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Kasey Kolassa
Department of Public Works
County of Santa Cruz
701 Ocean Street, Room 410
Santa Cruz, CA 95060

Sent via email: Kasey.Kolassa@santacruzcountyca.gov

Subject: Solid Waste System Cost-of-Service Study Update Report

Dear Kasey Kolassa,

HF&H Consultants, LLC (HF&H), at your request, has reviewed and updated the County of Santa Cruz's (County) projected solid waste enterprise costs and revenues to determine the estimated operating surplus or shortfall for the County's solid waste system, based on updates to proposed infrastructure expansion. This report provides an independent review and analysis of the revenue required and the per-parcel cost of expanding the County's solid waste infrastructure to provide County residents with essential services. This analysis updates the Proposition 218-compliant model and rate study initially performed in 2021, the results of which were implemented in 2022, and incorporates the County's revisions to construction estimates for infrastructure and operational timelines.

EXECUTIVE SUMMARY

The Santa Cruz County Solid Waste Enterprise, including its landfills and transfer stations, is funded primarily through a charge on solid waste disposal at the Ben Lomond Transfer Station (Ben Lomond) and the Buena Vista Landfill (Buena Vista). Buena Vista, the disposal site for most of the County's solid waste, is rapidly approaching its closure date. In 2021, the County reviewed several options for continuing to provide critical public services once current capacity is exhausted. From that analysis, the County determined that operational modifications and updated infrastructure will be needed when the landfill closes. Specifically, a transfer station will be needed to transfer waste to another landfill upon closure of the County's landfill, and a compost facility will be needed to process organic material on site, avoiding the need to incur transportation costs or to be subject to volatile market pricing for third-party organics processing. In addition to these new functions at Buena Vista, the County needs to make improvements to the existing Ben Lomond Transfer Station to modernize operations for safety and efficiency. These facilities would continue to accept the full spectrum of recyclable and waste materials from both the public and commercial haulers operating in the County.

This report reflects input from County staff regarding updates to projected costs for the proposed system. The resulting rate increases are necessary for several reasons: (1) the County has identified a new site for construction of facilities that would better serve day-to-day operations, which has led to delays in construction; (2) the proposed transfer stations and organics facilities have not yet begun construction and construction cost estimates for the transfer station facility have been revised; (3) assumptions for costs and interest rates



have increased since the initial study was performed in 2021; and, (4) inflationary factors have outpaced the initial estimates.

The proposed transfer station and compost facility provide a combination of features that address varied issues and concerns and were designed to satisfy all the following criteria:

- **Participation:** Support significantly increased participation in the solid waste disposal and diversion system, based on a steady historic pattern of growth in use.
- **Convenience:** Maximize convenience to customers by providing convenient locations to deliver solid waste, recyclables, and organic material.
- **Long-Term Control:** Empower the County to remain in control of its solid waste system with limited reliance on third parties for processing capacity.
- **Capacity:** Ensure that residents and businesses within the County have adequate capacity to properly handle materials generated within the County for disposal or recycling.

The updated cost-of-service analysis has determined that:

1. The underlying operational and fiscal assumptions provided by County staff and its consulting engineer appear reasonable and well considered.
2. The proposed facilities provide an important public service to both the public and commercial haulers—namely, access to conveniently located, cost-effective solid waste handling facilities—when Buena Vista exhausts its disposal capacity.
3. The Proposed Transfer Station and Compost Facility for Self-Haul and Franchised Materials during Fiscal Year (FY) 2026/27 through FY 2030/31 will require raising an annual average amount as summarized in the following table:

Table 1 Proposed Funding Levels

	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Proposed Annual Parcel Charge	\$175.00	\$183.00	\$192.00	\$202.00	\$210.56
Number of Parcels	43,950	43,950	43,950	43,950	43,950
Resulting Annual Revenue	\$7,691,250	\$8,042,850	\$8,438,400	\$8,877,900	\$9,254,228

The report also includes recommendations to County staff regarding maintaining flexibility to modify some program design elements, if needed. Potential modifications include notifying the Board if disposal-based tip fees vary from projections over time and including an adjustment mechanism in case the new charge generates more revenue than needed.

BACKGROUND

System and Program Information

The initial 2021 cost-of-service study determined that then-current annual spending for the County’s Solid Waste Enterprise operations was about \$16.4 million. Annual revenue was about \$17.0 million. Revenues and expenditures are managed through the County's Recycling and Solid Waste Enterprise Fund, but the positive balance was steadily declining as revenues decreased. The County’s Buena Vista Landfill was receiving about 150,000 tons of refuse and recyclable material annually, of which about 97,000 tons were landfilled on site as refuse. Buena Vista Landfill



had a remaining capacity of about 1,000,000 tons. The County projected Buena Vista to reach capacity and close in 2030. Implementation of the solid waste infrastructure charge in 2022 allowed the County to extend the useful life of Buena Vista by transferring material to Monterey Regional Waste Management District (ReGen) and to build reserves for construction of new transfer and organics facilities.

In September 2016, Governor Brown signed SB 1383. SB 1383 established statewide targets for achieving 50% reduction in the level of organic waste disposed (from 2014 levels) by 2020 and 75% reduction by 2025. Additionally, the Bill sets a statewide target to reduce the disposal and increase the availability for human consumption of edible food by 20%. SB 1383 was in the final formal rulemaking stage when the 2021 study was prepared. Regulations took effect January 1, 2022. Minimum program standards were anticipated to include an organics (including food waste) recycling program for all generators; an edible food recovery program to promote recovery of food for human consumption; public education and outreach; an enforcement program (including mandatory ordinances and minimum fines); substantial reporting requirements; and procurement of recovered organic waste products (e.g., compost and RNG).

The County's operations did not allow for management of organic material at the levels anticipated by SB 1383. The 2021 analysis used the most recently available comprehensive data, showing the program captured 45,623 tons of yard waste and 599 tons of food waste in FY 2020/21, while as much as 29,000 tons per year of organic waste was being landfilled, contrary to state law. In addition, the proposed facilities would provide the County with a reliable processing location for these organic materials in a volatile market, with only one processing location currently available within a reasonable distance of the County. These factors resulted in the creation of the initial 2022 solid waste infrastructure charge.

In the years since the solid waste infrastructure charge has been collected through charges to parcels in the County, construction cost estimates, inflation, interest rates, and operating estimates for the new facilities, have all increased more than anticipated. As stated in the 2022 report, "In the event that actual costs significantly exceed the estimates, a new cost-of-service study should be prepared, and the charge should be adjusted consistent with the substantive and procedural requirements of Proposition 218." Additionally, revisions to the previously proposed project include purchasing property to expand the Buena Vista site footprint to locate the same infrastructure at a single location. The new proposed charge reflects the estimated costs to purchase property and build two new refuse transfer stations including recycling and organics processing and compost facilities, and fund any necessary mitigation, increased closure costs for the Buena Vista Landfill, and related operations and maintenance costs for the new facilities. This updated report reflects the need to review and revise cost estimates and the resulting per-parcel charges moving forward.

Legal Requirements

The County is required to set rates in compliance with California State law. Voters passed Proposition 218 in 1996, which enacted Article XIII D of the California Constitution. Article XIII D has five substantive provisions that must be individually and inclusively met.
Cal. Const. Art. XIII D, §§ 6(b)(1)-(5)



1. revenues derived from the fee must not exceed the funds required to provide the property-related service
2. revenues derived from the fee must not be used for any purpose other than that for which the fee is imposed
3. the amount of a fee imposed upon any parcel or person as an incident of property ownership must not exceed the proportional cost of the service attributable to the parcel
4. the fee may not be imposed for a service unless the service is actually used by, or immediately available to, the owner of the property subject to the fee. Fees based on potential or future use of a service are not permitted, and stand-by charges must be classified as assessments subject to the ballot protest and proportionality requirements for assessments
5. no fee or charge may be imposed for general governmental services, such as police, fire, ambulance, or libraries, where the service is available to the public in substantially the same manner as it is to property owners.

The basis for setting rates that are proportional to the cost of providing service was not prescribed in Article XIIID; however, each agency must reasonably demonstrate that their rates are not arbitrary, capricious, or discriminatory. Reasonable rates are not arbitrary (decisions required to make assumptions and analyze data have a sound reason), not capricious (there is a documented source for all data), and not discriminatory (the results do not unduly favor one customer at the expense of another).

This concept is interpreted to mean that rates must be proportional to the cost of service across the range of subscribed services. Furthermore, the rates for each level of service must correlate with the actual demand that customers place on the waste management system and for which the system must be designed to provide the level of service customers require.

DESCRIPTION OF PROPOSED PROGRAM OPERATIONS

Overview

The proposed program was designed to satisfy all the following criteria:

- **Participation:** Support significantly increased participation in the organics recycling program, based on a steady historic pattern of growth in use.
- **Convenience:** Maximize convenience to customers by continuing to provide residents with accessible locations to drop off materials.
- **Long-Term Control:** Maximize program efficiency by creating the opportunity for the County to manage solid waste, recycling, and organics material flows and/or processing at County-owned facilities.
- **Capacity:** Ensure that residents and businesses within the County have the capacity to properly handle the material generated within the County to be disposed of or recycled.



County staff believe the proposed program approach meets these criteria. This approach includes the following:

- Constructing a County-owned and -operated transfer station to accommodate self-haul and franchised materials.
- Constructing a County-owned and -operated compost facility to accommodate self-haul and franchised materials.
- Maintaining GreenWaste Recovery's (GWR's) current collection and transportation operations. GWR delivers franchised material to County facilities, with the exception of recyclables and commercial organics, which are currently processed at other facilities. Changing GWR's delivery location would have a material impact on the rates charged to residents and businesses in the County. Our analysis determined there is a net community and ratepayer benefit to developing these facilities compared with directing GWR to deliver all material to ReGen.
- Continuing to accept self-haul solid waste and construction and demolition debris (C&D) at County facilities, which will then be transferred to ReGen. Historically, tip fees to process materials at ReGen have been lower than the County's self-haul rates; therefore, continuing to transfer these materials to ReGen is a cost-effective way to extend the useful life of the County's landfill. Should the relationship between County and ReGen rates change in the future, we anticipate that the County would increase its gate rates to cover the costs of tip fees at ReGen.
- Transferring self-haul solid waste and C&D and franchised solid waste from the proposed transfer station to ReGen. The model includes additional trucking expenses and disposal expenses. Disposal expenses reflect the tip fees that would be paid for these materials taken to ReGen.
- Continuing to transfer roughly 99 tons per day of solid waste to ReGen in order to delay the closing of the Buena Vista Landfill.
- Collecting Reserves in the years prior to the planned construction and operation of the facilities to pay down the costs of these facilities and lower the amount of debt service which will need to be paid while slowly increasing the amount which will be collected through the parcels. This approach will also lower the overall costs which will need to be charged to the parcels over time.

Key Assumptions/Inputs

The analysis relied in part on the following key assumptions, provided largely by the County and supplemented with data from other sources as noted:

- The estimated cost to build the transfer stations is \$48.2 million and is amortized over 30 years.
- The estimated cost to build the compost facility is \$16.7 million and is amortized over 30 years.



- The County intends to raise capital reserve amounts through 2030 to pay down construction costs on the transfer stations and compost facilities reduce borrowing costs and interest expense.
- The County intends to continue to haul 99 tons of material per day to ReGen to delay closure and reserve space at the Buena Vista Landfill.
- The transfer stations and compost facility are expected to begin operations July 1, 2031.
- Interest rates are projected to be 5%.
- County facilities operate 6 days (Monday through Saturday) per week.
- All County facility non-franchised per ton disposal and processing rates are effective July 1, 2026, and are projected to inflate at a conservative 3% per year.
- The County will charge self-haul customers residing in the County \$105.50 per ton (effective July 1, 2026) to process and dispose of solid waste and C&D.
- Effective July 1, 2026, the County will charge County residents who self-haul materials \$103.50 per ton to process food waste and \$70 to process yard waste.
- Effective July 1, 2026, the County will charge \$70.00 per ton to process and dispose of franchised solid waste and C&D, and the rate is assumed to increase at a conservative annual rate of 2%.
- The County currently charges \$80.00 per ton to process franchised food waste and yard waste, and the rate is assumed to increase at a conservative annual rate of 2%.
- All ReGen per-ton disposal and processing rates are effective July 1, 2026, and are projected to inflate at 5% per year.
- ReGen charges \$85.00 per ton to process and dispose of solid waste and C&D.
- ReGen charges \$73.00 per ton to process food waste.
- ReGen charges \$54.00 per ton to process yard waste.
- The County's contractual solid waste rate at ReGen is \$80.75 per ton effective July 1, 2026, and \$85.03 per ton effective July 1, 2027. The County receives a discounted rate that is 5% less than ReGen's public tip fees. In FY 2027/28 and subsequent years, following the contract's expiration, the County is not expected to receive a discounted solid waste rate at ReGen.
- The current purchase price of a transfer truck and trailer is \$652,263.
- The cost to purchase trucks is amortized over 10 years.



- In 2025-2026, transfer trucks' hourly operational costs (fuel and maintenance) are \$39.58 an hour.
- In FY 2025/26, transfer truck drivers' hourly rate is \$86.78 per hour.
- The transfer trucks' hourly operational rate is escalated annually by County provided projected inflation rates as provided in the County's economic forecast.
- The tonnage assumed in these calculations was gathered from County- and franchised-hauler-provided data for FY 2024/25, This represents the most recently completed and available data at the time the model was developed. Tonnages were projected using County-provided population growth projections.
- There are 43,950 parcels in the County, not including the incorporated Cities, vacant, or public parcels.
- The Model does not include the potential savings due to operational efficiencies or discontinuing current operations at County facilities.
- The Model does not factor in any collection, transfer, or processing changes for recyclables.

DESCRIPTION OF OPERATIONS TO BE FUNDED BY SOLID WASTE CHARGE

Proposed System Expansion

Continued provision of publicly available solid waste infrastructure is a critical public service provided by the County that has manifold benefits, including public health and safety and mitigation of illegal dumping that leads to land and water pollution. Should the County allow the current facilities to close, residents and businesses would either need to haul materials long distances themselves or pay potentially hundreds of dollars for each self-hauler for each load that must be transported to another location. For users of the County's franchised collection operation, there would be material rate increases required to compensate haulers for the increased time and equipment required to haul materials to more distant locations.

County staff determined the need for the proposed system infrastructure expansion to continue providing essential services to County residents and is appropriate based on costs and other factors such as convenience, participation, and long-term efficiency, as described in this report. The estimated cost for infrastructure expansion provided by SCS Engineers (SCS) and Cambridge Construction Inc. (Cambridge), combined with the assumptions described above, provides a reasonable basis for budgeting and for setting this added charge. The Program's costs may be somewhat higher or lower for two reasons. First, the tonnage estimates that drive the tip fee costs and revenues in this model may fluctuate, and participation levels within the diversion programs are hard to predict. However, we anticipate that the County will monitor these tonnages, participation levels, and costs; set its tip fees at a reasonable price, with the goal of avoiding a shortfall; and adjust as needed. Second, it is reasonable to expect that there will be efficiencies associated with the expansion of



infrastructure and that staff and other expenses may not be one-for-one, and that costs and staff may be shared across the entire system.

Methodology

HF&H’s review of projected program expenses included developing an in-depth understanding of current expenses and operations through discussions with County staff. The cost-of-service model includes expenses from the County’s budget and tonnages delivered to the County’s facilities, Buena Vista and Ben Lomond. The cost-of-service model includes construction and operating cost estimates for the transfer stations and compost facility resulting from work performed by Cambridge and SCS. We believe these engineering firms to be professional, appropriately licensed, and to have completed their scopes of work for the County in good faith and with the best available information. We estimated expenses annually based on the number of tons brought to Ben Lomond and Buena Vista and the cost of accepting, transferring, and ultimately processing those tons, in addition to the capital and operating costs needed to provide these services. The County-provided parcel counts, which we used to determine the incremental cost of the proposed system on a per-parcel basis. The updated charge of \$175 will be effective July 1, 2026 (included on the FY 2026/27 property tax bill).

PROPOSED FUNDING

HF&H determined the necessary amount of the charge in each fiscal year by modeling the amount of revenue that each parcel must generate to cover the additional anticipated costs of building and operating the proposed new facilities. Key parameters for the charge are that:

1. It will take effect on July 1, 2026.
2. It will be levied at the same amount per parcel for all parcels within the County. The charge is based on the current number of parcels, and the number of parcels is assumed to remain the same over the planning period.

Table 1 presents the annual amount of required new revenue for the first five years of the 30-year planning period (July 1, 2026, through June 30, 2031), the number of parcels to which it will be applied, and the resulting new charge for the proposed program based on the assumptions stated in this report. HF&H provides a more detailed breakdown of these costs in Table 2. Note that the proposed system does not require operational changes to the franchised haulers’ current operations; therefore, no changes to franchised collection rates are required. Other proposed systems which were initially evaluated did require impacts to the franchised collection system, which in many cases were a significant factor in total cost.

Table 2 Proposed Infrastructure Expansion Costs

	Year 1	Year 2	Year 3	Year 4	Year 5
	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Buena Vista Closure Costs	\$521,357	\$521,357	\$521,357	\$521,357	\$521,357
Transfer Station Capital	0	0	0	0	1,435,453
Transfer Station Operations	2,914,118	3,057,277	3,199,459	3,348,489	3,308,195
Compost Facility Capital	0	0	0	0	921,448
Compost Facility Operations	0	0	0	0	2,115,127
Trucking to ReGen	0	0	0	0	952,648
Capital Reserve	4,255,775	4,464,217	4,717,585	5,008,055	0
Net Costs	\$7,691,250	\$8,042,850	\$8,438,400	\$8,877,900	\$9,254,228



The analysis of the required and appropriate charge is based on updated engineers’ estimates of the cost of constructing and operating the new infrastructure. While the source of the information regarding these amounts are considered to be well informed and reasonable, the underlying assumptions about the cost estimates require annual review to determine whether they were accurate.

In the event that actual costs are significantly lower than projections, or key assumptions differ materially, the amount of the charge should be recalculated in future years and a lesser adjustment than was estimated here should be applied. If actual costs significantly exceed projections, a new cost-of-service study should be prepared, and the charge should be adjusted consistent with the substantive and procedural requirements of Proposition 218. Table 3 below presents the new annual per-parcel charge required in the unincorporated County to appropriately fund the proposed infrastructure expansion for FY 2026/27.

Table 3 FY 2026/27 Proposed Funding Levels

Proposed System Expansion	
Proposed 2026/27 Parcel Charge	\$175.00
Number of Parcels	43,950
Resulting Annual Revenue	\$7,691,250

LIMITATIONS

All engagements are subject to certain limitations in scope. The following limitations impact this report:

- This study was prepared solely for the County in accordance with the contract between the County and HF&H and is not intended for use by any other party or for any other purpose.
- In preparing this study, HF&H relied on information and instruction provided by the County, which we understood to be informed, accurate, and reliable.
- The cost-of-service model and accompanying analyses contain projections of revenues and expenditures based on various assumptions and estimates provided by the County as well as independent consultants and engineers whom we believe to be knowledgeable, as well as professionally- and technically qualified to perform the work. The review did not entail independent verification of the accuracy or completeness of all the sources of documents provided by the County.
- While we reviewed those projections for reasonableness, actual results of operations will usually differ from projections because events and circumstances do not always occur as expected. Those differences may be significant and may materially affect the analyses and findings presented in this report.
- Rounding differences caused by stored values in electronic Models may exist.
- This study adheres to relevant laws, regulations, and court decisions that HF&H was aware of at the time of preparing the study, but should not be relied upon as legal



advice. The County should direct any questions concerning the interpretation of legal authorities or decisions referenced in this study to a qualified attorney.

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Sincerely,
HF&H CONSULTANTS, LLC

Rob Hilton
President

Dave Hilton
Senior Project Manager