

MEMO

Discussion/Action
Item #: 7d



Meeting Date: April 19, 2024

To: Board of Directors
From: Director of Engineering & Compliance, Guy R. Petraborg
Approved by: General Manager, Felipe Melchor

Subject: Discuss SB1383 Applicability to Biosolids, Extent of Diversion Options, and Whether to Continue Limited Biosolids Disposal Beyond the January 1st 2025 Effective Date of SB1383

RECOMMENDATION-INFORMATION ONLY: Staff will provide a brief presentation and participate in any discussions led by the Board for this agenda item topic. As SB 1383 compliance is a Member Agency jurisdiction responsibility, staff encourages our Member Agency representatives to discuss this topic with leaders in their jurisdiction and provide feedback to staff at a later date concerning whether to continue receiving biosolids for disposal in the landfill after December 31, 2024. Staff will bring this topic back to the Board at a later date.

BACKGROUND

Between 1968 and 1990, ReGen Monterey (ReGen) accepted most of the liquid wastes (wet sludge, sewage or septage) in Monterey County and managed it in a 200-acre area south of the landfill. Prior to 1990, the Carmel Area Wastewater District (CAWD) began bringing dewatered sludge (aka 'biosolids') to ReGen which was co-disposed with municipal solid wastes (MSW) in the Monterey Peninsula Landfill (MPL). In 1990, the Monterey Regional Water Pollution Control Agency (MRWPCA), now Monterey One Water (M1W), opened the regional treatment plant (RTP) for wastewater treatment on a 100-acre area formerly owned by ReGen and formerly a portion of the area used for liquid waste management. Biosolids from M1W's RTP have been received by ReGen since 1990.

In 1997, CAWD began diverting their biosolids to a land application processing facility located outside of Monterey County (an example of a SB 1383 compliant 'organics' diversion option). Also in 1997, ReGen began diverting some biosolids to their onsite (e.g., on landfill) co-composting with processed yard materials (aka 'green waste' materials) for production of an Alternate Daily Cover (ADC) material, a beneficial reuse activity. Reportedly, the diversion of RTP biosolids to the co-composting operations for ADC production ended around 2013 when M1W declined to accept

Physical Address

14201 Del Monte Blvd.
Salinas, CA 93908

Mailing Address

P.O. Box 1670
Marina, CA 93933

Phone / Fax

831-384-5313 PHONE
831-384-3567 FAX

Web / Social

ReGenMonterey.org
@ReGenMonterey

Let's not waste this.



a higher tip fee rate associated with increasing operations costs of the co-composting of biosolids. The co-composting facility was operated for a couple more years until Fall 2015 when California promulgated the General Order Waste Discharge Requirements (WDR) for Composting Facilities. At that time, ReGen determined that it was unfeasible to permit/design the regulatory controls infrastructure for co-composting operations on a waste mass (e.g., the landfill) in order to comply with the new General Order WDR. Biosolids are not processed at the Compost Facility operated by the Keith Day Company to avoid food safety related issues associated with co-composting of biosolids. Since 2015 the RTP biosolids have been co-disposed with MSW in the lined areas of the landfill. At the same time, biosolids used as an ADC in landfills has been affected by the SB 1383 requirements to divert “organic” wastes, inclusive of biosolids, away from disposal in landfills and will have to be reduced accordingly to be in compliance with the regulations.

DISCUSSION

In 2016 California passed Senate Bill (SB) 1383 which represents a statewide effort to reduce emissions of short-lived climate pollutants (SLCP). The goal of the regulations aims to divert 50% of organic waste from landfills below 2014 levels by 2020 and divert at least 75% by 2025. Biosolids are one of the materials defined as “organic wastes” by SB 1383. A gradual implementation of SB 1383’s organics diversion regulations began in January of 2022 and full implementation is scheduled for January 1, 2025.

ReGen has been providing M1W biosolids disposal services since 1990. The communities in seven of ReGen’s nine Member Agencies generate wastewaters that are delivered to the RTP for treatment, beneficial reuse, or disposal. This includes northwestern Monterey County areas, Marina, Seaside, Sand City, Del Rey Oaks, Monterey, and Pacific Grove. Thus, these seven Member Agency communities contribute to the generation of biosolids at the RTP. Carmel-by-the-Sea and the Pebble Beach Community Services District (PBCSD) communities deliver their wastewater to CAWD for treatment and disposal, and thus, contribute to the generation of biosolids at the CAWD facility.

All of ReGen’s nine Member Agencies are jurisdictions that are cited in SB 1383 as being the responsible parties for implementing the SB 1383 regulations. All are required to reduce the disposal of “organic” wastes by 75% of 2014 levels by i) reducing the generation of organic wastes, ii) directing at least 20% of edible food recovery to beneficial uses, and iii) diverting organic wastes away from landfill disposal to other processing facilities. Biosolids are an SB 1383 “organic” material subject to the same requirements as the “organic” materials contained in the MSW waste stream. A significant difference is that biosolids are not co-mingled with other wastes and do not need to be sorted or processed to separate it from non-organic materials. Biosolids that are never loaded into trucks and never hauled to a landfill are biosolids that do not contribute organics to landfills and do not count towards the 25% limit (2014 basis level) that becomes effective on January 1, 2025 per SB 1383 requirements.



Since 1997, the CAWD biosolids have been diverted away from landfill disposal to a land application processing site. In contrast, the RTP biosolids from M1W have been delivered to ReGen for limited diversion in certain years (until price increases were not accepted) as well as for landfill disposal. Starting January 1, 2025, it is anticipated that M1W manage biosolids using several approaches such as i) longer duration storage, ii) increased dewatering to lessen the weight of materials, and iii) will send biosolids to a land application site or a co-composting facility that accepts their specific type of biosolids.

It is also appropriate to raise the topic associated with emerging constituents of concern represented by per- and polyfluoroalkyl substances – known as PFAS. PFAS substances are a group of synthetic organofluorine chemical compounds that have multiple fluorine atoms attached to an alkyl chain. The PubChem database lists more than 6 million unique compounds in this group. The concerns about risks to Public Health and the environment associated with PFAS has caused in recent years a transition of directing biosolids away from land application to landfill disposal. In California, that trend is being curtailed by the SB 1383 requirement to divert at least 75% away from landfill disposal and to other processing facilities.

FINANCIAL IMPACT

During FY 2022/2023 ReGen received about 15,250 tons of biosolids and \$610,000 in associated revenue. Staff anticipates that ReGen will receive about half of that amount of biosolids in the first six months of FY 2024/2025 (prior to January 1, 2025). Approximately \$300,000 for that six-month period.

Starting on January 1, 2025 the amount of biosolids revenue will reduce significantly to comply with diversion of biosolids away from landfill disposal. There would be no revenues if ReGen ceases to receive biosolids for landfill disposal in 100% support of SB 1383 to maximize the reduction of organics in the landfill. If receiving biosolids for disposal were to continue up to the 25% limit (2014 basis level), then one would predict only about 15% of the FY2022/2023 revenues would continue unless the tip fee rate was increased.

In 2014 approximately 7,700 tons of biosolids was received. Thus, if the Member Agency representatives of ReGen's Board of Directors decide that ReGen shall continue to receive of biosolids for disposal after January 1, 2025, then about 1,925 tons per year could be received (represents approximately 25% of the 2014 basis level for biosolids). That would generate revenues of almost \$100,000 at the proposed rate of \$50 per ton for the last six months of this calendar year. Combining the estimates for the two six-month periods for FY 2024/2025, about \$400,000 in revenues would be predicted if receiving biosolids for disposal were to continue (assuming no tip fee increases on or after January 1, 2025 for the new SB 1383 compliance period).



Please note that ReGen staff has had insight to the main SB 1383 goals since 2012 when i) planning and design of the dual sort line for recyclables or “organics” recovery for MRF 2.0 began and ii) a commercial source-separated ‘food scraps’ collection program was defined and subsequently implemented in 2013. The significant impact on biosolids disposal in landfills has been known for at least eight years now. M1W has also been considering their options and have completed several studies in the past decade about alternate biosolids management practices. The emergence of PFAS concerns have added additional concerns regarding the choice of an alternate biosolids management solution. For ReGen, while the biosolids disposal revenues will be missed, it is anticipated that the FY 2024/2025 budget can be prepared without biosolids disposal revenue after January 1st and without disposal fee increases on other materials greater than already cited to the Board.

CONCLUSION

In California, SB 1383 requirements will become effective on January 1, 2025 and seek to divert at least 75% of “organics” materials away from disposal in landfills (2014 basis level). Biosolids created in water and wastewater treatment processes is one of those “organic” materials and, because it is not co-mingled with other waste materials, it can be managed separately from other waste materials. For ReGen which has been receiving biosolids for more than 34 years, the SB 1383 requirements will significantly change the amount of biosolids received for landfill disposal. Staff estimates that the SB 1383 75% diversion requirement will result in a decrease of biosolids receipt from about 15,250 tons in the prior fiscal year to about 1,925 tons per year. As ReGen’s Member Agencies (e.g., Cities and Counties) are the responsible parties identified in SB 1383 to comply with these requirements, it is those jurisdictions that have ‘standing’ to decide whether ReGen should continue receiving biosolids at the SB 1383 constrained rate of about 1,925 tons per year (~75% diverted), at a lower receiving rate such as ~800 tons per year (90% diverted), or not at all (100% diverted). ReGen staff encourages our Member Agency representatives to discuss this topic with their jurisdiction leaders and provide feedback to staff at a later date concerning whether to continue receiving biosolids for disposal in the landfill after December 31, 2024.