

California is known for aggressive legislation and strict requirements to meet lofty greenhouse gas reduction goals. In 2006, Assembly Bill (AB) 32, California's Global Warming Solutions Act, laid the foundation for current legislation by directing the California Air Resources Board to reduce toxic greenhouse gases to 1990 levels by 2020. Specifically, AB 32 requires California to adopt mandates aimed at achieving the maximum technologically and economically feasible greenhouse reductions. To meet the reduction goals set forth, regulations such as mandatory commercial recycling (AB 341, 2011) and organics recycling (AB 1826, 2014) were developed.

The most recent legislation, signed in September 2016, is the short-lived climate pollutants act known as Senate Bill (SB) 1383. This legislation establishes state targets to achieve a 50 percent reduction in the level of statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. SB 1383 is a capstone for California's environmental legislation with extensive reporting requirements and a hefty enforcement component that will require compliance from all municipalities in the state by 2022.

To achieve these aggressive reduction goals, municipalities are required to secure processing capacity and implement comprehensive organics diversion programs. SB 1383 also expands the definition of "organic waste" to include "solid waste-containing material originated from living organisms and their metabolic waste products, including, but not limited to, food, green material, landscape and pruning waste, organic textiles and carpets, wood, paper products, printing and writing paper, manure, biosolids, digestate and sludges."

In addition to diverting organic waste, municipalities will also be required to design and implement food rescue programs to capture and reallocate edible food before disposal. With SB 1383 bearing down



on California, municipalities are asking how to enhance organics programs in compliance with these new regulations.

TACKLING THE TOUGH QUESTIONS

Northern California's Central Contra Costa Solid Waste Authority, known as RecycleSmart and located in Walnut Creek, California, is proactively seeking to tackle the tough questions pertaining to regulation compliance. RecycleSmart—a joint powers authority that manages the entirety of solid waste operations for the California cities of Danville, Lafayette, Orinda, Moraga, Walnut Creek and unincorporated Contra Costa County—oversees garbage and recycling services, education, outreach, material transportation, processing and related contracts. In seeking the best programs for its community, RecycleSmart initiated a SB 1383 planning project to examine options for reducing organics disposal to comply with the bill's requirements.

RecycleSmart is supported in this effort by HF&H Consultants LLC (HFH) in Walnut Creek, which has provided franchising, program development and business consulting to RecycleSmart for more than 20 years, and SCS Engineers (SCS), Carlsbad, California, which has supported RecycleSmart with programmatic and technical assistance consulting since

the authority's new collection programs launched in 2015.

This study highlights three major tasks: establish a baseline of current organics collection programs, organics processing capacity and food rescue programs; understand the adequacy to support compliance with SB 1383 requirements; and identify key areas for enhancement. RecycleSmart's project will remain in progress in anticipation of the August 2018 final draft of SB 1383 regulations.

Analysis was performed to identify the organic materials being collected by programs currently in place. RecycleSmart currently contracts with Republic Services, Phoenix, for collection of residential and commercial organics. Republic Services provides single-family residents and commercial business customers with collection service for food scraps mixed with green material. Multifamily residents are provided yard material collection service.

To further understand the program, collection and processing contracts were reviewed. RecycleSmart contracts with Republic to transfer municipal solid waste to the Republic Keller Canyon landfill in Pittsburg, California. The hauler transports residential organics to compost facilities located near Richmond and Manteca, California, for composting and clean commercial food scraps to a water treat-

Photos: Adobe Stock



ment facility in Oakland, California, for anaerobic digestion. RecycleSmart also contracts with Mt. Diablo Resource Recovery in Concord, California, for all residential and commercial recycling of container and fiber material.

Research and analysis is needed to determine the local capacity available for organic material processing. This includes the processing capacity associated with RecycleSmart's current contracts and the organics processing capacity for facilities within 30 miles of the service area. Analysis considers the length of commitment to current organics processing contracts and the potential to contract with facilities that have available processing capacity, may increase permitted capacity or are looking to build a new facility in the future.

At the end of this project, the contracts may be amended to add new programs or enhance existing programs to ensure compliance with the regulations.

FINDING THE RIGHT PROGRAM

Next comes the big question for this study: What programs need to be established to compost or recycle all of the organic material defined in the SB 1383 definition of organic waste?

From this analysis, six organic waste reduction program recommendations have been designed to bring RecycleSmart, its member agencies and generators into compliance with SB 1383. The six program recommendations are:

- Program 1A: Mandatory organics for single-family homes and townhomes

- Program 1B: Mandatory organics for multifamily and commercial waste generators
- Program 2: Enforcement of mandatory organics
- Program 3: Contamination monitoring program
- Program 4: Food recovery program for edible food generators
- Program 5: Food recovery program for large venues and events
- Program 6: "Other" organic materials programs (carpet and textile recycling)

To determine the approach and methods RecycleSmart will use to capture and report state-required metrics for each of the six recommended organics programs, the SB 1383 regulations were reviewed. SB 1383 includes a heavy emphasis on reporting requirements for public education, outreach, diversion and detailed tracking of food rescue flows—making identification of assessment and reporting strategies essential to compliance.

Additional emphasis was given to current contract operations and expertise gained from working in the RecycleSmart service area. The metrics to measure effectiveness and success are prescriptive for each program. However, the following list provides a sample snapshot of strategies being considered for these programs:

- Take number of accounts subscribing to service, those with approved waivers by RecycleSmart and those that self-haul and back-haul organic material, and

compare to extrapolate those accounts not in compliance. Look at trends from month to month to see improvement.

- Take Republic monthly organics tonnage reports and compare trends from month to month to see improvement.
- Compare quarterly contamination route audits to see improvements to contamination.
- Compare lid flips on a quarterly basis to see if the number of containers with contamination decreases or if there are trends by time of year.
- Compare the number of "Oops" tags and notices of violations (NOVs) monthly to look at trends and assess improvements.
- Look at the number of repeat violations and penalties to see if follow-up and outreach is effective.
- Compare annually the number of NOVs sent with the number of accounts that correct behavior and gain compliance.

AHEAD OF THE GAME

Each program focuses on different components of the regulations but addresses all the organic material types outlined in SB1383. The recommended program considerations will benefit RecycleSmart by allowing its member agencies to meet the mandates, including the stringent reporting requirements.

A unique aspect to this project is that RecycleSmart was working simultaneously during the formation of the regulations, and the project will not be completed until the regulations are finalized. This project has been in progress for the past six months in preparation of the final approval of SB 1383 regulations, while RecycleSmart has been proactive in beginning research and a review of its organics programs. This has allowed the authority to establish a direction for compliance with plenty of time to provide the public outreach and education necessary for a smooth transition into the future of organics recycling. **wt**

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