



READY, RE-SET, GO

SB 1383 is entering the formal regulatory process and is coupled with a dedicated new Administration that will not back down on SB 1383, but instead will double down on banning diesel pollution; now is the time to get **Ready, Re-set, and Go!!!** We are not partying like it's 1989 with AB 939, which set up the infrastructure we have today. Instead, we have fallen on the China Sword while seeking rate increases on both recycling and organics at the same time from local governments that have been distressed dealing with an array of other priority issues. Significantly adding to the green bin while the blue bin is suffering is posing huge challenges as the new reality of recycling is being re-set after 30 years.

As the industry is scrambling with recycling markets and contemplating more organic waste diversion, the new Administration will leap-frog over any need to reform SB 1383 as Governor Newsom banned food waste from landfills 10 years ago as Mayor of San Francisco with his Program Director, now the new Cal-EPA Secretary, knowing that it can be done. Without a hint of backsliding on AB 32 or SB 1383, Newsom proposes to ban diesel pollution statewide by 2030. Mayor Garcetti of Los Angeles plans to ban diesel by 2028, in time for the Summer Olympics. While local government and the industry are struggling with how to permit the SB 1383 facilities, we should also be strategizing about our fleets, where 75% of the costs and 90% of the carbon emissions are embedded.

SB 1383 offers a closed loop system fuels, where internal off-take agreements can be realized by using your own carbon negative RNG fuel, in your CNG fleet, produced from your organic wastes, while cutting NOx to near-zero with the new CNG engines. One ton of organic waste can produce 19 diesel gallon equivalents (dge). The average collection truck uses 13,000 dge per year. With 8 million tons of food waste and green waste targeted for diversion by 2025 and with one-third allocated to AD and two-thirds allocated to composting, over 50 million dges can be produced per year to fuel 4,000 CNG trucks. As diesel is being phased out, the new Administration will need to carve in RNG use on the organic highway and not bypass the

CNG fleet on the way to electrification.

Procurement of Recovered Organic Waste Products in SB 1383 recognizes the importance in developing RNG demand and compost use, CalRecycle has presented a fair share calculation with flexibility of procuring compost or RNG. Requiring, through a written contract, that a direct service provider to the jurisdiction procure recycled organic waste products and provide written documentation of such evidence to the jurisdiction. This will allow the jurisdiction to delegate the RNG use to the local franchise hauler and/or other managed fleets, to fulfill the procurement requirement. This is an elegant community-scale fit where the franchise hauler could produce and utilize their own RNG without the need for expensive and restrictive pipeline injection, but could also draw RNG from a pipeline at a CNG fueling station where RNG is not being produced locally.

SB 1383 is about climate change and not landfill space, parlaying the use of the AB 939 infrastructure, with the same shared responsibility tenets with local government and industry, but now generators may be on the hook by local ordinance. AB 939 inspired billions of dollars of investment to meet the 50% waste diversion mandates to develop the collection and processing operations. Many of these recycling facilities are being transformed by adding organics processing capacity and are ready to step up to the new challenges and opportunities.

The SB 1383 regulations will be **Ready** soon. The **Re-Set** button has been hit for recycling and now organics. It is time to **Go** forth in partnership with the same spirit of AB 939. A lost garbage barge and a landfill capacity crisis touched the nation to re-set recycling in 1990 and we answered the call with collection and processing, but lacked domestic manufacturing. Since climate change impacts of today far surpass the landfill scarcity of yesteryear, you would think a greater call to arms would transpire among local government, generators, and the industry to go forth now with our California markets for compost and RNG to continue to increase our gross domestic product while significantly decreasing our carbon intensity to attain the 40% GHG reduction by 2030.

Cap-and-Trade Budget 2019-2020

As the 2019-2020 Budget was released, California became the 5th largest economy in the world. Since 2001, California's GDP has increased by 41% as GHGs have been reduced by 38%. Proceeds from the Cap-and-Trade Program have facilitated approximately \$9.3 billion in investments throughout California that further the state's climate goals. The Budget proposes a \$1 billion Cap-and-Trade Expenditure Plan to support programs that reduce or sequester greenhouse gases, including programs that benefit disadvantaged and low-income communities, and support training and apprenticeships necessary to transition the state's workforce to a low carbon economy.

CalRecycle stays at \$25 million, where \$100 million per year is needed to invest the \$2-3 billion into compost and AD facilities. Dairy AD goes down from \$99 million to \$25 million. There is \$132 million for clean trucks to carve out the voucher program of \$45,000 per truck with RNG use to replace those diesel trucks, where the governor wants to ban diesel pollution by 2030. There is \$230 million in community air pollution protection that will place more pressure on compost facilities. Specific bioenergy development using urban wood waste is nowhere to be found.

Healthy Soils increases to \$18 million to provide incentives to farmers for agricultural management practices that sequester carbon, including cover cropping, reduced tillage, and compost application. Annual funding of \$18 million was identified through a modeling tool that CCC was able to heavily participate in (in the development of the Natural and Working Lands Implementation Plan) to achieve soil conservation practices on 500,000 acres by 2030, where compost use is slated to cover 350,000 of those acres, for a benefit of 5.3 million tons of carbon sequestration.

New Cal-EPA Director

Governor Gavin Newsom appointed Jared Blumenfeld, 49, of San Francisco, Secretary of the Cal-EPA, the state cabinet-level agency established in 1991 to oversee CalRecycle, CARB, State Water Board, DTSC and OEHA. Blumenfeld is widely recognized as one of America's most innovative environmental leaders. In 2016, he founded his own private firm advising clean tech companies in best practices after serving eight successful years as the west coast Regional Administrator of the United States EPA, under Obama.

Previously, he was Director of the San Francisco Department of Environment for nine years, where he and then-Mayor Newsom worked effectively to make San Francisco the most sustainable city in the nation and banned food waste from landfills.

With the new administration, its AB 1045 and we need to let Jared know where our compost is. It's still siloed in the reports and studies by the Water Board, the Air Districts, and CDFA; and the recently released AB 1045 Report in December 2018 is two years late and inadequate. The important concept of designating compost facilities as an 'essential public service' is not even mentioned by CalEPA, which could be the solution to complex air permitting by allowing a net-benefit of diverting organic from landfills to be fully realized. The Program EIR for SB 1383 will be a nice opportunity to fully analyze this. Whereas CARB has tried to integrate all agencies in the AB 32 Scoping Plan, CalEPA has been ineffective over the years on permit coordination.

Jared seems like the right person at the right time to take AB 1045 to the next level and will not back down on SB 1383. But, will he step up to make it happen in partnership with industry and local government?

DOUBLE DOWN ON COMPOST USE

The [January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan](#) (Plan) is now available and after two years the State finally included [CCC metrics](#) to double down on compost and mulch use by 2030 and made compost application a priority after being silent. Comments are due on Feb 8, 2019. Where the preliminary draft Plan did not include compost use on irrigated cropland at all, now compost application is being targeted, adding 31,000 to 62,000 acres each year to 2030, and mulching over cropland also increasing at 10,400 to 20,800 acres per year.

The analysis to support this Plan used a sampling method to combine COMET Planner outputs from twelve agricultural counties into a statewide average. While specific levels of activity for each practice were required to generate the estimated climate benefits, CDFA will target implementation acres for healthy soils practices generally, rather than on practice specific acreages. Additionally, because a statewide average was used, the acreage target is a statewide rather than regional. Considering historic funding levels, implementation at the scale assessed would cost approximately \$18 – \$36 million per year, reducing GHG by 5.3 to 10.7 million metric tons.

This Plan aims to integrate management objectives wherever possible, coordinating all natural and working lands programs under a united approach. The implementation will significantly increase and improve conservation, restoration, and management of California's natural and working lands through State programs and other means, to enhance their resilience to worsening climate change impacts, sequester carbon, and reduce GHGs, and create healthy soils.

Goals for Natural Climate Solutions:

Compost application rates to 2030:

- On annual cropland
10,300 - 20,700 acres/ year each year
- On perennial cropland
21,000 - 41,900 acres/ year each year
- On non-irrigated rangeland
2,100 - 4,200 acres/ year each year
- On irrigated pasture
2,100 - 4,200 acres/ year each year

Program EIR Net-Zero Now

CalRecycle will prepare and circulate an Environmental Impact Report (EIR) to disclose potential significant adverse effects on the environment as a result of the planned adoption of the SB 1383 Regulations. The results of the EIR will disclose information on potential significant impacts and mitigation measures, and is expected to assist state and local agencies with information for future site-specific CEQA reviews that may be required for new or expanding local projects that may directly or indirectly result from the SB 1383 regulations. The Notice of Preparation (NOP) was held on January 22, 2019 in Sacramento. [CCC was there and presented comments that were posted on January 8, 2019.](#)

CCC will work hard to make this be the Program EIR for compost facilities that we have been advocating for CalRecycle to prepare for years. CalRecycle certified the Program EIR to assess the environmental effects of AD facilities in California in 2011. That Program EIR provided background on technologies, potential impacts, and mitigation measures that has been used to expedite the CEQA process at the local level.

CCC comments included a better definition of landfill baseline operations; provided the math for VOC reductions which that are 53% less than landfilling but would still need to purchase off-sets costing up to \$54 million statewide if off-sets are even available; requested essential public service analysis as evaluated by CAPCOA; assessed that GHG and NOx benefits that the RNG procurement delivers. The SRIA provided public health benefit and needs to be included here as well. CCC will provide the CARB definition of 'Net-Zero GHG' where these facilities are Net-Zero Now, and can soon become 40X to 50X Net-Zero by 2020 and 2025.

SRIA for SB 1383 Regs \$330 Million Per Year

The Standardized Regulatory Impact Assessment (SRIA) is a required element of the initial rulemaking documents that must be submitted to the Office of Administrative Law (OAL). The SRIA is a 58-page document that provides a macro statewide analysis of the potential costs and benefits of the regulatory requirements. The estimated direct statewide costs is approximately \$20.9 billion, from 2019 to 2030, and the direct economic benefit is approximately \$17 billion over the same time period. With an average net cost per year of approximately \$330 million, the average increased cost per household would be approximately \$17 per year, or \$1.42 per household per month, and the increased cost to business is estimated at \$662 per year, or \$55 per month.

Reviewing several scenarios, the SRIA estimates there could be 60 new or expanded compost facilities at 100,000 tons per year, costing \$13.5 million dollar each and 26 new AD facilities at 100,000 TPY, costing \$46 million each, for a total of 86 facilities by 2025 with a total capital costs of \$2 billion. The SRIA estimates the costs for all aspects of SB 1383 from education, enforcement, contamination monitoring, reporting, capacity planning, and procurement, starting at \$665 million in year one and levels out at \$350 million per year thereafter. The SRIA relies on projections of potential infrastructure scenarios that are consistent with the projections made in 2017 by CARB.

The SRIA described \$17 billion in economic benefits and NOx reduction of almost 17,000 tons per year, and could have also brought in the VOC reductions from baseline. There could be 11,700 new permanent green jobs and 4,500 temporary construction jobs. The value of avoided damages calculated using the social cost of carbon could range from \$40 million to \$100 million per year.

[SB 1383 REGULATIONS](#)

CalRecycle's proposed regulations were officially noticed by the Office of Administrative Law (OAL) on January 18, 2019. The proposed regulations implement the department's responsibilities established by SB 1383 (Lara, Chapter 395, Statutes of 2016) Public Resources Code (PRC) Sections 42652-42654, and 41780.01, and Health and Safety Code (HSC) Sections 39730.5 - 39730.6. This rulemaking implements regulatory requirements to reduce landfill disposal of organic waste in order to achieve the greenhouse gas emissions reductions required by SB 1383. This action initiates the formal 45-day comment period.

45-Day Formal Comment Period:
January 18, 2019 – March 4, 2019

Comments must be submitted by 5 PM March 4, 2019. Comments may be submitted via e-mail to: SLCP.Organics@calrecycle.ca.gov (additional methods for submitting written comments are identified in the NOPA). Comments must be submitted during the appropriate comment period in order to be considered.

Please note: to ensure accurate guidance and consistent responses, CalRecycle staff will not be providing written responses directly to individual commenters at this time. Instead, all comments submitted during the appropriate rulemaking comment periods will be catalogued and responded to as a part of the final rulemaking package submitted to the Office of Administrative Law.

Any substantial changes to the initial regulatory language will be subject to additional notice and public comment.

A Formal Hearing will be held on March 12, 2019, where stakeholders and the public can make comments on the regulatory text.

[AB 901 REGULATIONS](#)

After 1,130 comments and several years, at the December 18, 2018 monthly meeting, CalRecycle staff have determined that no additional modifications to the proposed rulemaking text implementing the AB 901 Recycling and Disposal Reporting System (DRS) are needed and have delivered a completed package to the Office of Administrative Law for approval on January 18, 2019 for publication in the California Regulatory Notice Register.

The California Compost Coalition

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

CCC Members

Agromin
American Refuse
Atlas Disposal
Burrtec Waste Industries
Caglia Environmental
California Waste Recovery Systems
California Wood Recycling
CleanFleets.net
Clean Fleets Advocates
Clover Flat Compost
Cold Canyon Compost
GreenWaste Recovery
Marin Sanitary Service
Mt. Diablo Resource Recovery
Napa Recycling Compost
Northern Recycling Compost
Phoenix Energy
Quackenbush Mt. Compost
Recology Blossom Valley Organics
Recology Feather River Organics
Recology Jepson Prairie Organics
ReFuel Energy Partners
Soiland Co, Inc.
Sonoma Compost
Tracy Material Recovery Compost
Upper Valley Recycling
Vision Recycling
Zanker Road Resource Management
Z-Best Compost Facility
Zero Waste Energy Development
Zero Waste Energy, LLC

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Evan Edgar, Regulatory Affairs
Steve Peterson, Financial Advisor
Monica White, Sustainability Advisor
Sean Edgar, Fleet Advisor

CCC Legislative Affairs

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

OMG . . .

The Organics Management Group is Here!

Thirty years ago, AB 939 was signed into law to divert 50% of waste by 2000. With much fanfare, it was answering the call to a lost garbage barge and dwindling landfill space. Local government, environmental groups, and industry all stepped up in partnership to build the recycling infrastructure we have today. If only California could have attracted the manufacturing capacity for paper and plastics to match the collection and processing industry. With SB 1383 entering the formal regulatory process coupled with a dedicated new administration that will not back down, but will double down on diesel pollution and renewable energy, the call for partnership and coalition building is greater than ever.

AB 939 with Federal Subtitle D landfill liner regulations in the early 1990s disrupted the direct haul to disposal model and attempted to create markets for all waste streams, and was a huge success in launching new collection practices and processing techniques. AB 939 set the platform for SB 1383, which is now focused on organics with a circular economy model, tapping into internal and regional markets. With composting and anaerobic digestion facilities as the center piece, the California Compost Coalition proposes to launch the ad-hoc Organics Management Group to create a coalition to agree on the good of SB 1383 and fix what needs to be fixed in the collaborative spirit that has been lacking during the informal workshops while reviewing the draft language.

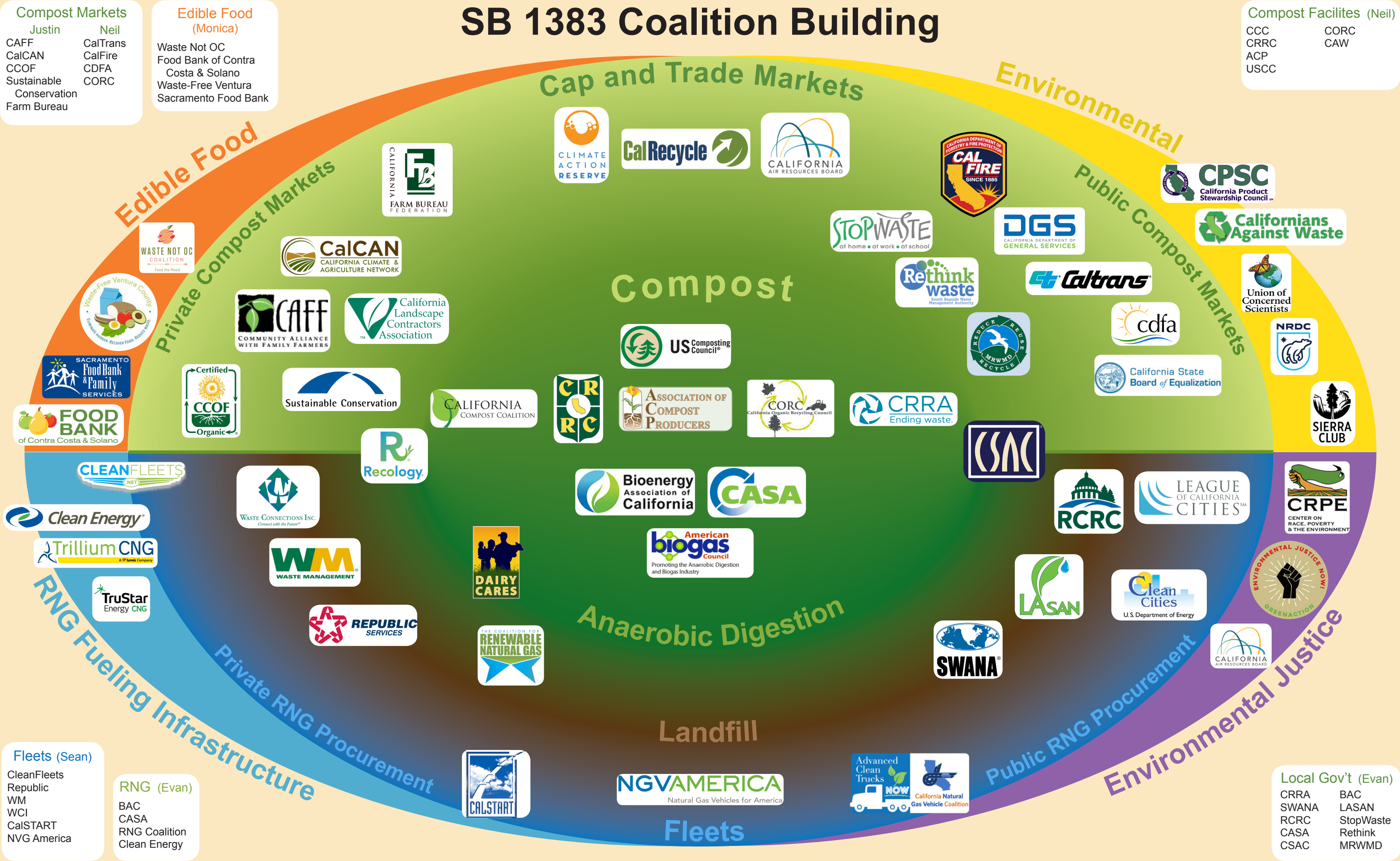
Justin Malan, with his agricultural contacts, will continue to push the Healthy Soils Initiative for private markets. Neil Edgar, wearing both his USCC and CORC hats, will continue to seek out public sector procurement with state and local agencies; he will work with CRRC, ACP, and CAW on the facility regulations and AB 1045 implementation. Evan Edgar plans to visit the SWANA Legislative Task

Force, RCRC, CASA, CSAC, and the League of Cities linking SB 1383 to local Climate Action Plans and transportation emissions, while addressing the issues of disadvantaged communities. BAC and the RNG Coalition have been pushing RNG procurement at the Legislature, with BAC supporting SB 1383 RNG procurement. Sean Edgar will continue his CARB loading on carving out vouchers for CNG vehicles using RNG fuel, when it replaces a diesel vehicle. With Governor Newsom proposing to ban diesel pollution by 2030, the RNG demand and fueling infrastructure needs to be developed in conjunction with required SB 1383 facilities.

The political landscape of SB 1383 is far reaching into climate change mitigation, with connectivity beyond the institutionalized waste industry. AB 939 did not delve into the collection fleet, fuel production and dispensing, edible food recovery, or incentive funding in relation to disadvantaged communities. With 75% of the costs and 90% of the carbon emissions attributed to transportation, SB 1383 offers a closed-loop system where internal off-take agreements are realized by using self-produced carbon negative RNG fuel in the company's own CNG fleets, while cutting NOx to near-zero with the new CNG engines. OMG!!! Is that possible?!

Dairy Cares has a common voice and got \$99 million in Cap-and-Trade funding to implement SB 1383. We all care and need to come together where we can speak in a common voice, as the waste recycling industry has been fragmented based on private vs. public interests, urban vs. rural, north and south markets, and Wall Street to Main Street business models. The Organics Management Group can hit the reset button and be an ad-hoc working group/coalition focusing on SB 1383 regulations to support common themes and comment on key issues to the benefit of the entire industry.

SB 1383 Coalition Building



READVANTAGING COMMUNITY-SCALE SYSTEMS

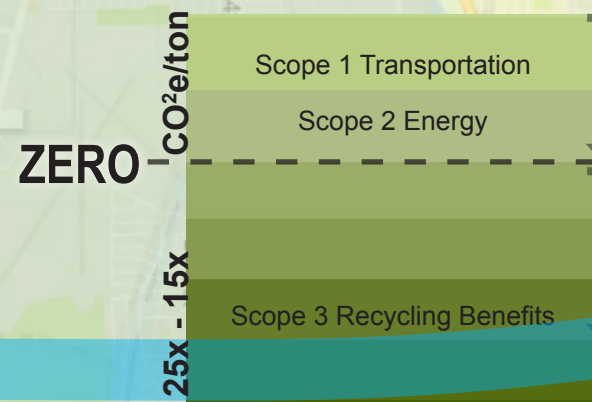
THROUGH SUSTAINABLE FACILITY, FUEL, FLEET, FEEDSTOCKS & FARMING



NET ZERO FACILITIES

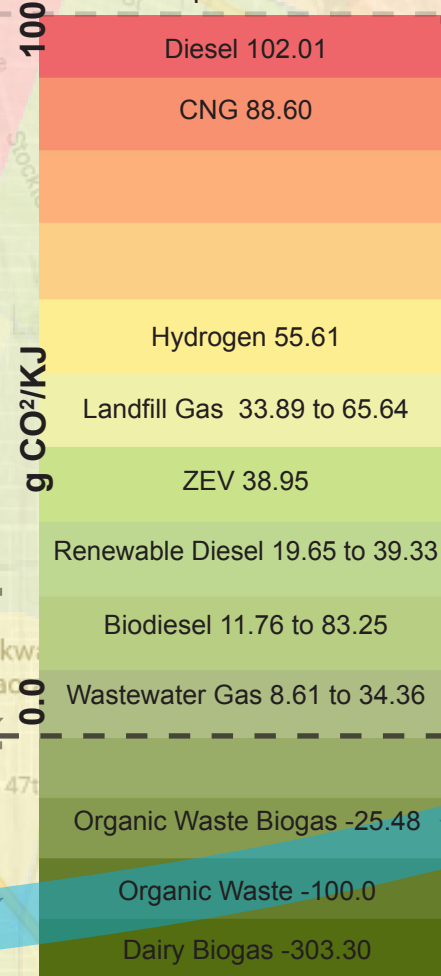
Greenhouse Gases

The Net Zero Facilities in recycling sector including material recovery facilities processing recyclable materials, compost facilities, anaerobic digestion facilities, and biomass conversion facilities. The new composting facilities are covered aerated static pile systems using the best available control technologies and the anaerobic digestion facilities are enclosed closed-loop system without high temperature incineration. The avoided GHG emissions for these facilities compared to landfilling fully offset the project emissions including collection, hauling, processing activities and the landfilling of residuals. Landfills and garbage Transfer Stations are in the waste sector and are not Net Zero Facilities.



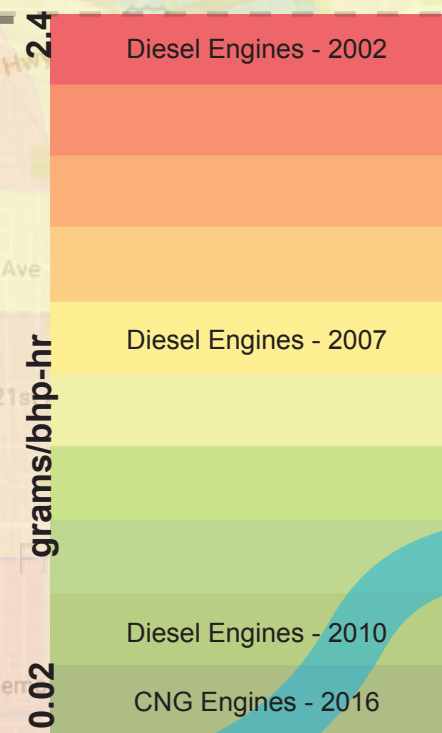
CARBON NEGATIVE FUEL

Carbon Intensity Transportation Fuel



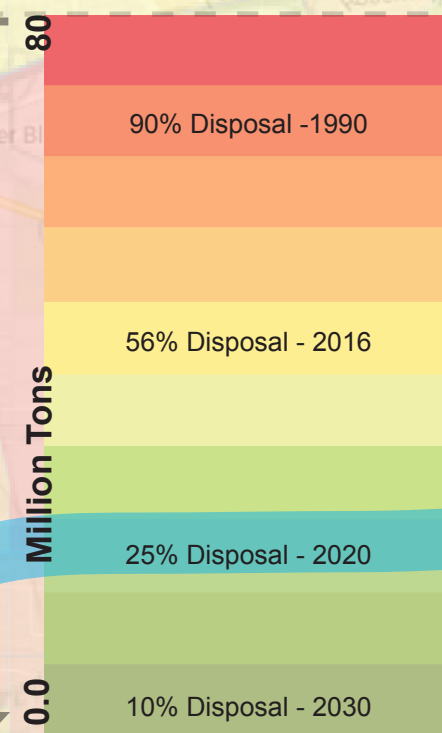
NEAR ZERO FLEET

Heavy-Duty Vehicle NOx Emissions



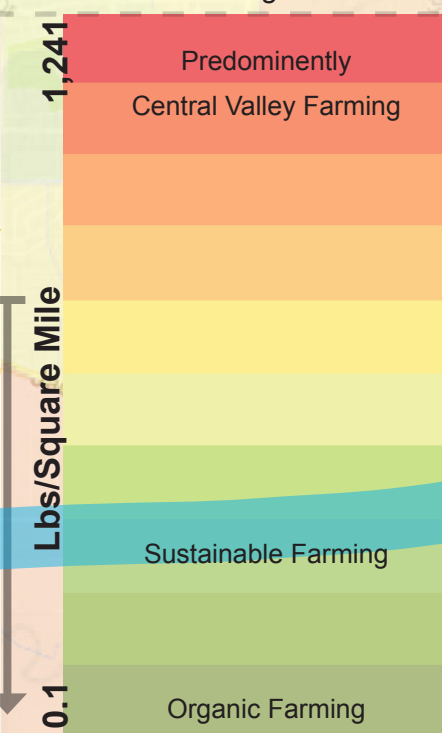
ZERO WASTE

Disposal Solid Waste Tons



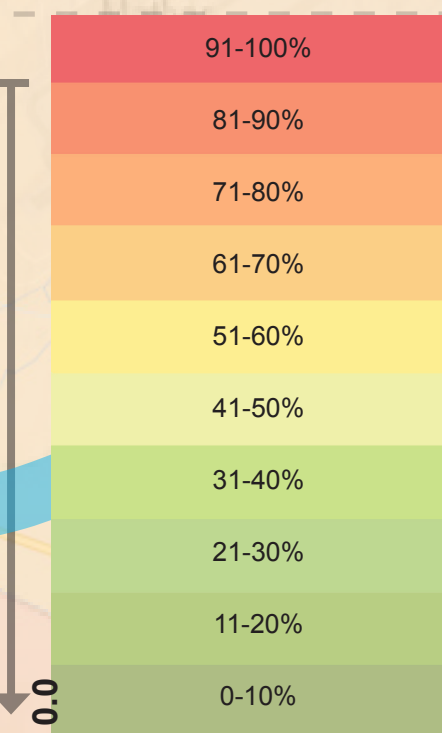
ZERO PESTICIDE USE

Pounds of selected active ingredients



DISADVANTAGED COMMUNITIES

CalEnviro Screen 3.0 results



Community-Scale Carbon Negative Near Zero Emissions at Net-Zero Facilities

The Short-Lived Climate Pollutant Plan (SLCP) was adopted on March 23, 2017 and the SB 32 Scoping Plan Update with 2030 goals is being consider by CARB on June 23, 2017. The community-scale anaerobic digestion facilities model is at the intersection of the SLCP, SB 32, and the Governor's Five Pillars that California will: (Pillar 1) reduce today's petroleum use in cars and trucks by up to 50%; (Pillar 2) increase from one-third to 50% our electricity derived from renewable sources; (Pillar 3) double the efficiency savings from existing buildings; (Pillar 4) reduce the release of methane which includes diverting organics from the landfill by 2025; and (Pillar 5) manage farms, rangelands, forests and wetlands so that they can use compost and store carbon. RNG produced at these anaerobic digestion (AD) facilities has been deemed to be carbon negative and when utilized in CNG trucks with the near zero emissions will be a game changer today by reducing heavy duty diesel emissions now while striving for zero waste. The digestate can be composted to produce organic materials to reduce pesticide and fertilizer use to produce healthy soils. A 25,000 ton per year, or 100 tons per day, AD-to-RNG project is designed as a community-scale model, and can serve a population of approximately 100,000 people. This model can produce 333,000 diesel gallon equivalents per year of RNG with a carbon intensity of negative 22.9 g CO₂e/MJ for a fleet of 45 heavy-duty trucks with near-zero NOx emissions.

AB 32 Scoping Plan 2014 Update Waste Sector

Net-Zero GHG Emissions from the Waste Sector by 2030. Reduce Scope 1 emissions with alternative fuels. Reduce Scope 2 emissions with roof-top solar and on-site bioenergy. Avoid Scope 3 GHG emissions with recycling and composting. To achieve Net-Zero, the direct GHG emissions from the Waste Sector would have to be fully offset by avoided GHG emissions. Avoided GHG emissions are reductions in life-cycle GHG emissions that would occur because waste is shifted from landfilling to alternative non-disposal pathways. Most material recovery facilities are 15 to 25 times offset over their GHG emissions.

LCFS Pathway CARB Certified Carbon Intensities

The wide range of carbon intensities is due to the lifecycle emissions methodology of the Low Carbon Fuel standard (LCFS); variation of feedstock types, origin, raw material production, processing efficiencies, and transportation all contribute to the producers' fuel pathway carbon intensity. The certification of carbon negative fuel for the production of renewable natural gas (RNG) from organic waste anaerobic digestion is based on the biogenic feedstocks of food waste and green waste, and the avoided methane emissions from the landfilling of the material. The CNG truck collect food waste to make RNG.

CARB and EPA certified ISL G NZ (8.9) L CNG engines

In 2015, Cummins Westport certified the world's first heavy-duty engine at near-zero-emission levels (90 percent below the existing federal standard) for Class 7 refuse trucks and will be available for Class 8 transfer trucks in 2018. To complement the NOx reductions provided by this landmark engine, conventional (fossil) natural gas provides significant GHG reduction benefits. However, renewable natural gas with carbon negative fuel completes the game changing proposition by providing the lowest carbon intensity of any heavy duty transportation fuel available in the market today.

90% or more Waste Reduction from Landfills and Incineration

Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Communities that have a Zero Waste goal and are working towards or have reduced their waste to landfill, incineration and the environment by 90% or more. Dozens of large cities have adopted zero waste goal by 2025. California is at a 45% recycling rate as compost facilities are curtailed by NIMBYism.

Healthy Soils Initiative with Compost Use

Communities near agricultural fields, primarily farm worker communities, may be at risk for exposure to pesticides. Drift or volatilization of pesticides from agricultural fields can be a significant source of pesticide exposure. The use of most synthetic pesticides and fertilizers is prohibited from organic production. Organic farming with certified organic compost use and a zero pesticide goal makes healthy soils. The multiple co-benefits of enhanced soil organic matter on our agricultural lands, include improved water retention, soil stability and nutrient use efficiency to reduce fertilizer use.

CalEnviroScreen 3.0 Cap-and-Trade Investments

The California Communities Environmental Health Screening Tool (CalEnviroScreen) helps us to address environmental threat challenges. The objective in developing this tool is to use it to assist California communities by directing state and potentially local government resources toward a common purpose: the revitalization of disadvantaged communities and the pursuit of environmental justice. Cap-and-trade proceeds have funded projects where over \$3.3 billion has been appropriated with 50% of the funding benefiting DACs and 34% located in DACs.

NET ZERO NOW

OFF DIESEL

KNOCK OFF NOx

OFF LANDFILLS

VINEYARD OFF PESTICIDES

GREENING YOUR COMMUNITY