



Legislative Task Force CALIFORNIA CHAPTERS

2022 OFFICERS

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June 24, 2022

The Honorable Liane M. Randolph
California Air Resources Board, Chair
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

RE: Comments Regarding 2022 Draft Scoping Plan

Dear Chair Randolph,

On behalf of the California Chapters of the Solid Waste Association of North America's (SWANA) Legislative Task Force (LTF), we appreciate the opportunity to submit the following comments related to the 2022 Draft Scoping Plan (Scoping Plan).

SWANA is the world's largest association of solid waste professionals (more than 10,000 members). SWANA's three California chapters represent nearly 1,100 of those members. SWANA represents much of the publicly-owned and – operated solid waste management infrastructure in the state and the local governments responsible for implementing waste diversion and recycling programs. The LTF is responsible for representing the California Chapters on legislative and regulatory issues. SWANA is committed to advancing the practice of environmentally- and economically-sound management of municipal solid waste.

This plan is far-reaching and will have profound impacts on California. CARB has identified Short-Lived Climate Pollutants as the most potent short-term greenhouse gases (GHG); these are termed “super pollutants”. One of the key short-term GHG is methane. The 2017 strategy to reduce these pollutants consists of a 40% reduction in methane by 2030 targeting mostly manure, and organic waste managed by the solid waste sector. The reduction of organics, through the implementation of SB 1383, will depend upon diversion of this material from landfills and converting organics to valuable energy and soil amendments. Our comments are limited to areas of the Scoping Plan that address methane reduction from the solid waste sector and impacts to transportation elements of our industry.

Short-Lived Climate Pollutants and SB 1383

An outgrowth of CARB's Short-Lived Climate Pollutants program is SB 1383 which focuses on the recycling and management of organics. The solid waste industry has and is spending enormous amounts of resources to comply with this complex and challenging regulation. There are two key components of SB 1383 that the Scoping Plan should address, at a minimum, to ensure the methane reduction goals are met; adequate number of facilities to manage diverted organic waste, and the generation of useful energy. Referenced in the Scoping Plan is CalRecycle's 2020 report, “*Analysis of Progress Toward the SB 1383 Waste Reduction Goals*”, that estimates a need for an additional 8 million short tons of composting and anaerobic digestion capacity that will be needed to manage the organic waste. This level

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of capacity translates to hundreds of new or modified facilities needed to meet the 2025 organic waste diversion regulatory requirements (75% diversion of organic waste from landfills).

To make all this happen, a coordinated effort by CARB, local air districts and all permitting authorities needs to be undertaken to ensure that compost and anaerobic digestion facilities, needed to manage diverted organic waste, are built and operational in a timely manner. Typically, these facilities take years to plan, permit and build. An example of a significant barrier to planning new or modified facilities is the requirement in some of the bigger AQMD's for facilities to offset their emissions; a huge expense if the emission offsets are available. This makes no practical sense since organics are being diverted from landfills, that are considered essential public services and, in the SCAQMD for instance, are provided with emission offsets. Diverting those organics to a stand-alone digester, for example, loses that designation and must provide those offsets. Some regulatory workshops have been held on the challenges faced by industry in planning and permitting facilities, such as the emission offset issue, but no comprehensive plans or actions have been developed as a result of these meetings. The industry's recommendations have fallen on deaf ears. The LTF strongly recommends that the Scoping Plan direct CARB to immediately form a committee with representatives from CARB, the local air districts (through CAPCOA), private and public solid waste industry representatives as well as other responsible regulatory agencies to develop workable methods of streamlining the development of organic management facilities. The Scoping Plan indicates that the SB 1383 2020 organic diversion requirements (50% diversion of organic waste from landfills) have not been met. This is evidence that efforts to date have fallen short and also demonstrates that without immediate coordination by all regulatory agencies, it will be difficult to achieve the 2025 requirements.

Meeting the organic diversion requirements of SB 1383 can be accelerated by looking to wastewater treatment plants. As indicated in the Scoping Plan many of these facilities have been shown to have excess capacity in their biosolid anaerobic digesters that would allow co-digestion with diverted organic waste. This capacity, when fully implemented could provide a significant opportunity for jurisdictions to meet their SB 1383 regulatory requirements. The primary advantage of managing diverted organic waste at wastewater facilities is that the infrastructure (digesters) are already built, as well as the needed downstream solids handling facilities. However, despite the fact that several municipal wastewater treatment plants have begun to phase in programs to co-digest organics with biosolids, significant barriers still exist to fully utilize these facilities. The Scoping Plan provides little discussion or analysis of these issues. Wastewater facilities are not required to manage diverted organics, so municipalities that choose this path are performing a valuable public service to the communities they serve, but also must develop an additional revenue stream to support these services, a significant and complex issue which needs to be addressed. Furthermore, the needed modifications to a wastewater facility to allow acceptance of the diverted organics and additional management of the biomethane generated in the digestion process require regulatory and permitting approvals from relevant regulatory agencies, so subject to the same regulatory barriers as discussed above. Streamlining of these requirements are needed and should be part of the suggested comprehensive committee.

Useful Energy: Renewable Nature Gas/Biomethane

The historical management of organics through landfilling of municipal solid waste results in the generation of methane rich landfill gas through anaerobic decay (similar to an anaerobic digester) of the organic material. Collected landfill gas is considered a renewable natural gas, or biomethane (RNG), and utilized in energy recovery projects. In a similar way, larger wastewater treatment plants also utilize anaerobic digesters to manage a rich organic material, biosolids, generating methane rich digester gas, a RNG, and utilized in energy recovery projects. Diverting organic waste from landfills to either stand-alone anaerobic digesters or co-digesting with biosolids at wastewater treatment plants will results in excess amounts of RNG that must be managed as useful energy to meet the requirements of SB 1383. RNG has typically been used to fuel engines or turbines that generate electricity and sold to the local utility, or used

internally. A more preferred, or higher and best use of RNG would be extensive gas pre-treatment followed by natural gas pipeline injection or directly used as a transportation fuel. These would be the most appropriate carbon neutral approaches. However, these approaches cannot be effectively implemented without the proper incentives and regulatory support for these energy projects. Overcoming regulatory barriers to this end has been the focus of industry with some successes, but the Scoping Plan offers no additional support in these areas. The Scoping Plan does suggest that biomethane (RNG) could be used in sectors that are “hard to decarbonize”. However, this approach for direct use of RNG is generally not practical. A facility would have to be located directly adjacent to the source to avoid expensive gas transport, and the generation of biogas, unless supplemented, would have to exactly match the facility’s needs; difficult to achieve. Overall, the LTF recommends a more comprehensive discussion of SB 1383 and the challenges industry is facing in utilizing this biogas to its highest and best energy usage. Without a substantive effort by CARB in the Scoping Plan to establish solutions to these challenges, the methane reduction goals will not be met.

Solid Waste Industry Vehicle Fleets

The use of both on- and off-road medium and heavy-duty vehicles are critical to solid waste operations. In achieving carbon neutrality by 2045 the Scoping Plan relies heavily on full electrification of vehicle fleets. Full electrification of vehicles in the solid waste sector is not likely achievable, and in some fleets, not the best approach for reducing GHGs or pollution. Issues of concern to the LTF include reliability of the electrical grid in the future as electrification of the vehicle fleets ramp up, availability of electric vehicles in certain vehicle sizes and categories, the need for vehicle usage with conventional fuel during emergencies when the electrical grid is down and the equity of transitioning vehicles (mostly collection trucks) from natural gas-fueled to full electric.

The LTF is very concerned about electrical grid reliability as California gets closer to carbon neutrality. The Scoping Plan does discuss projected electrical demands over time and the mix of renewables and batteries needed to meet the projected demands, but these are all based upon theoretical models, and many of these needed technologies do not currently exist. The essential public service provided by the solid waste industry cannot fully rely on electrification but must be a mix of vehicle types to allow for service reliability. In addition, a certain percentage of the truck fleet must be able to operate under emergency situations when the grid is not fully operational. For these trucks, operation with conventional diesel fuel will be needed.

Landfills rely on- and off-road heavy-duty diesel vehicles, such as large dozers and scrapers. It is unlikely that there will be offerings for electric-powered substitutes in the very large classes of these vehicles (at least in the foreseeable future), so diesel offerings must be available. Some vehicles may be offered as an electric option, but they would have to meet the power demands for the specific applications, including time between charges, to be practical. For equipment that can be switched out to electric, developing the charging infrastructure will also be a challenge. Adequate time for transition must be allowed.

Trucks that are currently fueled by natural gas (mostly collection trucks) represent unique challenges. The solid waste industry has invested significantly to upgrade fleets to natural gas, including building the fueling infrastructure. These trucks can also operate on RNG which is a carbon negative fuel helping many jurisdictions comply with the procurement requirements of SB 1383. Furthermore, if these trucks are upgraded to ultra-low NOx engines they could also be considered near-zero emission trucks which would not only reduce GHGs, but aid the local AQMDs, like the SCAQMD, achieve much needed PM2.5 and ozone reduction in an effort to meet stringent federal ambient air standards. The earliest ozone attainment date in the south coast is 2023, so these transitional vehicles need to enter the fleet now in order to help the SCAQMD achieve ozone compliance. In fact, the SCAQMD and CAPCOA have actively called for CARB to support, in its Mobile Source Strategy, near-zero technologies in the medium and heavy-duty truck sectors to immediately achieve these much needed pollutant reductions. Solid waste medium and heavy-duty trucks can be a key

part of the solution in achieving these federal standards. This is truly an environmental justice issue that must be fully addressed in the Scoping Plan.

The Scoping Plan and CARB's mobile strategies must be in harmony with the transportation needs of the solid waste industry. Most of these issues are not adequately addressed in the Scoping Plan. The LTF recommends that the Scoping Plan be modified to address these shortfalls.

Landfills

On page 190 of the Scoping Plan the EJ Advisory Committee provided a recommendation to *"Reduce emissions from landfills through improvements in operational practices, lower permeability covers, advanced collection systems and technologies to utilize landfill gas."* The LTF does not fully agree with these recommendations.

The majority of collected landfill gas in California is already utilized in some form of gas-to-energy technology. These technologies have been in use since the 1980's in California. In most cases, smaller landfills that are simply flaring landfill gas are doing so because of poor gas quality (low methane content), where typical gas-to-energy technologies can't operate, or low quantity of generated gas where it is not economical to build an energy facility.

Also, a well operated landfill is capable of a high degree of landfill gas capture with current capture technologies. We are not aware of *"advanced collection systems."* We are glad to have our solid waste experts discuss this issue with EJ Advisory Committee representatives.

Conclusion

The solid waste industry can play a vital role in the State of California's plan to achieve carbon neutrality by 2045. The LTF clearly indicated that many barriers exist to implementing the strategies needed to achieve the methane reductions in the Scoping Plan. In addition to the regulatory barriers, funding is needed for new organic management and energy projects. These projects have been categorized by the LAO as the most cost effective in achieving GHG reductions. Over the years some money has been allocated from the GHG Reduction Fund (GGRF) to these projects (typically about \$20 million per year), however, the significant cost to implement regulations like SB 1383 has been projected to be well over one billion dollars. Given the importance in achieving methane reduction in the near-term, CARB should work closer with the legislature and the Governor's office on prioritizing funding for these projects, especially given their cost effectiveness in achieving GHG reductions. CARB needs to consider the comments and recommendations of the LTF when preparing the final Scoping Plan. The LTF appreciates the opportunity to submit these comments and stand ready to discuss them with a CARB representative.

Thank you again for the opportunity to submit these comments regarding the 2022 Draft Scoping Plan.

Sincerely,



Doug Kobold
Chair
SWANA California Chapters Legislative Task Force