

Environmental Justice in Composting: A Toolkit for California Composters

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Note from the Director:

The notion that “the environment” is somehow separate from people, rather than containing the living, breathing, human community in a physical, chemical, biological and ecosystem embrace, has led to the notion that compliance with environmental regulations, is somehow separate from being a good neighbor in the local human community. The fact is that we all breathe the air in our community, we all drink the water from our community, and we live directly connected to the ecosystem that surrounds and sustains us in our immediate community. Environmental Justice is based on the tangible reality that what we do to the local community environment is also what we do to the people who work and live in the local community ecosystem. We either treat both with respect, or we do otherwise.

In addition, a company’s marketing program is composed of three elements: brand, communication and product. If all three are in alignment, the company will have a strong and sustainable marketing program. Also, if the three aspects of your brand: 1) product, 2) facility/community relationship and 3) shareholder/stakeholder value, are congruent and show care and respect for the environment and local community, your organization will have community support, rather than opposition. This good product, neighbor and company relations, is a centerpiece to building and maintaining an excellent company and organization brand.

Based on our regulatory and compost industry research, the ACP team has developed the following “best practices” for developing great community relationships. Treating the local environment with the love and respect that all humans and life deserve. This is the foundation of California’s Environmental Justice objectives.

ACP has a standing “Compost Contamination Reduction Working Group” that is working with other industry organizations, e.g. the Biodegradable Products Institute, Natureworks, LLC, and others, to put together a similar guidebook as this EJ Toolkit to address these issues in all organic feedstocks.

-Dan Noble, ACP Executive Director

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PURPOSE

California is the nation's leader in climate change policy and has set forth a set of regulations and policies for the reduction of methane from its various sources via the Short-Lived Climate Pollutants (SLCP) Reduction Strategy. Methane from its various sources carry an exponentially greater detrimental effect than carbon dioxide in forcing climate change. One major strategy for this reduction is the diversion of organic wastes from landfills where rotting organic wastes constitute one of the largest contributors to methane emissions. The California Department of Resources Recycling and Recovery (CalRecycle) anticipates the need for 30-100 new or expanded compost facilities throughout California in the next 10 years in order to meet these goals.

Compost is key to healthy soil, acting as the permeable barrier and protective layer which conducts the invaluable work of filtering certain pollutants from ground and surface water resources, absorbing climate and air pollutants and providing nutrients to plants which then provide people with oxygen, shade, food, building material, fiber and fuel. The composting process transforms a waste stream into a product with long-term benefits for soil ecology, making it a powerful tool for solving local air quality and water quality concerns that disproportionately impact disadvantaged communities.

The Association of Compost Producers (ACP) has developed this toolkit to assist composting facilities and neighborhoods to develop stronger relationships and ensure that the implementation of California's organic waste reduction strategies accomplish the tandem goals set forth by state climate law to both protect health and safety of California's disadvantaged communities while creating a sustainable climate future. ACP also developed these recommendations with the belief that healthy soil supports healthy agriculture and healthy communities in the future and that a crucial part of the production of a high-quality compost product is responsible and equitable production practices.

The **Association of Compost Producers** is a non-profit, 501(c)6, trade association of public and private organizations dedicated to increasing the quality, value and amount of compost being produced and used in California. They do this by promoting activities and regulations that build healthy soil, benefiting people and the environment. ACP members work and invest together to increase compost markets and improve compost product and manufacturing standards. The association provides education and communication on compost benefits and proper use through support of scientific research, and legislation, aligned with developing and expanding quality compost markets.¹

This toolkit was created for use by the composting community to:

1. **Clarify** California's Organic Waste Reductions goals under the Short-Lived Climate Pollutants Reduction Plan.
2. **Support** California compost facilities in engaging disadvantaged community resident groups as required by California law.

¹ healthysoil.org/

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3. **Identify** best practices that the compost industry can use to maximize ecological and social benefits generated by their operations and products, making them good neighbors as well as attractive recipients of California climate investments.
4. **Provide** examples of ways that California compost facilities located in environmentally impacted neighborhoods are partnering with local communities to build healthy relationships, markets, and soils.

Many of the elements outlined in this document are related to both harnessing the power of composting to transform trash and local pollution sources into healthy soil, as well as the power of interpersonal relationships to help overcome the severe political disenfranchisement felt by many California communities that suffer disproportionate negative impacts of environmental pollution. By implementing public outreach, partnering with local resident groups, and documenting environmental mitigation early on in the process, a facility can greatly reduce the potential concerns that may be raised during public process, develop informed educational campaigns to assist in lowering source contamination, and develop markets for finished compost.

Compost facilities are regulated by local jurisdictions and at the state level by CalRecycle,² Local Air Districts³ and Regional Water Boards.⁴ Compost, if sold as an “Organic Certified Organic Input Material”, is regulated by the California Department of Food and Agriculture, under the National Organic Program (NOP).⁵ Composting facilities are permitted for operation by local government based on their location in agricultural, industrial, commercial, or residential zones. The scale of compost activities is variously suited for the permitted zoning of any given parcel of property.

The Short-lived Climate Pollutants (SLCP) Organic Waste Reduction Regulations, waste management jurisdictions must conduct capacity planning for their organic waste reduction, and in doing so, engage in a process of outreach to disadvantaged communities to understand how those communities may be impacted by the citing or expansion of composting facilities in their area. For new or expanded solid waste facilities, the facility must provide evidence that the operator held a public meeting with any affected groups or disadvantaged communities within 180 days of prior to submittal of the permit application package. In the process of good-neighbor dialogues, it is suggested that compost producers address whether the local surrounding community is well suited for a compost facility to be sited or expanded based on the existing confluence of environmental factors.⁶

You may be wondering what a disadvantaged community is, and why composting would be associated or have an impact on those communities. Many communities lack basic protections from environmental pollutions such as safe and affordable housing and water treatment and are identified under California law as “disadvantaged communities” or “priority populations.” California seeks to invest 25% of its state climate change investments from its cap and trade program in projects in and/or benefitting these communities. This percentage of investments,

² www.calrecycle.ca.gov/SWFacilities/Compostables/

³ See, for example, Rule 133 of South Coast Air Quality Management District: www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1133.pdf?sfvrsn=4

⁴ www.waterboards.ca.gov/water_issues/programs/compost/

⁵ www.ccof.org/organic-input-material-oim-program-reviews-now-accepted

⁶ www.calrecycle.ca.gov/envjustice

outlined in statute, is aimed at ensuring disadvantaged communities feel tangible benefits of the State investments targeted at developing low-carbon economies and combating climate change. This is where the composting industry comes in! A future in which compost facilities are not simply complying with requirements but actively engaging disadvantaged communities means more potential state investments in composting, an improved environment and associated quality of life for disadvantaged communities, and a healthier more climate resilient state of California.

This document is meant to drive those relationships and offer guidance for California composters in establishing those important relationships which may lay the foundation for an equitable, just, healthy, and powerful composting industry.

DEFINITIONS

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people bears a disproportionate share of the negative consequences resulting from industrial, governmental and commercial operations or policies.⁷

Compost as recently defined by the US Composting Council is “the product manufactured through the controlled aerobic, biological decomposition of biodegradable materials. The product has undergone mesophilic and thermophilic temperatures, which significantly reduces the viability of pathogens and weed seeds and stabilizes the carbon such that it is beneficial to plant growth. Compost is typically used as a soil amendment but may also contribute plant nutrients.”⁸

Active compost is compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 122 degrees Fahrenheit during decomposition; or is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.⁹

Aerated static pile composting is a process that uses an air distribution system to either blow or draw air through the pile. Little or no pile agitation or turning is performed.

Agricultural material is material of plant or animal origin, which results from the production and processing of farm, ranch, agricultural, aquaculture, floricultural, horticultural, silvicultural, vermiculture, or viticulture products, including manures, orchard and vineyard prunings, and crop residues.

Anaerobic decomposition is the biological decomposition of organic substances in the absence of oxygen.

⁷ www.epa.gov/environmentaljustice

⁸ compostingcouncil.org/blog/news/new-compost-definition-results-from-uscc-work-with-aapfco/

⁹ California Code of Regulations Title 14 Section 17852.

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Biosolids are solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Biosolids includes, but is not limited to, treated domestic septage and scum or solids removed in primary, secondary, or advanced wastewater treatment processes.

Chipping and grinding operations and facilities are those which mechanically reduce the size or otherwise handle organic material. Chipping and grinding facilities do not produce compost, though some compost facilities also have chipping and grinding activities on site.

Compostable material is organic material that when accumulated will become active compost.

Compostable material handling operations or facilities are those that process transfer, or stores compostable material. This includes chipping and grinding, composting, screening, and storage activities related to the production of compost, compost feedstocks, and chipped and ground materials.

Enclosed composting is a composting process where the area that is used for the processing, composting, stabilizing, and curing of organic materials, is covered on all exposed sides and rests on a stable surface with environmental controls for moisture and airborne emissions.

Feedstock is any compostable material used in the production of compost or chipped and ground material including, but not limited to, agricultural material, biosolids, food material, green material, and mixed solid waste.

Food material is any material that was acquired for animal or human consumption, is separated from the municipal solid waste stream, and that does not meet the definition of "agricultural material." Food material may include material from food facilities, grocery stores, institutional cafeterias such as prison, school and hospital cafeterias, or residential food scrap collection.

Green material is any plant material that is separated at the point of generation and contains no greater than 1.0 percent of physical contaminants by weight including but not limited to yard trimmings, untreated wood wastes, natural fiber products, construction and demolition wood waste. Green material does not include biosolids, food material, mixed solid waste, material processed from commingled collection, wood containing lead-based paint or wood preservative, mixed construction, or mixed demolition debris.

Handling is the processing, transfer, and storage of compostable materials. Handling includes composting, screening, chipping and grinding, and storage activities related to the production of compost, compost feedstocks, and chipped and ground materials.

In-vessel/anaerobic digestion composting is a process in which compostable material is enclosed in a bin, drum, reactor, silo, tunnel, or other enclosed/sealed container for the purpose of producing compost. It is maintained under uniform conditions of temperature and moisture where air-borne emissions are controlled.

Manure is accumulated herbivore or avian excrement. It is an agricultural material.

Mixed solid waste is material that is part of the municipal solid waste stream, and is mixed with or contains non-organics, processed industrial materials, or plastics. A feedstock that is not separated or contains 1% or more physical contaminants by weight is mixed solid waste. Compostable material that contains mixed demolition or mixed construction debris shall be considered mixed solid waste.

Physical contamination or contaminants are human-made inert products contained within feedstocks, including, but not limited to, glass, metal and plastic.

Prohibited feedstocks include asbestos-containing wastes, biomedical wastes, hazardous wastes, radiological or toxic wastes, and any other prohibited wastes defined under state law.

Stabilized compost is any organic material that has undergone a Process to Further Reduce Pathogens (PFRP) and has reached a stage of reduced biological activity as indicated by reduced temperature and rate of respiration below that of active compost.

Windrow composting is the composting process in which compostable material is placed in elongated piles. The piles or "windrows" are aerated and/or mechanically turned on a periodic basis.

WASTE MANAGEMENT IN CALIFORNIA: NOW AND THEN

A history of important state laws set the foundation for reaching California's most recent organics reduction goals, in conjunction with striving to fight climate change and invest in disadvantaged communities.

- AB 939 (Sher): The Integrated Waste Management Act. Established an integrated waste management hierarchy to guide the Board (now CalRecycle) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal.¹⁰
- AB 1826 (Chesbro): Mandatory Commercial Organics Recycling. Requires each city and county to assess the infrastructure necessary for implementing their commercial organics recycling programs and requires businesses and multi-family complexes (5 or more units) that generate specified amounts of organic waste to arrange for organics collection services. The requirements are phased in depending on the amount of organic materials disposed of per week with full implementation to be realized in 2019.¹¹
- AB 876 (McCarty): Organics Management Infrastructure Planning. Addresses longer-term planning for organics infrastructure by requiring counties and regional agencies to report annually to CalRecycle an estimate of the amount of organic waste that will be generated over a 15-year period.¹² This includes the additional organic waste recycling facility capacity and projection of the areas identified as potential locations for new or expanded organic waste recycling facilities.¹³
- AB 1045 (Irwin): Statewide Organics Management Plan. Requires state entities to work together to promote the use of compost, and to develop and deploy compost to achieve multiple state goals. Authorizes the Secretary of the California Environmental Protection Agency (CalEPA) to work with Cal Recycle to ensure that the state has a comprehensive

¹⁰ www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989.htm

¹¹ www.calrecycle.ca.gov/recycle/commercial/organics/

¹² www.calrecycle.ca.gov/LGCentral/AnnualReport/OrganicInfra.htm

¹³ www.calrecycle.ca.gov/LGCentral/AnnualReport/OrganicInfra.htm

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composting policy in place, and to coordinate with the California Department of Food and Agriculture (CDFA) to deploy enough compost to reduce greenhouse gases by 5 million metric tons per year.¹⁴

- SB 1383 (Lara): SLCP Strategy. By 2030 California Air Resources Board (CARB) must develop a strategy to reduce the emissions of the following short-lived climate pollutants from 2013 levels: methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic (human-made) black carbon by 50%. The methane emissions reductions goals include a 75% reduction in the level of statewide disposal of organic waste from 2014 levels by 2025. This bill also aims to divert 20% of edible food that is currently disposed, to be recovered for human consumption by 2025.¹⁵
- AB 901 (Gordon): Recycling and Disposal Facility Reporting. Entities involved in the recycling of materials will be required to submit information directly to CalRecycle on the types, quantities, and destinations of materials that are disposed of, sold, or transferred inside or outside of the state. CalRecycle also gains enforcement authority to collect this information.¹⁶
- SB 535 (de Leon): Greenhouse Gas Reduction Fund. Requires CalEPA to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria. It requires 25% of cap and trade auction proceeds obtained under AB 32, California's Global Warming Solutions Act, be expended on projects that will benefit disadvantaged communities, with at least 10% located in disadvantaged communities.¹⁷
- AB 398 (Garcia): Market-Based Compliance Mechanisms. AB 32 establishes the CARB as the state agency responsible for monitoring and regulating sources emitting greenhouse gases. It requires CARB to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. The act authorizes the state board to include the use of market-based compliance mechanisms such as Cap and Trade.

THE SHORT LIVED CLIMATE POLLUTANTS REDUCTION PLAN AND ORGANICS DIVERSION

The 2017 Climate Change Scoping Plan identified reductions of short lived climate pollutants as an important aspect of a comprehensive approach to addressing climate change long term, in accordance with California's sweeping greenhouse gas reductions law, AB 32.¹⁸ Now, under the Short Lived Climate Pollutants Strategy, the California Air Resources Board is tasked with regulating major "climate forcers" or air emissions that accelerate climate change. These include

¹⁴ [leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1045](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1045)

¹⁵ www.calrecycle.ca.gov/Climate/SLCP/

¹⁶ www.calrecycle.ca.gov/Laws/Rulemaking/Reporting/default.htm

¹⁷ www.calrecycle.ca.gov/EnvJustice/Legislation.htm

¹⁸ www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

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methane, hydrofluorocarbons, and human-made black carbon. CARB is required to develop, adopt, and implement a Short-Lived Climate Pollutant Strategy which includes the following specific goals:

- 40% reduction in methane emissions in California from 2013 levels by 2030;
- 40% reduction in hydrofluorocarbon gases from 2013 levels by 2030; and
- 50% reduction in anthropogenic black carbon from 2013 levels by 2030.

The largest emitter of methane into our atmosphere comes from livestock, but the second largest contributor to excessive methane is caused by organic waste, including excess wasted foods, that are decompose anaerobically in landfills.¹⁹ The diversion of organic waste out of landfills and into composting operations of all scales was identified as a key component of meeting the California's methane reduction goal: a reduction of 4 MMTCO₂e per year by 2030.

In March 2017 CARB adopted the SLCP Reductions Strategy which includes strategies to reduce methane emissions such as reducing the disposal of organics through recovery of edible food, composting, in-vessel digestion, and other processes to keep organic waste out of landfills. This portion of the plan is called the Organic Waste Methane Emissions Reductions Plan.

The Organic Waste Methane Emissions Reduction Plan is tied to the following timeline to reduce the landfill disposal of organic waste:

- 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020;
- 75% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025; and
- 20 % improvement in edible food recovery by 2025 (HSC 39730.6).²⁰

By July 1, 2020, CalRecycle will analyze the progress that the waste sector, State government, and local governments have made in achieving these goals. The regulations shall take effect on or after January 1, 2022.

These goals will require a rapid and large-scale expansion of organics management capacity within jurisdictions, which will ultimately require an expansion of existing operations as well as the siting of 30-100 new or expanded facilities in California to accommodate the tonnage of diverted organic waste established by SB 1383.²¹

SB 1383

- DOES require jurisdictions to provide source separated collection service to all generators of organic waste. Jurisdictions can use any combo of staff, haulers and other members of the waste-management sector to provide these services. (Rural areas are open to different levels of requirements in areas that do not have curbside service readily available).

¹⁹ www.arb.ca.gov/research/methane/CA_CH4_Survey_Phase1_Report_2017.pdf

²⁰ codes.findlaw.com/ca/health-and-safety-code/hsc-sect-39730-6.html

²¹ Third Assessment of California's Compost and Mulch-Producing Infrastructure — Management Practices and Market Conditions

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- DOES require jurisdictions and haulers to provide residential and commercial organic waste collection services and DOES require generators to subscribe to collection services for organic waste not reduced or managed on-site.
- DOES require the system to be recovering 50% of 2014 levels of organic waste in 2022 and 75% of 2014 levels of organic waste in 2025.
- DOES contain a de minimis waiver for generators who show that organic waste comprises less than 10% of waste removed to the landfill.
- DOES require a specific minimum level of effort for education. This can be done by both the haulers and the jurisdiction. There are language access requirements for linguistically isolated populations.
- DOES allow for the opportunity to reduce the frequency of printed materials issued to homes if contamination of organics bins is low/suggests that jurisdictions have metrics and assess their education to see if it needs to be changed.
- DOES require generators to comply with a jurisdiction's program.
- DOES have an initial impact on counties and jurisdictions tasked with creating a local pathway to help the state in making progress towards its statewide goals. If jurisdiction has not been able to adequately demonstrate that it has secured or plans to secure the needed capacity, then it must submit implementation schedule that demonstrates how it will secure access to existing, new, or expanded capacity.



Due to contamination, municipal greenwaste in Orange County is used as Alternate Daily Cover in a landfilling operation. Landfill diversion regulations calls for the diversion of these organic materials into composting.

**SB 1383**

- DOES NOT impose the statewide 50% and 75% targets or tonnage requirement on individual jurisdictions.
- DOES NOT impose organic waste disposal bans on individual landfills.
- DOES NOT impact AB 939 Mandatory Commercial Organics Recycling, or other programs or regulations or call for a change to a jurisdiction's existing waste-diversion accounting under its AB 939 plan.

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- DOES NOT prevent a jurisdiction from starting to reach their waste diversion goals earlier than required by SB 1383.

Clarifying Points:

“Organic wastes” are

solid wastes containing material originated from living organisms and their metabolic waste products, including but not limited to: food waste, green waste, landscape and pruning waste, applicable textiles and carpets, wood, lumber, fiber, manure*, biosolids, digestate, and sludges.

This definition includes organic wastes with a final disposition at a landfill, including Beneficial Reuse dispositions such as Alternative Daily Cover and Alternative Intermediate Cover and any other disposition are not called out as a disposition in landfilling.

According to EPA guidance, meaningful community and stakeholder involvement mean, at a minimum, that:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- The public's contribution can influence the regulatory agency's decision;
- Community concerns will be considered in the decision-making process; and
- Decision makers will seek out and facilitate the involvement of those potentially affected.

Only “manure” that would otherwise end up in landfill are considered Organic Wastes under SB 1383. Dairy manure being managed on-farm is not considered an Organic Waste for the purposes of landfill diversion goals but is an important methane source that is being regulated under a different component of SB 1383 targeted at manure methane from dairies. The California Department of Food and Agriculture plans to allocate between 65-80% of its funds from the Greenhouse Gas Reductions Fund to incentives to support digester projects on California dairy operations. Yet another percentage of this fund is set aside to incentivize development of non-digester practices to

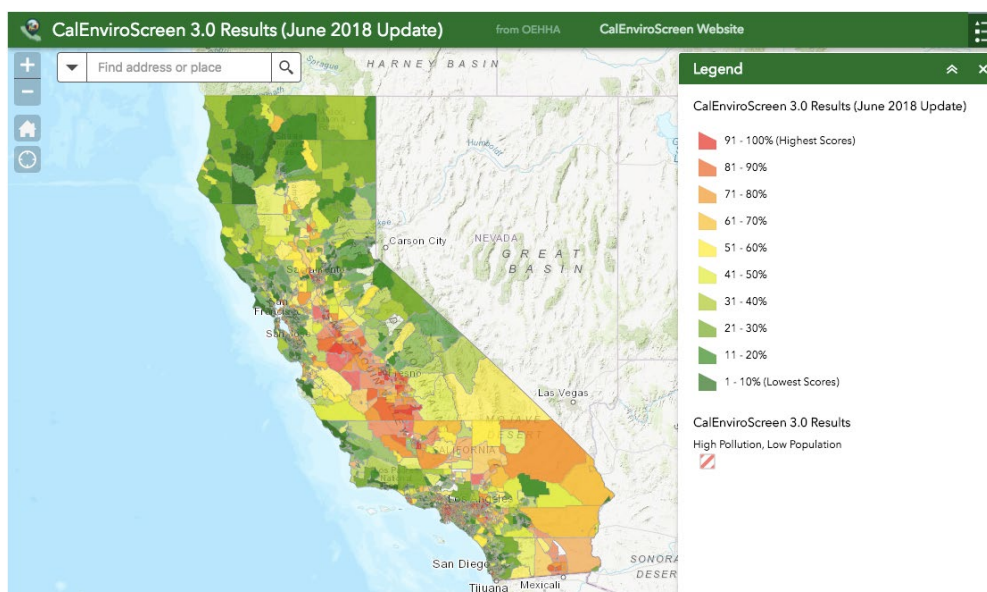
reduce methane emissions through the Alternative Manure Management Program (AMMP).²² State support of dairy manure composting stands apart from the Organic Waste Methane Emissions Reductions goals of the SLCP Strategy. Although some composting operations who compost food waste and green waste also compost dairy manure, these waste streams are treated as two different methane sources under SB 1383. This toolkit focuses on the landfill-diversion component of the SLCP Strategy.

²² www.cdfa.ca.gov/oefi/ammp/

ENVIRONMENTAL JUSTICE AND MEANINGFUL INVOLVEMENT IN PUBLIC PROCESS

The acute impacts of air pollution caused by the emission of fine and coarse particulate matter, NOx, ozone and other criteria air pollutants result in impacts to the health and wellbeing of hundreds of people in California. Agricultural and industrial runoff, residuals, and accidents have contaminated soils, surface water and groundwater leaving over 1 million people without access to safe, clean and affordable drinking water every year.²³ Low-income communities, who live in areas that are surrounded entirely by extractive industries face a variety of environmental hazards that threaten the health of their families.

Often, the determinants of a community's health have to do with capacity to participate in environmental monitoring of a facility, to be able to identify and report violations taking place in neighborhoods, and self-advocate. A step beyond this is ensuring that residents of a community participate meaningfully in the siting of a facility from the very beginning.



CALENVIRO SCREEN 3.0

Environmental health risks, from a variety of sources, disproportionately impact low-income communities in California. Due to legacies of neglect and a history of racism, it is also the case that these communities lack access to democratic participation in the land-use decisions that impact their neighborhoods. In order to guide the state's response to these combined challenges the Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen 3.0, a tool which screens the state using a combined list of indicators including social factors such as asthma

²³ <https://www.newsdeeply.com/water/community/2018/08/27/californias-cant-miss-chance-to-provide-safe-drinking-water-for-all>

rates, low birthweight, and linguistic isolation along with environmental pollution indicators such as groundwater contamination, proximity to a hazardous waste clean-up site, and criteria air pollution to name a few.²⁴

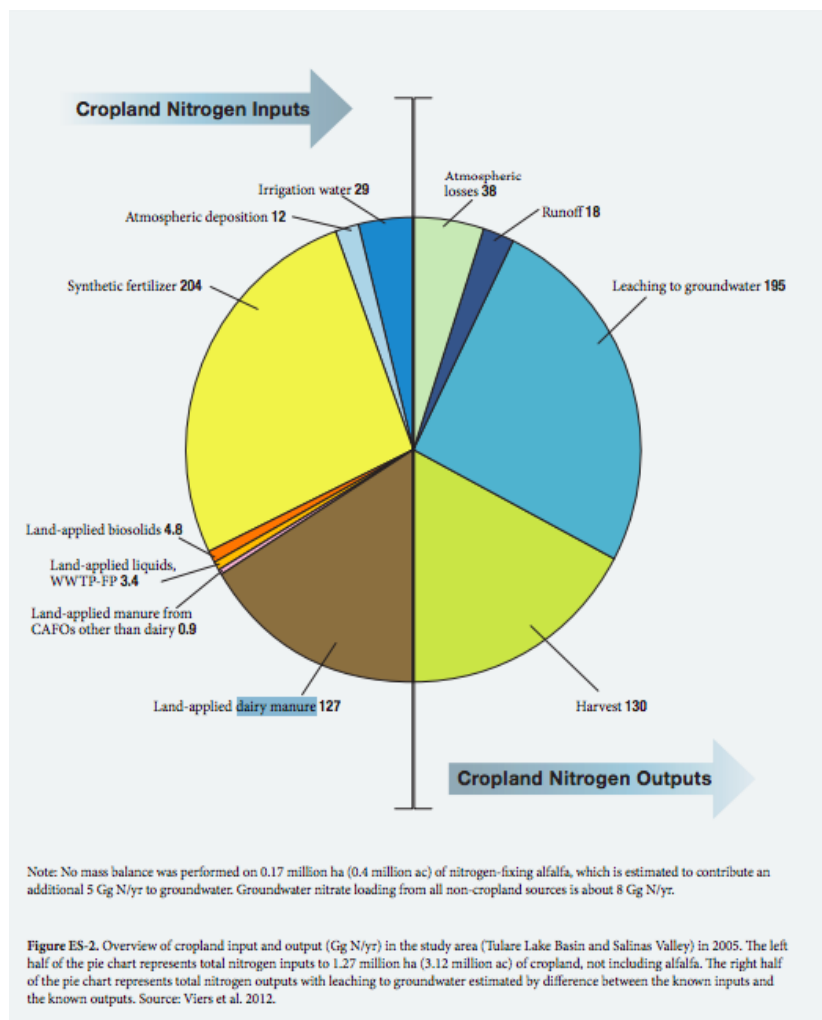
This suite of 20 indicators characterizing both pollution burden and population characteristics are assigned a score for each census tract in the state based on the most up-to-date data. Scores are weighted and added together within the two groups to derive a pollution burden score and a population characteristics score. Those scores are multiplied to produce the final CalEnviro Screen score. In the map below, the areas highlighted in red suffer the greatest incidence of environmental pollution as well as well as socioeconomic disadvantage. Notably, CalEnviroScreen is used to inform CalEPA's identification of disadvantaged communities pursuant to SB 535, which requires CalEPA to identify disadvantaged communities and develop an investment plan for submission to the Legislature allocating 25% or more of available proceeds from carbon auctions (cap and trade proceeds) to projects benefiting these disadvantaged communities.²⁵

CUMULATIVE IMPACTS OF INDUSTRIAL SCALE COMPOSTING

In looking at CalEnviroScreen, it's easy to get lost in the data showing the incidence of environmental pollution concentrated in certain parts of California, but it is important for composters to consider both role the way industrial scale composting may add to these burdens but also can play a role in ameliorating others. Compost serves a unique role since the controlled aerobic process of composting can be used as a tool to mitigate existing pollution sources and divert future pollution sources, and hopefully, turning the reddest parts of the state on CalEnviroScreen a little more green.

²⁴ oehha.ca.gov/calenviroscreen/maps-data

²⁵ pursuant to Assembly Bill 1532²⁵ (John A. Pérez, Chapter 807, CalEnviroScreen 3.0 iv Statutes of 2012)



Some of the pollution-sources that impact human health are agricultural wood waste burning and related black carbon in the atmosphere, biomass burning and related particulate matter emissions from biomass facilities, and field-application of raw dairy manure which results in nitrate pollution released into residential drinking water sources.²⁶ If used as part of a healthy soil fertility management scheme, compost can also displace pesticides and synthetic fertilizers on farms, which have measured health impacts on farmworkers and rural residents.²⁷ Not only can compost transform a waste stream, it can replace agrichemicals, protecting California's precious groundwater resources for the long term.

CALENVIROSCREEN DEPICTS COMPOUNDED ENVIRONMENTAL BURDENS

Any industrially manufactured product must consider localized impacts which may create environmental health risks and environmental justice challenges in the short term. There are several levels of permitting required to produce compost industrially, and many of these permitting processes are in place to protect vulnerable people living in rural California who already deal with the compounded risks of existing industrial sources of pollution. Though the existing permitting requirements and regulations may seem to be burdensome, they exist to ensure that the pre-existing harms present in environmentally impacted regions don't combine with other factors to cause increasing hazards for residents, especially children, seniors, fieldworkers and other sensitive communities.

²⁶ "Addressing Nitrate in California's Drinking Water":

watermanagement.ucdavis.edu/files/2214/5886/6964/Harter_et_al_2012_Addresssing_Nitrate_in_CA_Drinking_Water.pdf

²⁷ Solution Center for Nutrient Management – Soil Health: UC Division of Agriculture & Natural Resources

ucanr.edu/sites/Nutrient_Management_Solutions/stateofscience/Soil_Health_894/

An example of a cumulative environmental impact: a farmworker works all day in a field treated with synthetic pesticides, which aggravates her respiratory condition. She also lives near a packing house and breathes in diesel truck exhaust from the daily truck traffic through her community. In the small unincorporated community where she lives, her sole water source is a small public water system that is out of compliance with state drinking water standards and is testing above the healthy limits for pesticide byproducts. Though these impacts, separate of one another may not pose an immediate health risk to the farmworker, the combined factors and the round-the-clock exposure, may multiply her susceptibility to developing cancer.²⁸

Although CalRecycle estimates that 30-100 new or expanded compost facilities are required in order to meet State goals under SB 1383, the permitting process for bringing a new composting facility into operation consists of complying with the California Environmental Quality Act, undergoing the air-emissions permitting processes by the Regional Air Quality Management District for the basin within which the facility seeks to operate, the Regional Water Quality Control Board permitting for waste discharge, including the Composting General Order recently introduced by the State Water Board, and CalRecycle's general permitting for solid waste facilities, overseen by the Local Enforcement Agency within the jurisdiction.²⁹ Depending on the location of the facility, there are more stringent requirements for leachate and discharge and for volatile organic compound (VOC) emissions for Clean Air Act non-attainment areas in California.

INTRODUCTION TO CEQA REVIEW AND CALRECYCLE

Compliance with the California Environmental Quality Act (CEQA) is required for the establishment, expansion, or change in operation(s) of a Solid Waste Facility (SWF) requiring the issuance or revision of a full Solid Waste Facility Permit (SWFP) or Standardized Permit by a Solid Waste Local Enforcement Agency (LEA). Under CEQA Guidelines, an LEA and CalRecycle will usually act as a Responsible Agency, is required to use the environmental document (ED) prepared by the Lead Agency in the solid waste permit approval and concurrence process.³⁰ Once the Environmental Document is completed by the Lead Agency, the LEA, CalRecycle, as a Responsible Agency, must determine whether or not the evaluation of potential environmental impacts assessed in the ED is adequate for their use in the permitting process.

The purpose of CalRecycle and LEA review of and comment on an Environmental Document, during the preparation of the document, is to help decision-makers 1) identify potential impacts from proposed projects, 2) determine whether any such impacts are significant, and 3) ascertain whether

²⁸ regionalchange.ucdavis.edu/sites/g/files/dgvnsk986/files/inline-files/revealing_invisible_coachella_valley%202013.pdf

²⁹ Facilities require verification of compliance with USEPA, California Department of Health Services, Department of Toxic Substances Control, Air Pollution Control District or Air Quality Management District, Regional Water Control Board, Integrated Waste Management Board, and State Minimum Standards for solid waste handling and disposal requirements.

³⁰ CCR Section 15096

significant impacts can be mitigated to a level of insignificance in compliance with the CEQA statutes and guidelines. In order for LEA and CalRecycle staff to ascertain that the ED is adequate for our use in the permitting process, the proposed project must be described in sufficient detail and the potential environmental impacts that may result from the proposed project must be identified and evaluated clearly in the environmental assessment and offer "mitigating measures, if any, included in the project to avoid potentially significant effects."³¹

If the Lead Agency identifies a potential significant environmental impact but finds that the impact is less than significant or that no mitigation is available or necessary, supporting documentation and/or studies should be specifically referenced and be made available for review or included in the ED to support such analysis.

CEQA Guidelines (CCR) Section 15063(a)(1) states that: "All phases of project planning, implementation and operation must be considered in the Initial Study of the project." This consideration, when evaluating for a SWFP revision, should consider the potential environmental impacts of any changes in design and operation of the facility that were not specifically considered in the existing SWFP.

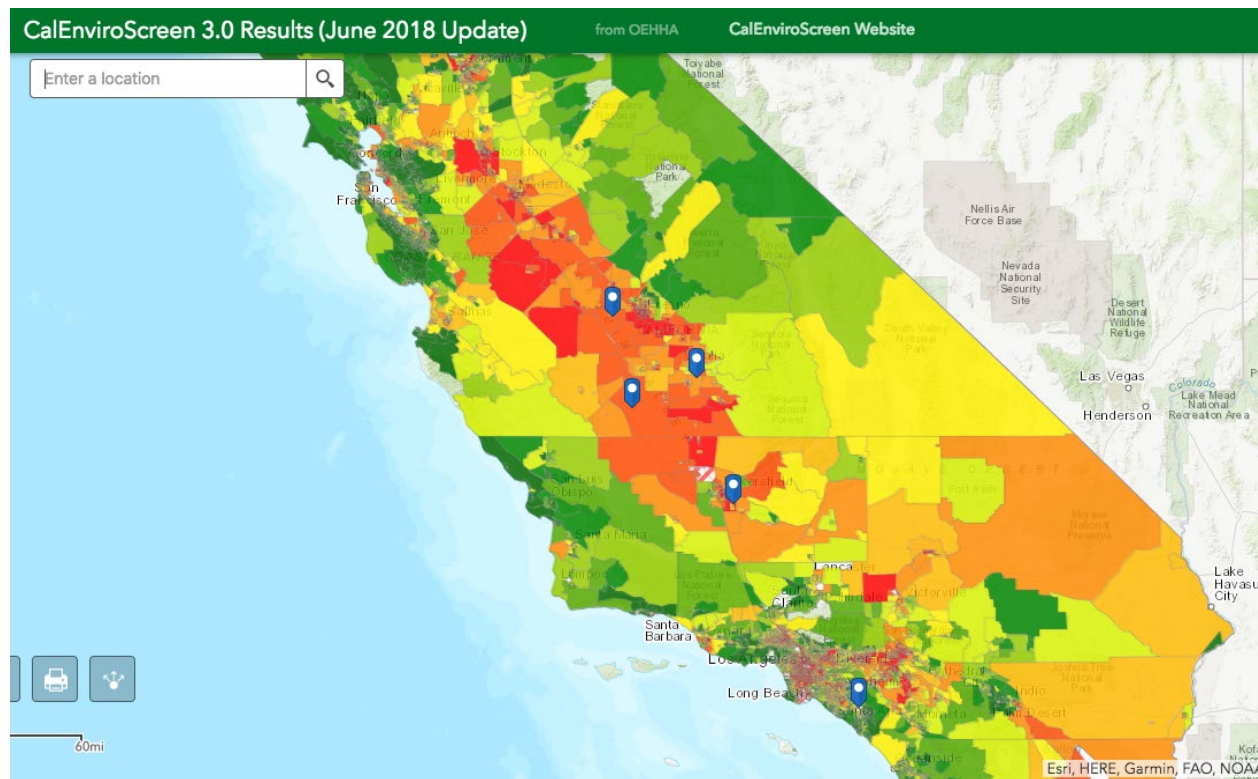
When determining the adequacy of an Environmental Document for purposes of SWFP concurrence, LEA and CalRecycle permitting staff will compare the design and operation of the facility as described in the SWFP with the project as described and evaluated in the ED. The first question is: does the CEQA evaluation for potential impacts resulting from the project thoroughly assess the potential primary and secondary impacts to the environment and/or public health and safety? The second question is: does the CEQA evaluation in the ED support the conditions of the proposed permit? For instance, does the ED also assess the potential traffic, noise, dust, vector and other impacts that can be associated with a significant increase in permitted waste throughput requested in a SWFP? When this type of information is included and addressed in the ED, the CEQA process is greatly facilitated. When this type of information is not included in the project description or elsewhere in the ED, it becomes very difficult for CIWMB staff to determine the adequacy of the ED for purposes of our environmental evaluation.

Lead agencies should include analyses of the following items in Environmental Documents. Many of these issues are related to cumulative environmental impacts and by implementing and documenting mitigation efforts early, a facility can greatly reduce the potential concerns that may be raised during public process and comment on the siting of the facility through the CEQA process.

³¹ CEQA Guidelines, Article 6, Section 15071[e]

Environmental Justice Best Practices for Compost Producers

In creating this toolkit, ACP interviewed five (5) representative compost facility operations in Southern California and the Central Valley. The sites are shown on the following map.



Map depicting 5 compost facilities who were interviewed for this toolkit, located in or near California's environmental justice communities as identified by CalEnviroScreen.

1. Complaint-response protocols and engaging local environmental justice taskforces

Complaints by local community residents who live near compost facilities take the form of grievances related to odors, dust, vectors (flies, mosquitos, rodents), and noise. Resident groups suggest that compost facilities have robust complaint protocols in place to directly address these issues. It is suggested that your facility make your contact information and location clear on your website and on your gate sign. In addition, keep an up to date complaint log, and both a communication and action-based response to the complainant.

CalEPA's complaint system can be utilized by residents. Become aware of any complaints lodged against your company. Another way to become aware of local concerns is by joining your local IVAN network. IVAN (Identifying Violations Affecting Neighborhoods) taskforces exist across the State in environmentally impacted regions. Run by local residents and attended by local enforcement agencies, CalEPA staff, local air and water boards, and other key stakeholders, these hotlines work as a complaint response network for local residents to raise environmental problems affecting their communities.³²

Composting facilities located in environmentally impacted regions of the state may call the coordinators of these response hotlines to introduce themselves and become acquainted with pre-existing or ongoing nuisance complaints that have been raised around the facility (See Appendix 1 for the response hotlines). Often, odor and vector concerns that are faced by residents living around facilities may not be immediately observable by people working inside the facility or by employees who do not visit the periphery of the property on a regular basis. By building relationships with reporting hotlines early, general operators and compliance managers of existing, expanding or new facilities can become acquainted with any local concerns raised and take steps to change practices to ensure that problems that may not have been previously considered can be addressed and abated promptly.

2. Identifying disadvantaged communities (DACs) within waste management jurisdictions

Look to the CalEnviroScreen mapping tool, plug in your zip code, and look at areas in your locality that are highlighted in red. Understanding where your census tract lies within the scoring criteria is fundamental to understanding the potential impact, both positive and negative, of your compost facility on the local community, it is important to identify the CalEPA designated disadvantaged communities within which your facility may be sited, or which are located around your facility.

In order to allow for communities who are burdened by an overexposure to chemical fertilizers, pesticides, and other agrichemicals as well as topsoil erosion, agricultural burning, and raw dairy manure land

³² ivanonline.org/



applications, and to feel a true environmental benefit of compost production, it is critical that compost producers become acquainted with all of the environmental pollution factors that most gravely impact their local neighbors, and use this information to inform the acceptance of feedstocks and the development of markets for finished high quality compost products.

3. Reducing unique or compounded health risks

Reducing unique or compounded health risks in disadvantaged communities' exposure to regulated environmental pollutants is core to EJ best practices. As stated earlier, this practice is based on a foundation of sound record keeping combined with a robust and ongoing community communication program. CalEnviroScreen helps us see clearly that pollution sources are marked in agricultural zones. Community groups who work to offset the impacts of pesticide applications around homes, schools and hospitals have been actively working to advocate for pesticide buffer zones around sensitive areas to ensure public health and safety and to mitigate the impacts of open field burning on their local air quality.

In Tulare County, one of the top 5 counties with the greatest pesticide applications and vulnerability to exposure by school children ³³, Quaker Oaks Farm is experimenting with a variety of soil management practices to naturally increase and maintain soil fertility without the assistance of chemicals. With assistance from the CDFA Healthy Soils Initiative, farmer Steven Lee is utilizing compost products produced locally to amend his soil and boost the health and vitality of his crops. Compost producers may look to the awardees of the Healthy Soils Initiative, posted publicly by CDFA after each grant cycle, to locate farms that are employing organic soil management practices and market finished products to these areas.

Additionally, compost facilities, such as MidValley in Fresno, are seeking to increase their intake of chipped and ground almond and plum wastes from local orchards in order to assist in the effort of offsetting the amount of waste that is burned in the field. Local air districts should be informed of the availability of capacity to take woody orchard waste so that they may inform farmers of the availability of alternatives to burning during the process of issuance of Stipulated Orders of Abatement (permits) for burning woody waste.

4. Community gardens and market gardens

³³ www.panna.org/sites/default/files/KOF-report-final.pdf

Across rural California, community groups have created community gardens and home garden networks to improve local access to fresh food, physical activity, and access to greenspace where localities have failed to provide access to grocery stores and parks. Compost facility operators should become acquainted with their local community gardens, market gardens, ecological agriculture projects and places of learning and foster partnerships with them to accept organic waste and provide compost for their gardens. Some community garden networks can serve as distribution infrastructure for backyard composters. Santa Ana Building Healthy Communities, for instance, is able to accept loads of compost from local facilities. Members of the community garden and of the local community visit the community garden with their own buckets and containers to take compost home for their home needs. This informal distribution process allows for greater benefit to local community residents.



Arvin Community Garden receives compost from Blossom Valley Organics pursuant to a Good Neighbor Agreement entered into by the facility and the resident communities.

5. Promoting authentic community engagement

The primary goal of the SLCP Strategy is to ensure a reduction in methane in our atmosphere. The logic of the legislation propels a movement towards rapid expansion of technologies beyond composting which promise to take in organic waste, including food wastes, such as anaerobic co-digestion and other waste-to-energy technologies. Although these technologies may promise an overall reduction in methane, they offer additional hazards which have been continually raised: NOx from dairy co-digesters, the problem of concentration of industrial pollution sources without dealing with their origins (such as continued amassing of concentrated animal feeding operations and dairy production facilities in communities), and diesel truck traffic associated with the transport of these waste products, and the potential hazards associated with fuel production and transport from such waste to energy products. Compost facilities pose an elegant solution to local pollution sources by mitigating local air quality concerns or limiting them to the emissions of VOCs which are, through natural and low-tech methods such as the placement of biofilters of woody waste and finished compost and different depths bringing these emissions down to levels that are accepted by the regulations put forth by the San Joaquin Valley Air Pollution Control District and other air districts.

Promoting community engagement in the public decision-making process is a requirement under SB 1383. Early acquaintance with disadvantaged community groups and community-based organizations who seek to improve quality of life within jurisdictions, will prove useful for compost facilities in ensuring that facilities are collaborating with and meeting the needs of local neighbors prior to siting their facilities. CEQA sets forth requirements for public engagement and outreach and the opportunity for public comment.

Forms of promoting robust community participation include partnering with local environmental justice groups to host events. Provide compensation to organizations that assist with translation, provide community space, and conduct outreach on your behalf. Ensure that meetings are held at a time when community residents can attend, and if possible, ensure that food and childcare are provided. In holding these meetings, be sure to follow up with community members and maintain communication with the organizations you partner with. These relationships will form the basis of a strong relationship in years to come.

6. Good Neighbor Agreements

As part of the overall communication strategy, formalizing open communication and voluntarily addressing the needs of disadvantaged communities can be initiated by developing “good neighbor agreements”. In certain neighborhoods that are heavily impacted by industrial sources of pollution, Good Neighbor Agreements such as the one piloted by the communities of Arvin, Weedpatch and Lamont with Recology Blossom Valley Organics, can serve to offset the impacts of industrial compost production and achieve a positive outcome for community residents. Such an agreement may include articles such as matching any increased capacity and increased VOC emissions with regular cash contributions to community-based organizations to carry out local improvement projects. Projects may include, but are not limited to, renovating water infrastructure, creating parks, street lighting and sidewalks (See “Resources” for an example of the “Good Neighbor Agreement”). Good neighbor agreements serve as places to ensure that residents have an open channel of dialogue with the facility to ensure that complaints are being addressed in a timely fashion and that residents can maximize any benefits of the finished compost products in their local communities.

LOOKING FORWARD: ONGOING COMMUNITY CONCERNS AND POSSIBLE OPPORTUNITIES

While putting the above Composter EJ Best Practices in place at your facility, in collaboration with your community, you may still face the following issues. Depending on your feedstocks, operational site infrastructure, worker safety programs, facility access and local community organizations, the following may become concerns that can be turned into community building opportunities, or may pose difficult points of tension for your facility and the local neighborhood.

1. Challenges with feedstocks

One of the current largest issues faced by composters throughout the State is inert physical and chemical contamination of the organic feedstocks. Residents in the 5 interviewed areas raised concerns about specific feedstocks. These contamination concerns are 1) agricultural residuals including pesticides and herbicides, 2) biosolids, including the problem of total salt and pharmaceuticals/medication and heavy metals, 3) food scraps and green waste which continue to be contaminated with plastic and glass and persistent herbicides, and 4) manure which includes pesticides and herbicides.



General Manager of Harvest California in Tulare stands in front of their new dairy manure composting rows.

While all these contaminants can, and are, being managed, there is an opportunity to work with local community stakeholders, especially generators of organics residuals (this includes the entire local community!) to improve local feedstock quality and ensure a resilient waste management system. Even if these issues have addressed within your own composting operation and have been subject to regulation, consider preparing materials that show the trustworthiness of your product and to show that your product is free of toxins, and can stay free of toxins with community participation.

2. Problems with oversight: worker protections

After the tragic death of two young men at Community Recycling and Resource Recovery in Lamont, CA, a resounding message was sent to local residents of environmental justice communities that not only is life at home threatened by compound pollution sources, but that work environments for low-income communities of color continue to be dangerous and sometimes fatal.³⁴ These legacy matters of safety in the workplace require sensitivity. Consider creating a communication plan for discussing the job safety and protections offered by your facility. Ensure that all worker protections exceed state regulations and that emergency protocols are trialed and practiced.

In the community of Lamont, Recology, the composting operation who has taken over the operation left by Community Recycling, has attended the local community meetings of Committee for a Better Arvin, the local environmental justice and neighborhood improvement group, to discuss the tragedy, express concern, and put in place a method of communication to ensure workplace safety at their operation.

³⁴ <https://bakersfieldnow.com/news/local/no-charges-in-community-recycling-deaths>

3. Access to waste services

Ensuring access to optimal organics waste diversion services in all communities regardless of income, race, or ethnicity may be an issue relative to your community ethnic and economic diversity and community organizations. While the compost industry expands under the auspices of CalRecycle, residents who live in unincorporated communities and farmworker housing continue to lack access to the basic of human services in their towns such as access to clean drinking water, sidewalks and street lighting. SB 1383 allows for an exemption in a jurisdiction's requirement to provide solid waste service where curbside pickup is currently unavailable. Looking forward, the compost industry faces an opportunity to ensure that there be free or discounted solid waste management if a composting facility is sited in a community that is unincorporated or lacks municipal waste services.

4. Using the capital of the community

In areas where municipal solid waste services are not available, or cannot be provided with the current tax base, we suggest that compost facilities consider providing seed funding to local residents and/or provide guidance in setting up community composting operations. This can be carried out through the creation of Community Partnership Agreements, where facilities may consider signing into an agreement with local resident groups to provide community scale composting equipment so that residents may operate their own local composting operation and provide finished compost to the local community and backyard gardeners.

The DC-based Institute for Local Self-Reliance has developed an excellent training model called Neighborhood Soil Rebuilders Composter Training Program is adaptable to meet various community needs.³⁵ LA Compost has already set up 40 "Compost Hubs" throughout the City and County of Los Angeles.³⁶ According to LA Compost founder, Micheal Martinez, "LA Compost Hubs are all about forming local community around the neighborhood compost pile." This model is likely suitable for adaptation in a small rural community setting, and though not utilized with frequency in the United States, is a commonly utilized form of waste management in many global village economies.

Conclusion

What does meaningful community involvement important for composters?

- Build trust and working relationships with stakeholders, while strengthening community buy-in;
- Demonstrate integrity and compliance with the mandates of State law;
- Demonstrate a commitment to reducing and preventing disproportionate negative impacts on vulnerable residents and neighborhoods; and
- Cultivate vibrant local economies and businesses with local investments where the capital stays and grows within the community, building healthier and safer communities.

³⁵ ilsr.org/neighborhoodsoilrebuilders/

³⁶ www.lacompost.org/hubs/

Environmental Justice Directory

Thank you to the following compost operations and environmental justice organizing groups for your time, expertise and input in developing these recommendations. The following companies and community organizations who participated in the development of these recommendations have made themselves available to discuss best practices at their businesses and places of organizing respectively.

We encourage you to reach out to these groups to gain further insight and to develop the connections needed to ensure that community residents and composters are equally aware of their role in the enhancement and protection of California's soils, and in advancing a more environmentally just composting industry.

Location	Compost Facility	Environmental Justice Group
Kern County	Recology Blossom Valley Organics 6061 North Wheeler Ridge Road Lamont, CA 93241	Center on Race, Poverty and the Environment: 1012 Jefferson Street, Delano, CA 93215 Tel. (661) 720-9140 - Fax. (661) 720-9483
Orange County	Tierra Verde Industries 7913 Marine Way, Bldg 96 P.O. Box 279 Irvine, CA 92650-0279 (P) (949) 551-0363 (F) (949) 551-1532	C.R.E.C.E Cooperative and Garden Abel Ruiz and Ana Siria Urzua (714) 227-0213
Tulare County	Harvest California:	El Quinto Sol De America: Irma Medellin 115 N. Elmwood Ave, Lindsay, CA 93247 P.O. Box 1366, Lindsay, CA 93247 (559) 562-3060 Quaker Oaks Farm: Steven Lee 17216 Ave. 296 Visalia, CA 93292 559-744-3276
Alameda County		City Slicker Farms: 2847 Peralta Street Oakland, California (510) 763-4241 Planting Justice: 319 105th Avenue Oakland, California (510) 290-4049
Fresno County	MidValley Waste	Central Valley Air Quality Coalition

	<p>Martin Okoli 15300 W. Jensen Ave. Kerman, California (559) 237-9425</p>	<p>4991 E McKinley Ave, Suite 109, Fresno, CA 93727 (559) 960-0361</p> <p>info@calcleanair.org</p> <p>Central California Asthma Collaborative: (559) 272-4874 4991 E McKinley Ave, Ste 109 Fresno, California (559) 272-4874</p> <p>Central California Environmental Justice Network: 4991 E McKinley Ave, Ste 109 Fresno, California (559) 272-4874 Call (559) 907-2047</p>
Kings County	<p>Los Angeles County Sanitation Districts: Tulare Lake Compost:</p>	Pueblo Para el Aire y Agua Limpio:

Resources

State Compost Regulations

compostingcouncil.org/wp-content/uploads/2013/05/California.pdf

Permitting Compostable Material Handling Facilities and Operations

www.calrecycle.ca.gov/SWFacilities/Permitting/facilitytype/compost/#Tier

Organic Materials Management

www.calrecycle.ca.gov/organics/

State Law/Legislation Code: California Code of Regulations: Title 14, Natural Resources–Division 7, Ch. 3.1, Articles 1-3, 5-9

compostingcouncil.org/wp-content/uploads/2013/05/California.pdf

Permit Requirements

Article 2, Section 17854.1: Permit process varies based on size of facility, type of material composted, and composting process used

www.calrecycle.ca.gov/SWFacilities/Permitting/FacilityType/Compost/

Permit Exemptions: Article 2, Section 17855: An activity is excluded if it handles agricultural material derived from an agricultural site, and returns a similar amount of the material produced to that same agricultural site, or an agricultural site owned or leased by the owner, parent, or subsidiary of the composting activity. No more than an incidental amount of up to 1,000 cubic yards of compost product may be given away or sold annually. More permit exemptions in Article 2, Section 17855

Permitting Flow Chart

www.calrecycle.ca.gov/SWFacilities/Permitting/facilitytype/compost/Chart1.pdf

Permitting Tiers: www.calrecycle.ca.gov/LEA/Regs/Tiered/TierChart.htm

State Water Board General Order for Compost Facilities

www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2015/wqo2015_0121_dwq.pdf

Regulations of other States, including California

compostingcouncil.org/state-compost-regulations-map/

Cal Enviro Screen 3.0

oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

Healthy Soils, Healthy Communities

foodfirst.org/publication/healthy-soils-healthy-communities-opportunities-to-bridge-environmental-justice-and-soil-carbon-sequestration/

Good Neighbor Agreement

<http://www.crpe-ej.org/wp-content/uploads/2017/02/Groundbreaking-Good-Neighbor-Agreement-Reached-Between-Recology-and-Kern-County-Community-Groups.pdf>

