

Date of Hearing: April 26, 2023

ASSEMBLY COMMITTEE ON APPROPRIATIONS

Chris Holden, Chair

AB 1534 (Irwin) – As Introduced February 17, 2023

Policy Committee: Natural Resources Vote: 11 - 0

Urgency: No State Mandated Local Program: No Reimbursable: No

SUMMARY:

This bill requires the Air Resources Board (ARB), no later than June 30, 2026, to evaluate and, if feasible and to the extent data is available, revise the regulations relating to methane emissions from municipal solid waste landfills to incorporate the use of methane remote sensing data.

FISCAL EFFECT:

ARB estimates costs of approximately \$879,000 in fiscal year (FY) 2023-24 and \$875,000 in FY 2024-25 and ongoing (Cost of Implementation Account) for four new positions to implement the requirements of this bill, including updating the landfill methane regulation to incorporate the use of remote sensing data, ongoing regulatory implementation and compliance efforts, and site inspections and enforcement.

COMMENTS:

1) **Purpose.** According to the author:

The fight against climate change remains one of the pressing issues facing California. As technology improves, we must adopt these new methods to help measure and improve how we address this challenge. AB 1534 would allow the California Air Resources Board to identify and regulate significant methane emissions from landfills by using remote sensing technology and reduce contributions to global warming.

2) **Background.** The global warming potential of methane over its short atmospheric life is more than 25 times greater than that of carbon dioxide, which remains in the atmosphere for decades. According to the United States Environmental Protection Agency, municipal solid waste landfills are the third largest human-generated source of methane emissions in the United States. Landfills must have methane collection systems in place to capture and manage methane emissions, but these systems in modern landfills capture only roughly 60% to 90% of the methane emitted.

Remote methane sensing technology includes the use of satellites, drones, and airplanes to identify methane emission sources. Between 2016 and 2018, ARB and the California Energy Commission (CEC) partnered with the National Aeronautics and Space Administration's (NASA) Jet Propulsion Laboratory (JPL) to conduct a California Methane Survey (Survey)

to map point sources of methane emissions to help prioritize investments to reduce greenhouse emissions. JPL flew remote sensing equipment over the state and identified hundreds of point sources, including “super-emitters,” meaning point sources that emit an outsized proportion of methane emissions. According to the Survey, 10% of point sources were responsible for 60% of the total methane emissions detected. Based on this finding, researchers estimate that relatively few point sources are responsible for one-third of California’s methane emissions. In total, the Survey identified more than 550 point sources emitting methane plumes.

Landfills accounted for 41% of the emissions identified by the Survey; the other two highest emitting sectors were manure management operations and oil and gas operations. Of the 270 landfills surveyed, 30 were observed emitting large methane plumes; however, those 30 landfills were responsible for 40% of the total point source emissions detected by the Survey. As a result of the Survey, regulators were able to identify facilities with the highest emissions and work with operators to reduce emissions. For example, the Survey found very high emissions from the Sunshine Canyon Landfill in Los Angeles County. When notified of the plume, the operator was able to identify problems with the landfill cover and gas capture system. Over the following year, the operator was able to make a number of changes that dramatically reduced methane emissions. These improvements also resulted in fewer odor complaints from nearby residents.

Since the Survey, California has partnered with other entities, including JPL, universities, satellite data companies, and philanthropic entities on the deployment of a satellite using new technology to identify and quantify methane and carbon dioxide emissions. According to ARB, these satellite systems may enable frequent observation of large portions of California, thus supporting regulatory mitigation programs and helping California reach its climate targets. The Budget Act of 2022 allocated \$100 million and seven positions for ARB for the purchase of methane plume data from a commercial satellite company. This money will be awarded through a competitive request for proposal process this year. ARB notes these funds and positions will not cover the costs associated with implementing this bill.

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