CWCCG
California Wastewater Climate Change Group

c/o California Association of Sanitation Agencies
1225 Eighth Street, Suite 595
Sacramento, CA 95814

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July 12, 2013

Ms. Teri Wion
California Department of Resources Recycling and Recovery
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Sacramento, CA 95812-4025
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Re: California Wastewater Climate Change Group Comments Regarding the Draft Waste Management Sector Plan

Dear Ms. Wion:

The California Wastewater Climate Change Group (CWCCG) appreciates the opportunity to comment on the Draft Waste Management Sector Plan prepared by CalRecycle and the California Air Resources Board (CARB). The CWCCG is a statewide group of municipalities that collect and treat over 90 percent of municipal wastewater in California, many of whom also provide recycled water services and actively participate in the beneficial use of biosolids and biogas. The CWCCG's mission is to address climate change policies, initiatives, and challenges through a unified voice advocating for wastewater community perspectives. CWCCG members are focused on helping the State achieve its multiple mandates and goals by 2020. These include: (1) providing 33 percent of the State's energy needs from renewable sources; (2) reducing carbon dioxide equivalent emissions to 1990 levels; (3) reducing the carbon intensity of transportation fuel used in the State by 10 percent; and (4) recycling 75 percent of the solid waste generated in the State. One path to accomplishing these goals is by utilizing existing infrastructure to receive and process hauled-in organic waste (that would otherwise be landfilled) for anaerobic digestion at wastewater treatment plants for increased biogas production.

Below we provide comments for your consideration on CalRecycle's Draft Waste Management Sector Plan. Specifically, our comments refer to the Composting and Anaerobic Digestion and Implementation Plan Technical Documents. In some cases, we have noted page numbers next to each comment related to specific text in the documents. Each of these documents either contains reference to, or should reference, opportunities within the wastewater community that contribute toward the Plan's objectives.

Composting and Anaerobic Digestion Technical Document

The CWCCG applauds CalRecycle and CARB for acknowledging anaerobic digestion as a viable alternative for processing organic and green waste streams and on equal if not more preferred footing with composting. We agree that anaerobic digestion products

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include biogas, soil amendment/synthetic fertilizer alternative, and compost, which can be used as soil amendment (alternative to synthetic fertilizer) and as an alternative daily cover for landfills. The use of resulting soil amendment/fertilizer also has the added benefits of increasing carbon storage in the soil, preventing soil erosion, and reducing fire hazard. Each of these uses of anaerobic digestion and compost products can contribute to one or more of the State's 2020 goals in reducing solid waste at landfills, reducing GHG emissions, and increasing renewable energy production. We believe that the combined use of anaerobic digestion to create energy followed by compost can create the largest net benefit from both a waste minimization and air quality/climate perspective. However, we are very concerned that the Plan does not fully consider the existing infrastructure and co-digestion practices in place at publicly owned treatment works (POTWs).

CalRecycle estimates that of over 10 million metric tons of compostable organic waste (approximately 30 percent of the total waste stream) currently sent to State landfills annually can be redirected to anaerobic digestion and compost facilities. POTWs across the State have significant existing available capacity in their anaerobic digestion facilities for receiving organic waste (many already co-digesting with biosolids and more facilities are joining) right now, making immediate use of the waste while supporting multiple State goals. The Plan should emphasize the existing anaerobic digestion capacity available at POTWs as a means of meeting State waste diversion goals. CWCCG would like to work with CalRecycle and CARB to estimate and include substantial existing anaerobic digestion capacity available at POTWs as it is available for immediate use to receive hauled-in organic waste streams. Preliminary data suggests that the vast majority of POTWs with anaerobic digestion have some level of excess capacity that can be leveraged. We suggest conducting a study to determine the existing and future available anaerobic digestion capacity.

In addition to existing available anaerobic digestion capacity at POTWs, these facilities have infrastructure in place to handle wastewater from the digestate dewatering and the processing of digested solids including the effective management of biosolids, as well as the biogas management facilities for generation of heat and power. Finally, operators at these facilities are trained to operate anaerobic digestion facilities ensuring little disruption in operations and a quality product.

CWCCG would like to work with CalRecycle and CARB on developing the necessary incentives, addressing long-term risks to public agencies, and reducing cost and regulatory (including permitting) barriers to get the necessary infrastructure for both compost and anaerobic digestion in place. Permitting and construction requirements that have been enacted in various parts of the State have resulted in project planning, permitting, and construction to take six or more years to complete. In addition, cost increases as a result of the delays and additional requirements have soared for these projects making their economic viability a significant question.

The following additional comments are provided by page of the Technical Document.

Page 4:

We agree that additional incentives are needed in order to achieve widespread deployment of commercial scale anaerobic digestion facilities in California. Waste diversion goals currently in place, such as AB 341's 75 percent waste recycling, ensure the diversion of organic waste from landfills to other options, such as anaerobic digestion. CWCCG supports these, and would like to work with CalRecycle and CARB to remove economic and regulatory barriers on building infrastructure with more certainty on processing waste streams.

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Page 4:

Currently the document states – "Anaerobic digestion technologies include co-digestion at wastewater treatment plants (WWTPs), dry fermentation, and high or low solids wet digesters. Currently, anaerobic digestion technologies at some WWTPs are receiving source separated, mostly liquid waste, and are not processing municipal solid waste and therefore not included in the capacity discussion."

CWCCG stresses the importance of including WWTPs or POTWs in the "capacity discussion" regardless of whether they process municipal solid waste since processing can be conducted at an offsite location and delivered to the plant for anaerobic digestion. POTWs have infrastructure in place to handle and anaerobically digest organic waste either in the form of excess anaerobic digester capacity (co-digestion with biosolids) or in newly built or retrofitted anaerobic digesters. In addition, these POTWs have established facilities for handling wastewater from digestate dewatering and the processing of digested solids, as well as the biogas management facilities for generation of heat and power. Finally, operators at these facilities are trained to operate digestion facilities ensuring little disruption in operations and a quality product.

CWCCG believes that POTWs can help to divert a significant portion of organics from landfill, as the vast majority of POTWs with anaerobic digestion have some level of excess capacity. CWCCG would like to work with CalRecycle and CARB to estimate the potential statewide capacity of anaerobic digestion facilities at POTWs for inclusion in the Plan, as these facilities are available for immediate use and can also contribute to GHG reductions and renewable energy generation.

Page 5, Table 2:

CWCCG recommends that CalRecycle and CARB include the GHG benefit of renewable energy production in the emissions reduction factor for anaerobic digestion, as the biogas generated from anaerobically digesting organic waste is typically used to generate power. We agree that additional research is needed to better quantify the benefits from avoided landfill emissions and anaerobic digestion. The land application of the resulting soil amendment/fertilizer which offset the use of fossil fuel based synthetic fertilizer should also be used in such calculations. Carbon sequestration from the organic nitrogen based soil amendment/fertilizer should also be quantified and included.

Page 7:

There are two incentives identified in Table 3 including the low carbon fuel standard (LCFS) and the renewable portfolio standard (RPS). These cannot be applied to the same project – one is for creation of fuel (e.g., compressed or liquid natural gas) and the other is for generation of renewable electricity. In addition, the value of each of these incentives is likely not enough to overcome the potential cost difference when compared to the low cost of landfilling.

Page 9: Short-Term Challenges

- Financial risk is a significant barrier to project development. CWCCG agrees with the assessment that the low cost of landfilling coupled with the lack of financial incentives for non-landfill alternatives is hindering increased diversion to anaerobic digestion facilities. As discussed, incentives are needed to seed projects and guaranteed waste streams are needed to secure financing.
- Consider adding in a category for the Technology Development/Infrastructure. There are limited commercial scale technologies in the U.S. for pre-processing material into a digestible form for co-digestion at WWTPs.

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Page 10: Short-Term Potential Solutions

- Reducing the financial risk
  - CWCCG agrees with and supports the recommendation to increase AB 118's funding for anaerobic digestion projects.
  - CWCCG also agrees with and supports the incentive payments and/or grant programs for compost and anaerobic digestion projects to incentivize expanded organics processing to help ensure an available market of organic material. CWCCG supports the AB 341 goal of 75 percent recycling. This goal will help ensure the long term availability of organics in the market place, a requirement of financing of new anaerobic digestion projects. We would like to work with CalRecycle and CARB to help make incentives more available at a local and regional level (e.g., local solid waste authorities).
- Please consider adding in a category for Technology Development/Infrastructure. A short-term solution would be linked to providing capital incentives for development of appropriate technologies (i.e., pre-processing equipment) to create anaerobic digestion appropriate feedstock.

Waste Sector Implementation Plan Technical Document

With respect to the Implementation Plan Technical Document, the following comments are provided in the order by which the task and category are listed in the table.

- 1. Emission Reduction Factors, b.
  - Develop new emission reduction factors for anaerobic and aerobic digestion. CWCCG urges CalRecycle and CARB to work with the wastewater community to establish new factors.
- 4. Offsets, a.
  - Identify opportunities and develop a framework for compost and anaerobic digestion activities to be a source of GHG and criteria offsets. CWCCG agrees with and will support this task.
- 5. Funding/Incentives, c, d, g, h, and m.
  - CWCCG agrees with and supports efforts to increase funding for these subtasks.
- 11. Regulatory/Statutory, b.
  - CWCCG supports practical policies, such as the AB 341 75 percent waste diversion goals to begin moving organic waste away from landfills. However, we strongly believe that incentives, infrastructure, and markets will be needed to make this happen.

Please contact me if you have any questions at (925) 705-6404 or sdeslauriers@carollo.com. We welcome the opportunity to further discuss the wastewater community's position.

Sincerely,

Sarah A. Deslauriers
Program Manager
California Wastewater Climate Change Group