Environmental Policy and Emergency Response, California Environmental Protection Agency

Anna Ferrera, Deputy Secretary for Legislative Affairs and External Partnerships
State of California, Environmental Protection Agency

LOS ANGELES COUNTY
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MARK PESTRELLA,
CHAIR

September 8, 2020

Ms. Ashlee Yee
California Department of
Resources Recycling and Recovery (CalRecycle)
Materials Management and
Local Assistance Division
P.O. Box 4025
Sacramento, CA 95812-4025

Dear Ms. Yee:

COMMENTS ON THE ANALYSIS OF THE PROGRESS TOWARD THE SENATE BILL 1383 ORGANIC WASTE REDUCTION GOALS

The Los Angeles County Integrated Waste Management Task Force (Task Force) appreciates the opportunity to comment on the report titled "Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals" (Report), dated August 18, 2020.

The Report was prepared pursuant to the requirements of Senate Bill 1383 (Lara, Chapter 395 of 2016 State Statutes), which requires that no later than July 1, 2020, CalRecycle, in consultation with the State Air Resources Board, must conduct an analysis of the progress that the waste sector, state government, and local governments have made in achieving the organic waste reduction goals for 2020 and 2025.

SB 1383 also provides that, if CalRecycle determines that significant progress has not been made, CalRecycle may include incentives or additional requirements in the regulations to facilitate progress towards achieving the organic waste reduction goals for 2020 and 2025. Also, CalRecycle may, upon consultation with stakeholders, recommend to the Legislature revisions to those organic waste reduction goals.

Thus, the preparation of this Report provides a unique opportunity for CalRecycle to:

- Address deficiencies and factors that impede progress towards achieving the organic waste reduction goals; and

- Make appropriate recommendations to the State Legislature to address these deficiencies.

As further discussed herein, the Report does not adequately address critical deficiencies that exist and that will make it impossible for many jurisdictions to fully comply with SB 1383's requirements.

Critical deficiencies include:

- **Grossly inadequate commitment of State funding to support the development of new organic waste recycling infrastructure**. Without a strong funding commitment by the State, residents and businesses will experience exorbitant increases in the cost of service at a time when they are struggling to make ends meet.

- **Failure to recognize the impact that CalRecycle's delay in developing the SB 1383 implementing regulations will have on local governments' ability to meet the extensive new regulatory requirements.** It has taken CalRecycle four years to develop the SB 1383 regulations. Since the regulations will become effective January 1, 2022, local governments will have less than 1.5 years to develop and roll out completely new waste management systems, including ordinances, enforcement programs, data tracking and reporting systems, extensive outreach programs in multiple languages, new waste collection contracts, organic waste processing capacity, funding mechanisms, and more.

- **Failure to recognize the impact that COVID-19 has had on local governments' ability to fund expensive new programs.** Many local governments have had to make significant cuts in staffing and have a limited ability to raise fees or taxes. The Report fails to recognize the seriousness of this situation and, therefore, offers no recommendations to address it. To the contrary, recently released CalRecycle guidance documents make it clear that failure by a local government to comply, including failure to provide funding and adequate staffing, will subject a local government to enforcement action and penalties up to $10,000 per day. Thus, local governments may find themselves in a situation where they will need to cut essential services to pay for organics recycling. This is not a sustainable way of managing organic waste, as it ignores the social and economic aspects of sustainability, both of which are severely impacted by COVID-19.

- **Overreliance on composting and failure to recognize the limitations of composting processes in reducing greenhouse gas (GHG) emissions, including methane.** CalRecycle's strategy for achieving the organic waste reduction goals (as a means for reducing methane emissions from organic waste), is heavily reliant on composting and has failed to recognize the limitations of composting processes in reducing greenhouse gas (GHG) emissions, including methane. A recent study which measured methane emissions from a number of composting facilities in the San Francisco Bay Area, titled "Assessment of Regional Methane Emission Inventories through Airborne Quantification in the San Francisco Bay Area," concluded that "Significant methane emissions at

composting facilities indicate that a California mandate to divert organics from landfills to composting may not be an effective measure for mitigating methane emissions unless best management practices are instituted at composting facilities."

CalRecycle's continued overreliance on composting processes, while overlooking their associated GHG emissions, would render the findings of the subject Report highly questionable. It would also cause the Report to overestimate the GHG emissions reduction capabilities of available infrastructure while necessitating a substantial increase in the composting capacity that would be needed to achieve the same methane emissions reduction goals.

- **Failure to provide greater flexibility in the use of methane-reducing technologies and processes.** The Report recognizes that methane is "a powerful greenhouse gas 72 to 84 times more potent than carbon dioxide" and "has a short-term atmospheric life, but a long-term impact on the climate." However, the Report fails to recognize the significant methane-reducing potential of new advanced (and existing) technologies, which can help manage the more difficult-to-recycle organic wastes while achieving significant short- and medium-term reductions in methane emissions. Consequently, the Report fails to address the need for greater flexibility in the use of such technologies and processes.

Despite the lack of progress towards achieving the organic waste reduction goals (since the SB 1383 implementing regulations are yet to be finalized) and the impacts of the COVID-19 pandemic, including economic and social impacts, the Report is not recommending to the State Legislature any changes to the SB 1383 goals or implementing timelines.

Furthermore, as noted earlier, recently released CalRecycle guidance documents make it clear that failure by a local government to comply, including failure to provide funding and adequate staffing, or to adopt required ordinances (including monetary penalty provisions against residents and businesses that fail to comply) will subject a local government to enforcement action and penalties up to $10,000 per day.

Although local governments have urged CalRecycle to provide greater flexibility in complying with the SB 1383 requirements, make allowance for jurisdictions' "good faith" efforts to comply, and to extend the compliance timelines, CalRecycle is not doing so through the regulations and is not recommending doing so in this Report. Complying with SB 1383 requirements by the current deadlines will be impossible for many jurisdictions unless this situation is addressed.

Additional, more detailed comments on the Report are included in **Enclosure A**.

Therefore, the Task Force **strongly urges** CalRecycle to revise the Report to address the above deficiencies and to include, at a minimum, recommendations to the State Legislature provide legislative relief from the SB 1383 requirements, including:

- Extending the regulatory deadlines;

- Providing greater flexibility to comply with from SB 1383 requirements, including recognizing jurisdictions' "good faith efforts" to comply;

- Providing funding for the development of organics recycling infrastructure; and

- Providing flexibility in the use of technologies that can divert significant amounts of organic waste from landfills.

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Pursuant to Chapter 3.67 of the Los Angeles County Code and the California Integrated Waste Management Act of 1989 (Assembly Bill 939), the Task Force is responsible for coordinating the development of all major solid waste planning documents prepared for the County of Los Angeles and the 88 cities in Los Angeles County with a combined population in excess of ten million. Consistent with these responsibilities and to ensure a coordinated and cost-effective and environmentally sound solid waste management system in Los Angeles County, the Task Force also addresses issues impacting the system on a countywide basis. The Task Force membership includes representatives of the League of California Cities-Los Angeles County Division, County of Los Angeles Board of Supervisors, City of Los Angeles, waste management industry, environmental groups, the public, and a number of other governmental agencies.

If you have any questions, please contact Mr. Mike Mohajer, a member of the Task Force, at MikeMohajer@yahoo.com or at (909) 592-1147.

Sincerely,

Margaret Clark, Vice-Chair
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force and
Mayor, City of Rosemead

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Enc.

cc: CalRecycle (Ken DaRosa, Mark de Bie, Matt Henigan, Cara Morgan, Georgianne Turner, Chris Bria, Marshalle Graham, and Gwen Huff)
California Air Resources Board (Mary Nichols and David Mallory)
California Department of Fish and Wildlife (Chuck Bonham)
California Department of Food and Agriculture (Secretary Karen Ross)
California Department of Public Health (Director Karen Smith)
League of California Cities
League of California Cities, Los Angeles Division
California State Association of Counties
Each Member of the Los Angeles County Board of Supervisors
Fasia Davenport, Los Angeles County Acting Chief Executive Officer

Los Angeles County Agricultural Commission
Each City Mayor/Manager in the County of Los Angeles
South Coast Air Quality Management District
South Bay Cities Council of Governments
San Gabriel Valley Council of Governments
Gateway Cities Counsel of Governments
Each City Recycling Coordinator in Los Angeles County
Each Member of the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
Each Member of the Task Force Alternative Technology Advisory Subcommittee
Each Member of the Task Force Facility and Plan Review Subcommittee

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force respectfully submits the following comments on CalRecycle's report titled "Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals" (Report), dated August 18, 2020.

The Report was prepared pursuant to the requirements of Senate Bill 1383 (Lara, Chapter 395 of 2016 State Statutes), which requires that no later than July 1, 2020, CalRecycle, in consultation with the State Air Resources Board, shall conduct an analysis of the progress that the waste sector, state government, and local governments have made in achieving the organic waste reduction goals for 2020 and 2025.
The analysis must include all of the following:

- The status of new organics recycling infrastructure development, including the commitment of state funding and appropriate rate increases for solid waste and recycling services to support infrastructure expansion.

- The progress in reducing regulatory barriers to the siting of organics recycling facilities and the timing and effectiveness of policies that will facilitate the permitting of organics recycling infrastructure.

- The status of markets for the products generated by organics recycling facilities, including cost-effective electrical interconnection and common carrier pipeline injection of digester biomethane and the status of markets for compost, biomethane, and other products from the recycling of organic waste.

SB 1383 also provides that, if CalRecycle determines that significant progress has not been made, CalRecycle may include incentives or additional requirements in the regulations to facilitate progress towards achieving the organic waste reduction goals for 2020 and 2025. Also, CalRecycle may, upon consultation with stakeholders, recommend to the Legislature revisions to those organic waste reduction goals.

The comments on the Report, which are submitted herein as part of the stakeholder consultation process, are intended to assist CalRecycle in identifying critical deficiencies and factors that impede progress towards achieving the organic waste reduction goals of SB 1383 and to urge CalRecycle to make appropriate recommendations to the State Legislature to address those deficiencies.

GENERAL COMMENTS:

Implementing the SB 1383 regulations will be a massive undertaking. The State of California lacks the infrastructure necessary to recycle organic waste. The capacity shortfall is especially severe in Los Angeles County and the Southern California region. Developing the needed infrastructure will require significant capital investment.

CalRecycle has estimated that implementing the regulations will cost nearly $40 billion but has only identified/provided $140 million in grants and loans for organic waste recycling infrastructure. The Task Force understands that funding for infrastructure is limited by Greenhouse Gas Reduction Fund allocations. However, if the State is truly serious about the critical importance of combating climate change by reducing methane emissions from landfills, then the State needs to do its part by demonstrating a strong commitment to provide State funding for the development of much needed organic waste recycling infrastructure. If the State is not able or willing to do so, how can the State demand local governments to do what the State is unwilling to do?

SB 1383 recognizes that achieving the organic waste reduction goals is **a shared responsibility** where the State, local governments, the waste management industry, and California residents/businesses all have an important role to play. That is why SB 1383 requires that the Report analyze the progress that the waste sector, state government, and local governments have made in achieving the organic waste reduction goals, including the commitment of State funding and appropriate rate increases for solid waste and recycling services to support infrastructure expansion.

If adequate State funding for new infrastructure development cannot be provided, CalRecycle should recognize that local governments may be unable to make up the difference and fully comply with SB 1383 by the established deadlines. Also, it has taken CalRecycle four years to develop the SB 1383 draft regulations which has yet to receive the required approval by the State Office of Administrative Law (OAL). Assuming no change in the draft regulations currently before the OAL and approval by that agency, the draft regulations will become effective January 1, 2022, and thus local governments will have less than 1.5 years to develop and roll out completely new waste management systems, including ordinances, enforcement programs, data tracking and reporting systems, extensive outreach programs in multiple languages, new waste collection contracts, organic waste processing capacity, funding mechanisms, and more. **The State should not impose requirements on local governments that it knows are impossible to meet**.

Local jurisdictions, acting independently or in concert with the waste management industry, will need years to plan organic waste recycling facilities, complete environmental reviews, secure all applicable permits (e.g., land use, air quality, building, grading, solid waste facility, etc.), secure construction funding, complete construction, and comply with many other requirements that are needed to roll out collection systems that complement the new recycling infrastructure.

Although CalRecycle stated in the "SB 1383 Compliance Process" guidance document that it may provide three-year compliance extensions for jurisdictions lacking adequate organic waste recycling infrastructure - provided they have made a “substantial effort” to

comply (i.e., done everything within their control and authority), this will still not be enough time to develop the dozens of new facilities that are needed to process organic waste from Los Angeles County.
CalRecycle should recognize that jurisdictions will need to invest significant time and resources to implement organic waste collection programs and develop organic waste recycling infrastructure. As mentioned earlier, CalRecycle has taken four years to develop the SB 1383 regulations, which are still not finalized. While this is somewhat understandable due to complex nature of the task, complying with the extensive requirements of the regulations will be much more complex.

Implementing organic waste collection programs will require local jurisdictions to renegotiate existing waste hauling contracts or revamp entire waste collection systems such as developing exclusive franchise systems or garbage disposal districts, which will require significant stakeholder and customer outreach. Monitoring and enforcing the requirements will require local jurisdictions to develop information systems, hire additional staff, and adopt ordinances to impose penalties on residents and businesses. Funding these programs as well as the needed infrastructure will require local jurisdictions to raise or create new fees and/or taxes, which is a challenging political process and requires extensive community participation. These challenges have only been exacerbated by the COVID-19 pandemic, which has resulted in residents becoming unemployed and facing eviction, the permanent closure of small businesses, and severe fiscal impacts to local governments.

Procurement Requirement – Impact of Electrification on Investments in Renewable Natural Gas

The Report recommends that local jurisdictions satisfy the SB 1383 procurement requirements by using renewable natural gas (RNG) fuel in existing compressed natural gas (CNG) fleets. It is not clear how CalRecycle can make this recommendation when the California Air Resources Board (CARB) is pushing for electrification of local government fleets and refuse fleets by the year 2040. CalRecycle must provide an analysis of the effects of CARB policies on SB 1383 compliance and the development of sufficient anaerobic digestion (AD) and RNG infrastructure, which are financed based on a 20- to 30-year operating life, if fleets are expected to transition to battery electric in 20 years or less.

Good Faith Effort

As part of the "Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals," Public Resources Code (PRC) §42653 (b) allows CalRecycle to include incentives or additional requirements in the regulations to facilitate progress towards achieving organic waste reduction goals. The additional requirements are listed in PRC §42652 and include different levels of requirements for local jurisdictions and phased timelines based upon their progress in meeting the organic waste reduction goals for 2020 and 2025. PRC §42652.5 (a) (4) also states that CalRecycle shall base its determination of progress on relevant factors, including, but not limited to, reviews conducted pursuant to PRC §41825, which describes the "Good Faith Effort" review of a jurisdiction's compliance.

The "SB 1383 Compliance Process" guidance document states that, "If CalRecycle takes enforcement action, it can consider extenuating circumstances as well as **substantial efforts** made by a jurisdiction." The Task Force is concerned that it will be virtually impossible for jurisdictions to demonstrate that they have made a "**substantial effort**" to comply, as "substantial effort" is defined by CalRecycle, since they would be required to demonstrate that they have done "**everything** within their **authority** and **ability** to comply" (emphasis added). The term "everything" covers everything (i.e., every possibility, every potential course of action, etc.), it's open ended.

The guidance document further specifies that "**substantial effort**" does **not** include circumstances where a decision-making body of a jurisdiction has not taken the necessary steps to comply, including, but not limited to, failure to provide adequate staffing, provide sufficient funding, and failure to adopt ordinances, including those that will raise customer rates and impose penalties.

This hard line policy approach ignores the economic reality and hardship that local governments and ratepayers are facing due to the COVID-19 pandemic. Hiring additional staff to implement the myriad of requirements in the SB 1383 regulations, such as waste collection monitoring and enforcement, at a time when many local governments are facing staff layoffs is not feasible.

CalRecycle should reevaluate its criteria for determining "substantial effort," taking the effects of COVID-19 into consideration. CalRecycle has the opportunity to recognize and acknowledge the challenges local jurisdictions will face in complying with SB 1383 and make appropriate recommendations to the State Legislature regarding any necessary legislative fixes, including, but not limited to, extending the regulatory deadlines; providing greater flexibility to comply with from SB 1383 requirements, including recognizing jurisdictions' "good faith efforts" to comply; providing funding for the development of organics recycling infrastructure; and providing flexibility in the use of technologies that can divert significant amounts of organic waste from landfills.

SPECIFIC COMMENTS:

1. The Report states that CalRecycle estimates that approximately 27 million tons of organic material will need to be redirected from landfills in 2025 to meet the SB 1383 reduction goal and that approximately 18 million tons of organic waste will need to be processed at compost, anaerobic digestion (AD), chip-and-grind, or other organic waste processing facilities (Page 1). This statement implies that CalRecycle expects that 9 million tons of organic waste will be source reduced or donated for human consumption each year. Can CalRecycle verify if this assumption is correct? If so, has CalRecycle conducted an analysis to determine if there is adequate existing edible food recovery capacity in the State?

2. The Report mentions that very few facilities can accept food-soiled paper (Page 15). Can CalRecycle provide clarification on whether paper coffee cups, food wrappers, etc. generated by businesses are required to be diverted from landfill disposal? Will jurisdictions face enforcement actions for allowing businesses to continue disposing food-soiled paper items in the trash, even if these items

comprise less than 25 percent of the black bin and the businesses are diverting other organic waste such as food waste and green waste?

3. The Report states that most of the State's jurisdictions already require mandatory residential organics collection service and that jurisdictions that are implementing mandatory commercial organics recycling programs are likely to meet the requirements of the regulations before January 1, 2022 (Page 18). The Report does not acknowledge that most residential organic waste collection programs only collect green waste and do not collect food waste, paper products, or other organic waste. Residential waste collection systems will require significant contract modifications, rate increases, outreach, and infrastructure development to become SB 1383-compliant. In addition, many existing organics processing facilities can accept green waste but are not permitted to accept food waste mixed in with green waste and do not want to accept food waste due to concerns about environmental impacts such as odors. This means that entirely new facilities will need to be developed to process mixed organic waste. The Report should acknowledge that jurisdictions may not be able to fully implement residential and commercial organic waste collection programs by January 1, 2022, due to a lack of suitable organic waste recycling infrastructure and the difficulty in raising waste collection rates to fund these programs in light of the COVID-19 pandemic and its adverse economic impact on residents and businesses.

4. The Report discusses concerns with the composting process, which can generate criteria air pollutants such as volatile organic compounds (VOCs), nitrogen oxides (NOx), and particulate matter (Page 21). CalRecycle should consider a study on alternatives to composting and land application for organic waste management, including anaerobic digestion and non-combustion thermal conversion technologies. This study should compare the emissions of carbon dioxide, methane and criteria air pollutants from alternative technologies with those from composting and land application. The "Assessment of Regional Methane Emission Inventories through Airborne Quantification in the San Francisco Bay Area" published in Environmental Science & Technology on July 7, 2020, states that "significant methane emissions at composting facilities indicate that a California mandate to divert organics from landfills to composting may not be an effective measure for mitigating methane emissions unless best management practices are instituted at composting facilities." This finding also implies that land application of green waste, biosolids, and digestate, which are considered reductions in landfill disposal under the Senate Bill 1383 regulations, may also generate significant methane emissions as well.

   The study should also take into consideration the potential unintended consequences of managing organic waste through composting. Millions of additional tons of organic waste will be collected, transported, processed, and recycled due to the proposed regulations. Local agricultural commissioners and every entity in the chain of custody may not be able to successfully prevent all quarantined materials from being transported erroneously outside of the quarantine zone. Organic waste that is mulched or composted may be used by farmers or otherwise land applied. Pathogens and microorganisms may be present in mulch compost that is not processed appropriately. The study should identify the impacts

of using compost containing pathogens and/or microorganisms and recommending possible mitigation measures in the event that quarantined material is accidentally commingled with non-quarantined material and/or transported outside the quarantine zone.

5. The Report describes barriers to food waste digestion, such as that fuel produced from digesters processing food waste receives less valuable Renewable Fuel Standard (RFS) credits than fuel produced from landfill gas, animal manure, agricultural waste, green waste, or wastewater sludge. The United States Congress would have to make revisions in order for fuel produced from food waste to receive the same credits as other organic materials (Page 26). CalRecycle should consider advocating changes to the RFS program with the federal government to provide greater credits for food waste digestion projects.

6. The Report describes challenges for AD and biomass conversion projects to join the BioMAT program, which offers power purchase agreements (PPAs) for eligible bioenergy projects (Page 30). CalRecycle should consider supporting the California Public Utilities Commission (CPUC)'s Proposed Decision on the BioMAT program dated July 24, 2020. The Proposed Decision extends the program end date to the end of 2025 and establishes deadlines for utilities to review project eligibility and approve contracts. CalRecycle should also work with the State legislature to develop a Renewable Portfolio Standard (RPS) program for renewable natural gas (RNG) to further incentivize the development of AD projects.

7. The Report states that although paper and old corrugated cardboard (OCC) are technically recyclable, their disposal in 2018 alone exceeds the 5.7-million-ton organic waste disposal limit required by SB 1383. This suggests additional measures may be necessary to address this specific portion of the waste stream (Page 31). The Report also states that CalRecycle may need to place a greater focus on the diversion of the organic portion of packaging waste to meet the SB 1383 targets, such as requiring manufacturers to produce new products with minimum recycled content (Page 34).

   In addition to these measures, CalRecycle should consider providing diversion credit for all unrecyclable organic waste and solid waste diverted from landfills through non-combustion thermal conversion technologies. Although the State considers unrecyclable paper to be "biomass" that will receive diversion credit when processed through thermal conversion, the definition of "biomass" is quite narrow and the volume of municipal biomass materials may be too low to support the widespread development of biomass conversion facilities. Paper and OCC are collected alongside a wide variety of materials that are usually processed at MRFs to remove unrecyclable materials, referred to as "MRF residuals". The State should provide diversion credit for all unrecyclable MRF residuals processed through non-combustion thermal conversion to ensure that all unrecyclable paper and OCC can be diverted from landfill disposal.

8. The Report states that the procurement requirements will motivate local jurisdictions to ensure food and green waste generated by their citizens has very few contaminants, as it would cost them much more to have it removed from the

product they are required to procure. The Report states that because it would be unacceptable to the public for jurisdictions to use material in public spaces, parks, and landscaping that has visible contamination, jurisdictions will use education, monitoring, and enforcement to ensure their generators do not contaminate the feedstock. (Page 32).

The Report should recognize that large jurisdictions usually have contracts with multiple waste haulers who will differ in how they choose to provide organic waste collection services (e.g. mixed waste collection, food waste mixed with green waste, separate food waste bin) and which materials are considered "contamination." In addition, large jurisdictions expect to divert organic waste to multiple organics recycling facilities, many of which will likely be in other jurisdictions. Large jurisdictions also expect to procure recovered organic waste products from multiple facilities, which are likely to be processing organic waste from multiple jurisdictions.

Although jurisdictions will be motivated to reduce contamination, the procurement requirements do not necessarily guarantee that jurisdictions will be successful in doing so, even with robust education, monitoring, and enforcement. CalRecycle must consider the challenges of preventing contamination in large jurisdictions when assessing whether a jurisdiction has complied with the outreach, monitoring, enforcement, and procurement requirements of SB 1383.

From: Collins, Andrea <acollins@nrdc.org>
Sent: Tuesday, September 8, 2020 3:57 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Comments re. SB 1383 Analysis Report

Dear Ms. Yee and SB1383 Implementation team,

Thank you for your presentation and report regarding progress toward the SB1383 Organic Waste Reduction Goals.

As the recent record-breaking fires have reminded us, the effects of climate change are catastrophic and already present. California must do its part to reduce climate pollution in accordance with the law written into SB1383. Preventing methane-producing materials from entering the landfill is an important means of achieving those goals. We agree that "to meet climate change goals and to protect human health and the environment from negative impacts of greenhouse gas emissions, California must not delay the implementation or change the diversion or compliance goals set in SB 1383."

Furthermore, strategies that emphasize waste prevention in addition to recycling must continue to be at the forefront of CalRecycle's messaging. Encouraging less packaging and focusing on preventing food from becoming waste will reduce the gap in infrastructure capacity. We applaud the agency's highlighting the need for waste prevention messaging in the education and outreach requirements.

It is important to note that the results of the edible food recovery study are an addition to the amount of food that is already being rescued and diverted from landfill. The study results suggest that at least 225,000 tons of edible food would need to be recovered each year to meet the SB 1383 metric; however, the study did not assess a complete baseline of how much food is already moving through the emergency food relief system. Therefore, food rescue infrastructure will need to absorb an additional 225,000 tons of food on top of what is already being rescued in order to meet the SB1383 targets. Additionally, if progress assessments only look at how much food is donated in future years, it will not be possible to assess progress toward this target unless rescuers are able to also report how much food they acquired in 2018 as part of the baseline. We recommend that food rescue infrastructure needs assessments account for the amount of food that is already being rescued, and that targets be specifically framed as additional to the baseline year.

Sincerely,
Andrea Collins
ANDREA COLLINS
Sustainable Food Systems Specialist
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER ST., 21ST FLOOR
SAN FRANCISCO, CA 94104
ACOLLINS@NRDC.ORG
NRDC.ORG

From: Evan Edgar <evan@edgarinc.org>
Sent: Monday, August 24, 2020 8:10 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: SB 1383 Progress Report - Finding 3-1 Essential Public Service

AB 1045 failed in mission of providing permit coordination and expires on Dec. 21, 2020 without reducing any regulatory barriers while CARB only added to the regulatory barriers. Solid waste, recycling and composting was deemed an essential public services during the pandemic, where recycling and composting facilities should be designated as an essential services with the support of CARB and CalRecycle to do this at the local air districts to provide this critical permit coordination, This Report fails to mention anything about composting as an essential public service, even though the Final EIR for SB 1383 Regulations provide some context.

Evan W.R. Edgar
Principal
Edgar & Associates, Inc.
1822 21st Street
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916-739-1200 (office)
916-444-5345 (mobile)

From: Colleen Foster <CFoster@oceansideca.org>
Sent: Tuesday, September 8, 2020 3:48 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: Yee, Ashlee@CalRecycle <Ashlee.Yee@calrecycle.ca.gov>; DaRosa, Ken@CalRecycle <Ken.DaRosa@calrecycle.ca.gov>; Heller, Zoe@CalRecycle <Zoe.Heller@calrecycle.ca.gov>; EPAMichelle Hutzel <michelle.hutzel@calepa.ca.gov>; McIntyre, Mindy@CalRecycle <Mindy.McIntyre@CalRecycle.ca.gov>; Henigan, Matt@CalRecycle <Matt.Henigan@calrecycle.ca.gov>; Adrina Hernandez <AHernandez@oceansideca.org>; Annika Andersen <AAndersen@oceansideca.org>; 'mmedrano@chulavistaca.gov' <mmedrano@chulavistaca.gov>; 'CGinno@sandiego.gov' <CGinno@sandiego.gov>; 'JFajardo@sandiego.gov' <JFajardo@sandiego.gov>; 'FPacheco@cityofelcentro.org' <FPacheco@cityofelcentro.org>; 'ACampos@cityofelcentro.org' <ACampos@cityofelcentro.org>; 'CSKYE@dpw.lacounty.gov' <CSKYE@dpw.lacounty.gov>; 'Michael.Gonzales@sanjoseca.gov' <Michael.Gonzales@sanjoseca.gov>; 'shikha.gupta@sanjoseca.gov' <shikha.gupta@sanjoseca.gov>; 'arabago@cityofventura.ca.gov' <arabago@cityofventura.ca.gov>; 'rcordova@toaks.org' <rcordova@toaks.org>; 'EOzorak@Glendaleca.gov' <EOzorak@Glendaleca.gov>; 'lmarshall@sandimasca.gov' <lmarshall@sandimasca.gov>; 'sgarwick@sandimasca.gov' <sgarwick@sandimasca.gov>; 'lehonc@saccounty.net' <lehonc@saccounty.net>; 'dvillasenor@ivrma.org' <dvillasenor@ivrma.org>; 'KPrue@sandiego.gov' <KPrue@sandiego.gov>; 'jsands@sandiego.gov' <jsands@sandiego.gov>; 'cbrown@delmar.ca.us' <cbrown@delmar.ca.us>; 'lrobinson@escondido.org' <lrobinson@escondido.org>; 'colivas@lemongrove.ca.gov' <colivas@lemongrove.ca.gov>; 'HHeckman@cityofsanteeca.gov' <HHeckman@cityofsanteeca.gov>; 'jsinocruz@ci.vista.ca.us' <jsinocruz@ci.vista.ca.us>; 'IMurguia@poway.org' <IMurguia@poway.org>; 'CAJWANI@dpw.lacounty.gov' <CAJWANI@dpw.lacounty.gov>; 'SCHONG@dpw.lacounty.gov' <SCHONG@dpw.lacounty.gov>; 'CARUIZ@dpw.lacounty.gov' <CARUIZ@dpw.lacounty.gov>; 'PHOLLAND@dpw.lacounty.gov' <PHOLLAND@dpw.lacounty.gov>; 'CSHEPPARD@dpw.lacounty.gov' <CSHEPPARD@dpw.lacounty.gov>; 'smilewski@dpw.lacounty.gov' <smilewski@dpw.lacounty.gov>; 'ERomero@dpw.lacounty.gov' <ERomero@dpw.lacounty.gov>; 'CHanson@placer.ca.gov' <CHanson@placer.ca.gov>; 'eric.zetz@mcrwma.org' <eric.zetz@mcrwma.org>; 'alexander.brideau@lacity.org' <alexander.brideau@lacity.org>; 'Erin.carr@smgov.net' <Erin.carr@smgov.net>; 'lobrien@cityoflaverne.org' <lobrien@cityoflaverne.org>; 'ClaiborneJ@saccounty.net' <ClaiborneJ@saccounty.net>; 'brian.probolsky@ocwr.ocgov.com' <brian.probolsky@ocwr.ocgov.com>; 'BONANNOT@kerncounty.com' <BONANNOT@kerncounty.com>; 'Melissa.St.John@aptim.com' <Melissa.St.John@aptim.com>; 'Russ.Robertson@reedley.ca.gov' <Russ.Robertson@reedley.ca.gov>; 'Chris.Celsi@SMGOV.NET' <Chris.Celsi@SMGOV.NET>; 'Avecita.Jones@carlsbadca.gov' <Avecita.Jones@carlsbadca.gov>; 'hneff@elkgrovecity.org' <hneff@elkgrovecity.org>; 'mkashuba@cityofsacramento.org' <mkashuba@cityofsacramento.org>;

'ddolfie@cacities.org' <ddolfie@cacities.org>
Subject: Comment Letter - SB 1383 Analysis and Progress Report

Good afternoon,

Please see the attached comment letter in response to CalRecycle's "Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals" Report. Please note, cc'd on this email are signatories as well as additional jurisdictions that represent a growing coalition of agencies who have expressed concerns over SB 1383 along with a desire for CalRecycle to work collaboratively with us to find immediate and long term resolution and success.

Thank you,

Colleen Foster, MELP
Environmental Officer
Water Utilities Department
300 N. Coast Hwy.
Oceanside, CA 92054
760-435-5021
cfoster@oceansideca.org

August 25, 2020

Ashlee Yee
Materials Management and Local Assistance Division
California Department of Resources Recycling and Recovery
P.O. Box 4025
Sacramento, CA 95812

RE: Support for SB 1383 Implementation

Dear Ms. Yee and the CalRecycle SLCP Team,

Thank you for providing an opportunity to share comments on today's webinar about SB 1383 (Lara, 2016) implementation. We appreciate the inclusion of many of our suggestions submitted in February, June, and October in response to the draft regulations, and CalRecycle's commitment to address Short Lived Climate Pollutant goals while also aligning with our mission to end hunger in California.

The California Association of Food Banks is in strong support of implementation of SB 1383 regulations. Since March of this year, the COVID-19 crisis has created unbelievable levels of hunger across our state – in some counties hunger has doubled, in some places tripled. The most recent data shows that food insecurity in California overall has risen 2.4 times the pre-pandemic levels, to 21.8%. Food banks all over California are reimagining their programming and expanding their scale of operations to meet the tremendous demand in their communities. The SB 1383 regulations will give California another way to divert food to food banks and people in need, at a critical moment of need for food resources in our state.

As CalRecycle implements the regulations, we remind the Department that CAFB has offered extensive comments critical to the anti-hunger mission of our Association and 42 member food banks. We ask for the Department to take as many of these recommendations in the final regulations as possible, and to provide detailed explanations in the Statement of Reasons for any that are not adopted.

We again thank the CalRecycle team for all their work to finalize and implement SB 1383.

Sincerely,

Becky Gershon
Senior Policy Advocate
California Association of Food Banks

From: Jack Johnson <jejohnson@smcgov.org>
Sent: Tuesday, August 25, 2020 10:43 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Question for presentation

I see no mention of community composting in the report. Does the expansion of small scale community composting and collection facilities count towards 1383? If not, why not?

Jack Johnson
Senior Sustainability Specialist
Waste Reduction

County of San Mateo
Office of Sustainability
455 County Center, 4th Floor
Redwood City, CA 94063
My cell phone number is 970-948-9874—please use it during our Shelter in Place Order
jejohnson@smcgov.org
http://www.smcsustainability.org

From: Michelle Keshishian <mkeshishian@ci.commerce.ca.us>
Sent: Wednesday, August 26, 2020 10:03 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: RE: SB 1383 Analysis Report Webinar Questions

Also,

- It would be beneficial for jurisdictions to receive grants to implement SB 1383, like other grants available such as Beverage Container Recycling, etc. Is this something that would be considered?
- To ensure an accurate systemic statewide data collection system, the state should fund programs such as Recyclist or Minerva for each jurisdiction. Is this something that would be considered? A fellow colleague mentioned it in the webinar yesterday, and this type of resource would be invaluable to each jurisdiction.

With Appreciation,

Michelle A. Keshishian
Environmental Coordinator
323.722.4805 ext.2812

From: Michelle Keshishian
Sent: Wednesday, August 26, 2020 9:26 AM
To: 'SLCP.Organics@CalRecycle.ca.gov'
Subject: SB 1383 Analysis Report Webinar Questions

Good Afternoon:

Thank you for administering this webinar, it was informative and helpful to know the updates and timelines of current and new legislation requirments.

I am inquiring about the following:

- Can you please share how you will help jurisdictions with implementation beyond the Model Tool Templates and Case Studies? There were some comments made but it was hard to hear as some of the audio volume was low.

- Why has CalRecycle chosen not to change the timeline of the implementation date when they had the opportunity to do so? During this challenging time, jurisdictions need realistic implementation goals with this unfunded mandate due to the loss of budgets and staff from the effects of COVID-19. I understand how important the goals of this legislation are, it is also important that we are successful in the implementation process to ensure that we reach our goals. Is rushing the process the best way to go about this?

With Appreciation,

Michelle A. Keshishian
Environmental Coordinator
323.722.4805 ext.2812

From: Anna Kramer <AKramer@iwpusa.com>
Sent: Tuesday, August 25, 2020 11:29 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Analysis of the Progress Towards the SB 1383 Organic Waste Reduction Goals

Will the below points count towards the recovered organic waste product procurement target?

1. Animal feed made into human food (ex: feeding a dairy cow that produces milk/cheese)
2. Vegetable oil turned into biofuels

Thank you,

Anna Kramer
Executive Assistant
Imperial Western Products, Inc.
(760)398-0815 Ext. 287

From: Anna Kramer <AKramer@iwpusa.com>
Sent: Tuesday, August 25, 2020 10:52 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Analysis of the Progress Towards the SB 1383 Organic Waste Reduction Goals

Since Animal feed is considered a diversion from disposal, are you going to be giving grants for animal feed and not only to compost and digestion?

Thank you,

Anna Kramer
Executive Assistant
Imperial Western Products, Inc.
(760)398-0815 Ext. 287

From: Anna Kramer <akramer841@yahoo.com>
Sent: Tuesday, September 8, 2020 4:59 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Questions Regarding Analysis of the Progress Toward the SB1383 Organic Waste Reduction Goals Report

Hello,

Below are my questions regarding the Anaylsis of the Progress Toward the SB1383 Organic Waste Reduction Goals Report dated August 18, 2020 and the webinar that took place on August 25, 2020.

- Page 1:
    - 3rd paragraph.
        - § CDFA/CARB TOPIC: "By recycling these materials into compost, *fuel*, and other products, California can avoid generating 4 million metric tons of CO2 equivalent (MMTC02e) annually by 2030 while also generating jobs and producing valuable resources in the state."
            - · Fats, Oils and Greases (FOG) and or used cooking oil (UCO) are considered organic material/food waste that needs to be diverted and recycled by CalRecycle under SB1383/AB1826. Converted into biodiesel (alternative biofuels) is the same thing as Anaerobic Digestion into Renewable Natural Gas.
                1. Will this be considered as recycled material? California Air Recourses Board (CARB) does.

· Page 2-3:

- 1st paragraph.
    - § 1st sentence: "CalRecycle recommends maintaining the disposal reduction targets set forth in SB 1383."
        - · AB1826/SB1383 number of 50% for 2014 goals were supposed to be released by July 1, 2020. What are the AB1826 2020 numbers?
    - § 4th sentence: "In addition, CalRecycle will release a customizable model franchise agreement and model enforcement ordinance for jurisdictions"
        - · When will this be released and will it have public comment?

.

Page 5:

- 1st paragraph: "By significantly reducing the amount of organic waste sent to landfills, we can lower one of the top sources of methane contributing to climate change, maximize landfill life spans, and transform organic waste into value-added resources like compost, biofuel, and electricity. Doing so will contribute to our state's economic health by creating jobs and strengthening the circular recycling economy within our state."

  - § CalRecycle states Biofuels as a value added resource.

  - § Will animal feed also be considered a value added resource?

- 2nd paragraph: "SB 1383 also established a goal to recover at least 20 percent of the edible food that is destined for landfills and redirecting it to needy Californians by 2025."

  - § What is the technical definition of edible food recovery? Could animal feed cover this?

    - · Example: Using breweries yeast and feeding to dairy cows be considered under this 20 % because it's making dairy product from a reusable source?

- 3rd paragraph COVID-19 Related Impacts: Was animal feed taken into consideration with these 195 California jurisdictions and the 39% that offer food waste collection to commercial businesses?

· Page 6:

- Process for Determining Progress:

  - § 3rd bullet point: "An analysis of the infrastructure and markets for other organic waste handling processes (e.g., biomass conversion, animal feed production, and alternative daily cover)"

    - · Was the CDFA involved with this and if so what was the outcome? What are the volumes of animal feed?

· Page 7:

- Analysis Item 1: Status of New Organics Recycling Infrastructure Development

  - § "CalRecycle estimates that 27 million tons will have to be redirected from landfills in 2025, including edible food and approximately 18 million tons of organic waste that will need to be processed at compost, AD, or chip-and-grind facilities. However, based on current

capacity projections, the state will only be able to process about 10 million tons of this material."

· Why was animal feed not included in this calculation when mentioned throughout the report?

· Page 8:

o Compost:

§ Only 35 compost facilities that *accept food waste material.*

· How will Compost be able to handle the 27 million tons of organics material largely with food waste?

· Page 12-13 CDFA (ISSUE):

o Analysis Item 1: Status of New Organics Recycling Infrastructure:

§ Animal Feed:

· It was said that if the material has always gone to animal feed then it will not be considered would not be a reduction.

1. This is confusing and contradicts the statements in the meeting

2. CalRecycle says Fats , Oils and Greases (UCO) is an organic material that need to be recycled but that is now not allowed to count towards the diversion numbers cause the program is already created diverted this material?

· Page 17-18 Analysis Item 2: Commitment of State Funding and Adjustment of Local Rate Structures for Solid Waste and Recycling Services to Support Infrastructure Expansion:

· Does the public have any input on the funds being used for? . Encourage this for enforcement for organic diversion at landfills and pay for the enforcement to these rules.

· Where are these fees going to? CalRecycle has awarded close to 100 million in grants to ASD and compost

· Page 21:

o Air Quality 1st paragraph:

§ “The Compost Working Group collaboratively developed a discussion paper that identified specific action items to assist composting project planners with the air permitting process. To support this effort, CalRecycle is in the process of implementing a research contract that will assist both compost facility operators and regional air district staff on how composting operations can be managed to reduce air pollutants. CalRecycle recognizes the importance of working with all agencies and stakeholders involved to achieve statewide goals that reduce greenhouse gas emissions while also protecting the environment, public health, and communities”

· When will this scope of report be put together? When will it be released and open to public comment? Again, the study referenced (https://pubs.acs.org/doi/10.1021/acs.est.8b04481) says air quality and odor are a concern. Are they addressing that?

· Page 22 *Analysis Item 4: Status of Markets for Compost:*

§ Are they taking biodiesel and animal feed as recovered?

· What is the true amount of compost for market and how much can we handle in CA?

· They are making cities purchase compost? Where are they going to apply this and where are they purchasing this from?

Thank you,
Anna Kramer

From: K Frevert / H Levenson <kathyhoward85@yahoo.com>
Sent: Monday, August 31, 2020 8:11 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Comments on SB 1383 Report

Dear CalRecycle,

Thank you for holding the "SB 1383 Market Analysis Webinar" on August 25. If I understood the presentation correctly, the "Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals" report discussed in the webinar will not be revised significantly prior to its finalization; instead, comments from the public will be made available as part of the finalized report. Accordingly, I would like to submit the following brief comments.

In general, the report makes a strong case for maintaining the SB 1383 requirements as is, and for considering new initiatives relative to the significant increase in the disposal of old corrugated cardboard. These recommendations make sense in light of the State's climate change goals and the major role that organics (including paper and paperboard) can play in contributing to meeting those goals.

However, the report also misses several opportunities to highlight other key issues associated with organics management and climate change goals:

1) Funding – As written, both the Executive Summary and Conclusions sections only have two major recommendations, i.e., keep the SB 1383 requirements as is and consider doing more to address the increased disposal of old corrugated cardboard. It is very surprising that the report does not make any recommendations about funding needed to develop the necessary infrastructure. CalRecycle could identify options for the Legislature to consider, such as changing the current tipping fee, increasing funding provided from the Greenhouse Gas Reduction Fund for CalRecycle infrastructure grants, establishing a dedicated bond fund, and initiating development of an organics incentive payment program.

2) Air quality permitting section – Air quality permitting for composting facilities is a major issue, one that CalRecycle has been working on for years with CARB, CAPCOA, and individual air districts. This section of the report was very short on describing work to date and identifying key issues, especially compared with the much more extensive later section on grid/pipeline issues. While these permitting issues may not be resolvable via state legislation, CalRecycle should describe the issues in more detail and, especially, identify what additional work it can and should do in collaboration with other parties to resolve them.

3) Local rates section – Given the expected costs to local jurisdictions that are associated with SB 1383 implementation, it is very surprising that this section of the report does not describe most of the key issues and findings identified in the January 2020 R3 draft contract report "SB 1383 Local Services Rates Analysis Draft Report." While these findings may not lend themselves to action by the Legislature, CalRecycle is missing an opportunity to highlight the need for local jurisdictions to be

planning now for budgetary and organizational changes that may be needed to ensure compliance with the SB 1383 regulatory requirements.

Thank you for considering these comments. I look forward to seeing the draft tools that will be made available soon and to finalization and implementation of the regulations.

Sincerely,

Howard Levenson, Ph.D. (retired)

From: Justin Malan <justin@ccdeh.com>
Sent: Tuesday, August 25, 2020 10:48 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: Christine Sosko <Christine.Sosko@sonoma-county.org>
Subject: Question on 1383 progress report

If there is greater reliance on co-gen how will we deal with the increase in land-app or disposal of the sludge?

Justin Malan
CCDEH/CAEHA

From: Ryan McCarthy
Sent: Tuesday, September 8, 2020 5:11 PM
To: LAMD@calrecycle.ca.gov; SLCP.Organics@calrecycle.ca.gov; Timothy.Hall@CalRecycle.ca.gov
Cc: Vincent Wiraatmadja
Subject: Comments on Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals

Hello Timothy,

Please find attached a comment letter on behalf of our client, True North Renewable Energy, regarding the 8/25 workshop on Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals.

If possible, can you please confirm receipt of these comments and that they'll be submitted into the record? I tried to also submit a text version of these comments into the general public comments form, but I'm not sure it went through. If there is a preferred way to submit them, please let me know.

Thank you,

Ryan

Ryan McCarthy, PhD
Director, Climate and Clean Energy
Weideman Group, Inc.
(916) 217-4714
ryan@weidemangroup.com

September 8, 2020

CalRecycle
1001 I Street
Sacramento, CA 95814

Re: Comments on Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals

True North Renewable Energy, LLC (TNRE) appreciates the opportunity to comment on the Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals (Progress Report). For decades, TNRE and True North Venture Partners (True North) have been global leaders, facilitating change in the waste and energy sectors. True North's goal is to invest in disruptive technologies to address climate change and improve fundamental societal practices to be more sustainable, including organic waste and recycling. We also contribute research and analysis in major international markets to help shape policies that enable green economic expansion and advance climate change goals.

We appreciate CalRecycle's and CalEPA's leadership to move forward with this new regulation and program. It is an important time to drive this policy forward, which will expand the green economy, create new investment opportunities and jobs, and reduce super pollutants at landfills, many or which are located in impacted communities. Organics diversion and recycling will also create opportunities for new beneficial products, like biomethane to replace fossil gas and high-value soil amendments to enrich and improve soils for agriculture sector.

We agree with the findings in the Progress Report that meeting the organics diversion goals in the SB 1383 regulations, on the timeframe in the statute, is critical to achieving California's climate goals. We further agree with the assessment that the state has existing and growing capacity to manage organic waste streams, but that significant expansion of new capacity is needed to meet the statutory organics diversion requirements in SB 1383. **CalRecycle and the state can ensure capacity is expanded as needed by quickly providing long-term certainty about the availability of diverted feedstock to project developers.**

Key Action Items

The agency and state can support expanded capacity and provide additional market certainty by:

- Committing to the meeting the targets, timelines, and other critical aspects of the regulation, including mandatory collection and procurement requirements. We appreciate this was done in this Progress Report and encourage CalRecycle and other state agencies to continue to make these commitments clear at every opportunity.
- Supporting and enhancing the state's commitment to the regulations through strong, clear and consistent enforcement.

- Working to ensure that all municipalities develop a plan over the next year with intentional feedstock agreements and an infrastructure strategy.
- Supporting long-term feedstock agreements, of at least 15 years, in the model franchise agreement and otherwise.
- Supporting long-term offtake agreements, of at least 15 years, for renewable gas and other products of diverted organic waste, in the model procurement agreement and otherwise.
- Working with the California Public Utilities Commission (CPUC), California Air Resources Board (CARB) and other state agencies to enhance markets for renewable gas and other products of diverted organic waste, to provide additional market certainty, accelerate project development, and reduce potential costs.
- Convene a stakeholder working group to identify and troubleshoot potential issues and quickly overcome any potential barriers to necessary project development.

Attracting Private Capital to Fund Needed Infrastructure

The requirements in SB 1383 makes it important for CalRecycle and other state agencies to act now and implement these suggestions over the near term. Due to the long development and construction cycles for new infrastructure, it is critical that jurisdictions make plans within the next year with long-term feedstock commitments so that sufficient infrastructure can be developed on timelines required by the regulation. The state can ensure this success if it and jurisdictions are diligent and committed to quickly implementing the program and creating the conditions for success.

As a project developer, we are actively working to develop anaerobic digester projects in the state to help meet the SB 1383 goals on time. If state financing, grants and incentive programs are cut or limited for the foreseeable future, the state will have to rely on private investment to ensure continued development of new infrastructure needed to accommodate the growth in organic waste diverted in the next decade.

Regulatory Certainty Drives Early Investments for On-time Recycling Capacity Build-out

Feedstock certainty at an early stage is a key precursor enabling new organic waste recycling infrastructure. Without long-term feedstock agreements, of at least 15 years, private financing for anaerobic digestion infrastructure will be much more costly, and perhaps not even possible.

In addition to the state and CalRecycle clearly and repeatedly committing to the elements and required outcomes in the regulation – and indeed, as a result of them doing so – jurisdictions need to similarly, clearly commit to its goals, timelines, and other requirements. In particular, in order to stay on track, we suggest CalRecycle work to ensure that all municipalities develop a plan over the next year with intentional feedstock agreements and an infrastructure strategy. This can be done in coordination with CalRecycle, starting from its model ordinances and agreements, and in conjunction with other stakeholders. We look forward to working with any jurisdiction to develop viable projects to meet the goals and timelines in the statute and regulation.

TNRE supports CalRecylce's incentive programs, and discussions to potentially expand them in the future or develop other financial models that could lead to sustainable incentives or other market payments to support the rapid development of infrastructure. However, we are concerned that a pause in incentives now could potentially encourage jurisdictions to wait for new incentive programs or wait for funding to materialize. To avoid this outcome, we encourage CalRecycle to make clear that, while discussions around incentives or other market payments may continue, the agency will work to ensure that any potential future incentive program would support – and indeed, reward – early market movers. The state should be doing all it can to encourage jurisdictions to quickly commit to organics diversion, in order to develop the infrastructure required and support near-term economic development.

New and Broader Markets in California for Recycled Organics are Key

We also agree with the assessment in the Progress Report that the procurement requirements in SB 1383 are necessary to develop markets for compost and biomethane and are essential components of achieving the overall methane reduction goals. We encourage CalRecycle to support long-term offtake agreements, of at least 10 and preferably 15 years, through its model agreement and work with local jurisdictions and other stakeholders.

Additionally, we encourage CalRecylce to work with the CPUC in its implementation of Senate Bill 1440 and with CARB on new policies to support new renewable gas procurement programs that will support the goals of SB 1383 and the infrastructure development needed to achieve them. For both feedstock and offtake, long-term agreements will lower the costs of capital, ensuring projects are financed and built on time, and reduce overall costs for complying with the regulation.

There are many solutions for waste diversion, and we want to be part of the solution. To the extent there are real or perceived barriers to new anaerobic digestion projects or others, delaying implementation of the regulations would only contribute uncertainty, which would have the effect of making it more difficult to build infrastructure and exacerbating climate change impacts.

Working Together for Successful Organics Diversion and Recycling

We recognize and commend CalRecycle for its diligent efforts already to address challenges – including through incentives, model ordinances and agreements – and look forward to collaborating with the state and other stakeholders in any additional efforts to further support the effective implementation of these rules. In particular, we encourage CalRecycle to convene a stakeholder working group to identify and address potential barriers to the timely development of infrastructure, and we would be interested in participating in such a working group.

Supporting the solutions identified in these comments, and finding others, will allow the state, local jurisdictions and private industry develop the infrastructure needed to comply with SB 1383 on time and at reasonable cost, regardless of the availability of incentives or other financial structures that may emerge. These projects will not only

cut super-polluting methane emissions, but also contribute renewable gas to help decarbonize other sectors of the economy and create much needed investments and jobs as the state looks to recover from pandemic-induced recession.

In particular, the regulations will lead to billions of dollars of investment, thousands of jobs, and many millions of tons of greenhouse gas emission reductions. CalRecycle estimates that the regulation will quickly create 8,000 jobs, growing to 17,000 by 2024, then settling at a permanent increase of 11,000 new jobs. It projects an increase in gross state product, as well as total wages and salaries in the state, as a result of this regulation.

Finally, the report does a good job of highlighting the need to quickly address short-lived climate pollutants and continue to build on California's climate leadership. With record wildfires and resulting destruction in the state now tragically routine, let's not forget that the fastest, greatest way to deliver positive, near-term climate outcomes is to slash emissions of potent short-lived climate pollutants. This effort is too important to delay.

We commend CalRecycle's commitment to effectively implementing these regulations on time and as envisioned in statute and are ready to do our part to make sure the infrastructure is in place to do so.

Sincerely,

Lorraine Paskett
Vice President, TNRE

Gary Aguinaga
President, TNRE

-----Original Message-----
From: jimmcnelly22@gmail.com <jimmcnelly22@gmail.com>
Sent: Tuesday, August 25, 2020 10:49 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Enforcement

What are the provisions for enforcement of the diversion rules? Generators and haulers are skeptical.

Sent from my iPhone

From: Anthony Molina <AMolina@caladvocates.com>
Sent: Tuesday, September 8, 2020 5:02 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: Dennis Albiani <DAlbiani@caladvocates.com>; Tad Bell <tbell@veloconsulting.net>
Subject: Comments and Questions on the Analysis of the Progress Toward the SB 1383 Waste Reduction Goals

Mr. Hall,

Good afternoon. Please the attached comments and questions on the *Analysis of the Progress Toward the SB 1383 Waste Reduction Goals*. Please do not hesitate to reach out if you have any trouble reviewing or opening the document.

Thank you,

Anthony Molina

Anthony Molina
California Advocates, Inc.
Office (916) 441-5050| Fax (916) 441-5859
Mobile (916) 216-4984| amolina@caladvocates.com

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
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http://dpw.lacounty.gov

MARK PESTRELLA, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460 ALHAMBRA,
CALIFORNIA 91802-1460

September 8, 2020

N REPLY PLEASE
REFER TO FILE: EP-4

Mr. Tim Hall, Senior Environmental Scientist
California Department of Resources Recycling and Recovery
Climate Change and Innovative Technologies Section

SLCP.Organics@calrecycle.ca.gov

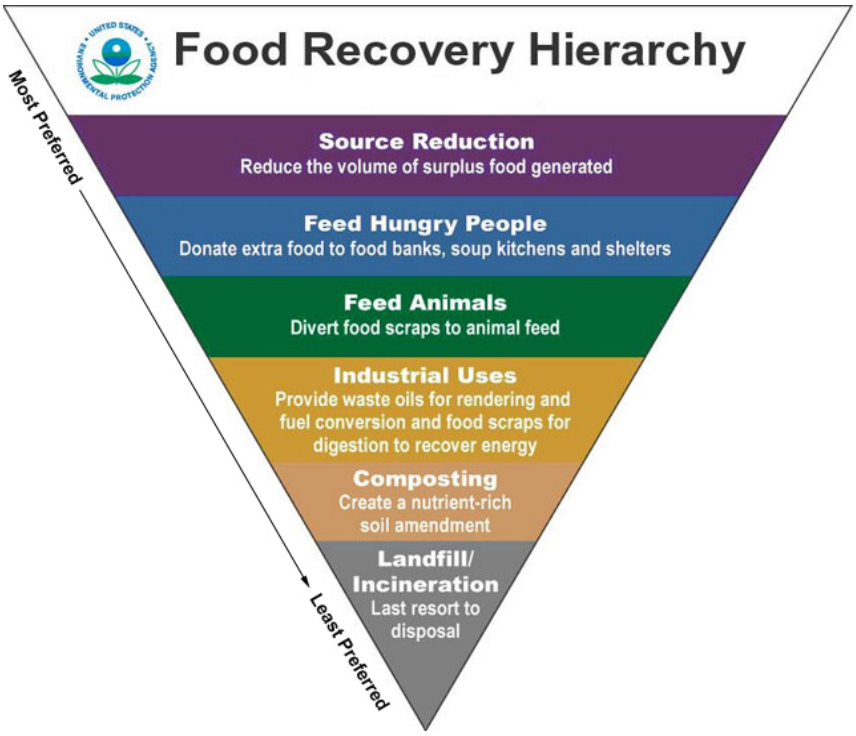
Thank you for the opportunity to comment on the draft publication, *Analysis of the Progress Toward the SB 1383 Waste Reduction Goals.*

California's farmers and ranchers play a very significant role in the State's efforts to reduce landfilling of organics especially with the potential to absorb diverted organics-to-animal feed but also as the main recipient of the output of compost and digestion facilities. In fact, California grain and feed industry currently handles an average of 33 million tons of food and agricultural byproducts each year. There is an estimated 50 million tons of total capacity currently existing in the industry, requiring little to no additional investment.

As California's dairy and livestock sectors are subject to the bio-methane reduction goals of SB 1383 we have first-hand experience regarding the he challenges of the real-world implementation of the bill's statutory reduction requirements. We appreciate in an earlier R3 report where it stated "the agricultural industry is the largest recycler of organic material." However, that report did not address any of the potential opportunities or existing infrastructure agriculture posses including existing capacity to expand organics recycling and opportunities to grow with little or no expense to ratepayer or taxpayers.

All of California agriculture will be the recipient of many of these recycled materials. Organic agriculture is an increasing area of production that offers opportunities for receiving additional material. However, only if the policies of the state do not impede the opportunities to access this material. While compost is one agricultural input there are multiple organics to agricultural products including organic fertilizers made from rendering protein products such as fish meal, meat and bone and blood meal which provide valuable plant nutrients and contribute to health soils; coproducts and byproducts feeds that are necessary for organic milk, cheese and egg production; and multiple byproducts that are important for soil amendments and mulching for benefits such as moisture retention and weed prevention. The current policies may encourage downcycling or impede movement of divert material away from important use in traditional conventional and organic farming practices.

We are encouraged that the report concluded that, "Ensuring organic material is directed to its highest and best use, such as compost creation and use, rather than going to landfill, will help California meet many of its goals, including but not limited to those in SB 1383." However, we would recommend that the analysis instead recognize that to meet many of California's environmental goals – including SB 1383's – that the State needs to ensure that organic material is directed to the highest and best of "all" uses, not just those under the regulatory authority of CalRecycle or other CalEPA agencies. The most common and cited highest and best use is US EPA's Food Waste Hierarchy:



The report does recognize that California's animal industry does consume agricultural and food processing byproducts as feed ingredients. It's widely accepted that a significant percentage of feed ingredients used on California farms and ranches are agricultural and food processing byproducts. According to a California "Dairy Cares" report, 41% of a dairy ration is from food byproducts. For meat poultry, 17% of the ration is byproducts. Those are feed ingredients that do not need to be grown, irrigated, harvested or transported – which contributes positively to meeting several of California's other air quality and groundwater sustainability goals. We believe there's an untapped demand potential to absorb additional organics by-products in California animal feed rations.

As the authors are likely aware, the proposed SB 1383 regulations at Section 18983.1(b) cites seven facilities, operations or activities that will officially constitute a "reduction of landfill disposal" that include: CalRecycle regulated "recycling" facilities; CalRecycle regulated "compostable material handling operation"; CalRecycle regulated "in-vessel digestion operation or facility"; CalRecycle regulated "biomass conversion operation or facility"; use as a soil amendment; land application of compostable material including digestate and biosolids from in-vessel digestion; and, the lawful use of animal feed as regulated by the California Department of Food and Agriculture.

We will provide specific comments below, but overall, the report gives very little consideration or analysis of the directed diversion of source separated organics-to-animal feed. The report does provide information in regard to survey of commercia feed licensees, while important it reveals what is "currently" being diverted to animal feed NOT an analysis of the feed industry's excess or potential capacity to handle or California's animal industry's potential to consume feed produced by handling source separated organics originating from residents or commercial edible food generators.

We are supportive of CalRecycle's efforts "to work with stakeholders and CDFA to determine the types and quantities of organic waste material that could potentially be diverted from landfills to animal feed production." However, we believe that because the regulation of animal feed is outside of the jurisdiction of CalRecycle and CalEPA that the analysis misses its significant and "strategic" potential to contribute to meeting the State's landfill and bio-methane reduction goals.

Expansion of Organics Recycling and Recovery Infrastructure

The analysis identifies that by 2025 to meet SB 1383's diversion goals the State will need recycling and recovery infrastructure to handle 27 million tons of organic material that's been diverted from landfill. The analysis states that CalRecycle currently anticipates the State will only have the recycling and recovery infrastructure to process 9.9 million tons of that material – at compost, anerobic digestion, co-digestion and chipping and grinding operations and facilities. This leaves the State with a gap in recycling and recovery infrastructure of 18 million tons to meet SB 1383's 2025 diversion goals.

Obviously, we believe that the report fails to provide sufficient analysis of the only type of facility or operation not in the regulatory jurisdiction of CalRecycle or a CalEPA agency. We believe that organics-to-animal feed – which is a higher and better use of organics than compost, digestion, or co-digestion has significantly lower cost potential to contribute to bridging the state's infrastructure gap – if real and thoughtful analysis is applied to the sector.

The analysis needs to incorporate the opportunities for California's livestock feed industry to handle additional organic waste material including measuring existing use, existing capacity, future capacity under specific scenarios. In addition, the policies of California need to incorporate opportunities to use this capacity in an economic manner.

Animal Feed

We do not agree with the conclusion that the CDFA survey of commercial feed licensees provided an analysis of "animal feed opportunities." It did capture a slice of the existing sales of agricultural and food processing byproducts that are consumed in the state's animal feed rations. It is true that a large majority of the material in the byproduct/coproduct categories described in the report are not traditionally landfilled. Animal feed manufacturers and renderers have traditionally and historically transported, handled and recycled organics-to-animal feed, biofuel feed stock and other products. This third-party recycling effort has been traditionally and historically market based.

An organic's potential as an animal feed is based on its nutritional make-up. Organics source separated from residential food waste programs or commercial edible food generating facilities have the highest potential for use as animal feeds.

In California the potential demand for organics-to-animal feed can be found in the United States Department of Agriculture's Agricultural Census. In 2017, the census reported our on-farm animal populations at: over 5.5 million cattle and calves on 3,694

farms; 96,000 hogs and pigs on 1,389 farms; 133,330 goats on 3,938 farms; 99,621 equines on 12,088 farms; 5,832 mules and donkeys on 2,007 farms; an estimated over 62 million chickens, turkeys, ducks, geese and other poultry on over 9,000 farms. Many of the rations fed to these animals contain organic byproducts and coproducts and with an untapped potential to include feed sourced from organics recovered from residential food waste programs and commercial edible food generating facilities.

A description of current sales of agricultural or food processing byproducts or coproducts sold as animal feed does not provide an analysis of the sector's role in bridging the 18 million ton gap in handling capacity so we can meet our 2025 SB 1383 division goals.

We recommend that CalRecycle and CDFA fund and conduct with the input of stakeholders a serious and thoughtful study and analysis of this sector to include but not be limited to: market analysis regarding the numbers and locations of CDFA feed licensees and manufacturers and their existing and potential capacity and barriers to handle and/or market organics-to-animal feed; numbers, species and locations of California's animal populations; types and quantities of potential source separated organics from residential food waste programs and commercial edible food generators; nutritional make-up of organics-to-animal feed ingredients and capacity to be absorbed into animal feed rations; infrastructure and transportation needs; local, state and federal regulatory, licensing and/or permitting barriers; and, environmental co-benefits of organics-to-animal feed. We recommend that the following stakeholders for inclusion in the study and analysis to include but not be limited to: California Grain and Feed Association, Western United Dairymen, Milk Producers Council, California Dairy Campaign, California Cattlemen's Association, California Cattle and Dairy Councils, Pacific Egg and Poultry Association, California Poultry Federation, California Farm Bureau Federation, California Agricultural Council and the American Registry of Professional Animal Scientists.

In reviewing the "findings" of the report, we have the following additional comments:

1. Organics recycling and recovery infrastructure is growing, but still needs significant expansion to provide the recycling capacity necessary to meet the SB 1383 disposal and methane reduction goals.
    a. We agree. However, the report needs to take into account the excess capacity available in industries such as the livestock and pet food processing, biofuel production, rendering and grease hauling and those industries potential to expand their capacities. In addition, state polices need to be developed to encourage utilization and expansion of those uses. In addition, after the above-mentioned discussion with CDFA and other entities, an inventory of achievable capacity from industries outside the jurisdictional solid waste industry should be developed and published.
2. Mandatory collection programs are critical for organics recycling and recovery infrastructure development and to help attract private investments.
    a. Mandatory collection programs are one tool that should be used to collect additional organics and food waste material that is not already being diverted. However, policies need to be amended to prevent materials that have been recycled for generations being pulled into the solid waste franchise system. The current policies as being implemented in many jurisdictions, are resulting

in “downcycling” of this material and actually increasing the greenhouse gas emissions from that specific product. Downcycling material should be avoided at all cost.

   b. Local jurisdictions should be encouraged to continue and expand food waste alternatives that are markets based and less costly to consumers and rate payors. Mandatory jurisdiction contracts should be focused only on material that has not been traditionally recycled.
   c. In order to maintain the current supply of the feed stock for biofuels, CalRecycle should focus outreach and education and encourage enforcement of existing law and policies requiring appropriate licensing for collection of inedible kitchen grease, brown (trap) grease, and animal fats regulated by CDFA.

3. The permitting and regulatory requirements in place are necessary to protect human health and the environment and to ease community concerns regarding organics recycling facilities.
   a. We agree, except CalRecycle needs to consider additional infrastructure such as licensed feed mills, rendering facilities, grease and biofuels processing and transfer stations that exist or are currently moth balled and could be restarted with little or no external investment. There are several million tons of existing capacity ready to accept additional material for recycling.
4. The procurement requirements in SB 1383 regulations are necessary to develop markets for compost and biomethane and are essential components of achieving the overall methane reduction goals.
   a. To be successful, these policies need to be synchronized with actual industry and market practices. For example, the report identifies many opportunities for biofuel use including the Low Carbon Fuel Standard as a promising market opportunity. Essentially all of the California origin fats, oils and grease used for biodiesel and renewable diesel and other biofuels available for the LCFS, is collected and processed by companies that are not solid waste companies but are renderers, grease haulers processors; many that are co-located and also licensed commercial feed manufacturing facilities. Current state and local policies and ordinances are impeding that collection and will negatively impact supply and cost of collection. Fats, oils and grease need to be excluded from jurisdictional contracts, current law governing licensing needs to be enforced and the state needs to continue to encourage the infrastructure development.
5. Additional Recommendations:
   a. Directing organic materials to the “highest and best use” should be the policy of the state of California. The US EPA Food Recovery Hierarchy should be the starting point as a loading order for organic byproducts and organic solid waste material. The loading order should be 1) source reduction, 2() feed people 3) feed animals 4) Industrial uses 5) Compost and 6) landfill. This should be adopted into state law. The hierarchy and loading order can be adopted and appropriately modified locally to provide for local and regional infrastructure and economic uses.

California’s farmers and ranchers are a key partner and are critical to the State meeting SB 1383’s 2025 division goals. Our working landscapes are and remain the primary destination of the majority of the output from California’s compost and digestion

facilities. Our preliminary conclusion is that California's feed and livestock industry has the potential to annually handle an additional 10 million tons of organics-to-animal feed. We look forward to working with CalRecycle and CDFA on including organics-to-animal feed as one of the State's primary and strategic pathways to meeting SB 1383's diversion requirements.

Sincerely,

Debbie Murdock, Executive Director
Association of California Egg Farmers

Chris Zanobini, Chief Executive Officer
California Grain and Feed Association

From: mmpitto@gmail.com <mmpitto@gmail.com>
Sent: Tuesday, August 25, 2020 11:47 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: AB 1826 Rural Reductions

Thank you Cara and staff on behalf of the Rural Reduction counties! We appreciate your reasonableness. The Environmental Services Joint Powers Authority (ESJPA) will continue to assist our counties with making progress towards organic reductions during the suspended period.

Mary Pitto

(209) 674-8001

From: Kayla Robinson <kayla@caleec.com>
Sent: Tuesday, August 25, 2020 12:11 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: SB 1383 Analysis Report Comments

Hello,

Attached is a written version of the public comments made at the August 25 Webinar on SB 1383 Analysis Report.

Thanks,
Kayla

Hello, this is Kayla Robinson on behalf of RethinkWaste, a joint powers authority in San Mateo county. This is more of a comment to say that RethinkWaste strongly supports the important diversion goals of SB 1383 and while COVID-19 has presented unprecedented challenges, RethinkWaste greatly appreciates the Department's leadership and guidance in fulfilling this mandate. The urgency to reduce the climate impacts of our waste streams is extremely pressing, now more than ever.

In order to help waste entities struggling across the state comply, we do request that the state consider a green stimulus plan as a form of funding in the coming months that includes funding for organic waste recycling infrastructure, especially given the limited Greenhouse Gas Reduction Funds AND the availability of shovel ready projects. We look forward to our continued partnership with the Department in implementing this important policy. Thank you.

--
Kayla Robinson | Associate
Environmental & Energy Consulting
1121 L Street, Suite 309
Sacramento, CA 95814
530.574.4701 | http://www.caleec.com

From: Neal Shapiro <Neal.Shapiro@SMGOV.NET>
Sent: Tuesday, August 25, 2020 10:26 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: 2020 50% deadline

How is there a deadline this year of 50% reduction in organics to landfills, when the rules are not approved and do not take affect until 2022?

Neal Shapiro, Supervisor, Zero Waste Team
LEED®-Green Associate™, NGICP, CPSWQ, CPMSM, CSM, ENV SP
Certified Stormwater Inspector and Manager, and National Green Infrastructure Program
City of Santa Monica; Resource, Recovery and Recycling Division
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www.sustainablesm.org/runoff

Living in the Santa Monica Bay and Ballona Creek Watersheds

“Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime.” Maimonides

From: Neal Shapiro <Neal.Shapiro@SMGOV.NET>
Sent: Tuesday, August 25, 2020 10:53 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Clark Williams email address

I would like his address so I can ask him about the CH4 cycle, and difference between landfill methane, biomethane, composting methane.

I do not understand the subtle differences.

Also, can Mr. Williams address CO2 sequestering in the ground? Removing CO2 from the air and storing underground, locking it up.

Thank you
Neal

Neal Shapiro, Supervisor, Zero Waste Team
LEED®-Green Associate™, NGICP, CPSWQ, CPMSM, CSM, ENV SP
Certified Stormwater Inspector and Manager, and National Green Infrastructure Program
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From: Neal Shapiro <Neal.Shapiro@SMGOV.NET>
Sent: Tuesday, August 25, 2020 11:00 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Changing 1383 deadlines due to natural disasters

Ken made an introductory comment that the statue cannot be changed to delay the deadlines because it is the law.

I find this shocking and unbelievable. So if the state suffers a huge disaster, such as major earthquakes in major cities, and people out of work, businesses shut, problems of food and water distribution, the state would not put on hold deadlines, or change them to a later date when the state's citizens and infrastructure recovers?

I would say that the current COVID disaster and the closing down of our economy is close to such a disaster that has impacted cities so negatively that they are barely able to meet basic services. City revenues way down. Services cut. And no foreseeable change, recovery, at least in this state.

So if you can please confirm Ken's statement. Or correct it, that the state legislature could change the deadlines if it passed new legislation? I find it inconceivable that the legislature cannot pass a law to change deadlines of an existing law.

Thank you
Neal

Neal Shapiro, Supervisor, Zero Waste Team
LEED®-Green Associate™, NGICP, CPSWQ, CPMSM, CSM, ENV SP
Certified Stormwater Inspector and Manager, and National Green Infrastructure Program
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"Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime." Maimonides

From: Andy Shrader <andy.shrader@lacity.org>
Sent: Tuesday, August 25, 2020 11:06 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: SB 1383 - comments

Here are my comments from the 8-25-2020 CalRecycle webinar:

I'm Andy Shrader, the Director of Environmental Affairs for Los Angeles City Councilmember Paul Koretz. I just have comments.

Councilmember Koretz is the co-author of the legislation that created the City's waste franchise and, relatedly, he is also the primary author of the City's initiative to create a climate emergency mobilization office. He is very much paying close attention to the rapid spread of the massive, destructive and unpredictable wildfires, not just in Northern and Southern California, but around the country and all over the world, including in the Brazilian Rainforest and Australia last fall, which should not be forgotten, and the extreme, climate-exacerbated storm events like the twin hurricanes hitting the Gulf Coast as we speak, and, even stranger, the hurricane force winds that hit Iowa two weeks ago.

We need to include the very real climate dangers of biomethane leaks in this conversation.

That's all a long way of saying, thank you for your hard work on the regulations and the report. Let's get the regulations adopted sooner rather than later so that we can start implementing this program sooner rather than later and, in the process, creating healthy, carbon-sequestering soil to draw down climate emissions, which we desperately need to do. Please don't hesitate to let us know if there's anything we can do in Los Angeles to support this effort. Thank you.

Andy Shrader
Director of Environmental Affairs, Water Policy & Sustainability
Councilmember Paul Koretz, Council District 5
200 N. Spring Street, Room 440
Los Angeles, CA 90012
Email: andy.shrader@lacity.org

Preferred pronouns: He, His, Him

From: Sarah Stark <sstark@marborg.com>
Sent: Tuesday, August 25, 2020 12:23 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: SB1383 Waiver Question

Hi there,

Thank you for the webinar today on SB1383 and AB1826. I was looking for clarification around the waivers mentioned related to the amount of organic material generated (0.5 cubic yard threshold versus 20 gallon threshold). There was mention of how the waivers for AB1826 and SB1383 are interrelated. Could someone please provide me with more information?

Thanks!

Sarah Stark
Environmental Compliance & Outreach Coordinator
MarBorg Industries
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Santa Barbara, CA 93140
805-963-1852 Office
805-962-0552 Fax
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From: Kawsar Vazifdar <kvazifdar@dpw.lacounty.gov>
Sent: Tuesday, September 8, 2020 7:18 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: Yee, Ashlee@CalRecycle <Ashlee.Yee@calrecycle.ca.gov>; Coby Skye <CSKYE@dpw.lacounty.gov>; Carlos Ruiz <CARUIZ@dpw.lacounty.gov>; Patrick Holland <PHOLLAND@dpw.lacounty.gov>; Christopher Sheppard <CSHEPPARD@dpw.lacounty.gov>; Gerald Ley <GLEY@dpw.lacounty.gov>
Subject: Los Angeles County Public Works Letter on SB 1383 Progress Analysis

Ms. Ashlee Yee,

Please see attached letter and enclosure as PDF and Word Documents dated September 8, 2020, from Los Angeles County Public Works regarding comments on the SB 1383 Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals.

Kawsar Vazifdar, P.E.
Associate Civil Engineer
Los Angeles County Public Works
Office: (626) 458-3514
Mobile: (626) 418-0094

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

MARK PESTRELLA, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460 ALHAMBRA,
CALIFORNIA 91802-1460

September 8, 2020

N REPLY PLEASE
REFER TO FILE: EP-4

Ms. Ashley Yee
California Department of Resources Recycling and Recovery
Materials Management and Local Assistance Division
P.O. Box 4025
Sacramento, CA 95812-4025

Dear Ms. Yee:

COMMENTS ON THE ANALYSIS OF THE PROGRESS TOWARD THE SENATE BILL 1383 ORGANIC WASTE REDUCTION GOALS

Public Works would like to thank California Department of Resources Recycling and Recovery (CalRecycle) for the opportunity to comment on the "Analysis of the Progress Toward the Senate Bill 1383 Organic Waste Reduction Goals" (Report), dated August 18, 2020.

CalRecycle prepared this Report pursuant to Senate Bill (SB) 1383 (Lara, 2016 State Statutes), which requires that no later than July 1, 2020, CalRecycle in consultation with the State Air Resources Board shall conduct an analysis of the progress that the waste sector, state government, and local governments have made in achieving the organic waste reduction goals for 2020 and 2025.

SB 1383 also provides that, if CalRecycle determines that significant progress has not been made in achieving the said goals, CalRecycle may, upon consultation with stakeholders recommend to the Legislature revisions to those organic waste reduction goals.

Since the SB 1383 implementing regulations are yet to be finalized, no substantial progress has been made towards achieving the goals set forth in SB 1383. However, despite this lack of progress and the severe economic, social, and fiscal impacts of the COVID-19 pandemic, the Report is not recommending to the State Legislature any changes to the SB 1383 goals or implementing timelines.

Public Works strongly recommends CalRecycle to revise the Report to address major factors that will hamper achievement of the organic waste reduction goals and prevent jurisdictions from fully complying with the requirements of the SB 1383 regulations. These factors include:

- CalRecycle's delay in developing the SB 1383 implementing regulations will have a major impact on jurisdictions' ability to meet the extensive new regulatory requirements. It has taken four years for CalRecycle to develop the SB 1383 regulations, which will leave jurisdictions less than 1 and 1/2 years to comply with the extensive new requirements.
- Lack of recognition of a jurisdictions' "good faith" efforts to comply with the SB 1383 requirements.
- Inadequate commitment of State funding to support the development of new organic waste recycling infrastructure.
- The Report relies heavily on composting, which has operational limitations in managing a range of organic feedstock and shortcomings in reducing greenhouse gas emissions including methane, missing the opportunity to highlight the need for greater flexibility in the use of other technologies and processes to divert organic waste and reduce methane emissions.

In addition, COVID-19 has had severe economic and social impacts on residents, businesses, and jurisdictions, which will make it extremely difficult to comply with the SB 1383 requirements. The Report does not recognize the seriousness of this situation and, therefore, makes no recommendations to address it.

Recently released CalRecycle guidance documents make it clear that failure by a local government to comply, including failure to provide funding and adequate staffing, will subject a local government to enforcement action and penalties up to $10,000 per day. This may force jurisdictions to cut essential services in order to pay for organics recycling.

Although jurisdictions have urged CalRecycle to provide greater flexibility in complying with the SB 1383 requirements, extend the compliance timelines, and make allowance for jurisdictions' "good faith" efforts to comply with SB 1838, the Report is not proposing to do so. Complying with SB 1383 requirements by the current deadlines will be impossible for many jurisdictions unless this situation is addressed.

Enclosed are additional, detailed comments on the Report.

From: Tedd Ward <tedd@recycledelnorte.ca.gov>
Sent: Tuesday, August 25, 2020 11:02 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: 'Kyra Seymour' <kyra@recycledelnorte.ca.gov>; 'Mary Pitto' <mpitto@rcrcnet.org>
Subject: Comment on SB 1383 Programs and how those fit into large CA efforts to address GHG emissions
At the start of the presentation, I thought I heard the presenter said that management of organics in landfills currently contributes about 20% of GHG emissions.

Please provide a brief explanation as the what are the top four sources of GHGs in California and at least a brief description of what California is doing to address those other sources outside of the SB1383 programs.

This is important information so that we can make the case to our local elected officials that the many significant local efforts to address the challenges of food rescue and organics management are complemented by other efforts to address the other top sources of GHG emissions.

Thanks,

Tedd Ward, M.S. – Director
Del Norte Solid Waste Management Authority
1700 State Street
Crescent City, CA 95531

(707) 465-1100
(707) 465-1300 fax

From: Tedd Ward <tedd@recycledelnorte.ca.gov>
Sent: Tuesday, August 25, 2020 11:09 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: 'Kyra Seymour' <kyra@recycledelnorte.ca.gov>; 'Mary Pitto' <mpitto@rcrcnet.org>
Subject: SB 1383 Targets, Timing and Permitting

Thanks again for the webinar today.

While I understand CalRecycle's intent to keep to the timelines and targets under law, these presentations also acknowledged some of the challenges of siting and permitting these facilities.
These two issues are in conflict. How does CalRecycle intend to address the current and projected lack of infrastructure and the time necessary to site and permit and develop such facilities?

Tedd Ward, M.S. – Director
Del Norte Solid Waste Management Authority
1700 State Street
Crescent City, CA 95531

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Tedd Ward, M.S. – Director
Del Norte Solid Waste Management Authority
1700 State Street
Crescent City, CA 95531

(707) 465-1100
(707) 465-1300 fax

From: Tedd Ward <tedd@recycledelnorte.ca.gov>
Sent: Tuesday, August 25, 2020 10:33 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: 'Kyra Seymour' <kyra@recycledelnorte.ca.gov>; 'Mary Pitto' <mpitto@rcrcnet.org>
Subject: SB1383 Infrastructure Report Ignores Food Rescue

1. Observing the presentation today, Mr. Hall listed four goals of this study, at least three of which require some assessment of food rescue and recovery infrastructure, yet this report says essentially nothing on that topic. Planning for local infrastructure for food rescue – one of the first requirements of all local governments under SB 1383 is not assisted in any way by this report. That is very disappointing. **How does CalRecycle intend to assist local governments to assist with the planning and projecting infrastructure needs and implementation of food rescue programs?**

2. **Please explain how CalRecycle feels it is appropriate to presume mandatory collection is an appropriate service model statewide. This should remain a local choice, and should be analyzed before prescribed at the statewide level.**

Tedd Ward, M.S. – Director
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Crescent City, CA 95531

(707) 465-1100
(707) 465-1300 fax

From: Terry Wigglesworth <terrywiggs2@gmail.com>
Sent: Friday, August 28, 2020 11:33 AM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Cc: 'Jim Andreoli II' <JAndreoli2@bakercommodities.com>; Doug Smith <DSmith@bakercommodities.com>
Subject: Baker Commodities Inc. Comments on CalRecycle SB 1383 Analysis

Attached are Baker Commodities Inc.'s (Baker) comments on the report titled August 18, 2020 Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals.

I appreciate assistance I received today from the CalRecycle staff person who answered the main CalRecycle number. He provided this email for submission of comments on SB 1383.

Please confirm receipt of Baker's comments. Also please provide me with contact information for the CalRecycle staff person working on this issue so that I might follow-up with additional questions.

Thank you,

Terry Wigglesworth
The Wigglesworth Company
96 Leamington Lane
Hilton Head Island, SC 29928
703-785-4212 Cell
843/785-9001 Office

From: Brian Shobe <brian@calclimateag.org>
Sent: Tuesday, September 8, 2020 4:19 PM
To: Short-Lived Climate Pollutants@CalRecycle <SLCP.Organics@calrecycle.ca.gov>
Subject: Re: SB 1383 Market Analysis Workshop Comments - CalCAN
Hi CalRecycle Staff,

On behalf of the California Climate and Agriculture Network, I'm submitting the attached written comments in response to the SB 1383 Market Analysis Workshop on August 25th.

Thanks,
Brian

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Brian Shobe
(Pronouns: He/Him/His)
Associate Policy Director
California Climate & Agriculture Network (CalCAN)
910 K St, Suite 340, Sacramento, CA 95814
Cell: (916) 856-8596
Office: (916) 441-4042

September 8, 2020

Submitted electronically

Re: **SB 1383 Regulation Implementation**

Dear CalRecycle Staff,

On behalf of the California Climate and Agriculture Network (CalCAN), I write to support the implementation of the SB 1383 regulations. CalCAN is a coalition of agricultural organizations working to advance policies that make our farms and ranches more resilient to climate change.

On top of myriad Covid-19 impacts, farmers, ranchers, and farmworkers in our network are once again being hammered by unprecedented weather extremes. Multiple farmers and ranchers we work with in nearby Yolo and Napa counties are experiencing wildfires on or near their properties for the fifth year in a row. Farmworkers across the state are once again being forced to work long days in extreme heat and breathe in air that has been deemed unhealthy for all groups. As bad as this is, it will only get worse with climate change. For example, by the time a child born today turns 30, the Sacramento region is projected to experience, on average, more than three times more extreme heat days over 104 F under even a moderate climate change scenario.[i]

Farmers and farmworkers in our network want to be part of the climate solution while also making our farms and ranches more resilient to the impacts of climate change. They know that compost is a key part of that solution -- by improving plant health and yields, improving soil's water holding capacity, and sequestering carbon faster than any other agricultural practice[ii] – and they want more of it. As one data point, CDFA's Healthy Soils Program has seen a sixfold increase in farmer demand in just three years – from 100 applications to over 600 this spring, despite the pandemic -- and 72% of the funded projects include compost application.[iii]

The agricultural compost market is strong, but with 25 million acres in production (~8 million irrigated, 1 million certified organic), there is certainly room to grow. To meet growing demand and reduce the highest cost factor for agricultural compost use (hauling and delivery costs across long distances), we need more compost infrastructure throughout the state. We agree with the Market Analysis report's assessment that mandatory collection programs are critical for growing the state's organic processing infrastructure. We also acknowledge that achieving the goals of SB 1383 will require continued and expanded investments from the public sector, which is why our network will continue to advocate for state funding for CalRecycle's Organic Waste programs.

In sum, we agree with the report's findings and recommendation to stay the course with the adoption and implementation of SB 1383 regulations. Just look outside: the urgency of solving the climate crisis is real for all of us, but especially farmers and farmworkers. Now is the time to accelerate – not delay – pragmatic, proven solutions.

Brian Shobe
Associate Policy Director

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[i] Source: Cal-adapt.org
[ii] See, for example: https://.ucdavis.edu/news/compost-key-to-sequestering-carbon-in-the-soil/
[iii] Source: CDFA Healthy Soils Program Data