Composting – Providing an Essential Public Service

Rumors propagated last year at the LA Forum that SB 1383 was going to be rolled back, as program development was stalling out in Southern California. Even though Governor Brown had just vetoed a bill that could have infringed upon SB 1383 and Governor-elect Newsom had implemented SB 1383-like programs in San Francisco when he was Mayor, many wanted to be in denial of SB 1383. With the persistent work of CalRecycle, regulatory certainty will be here soon, when the SB 1383 regulations are adopted later this year, giving local government and the industry two years until they become effective. Given the massive investment needed for this mandatory law to protect public health from climate change impacts, composting is providing an essential public service of holistic programs that reduce methane, create healthy soils, and provide carbon neutral energy for local circular economies.

There is a harmonic convergence of activity underway to define SB 1383. China Sword is sucking the recycling out of the room and diverting resources to pay for the blue cart as the cost of the green cart will significantly increase against pricing inelasticity. The statewide recycling rate is in free-fall, without redemption, from 50% to 42% and may end at 33% in 2020. There will be no Bale Out in 2019, as three legislative attempts to plan, incentivize, and fund SB 1383 for the next five years will not move forward. As the industry is gearing up to implement SB 1383, the Bay Area Air Quality Management District is proposing a set of regulations that will impede facility development with unrealistic deadlines and unneeded controls at huge costs. Baselining landfilling to demonstrate that composting is a huge net benefit is underway, as the Ventura County APCD is ready to designate composting as an essential public service.

The Draft Environmental Impact Report for SB 1383 should be the vehicle to fully explain the net benefits of composting, baseline landfill emissions, discuss composting being an essential public service due to impacts to the solid waste utility, designate compost operations as being ‘Net-Zero’ greenhouse gas facilities, and provide the carbon sequestering benefits in agriculture. The DEIR should act as a Program EIR for covered aerated static pile composting and anaerobic digestion, parlaying off the 2011 AD EIR. The SB 1383 Standardized Regulatory Impact Assessment provided scenarios with the amount and types of facilities. The California Air Pollution Control Officers Association also determined scenarios for the numbers, facilities, and tons needed by 2025, per each air district, which can easily be modeled for VOCs to determine the net benefits over landfilling. CEQA requires the decision-making agency to balance the economic, legal, social, technological, or other benefits against its unavoidable environmental risks, and in the case of compost, the DEIR must provide these benefits.

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, renewable energy generation, edible food recovery, or incentive funding in relation to disadvantaged communities. SB 1383 offers a closed-loop system where procurement requirements 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. SB 1383 procurement can also be achieved by fulfilling BioMAT energy contracts with wood chips or compost on over 100,000 acres of parklands. The Organics Management Group hit the re-set button this year, working in many ad-hoc sub-groups that focus on procurement, CARB HVIP voucher reinstatement, Cap-and-Trade funding, and now the BAAQMD regulations.

SB 1383 programs are mandated to battle climate change and should be designated as an essential public service, but are instead misunderstood and undervalued. Composting employs a systems approach that takes a village of advocacy to promote, as we Fight for our Right To Compost!
Three Strikes

This Legislative Year has been the weakest this decade regarding composting and recycling, given the overwhelming challenges. As the China Sword gutted the statewide recycling rate from 50% to 42%, it is projected to fall toward 33% by 2020, and with recycling centers getting no hope or redemption, CalRecycle is being compared to the DMV. Given the global strife, many in Southern California had hoped that SB 1383 would be rolled back, which was not the case since organic programs are cost-effective local greenhouse gas reduction strategies and not bound to export markets.

There were three significant legislative attempts to facilitate the required $2 to $3 billion SB 1383 investment, but all failed. AB 144 (Aguirar-Curry) attempted to have the Strategic Growth Council prepare a Scoping Plan for the urban, agricultural, and forest sectors to manage organic waste in a comprehensive manner with incentives and strategies to support carbon neutral or carbon negative strategies, but the price tag of $400,000 was too much. It could have been paid out of Cap-and-Trade revenues and not the General Fund. SB 667 (Hueso) was more focused on having CalRecycle develop a five-year strategy to develop financial incentives for in-state recycling infrastructure, but failed due to the potential of on-going costs of $1.2 to $1.8 million. The bill analysis claims that the IWMA has a structural imbalance, with expenditures exceeding revenues by several million dollars annually, which is untrue as the increase in disposal tons has added revenue of over $11 million this year, compared to 2012. AB 1583 (Eggman) had been on track to increase the revenues with a generator fee or a landfill tipping fee to pay for some of SB 1383, but shied away in favor of extending the sale taxes inclusion to 2026 and creating a needed oversight Recycling Commission.

There will be no Bale Out this year, and with three strikes on legislation, CalRecycle motored on by providing regulatory certainty with the upcoming adoption of the SB 1383 regulations.
Baselining the Draft EIR for Composting as an Essential Public Service

CCC attended both Notice of Preparation meetings of the Environmental Impact Report (EIR) for the SB 1383 regulations and filed two sets of comments on January 9, 2019 and January 30, 2019. The 513 page document was released on July 30, 2019, where comments are due on September 13, 2019, and a public workshop was held on August 20, 2019, where CCC presented point-by-point comments and re-filed the comments.

CCC had hoped to have this document be the needed Program EIR for CASP facilities such as CalRecycle prepared in 2011 for AD facilities. The benefits of composting and AD over landfilling are not presented in a tangible manner. CARB assumes that there will need to be 53 compost facilities by 2020 and 74 composting facility by 2025. To assess the air quality impacts, these new CASP emissions could be compared to the landfilling baseline.

The DEIR fails to present baseline conditions of landfilling organic waste compared to CASP and AD, as required by CEQA law, even though CCC provided the math for criteria pollutants and greenhouse gases. Landfilling organic waste emits 1.9 times more VOCs than CASP composting. Compost and AD facilities are ‘Net-Zero’ GHG facilities now, as defined by CARB and should be illustrated in the DEIR. The benefits of sequestering carbon on agricultural lands were overlooked. The procurement and use of RNG was provided but not used. The impacts to utilities and the current infrastructure was not evaluated, where an ‘essential public service’ discussion is warranted.

CCC will meet with CalRecycle staff later this month to provide the math again, make the case, and ensure that each of our comments are addressed and included in the Final EIR, where benefits of composting and AD are evident.

SB 1383 Procurement of Recovered Organic Waste Products

CalRecycle will be providing the annual recovered organic waste product procurement for each jurisdiction, which shall be calculated by multiplying the per capita procurement target of 0.08 tons per resident which may be achieved directly or via a franchise. Jurisdictions have the flexibility to purchase one of the three products below to implement the circular economy locally, and on a statewide basis would create huge markets for a population of 44 million people by 2025. A balanced procurement portfolio would fuel 2,000 trucks, produce 87 MW and amend 100,000 acres of parklands.

**Compost Use**
- 1 ton waste = 0.58 tons of compost
- Up to 2 million tons of compost use by 2025
- If 33% to compost use, over 100,000 acres of parklands would be amended

**Renewable Natural Gas**
- 1 ton waste = 21 diesel gallon equivalents (dge)
- Up to 74 million dge by 2025
- If 33% to RNG, 2,000 trucks of the 15,000 refuse fleet could be on RNG

**Bioenergy**
- 1 ton waste = 650 kW-hrs of renewable energy
- Up to 3.5 million tons of wood chips, making 261 MW by 2025
- If 33% chooses bioenergy, it would be eligible for BioMAT
Air Quality Regulations

Essential Public Service Designation

Mandating the diversion of organic waste from landfill and developing over 75 compost and anaerobic digestion facilities, SB 1383 implementation will result in providing an essential public service to battle climate change. Essential Public Services (EPS) are facilities considered essential to public health and safety, and in some cases this designation could result in the facility’s owner/operator not being required to offset the facility's emissions.

The California Air Pollution Control Officers Association (CAPCOA), with CalRecycle and CARB, published the Discussion Paper in August 2018, Composting in California – addressing Air Quality Permitting and Regulatory Issues for Expanding Infrastructure, which presents a thorough discussion on EPS designation. AB 1036 (McCarty, 2017) attempted to add composting facilities to the EPS definition, but failed due to opposition by several air districts. Of the 35 air districts, 21 have an EPS definition in their district rules. Twelve districts include landfills (in two air districts facilities only qualify as EPS if they are publicly-owned and operated). Seventeen air districts include wastewater treatment facilities as EPS, 12 of which are included as EPS only if they are publicly-owned and operated. Air districts have the authority to determine the definition of EPS for their district through a public rulemaking process, such as the process underway in Ventura County. CCC will be pressing the BAAQMD to add composting facilities as a EPS in their current rulemaking package.

EPS facility emissions will still need to be accounted for, even if the owner/operator is not required to purchase ERCs to offset them. However, these facilities could continue to operate and emit pollutants (e.g., ozone precursors like VOCs, NOx) during smog episodes. EPS designation for compost facilities include access to a community bank/priority reserve of ERCs specifically for EPS projects; a reduced or free cost of these credits; and/or a higher threshold for requiring ERCs. Sixteen of the thirty-five air districts have a community bank/priority reserve rule. In general, between five and ten percent of the ERCs generated from a given facility are deposited in ERC banks for use by EPS and other priority projects. Sometimes there is a bank within a bank designated for EPS projects.

The point of defining these facilities as EPSs would be to ensure that essential services could be permitted in a district where VOC offsets may be limited. However, most districts have very few, if any, credits available in their ERC community banks. Aside from Ventura and the Bay Area, most districts have only enough credits, if any at all, to permit perhaps one or two facilities, and these air districts might need to reserve these credits for other non-profit making EPSs.

BAAQMD Rulemaking

The BAAQMD is developing new rules (13-2, 13-3, and 13-4) to address emissions of methane and odors from facilities processing organic materials in the Bay Area that have already impeded the development of SB 1383 infrastructure. CCC has filed extensive comments and created Talking Points for the Workshops that were held in August. Neil Edgar of CCC will be at the September 16, 2019 Stationary Source Committee Meeting in Milpitas to rally the troops from CRRC, SWANA, and other stakeholders.

With over 75 comments received, BAAQMD has decided to bifurcate the rules. The proposed schedule is unreasonable and impossible to achieve for a majority of facilities, and a multi-year phase-in for any rule is being requested, such as the Water Board allowed a 6 year time period to implement their General Order for Composting Facilities. CCC has been involved with the rulemaking in the SCAQMD and SJVAPCD, and these rules are more extreme than those more impacted air districts.

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- Facilities handling over 10,000 tons per year of organic waste
- Process Green materials with 3 days
- Process Putrescible materials in 2 days, and if longer than 8 hours storage – needs 80% control of methane and VOCs within an enclosure
Throughout over thirty months of SB 1383 rulemaking CCC and Edgar & Associates have tagged teamed CalRecycle and are actively engaged in providing comments, written and verbal, in letters and meetings, formal and informal, public and private, line-by-line, which shaped the future of organic materials management. Our comments have ranged from the minutiae of wordsmithing specific definitions to the broader policy issues of methane reduction, performance based tracking, and everything in between.

CCC supports the use of market-based mechanisms, which limit contamination in the incoming feedstocks to their facilities. Our members believe that mandating specific contamination limits at processing facilities is impractical and difficult to execute; they would prefer to rely on their discretion to evaluate materials and their ability to work with feedstock suppliers to establish improved practices that will yield meaningful reductions in contamination. We believe that setting an artificial contamination limit (10% or otherwise) will have a significant impact on operators, which will unnecessarily limit flexibility in systems design. For example, companies with vertically-integrated operations that would prefer to invest heavily in pre-processing equipment and manpower mainly at their composting operations would be forced to duplicate much of that investment at materials recovery facilities, transfer stations, or landfills in order to meet this regulatory burden, where it may have limited utility at substantial cost. Throughout CalRecycle’s iterations of the SB 1383 regulations, we have encouraged them to ensure that performance of diverting organics from landfill is placed above simply programmatic compliance with a three-bin system. This ensures that all jurisdictions are on an even playing field whether they chose to have a purse source separation platform, mixed waste processing, or a combination of the programs.

Developing markets is a key concern of many local governments and other policymakers. Mandating procurement can be part of the solution. The procurement of the products will provide local governments a feedback loop on the quality of available materials and insight the importance of proper collection techniques, outreach and education, and processor success in meeting market needs.

While we support local government procurement requirements, we also believe state agencies and departments, and other non-local entities should be required to be part of the solution for markets and have their own procurement mandates.

The potential spread of pathogens, physical contamination, and water quality impacts that result from current land application practice have largely flown under the radar statewide; the overall practice has been largely unquantified, which should be remedied by the reporting required under AB 901. Following are two concepts which should have been introduced to SB 1383 regulations:

Chipping and grinding operations/facilities shall be required to provide notification of Title 14 regulatory requirements for direct land application and/or receive certification from any landowner and operator where they send processed materials which will be land applied.

Land application operations over a specified tonnage/volume limit (e.g. 100 tons; 1,000 cubic yards; 10 tons/acre) shall be required to provide notification to local EA, regional water board, and county Agriculture Commissioner under a process similar to current EA Notification regulations for other operations in Title 14. This EA Notification process may require the landowner/operator to verify the agronomic benefit being derived from the land application activity by use of appropriate soils testing.

We worked closely with CalRecycle to ensure that edible food reporting mechanisms are in place to meet food safety standards, as the State moves toward enhancing current infrastructure, and to consider a performance based approach when adding Tiers of included generators, should the State be unable to meet the 20% edible food recovery goal with the two current groups of generators. We stressed the importance of sustainable funding and the key role of haulers being at the table with their communities during these discussions.

CalRecycle extended the period for submitting formal comments from July 3 to July 17, 2019. This was intended to provide stakeholders additional time to review the regulatory text. The full text of the regulation as originally proposed, including the newly proposed changes clearly indicated is available on the SB 1383 Rulemaking website at: https://www.calrecycle.ca.gov/Laws/Rulemaking/SLCP/. No substantive changes have been made to the draft regulatory text that was posted on June 17th, other than what we wanted. Regulations are expected to be adopted in late 2019 or early 2020, and will become effective in 2022. On July 30, 2019, CalRecycle released the Draft Program EIR for the adoption of the SB 1383 Regulations. During the review period, CalRecycle held a hearing on August 20, 2019 at 1:00 pm to present the Draft Program EIR and receive comments, with September 13, 2019 being the last day to file comments. This 513 page document dives deeply into the impacts and mitigation measures to implement SB 1383.

Starting July 1, 2019, CalRecycle transitioned away from the current Disposal Reporting System (DRS) to a brand-new Recycling and Disposal Reporting System (RDRS). Entities that are required to report were required to registered in the Recycling and Disposal Reporting System by April 30, 2019. CalRecycle hosted workshops on March 20 and 21 to help businesses understand the new system. On July 8, 2019, CalRecycle hosted a Reporting Requirements Workshop. Another set of Workshops are planned on September 9th in Sacramento from 8 am to 2 pm at Cal-EPA, and on September 18th at Diamond Bar from 1 pm to 5 pm.

The Reporting deadlines by reporting entity for 2019 (third and fourth quarters) are listed here: https://www.calrecycle.ca.gov/docs/cr/swfacilities/rdrs/2019reportingdeadlines.pdf
Compost Industry Has Capacity

CalRecycle published the SB 1383 Infrastructure and Market Analysis Report, which was to conduct research and analysis of the organics recycling and diversion infrastructure, barriers to infrastructure development, and the status of markets for products generated by organics recycling. The results of this study will be incorporated into a CalRecycle report required by SB 1383, which calls for CalRecycle, in consultation with the CARB, to analyze the progress that the waste sector, State government, and local governments have made in reducing organic waste disposal. The report can be downloaded here: https://www2.calrecycle.ca.gov/Publications/Details/1652.

California currently has more than 160 permitted compost facilities, and more than a dozen anaerobic digestion facilities that accept about 6 million tons of organic material each year. The State’s composting facilities combined have approximately 4 million tons of processing capacity remaining. This available capacity remains concentrated in Southern California. To put these quantities in perspective, 12-14 million new tons of organics need to be diverted statewide from landfills each year to meet the SB 1383 75% by 2025 diversion goal.

Over three quarters of the available composting capacity for new organic materials exist in Southern California. 56% of all facilities are privately owned, stand-alone facilities, and another 24% are privately owned facilities affiliated with a landfill or transfer station. The remaining 20% are publicly owned facilities. This prevalence of private sector ownership is reflected in how and why the compost facilities operate. Surveys conducted during the Integrated Waste Management Consulting April 29th Study revealed that the main motivating factor for these facilities is profitability and the production of high quality soil amendments. Other benefits, such as diversion, greenhouse gas benefits, and research ranked lower in importance than the production of a profitable and marketable end product. These existing compost facilities are most likely to utilize windrow technology (71%), or aerated static pile technology (25%), with only a few (4%) utilizing in vessel digestion systems. However, this report only counts existing facilities and technology prevalence may shift as new facilities are developed.

The study found 68% of composting and anaerobic digestion facilities have no plans to expand. Those facilities which are planning on expanding cited increased processing contracts as the primary reason for growth. On the other hand, regulatory, land use, market, and economic barriers were all cited as factors limiting the expansion of compost facilities. Composters also identified that SB 1383 and AB 1594 result in some changes to compost feedstocks that affect operations. These impacts include greater amounts of feedstock, increased amounts of food waste, green waste formerly used as ADC being composted, and higher levels of contamination. For the purposes of expansion, these changes suggest composters will expand to react to both a qualitative and quantitative change in feedstock.

The study highlighted the development of organics collection programs as the key to expanding organics processing infrastructure. The report posits that the programs come first, and infrastructure second; the chicken comes before the egg. Additionally, composters will need significant incentives, from processing contracts to other financing mechanisms, to make the necessary investments in infrastructure to meet the goals of SB 1383. The costs of these incentives are predicted to fall ultimately on the ratepayer.