The Governor will be leaving California with a strong foundation supporting his Five Pillars, which provides the world with a pathway for climate change mitigation. Ending his fourth term and taking a victory lap around the globe, Governor Brown has been the adult in the room playing carbon chess when we are just recycling checkers. The Global Climate Action Summit scheduled for September 13-14 in San Francisco will bring leaders and people together from around the world to, "Take Ambition to the Next Level." It will be his walk-off song to celebrate the extraordinary achievements of states, regions, cities, companies, investors, and citizens with respect to climate action. Counties and subregional governments will be linking to California’s billion dollar Cap-and-Trade program with technology transfer. It will also be a launching pad for deeper worldwide commitments and accelerated action from countries that can put the globe on track to prevent dangerous climate change and realize the historic Paris Agreement without playing the trump card.

The Governor’s Five Pillars will: 1) reduce today’s petroleum use in cars and trucks by up to 50% and promote RNG use; 2) increase from one-third to 50% our electricity derived from renewable sources and hopefully move biomass with BioMAT; 3) double the efficiency savings from existing buildings and make heating fuels cleaner; 4) reduce the release of methane, which includes diverting 75% of all organics by 2025; and 5) manage farms, rangelands, forests, and wetlands so that they can use compost and store carbon. The 2017 AB 32 Scoping Plan places organic waste and compost in all sectors noting that organic waste can be transformed into transportation fuels and renewable energy, and where compost can provide water savings and healthy soils to sequester carbon.

The Governor is showing us some money, but not all the money that is needed. We will be providing comments on the Draft Cap-and-Trade Third Investment Plan, with CalRecycle for $100 million per year, CARB for $100 million per year in Clean Transportation to fund RNG trucks on RNG with the near-zero engines, and CDFA needing $50 million for Healthy Soils to move compost. We need to PASS GO and collect $200 million per year. ‘Show Me the Money’ and we will show you the tons once SB 1383 regulations pass in early 2019. Without SB 1383 regulations being adopted soon, we cannot show the banks and the grant applications the contracted organic tons to build it, as local government will not come until AB 939-like enforcement happens with shared responsibility.

For the uninitiated, ‘Governor Moonbeam’ became Mr. Brown’s persona, dating back to 1975 and 1983, meant for the young, idealistic and nontraditional, when California led the nation in pretty much everything then and is back doing the same. As the Governor walks off into a blazing sunset of hazy smoke, former SF Mayor Gavin Newsom has eclipsed the man in the moon, as he was in front of same-sex marriages, plastic bags, and even banned organics in 2009. Ban it for The Planet!!!
The Governor and Legislature have agreed to a $1.4 billion investment plan for Cap & Trade revenues for 2018-19. The waste diversion and compost related funds are way below what is needed to fully implement SB 1383. CalRecycle has taken a cut from last year ($25 million instead of $40 million). The other bioenergy related programs received the same or increased funding compared to last year. In addition, there is $12.5 million for biofuels production at the CEC which may take the place of the AB 118 DMV funding next year if we don’t rally. Bioenergy Association of California (BAC) the other biofuels industries have managed to prevent the Legislature from passing the Governor’s Budget Trailer Bill that would have converted the $100 million dollar per year clean fuels/vehicles funding program (known as the AB 118) to an electric vehicle only program.

Cap & Trade funding allocations related to composting, bioenergy, and hauling is shown on the insert:

- $25 million for waste diversion
- $5 million for Healthy Soils
- $12.5 million for low carbon fuel production
- $175 million for clean vehicle rebate program
- $180 million for clean trucks, buses and off-road vehicles

The Short-Lived Climate Reduction Strategy states there will need to be at least $100 million in incentives over the next 5 years to start to develop the required compost and organics diversion infrastructure. CalRecycle awarded $14.6 million in organics grants, from Cap-and-Trade dollars for 5 facilities in FY 2014-2015, where over $118 million in grant requests were submitted. Having been passed over in FY 2015-2016, CalRecycle awarded $24 million in organics grants to 10 facilities in FY 2016-2017. CalRecycle just awarded $25.1 million for 10 facilities in FY 2017-18. However, the Governor’s budget is just the same $25 million for FY 2018-2019. AB 1933 (Maienschein) would have increased that amount to $200 million, but the amount has been gutted.

**TOPIC:** Greenhouse Gas Reduction Fund: recycling infrastructure projects. This bill would additionally specify as an eligible use for in-state infrastructure projects or other projects that reduce emissions of greenhouse gases that expand and improve waste diversion and recycling, including the recovery of food for human consumption and food waste prevention. The bill would additionally specify that eligible infrastructure projects that reduce emissions of greenhouse gases include the expansion of facilities for the processing and composting of recyclable materials and projects to improve the quality of recycled materials.

**STATUS:** Senate amendments concurred in. To Engrossing and Enrolling.

**TOPIC:** Organic waste: composting. This bill would require the Department of Resources Recycling and Recovery, on or before December 31, 2019, to develop and implement a plan to maximize the use of compost for slope stabilization and for establishment of vegetation in the course of providing debris removal services following a wildfire. The bill would require the Department of Transportation, to identify best practices for each of the Department of Transportation’s 12 districts regarding the cost-effective use of compost along roadways and to develop a plan to implement the identified best practices in each of the districts. The bill would additionally require the Department of Resources Recycling and Recovery to review the best practices at least once every 5 years and update the best practices as necessary.

**STATUS:** Enrolled to Governor

**TOPIC:** Solid waste: use of compost: planning. This bill would require the Department of Resources Recycling and Recovery, in coordination with the Department of Transportation, to identify best practices for each of the Department of Transportation’s 12 districts regarding the cost-effective use of compost along roadways and to develop a plan to implement the identified best practices in each of the districts. The bill would additionally require the Department of Resources Recycling and Recovery to review the best practices at least once every 5 years and update the best practices as necessary.

**STATUS:** Enrolled to Governor

Notice of the proposed regulations was published in the California Regulatory Notice Register by the Office of Administrative Law (OAL) on January 26, 2018, beginning the formal 45-day comment period of the rulemaking process. The seventh draft of the proposed regulatory text will be released mid-September, 2018 for a 15-day formal comment period. Please refer to the “Notice of Changes to Proposed AB 901 Regulations” http://www.calrecycle.ca.gov/Laws/Rulemaking/Reporting/6thNotice.pdf for information on how to comment. The comment period will close in late September, 2018.
The California Compost Coalition’s (CCC) announced on August 8th the availability of up to $16.9 million in grant funds for low carbon biofuel production projects at new and existing biofuel production facilities: existing biofuel production facilities must expand or modify facilities to increase production capacity. Eligible biofuels are diesel substitutes, gasoline substitutes, and biomethane such as RNG. Typically, 2 to 3 RNG projects are awarded each year where this time under 1 million dge per year is eligible for $3 million and over 1 million dge/year can receive $5 million.

We have been asking for and will continue to comment that CalRecycle needs $100 million per year for Compost and Anaerobic Digestion facilities at a site specific location. CEC also announced the availability of up to $6,000,000 in grant funds for biofuels projects that scale-up, scale-out, and prove a technology or process at the first demonstration-scale biofuels production facilities at a site specific location. Workshops are being held on August 23rd in Sacramento with pre-application abstraction due on September 20, 2018. Deadline for full applications will be November 19, 2018. These programs are funded under AB 118 by DMV fees and may be swept away next year in favor of electrification.

Unfortunately, the value of RNG carbon-negative fuel is being shocked by the electrification lobby and may be losing critical funding as the AB 118 biofuels production incentive grants at the California Energy Commission may be phased out this year. Cap-and-Trade dollars will probably replace only a portion of the AB 118 fund as CARB has abandoned biofuel production funding program in the past where there was $25 million available at one time, which is being reduced to just $12.5 million.

According to CARB’s 2018 Annual Report on the Cap-and-Trade Proceeds to the Legislature compost and anaerobic digestion continues to be the most cost-effective GHG program, while the grants awarded by CalRecycle continue to show that disadvantaged communities (DACs) are receiving benefits or co-benefits 100% of the time. From the diesel-impacted ports of California to the DAC-laden Central Valley, a network of RNG facilities and RNG fueling stations for Near-Zero NOx heavy-duty vehicles, which collect and transport organic materials around California, to be funded to significantly reduce greenhouse gases and criteria pollutants. Using the CalEnviroScreen scale and comparing to a year 2000 baseline, the organic recycling industry can deliver vast co-benefits to DACs. Deploying Near-Zero NOx emission engines has a 99% reduction (dark green). Recycling trucks and transfer trailers using carbon negative fuel have a 100% reduction from diesel (dark green), produced from zero waste (statewide recycling rate is 44% - yellow) at net-zero GHG facilities (avoids 15 to 25 times - dark green). Organic compost use decreases pesticide use by over 99% (dark green). Being a Zero Hero with clean fleets and facilities is not cheap and should receive priority incentives from the Cap-and-Trade revenues, recognizing the numerous co-benefits to DACs.
Four CCC Members Awarded Organics Infrastructure Grants

Applicant: Mt. Diablo Resource Recovery
Project Type: Anaerobic Digestion with Grant Funds of $4,000,000.
The proposed project utilizes anaerobic digesters at the existing Mount Diablo Resource Recovery Park as the site for organics separation, co-digestion and bioenergy production. The proposed project includes: 1) an organics separation system with high diversion mixed waste processing, 2) an organics receiving facility to feed the organic slurry into the existing digesters, and 3) additional bioenergy infrastructure. The proposed project will allow for the diversion of 24,400 TPY of organics from the landfill and increase biogas production by 280 percent at the Delta Diablo wastewater treatment plant.

Applicant: Upper Valley Disposal Service
Project Type: Rural Compost for $1.25 million.
Upper Valley Disposal Service proposes to build “Organics Blending Barn” which consists of a fully-enclosed 100 ft. by 150 ft. concrete tilt-up building with roll-up doors and a biofilter to process air flow from the building. It will accept and mix approximately 4,500 TPY of newly collected food waste, which will be blended with nearly 4,000 tons per year of newly collected green materials and woody waste to produce compost. The project is partnering with Sacramento Food Bank and Family Services to recover edible food and distribute that food to residents of disadvantaged and low-income communities.

Applicant: Recology Yuba-Sutter (partially funded)
Project Type: Compost with Grant Funds of $216,865.
Estimated GHGs (MTCO2e) Total Project: 20,511. Estimated Diversion Total Project: 78,167 Tons.
Recology proposes to construct a new composting facility at its Ostrom Road Landfill. The grant money will pay for phase one of a three-phase project by constructing infrastructure for water-quality protection that will allow the facility to begin operations. This will be a regional composting facility with the capacity to handle compostable materials from surrounding cities. The project will prioritize hiring for both permanent and temporary jobs for residents of disadvantaged communities.

Applicant: Upper Valley Disposal Service
Project Type: Compost with Grant Funds of $3,000,000.
Estimated GHGs (MTCO2e) Total Project: 13,474 MTCO2e.
Estimated Diversion Total Project: 47,780 Tons.
Upper Valley Recycling Service will construct and operate a GORE composting system at the existing Robert A. Nelson Material Recovery Facility and Transfer Station near Riverside, CA. The project will generate compost for the region, and rescue edible food for the surrounding communities. The project will yield more than 18,000 TPY of compost that will help improve regional storm water management, erosion control, and regenerate soil for agriculture, gardening and other uses.
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 considered 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 production of hazardous air pollutants; and (Pillar 5) manage farms, rangelands, forests and wetlands so that they can regenerate carbon and store carbon.

Net-Zero GHG emissions from the waste sector by 2030. Reduce Scope 1 emissions with alternative fuels. Reduce Scope 2 emissions with rooftop solar and on-site biogas. 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 emissions. California’s 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.}

**NET ZERO FACILITIES**

- Greenhouse Gases
- Carbon Intensity
- Transportation Fuel

**CARBON NEGATIVE FUEL**

- Diesel 102.01
- CNG 68.60
- Hydrogen 55.61
- Renewable Diesel 19.65 to 39.33
- Biodiesel 11.76 to 83.25
- Wastewater Gas 8.61 to 34.36

**NEAR ZERO FLEET**

- Heavy-Duty Vehicle NOx Emissions
- Diesel Engines - 2002
- Diesel Engines - 2007
- Diesel Engines - 2010
- CNG Engines - 2016

**ZERO WASTE**

- Disposal Solid Waste Tons
- 90% Disposal - 1990
- 56% Disposal - 2016
- 25% Disposal - 2020
- 10% Disposal - 2030

**ZERO PESTICIDE USE**

- Pounds of selected active ingredients
- Predominently
- Central Valley Farming

**DISADVANTAGED COMMUNITIES**

- CalEnviro Screen 3.0 results
- 91-100%
- 81-90%
- 71-80%
- 61-70%
- 51-60%
- 41-50%
- 31-40%
- 21-30%
- 11-20%
- 0-10%

**READVANTAGING COMMUNITY-SCALE SYSTEMS**

- Through sustainable facility, fuel, fleet, feedstocks & farming

**ZERO HERO PROGRAMS OF THE RECYCLING INDUSTRY**

- Net-Zero Carbon Negative Near Zero Emissions at Net-Zero Facilities
- Healthy Soils Initiative with Compost Use
- CalEnviroScreen 3.0 Cap-and-Trade Investments

**GREENING YOUR COMMUNITY**

- 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 mostly synthetic pesticides and fertilizers is prohibited from organic production. Organic farming with certified organic compost use and a zero pesticide goal means healthy soils. The multiple benefits of enhanced soil organic matter on our agricultural lands, include improved water retention, soil stability and nutrient use efficiency to reduce fertilizer use.
### Table 16: Cross-Sector Relationships

<table>
<thead>
<tr>
<th>Sector</th>
<th>Example Interactions with Other Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy</strong></td>
<td>• Hydroelectric power, cooling, cleaning, waste water treatment plant (WWTP) bioenergy&lt;br&gt;• Vehicle-to-grid power; electricity supply to vehicle charging infrastructure&lt;br&gt;• Biomass feedstock for bioenergy, land for utility-scale renewable energy (solar, wind)&lt;br&gt;• Agricultural waste and manure feedstocks for bioenergy/biofuels&lt;br&gt;• Organic waste for bioenergy</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>• Electric vehicles, natural gas vehicles, transit/rail; more compact development patterns that reduce vehicle miles traveled (VMT) also demand less energy per capita&lt;br&gt;• More compact development patterns that reduce VMT also demand less water per capita and reduce conversion of natural and working lands&lt;br&gt;• Reducing VMT also reduces energy demands necessary for producing and distributing fuels and vehicles and construction and maintenance of roads&lt;br&gt;• Biomass feedstock for biofuels&lt;br&gt;• Agricultural waste and manure feedstocks for biofuels&lt;br&gt;• Organic waste for biofuels&lt;br&gt;• Greenfield suburban development on natural and working lands leads to increased VMT</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>• Potential to electrify fossil natural gas equipment, substitution of fossil-based energy with renewable energy&lt;br&gt;• Greenfield urban development impacts</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>• Energy consumption for water pumping, treatment, heating; resource for cooling, cleaning; WWTP bioenergy&lt;br&gt;• Use of compost to help with water retention/conservation/drought mitigation&lt;br&gt;• Land conservation results in healthier watersheds by reducing polluted runoff, allowing groundwater recharge, and maintaining properly functioning ecosystems</td>
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<tr>
<td><strong>Waste Management</strong></td>
<td>• Composting, anaerobic digestion, and wastewater treatment plant capacity to help process organic waste diverted from landfills&lt;br&gt;• Compost for carbon sequestration, erosion control in fire-ravaged lands, water conservation, and healthy soils&lt;br&gt;• Replacing virgin materials with recycled materials associated with goods production; enhanced producer responsibility reduces energy impacts of consumption&lt;br&gt;• Efficient packaging materials reduces energy consumption and transportation fuel use</td>
</tr>
<tr>
<td><strong>Agriculture</strong></td>
<td>• Crop production, manure management; WWTP biosolids for soil amendments&lt;br&gt;• Agricultural waste and manure feedstocks for bioenergy&lt;br&gt;• Compost production in support of Healthy Soils Initiative</td>
</tr>
<tr>
<td><strong>Natural and Working Lands</strong></td>
<td>• Healthy forestlands provide wood and other forest products&lt;br&gt;• Restoring coastal and sub-tidal areas improves habitat for commercial and other fisheries&lt;br&gt;• Sustainable management can provide biomass for electricity&lt;br&gt;• Sustainable management can provide biomass for biofuels&lt;br&gt;• Resilient natural and working lands provide habitat for species and functions to store water, recharge groundwater, naturally purify water, and moderate flooding. Forests are also a source of compost and other soil amendments.&lt;br&gt;• Conservation and land protections help reduce VMT and increase stable carbon pools in soils and above-ground biomass</td>
</tr>
</tbody>
</table>
Governor Brown’s Five Pillars:

- **50% LESS OIL** by 2030
- **50% RPS RENEWABLE ENERGY** by 2030
- **DOUBLE ENERGY EFFICIENCY** by 2030
- **75% ORGANICS RECYCLING** by 2025
- **15 MILLION TONS OF COMPOST USE** by 2025

- Convert Organics to Carbon Negative Fuel
- Decarbonize Economy
- Sequester Carbon into Soil

**CLEAN FLEETS**
- Low Carbon Fuel Standard
- LEED Certification
- Healthy Soils Initiative

**NET ZERO**
- Renewable Portfolio Standard
- Reduce Short-Lived Climate Pollutants

**RNG**
- LCFS
- Cal-Green
- SLCP
- HSI

**50% RPS RENEWABLE ENERGY**
- 33% RPS RENEWABLE ENERGY by 2020
- 3 MILLION METRIC TONS GHG REDUCTIONS by 2020
- 50% ORGANICS RECYCLING by 2020
- 7.5 MILLION TONS OF COMPOST USE by 2020

**2015 | 2016 - Executive Order B-30-15, SB 350, SB 32, SB 1383**

**2006 - California Global Warming Solutions Act - AB 32**