



# Alameda County Waste Characterization Study 2023

## **Request for Proposals**

Release Date: September 23, 2022

**Proposals Due: October 21, 2022**

StopWaste  
1537 Webster Street  
Oakland CA 94612

[www.StopWaste.Org](http://www.StopWaste.Org)

StopWaste is the Alameda County Waste Management Authority and  
the Alameda County Source Reduction and Recycling Board  
operating as one public agency

## **About the Agency**

StopWaste is a public agency responsible for reducing waste in Alameda County. We help local governments, businesses, schools and residents with projects and initiatives that:

- Prioritize upstream waste prevention infrastructure, policies, and behaviors
- Develop and expand markets for recycled materials
- Provide technical and implementation assistance to promote proper sorting to reduce contamination in recycling and organics streams
- Motivate people to make recycling and waste reduction part of their everyday routines
- Increase community resilience to climate change and use resources efficiently

We are governed by three Boards: the Alameda County Waste Management Authority, the Alameda County Source Reduction and Recycling Board, and the Energy Council.

### About The Recycling Board

The Alameda County Source Reduction and Recycling Board was created in 1990 by the voters of Alameda County through a County Charter Amendment ballot initiative, Measure D. The eleven-member board includes six citizen experts appointed by the Alameda County Board of Supervisors and five elected officials from the Alameda County Waste Management Authority.

The Recycling Board is responsible for projects that promote source reduction, recycling, recycled product procurement, market development, and grants to non-profit waste reduction enterprises. Project funding is provided from a per-ton disposal surcharge at the Altamont and Vasco Road landfills.

### About the Waste Management Authority

The Alameda County Waste Management Authority is a public agency formed in 1976 by a Joint Exercise of Powers Agreement among the County of Alameda, each of the fourteen cities within the county, and two sanitary districts that provide refuse and recycling collection services. The Authority has a seventeen-member board composed of elected officials appointed by each member agency.

The Authority is responsible for preparation of the Alameda County Integrated Waste Management Plan and Alameda County Hazardous Waste Management Plan. It manages a long-range program for development of solid waste facilities and offers many projects in the areas of source reduction and recycling, market development, technical assistance, and public education. Funding is provided by per-ton disposal and waste import mitigation fees.

### About the Energy Council

The Energy Council was formed in 2013 as a Joint Powers Agency to seek funding on behalf of its member agencies to develop and implement programs and policies that reduce energy demand, increase energy efficiency, advance the use of clean, efficient, and renewable resources, and help create climate resilient communities. The Energy Council aims to secure funds to implement local sustainable energy strategies on behalf of its fifteen member agencies, comprised of the fourteen cities and the County of Alameda.

## Introduction

This Request for Proposals is being issued by StopWaste to identify qualified consultants to perform and produce a Waste Characterization Study for Alameda County with an anticipated contract start date in Fall 2022, with sampling beginning Spring 2023.

This study will be conducted in support of the [Countywide Integrated Waste Management Plan](#) (CoIWMP) adopted in April 2020. To the extent possible, the methodology for this study should respond to the countywide issues (Chapter 2) and be informed by the CoIWMP goals, objectives, and policies (Chapter 5). StopWaste has adopted the objective of “landfill obsolescence.” Therefore, in addition to a typical waste characterization study geared towards increasing diversion, StopWaste is also seeking broader insights into how our programs and messaging can support sound materials management practices in support of this objective.

## Objectives

The objectives of the Waste Characterization Study are to:

1. Quantify the flow of materials within Alameda County, including refuse, organics, and recyclables.
2. Identify materials in the waste, recyclable, and organics streams that most commonly lead to contamination, compromise the quality of recyclables or organics, are most problematic for facilities to sort, or that have inconsistent markets, leading to sorted materials ultimately winding up in landfills.
3. Provide data and analyses to measure possible impacts of current programs, providing comparability with previous studies conducted by the Agency: the 1990 Brown & Caldwell Study (hereinafter the 1990 study), the 1995 Waste Characterization Study for Alameda County conducted by EMCON Associates (hereinafter the 1995 study), the 2000 and 2008 Waste Characterization Studies by R.W. Beck (hereinafter the 2000 and 2008 studies), and the 2017-2018 Waste Characterization Study by SCS Engineers (hereinafter the 2017-2018 study). The 2017-2018 study can be found on the Agency’s website at: <https://www.stopwaste.org/resource/alameda-county-2017-18-waste-characterization-study>
4. Provide data and analyses that allow the Alameda County Waste Management Authority to readily use and/or adapt and apply the data to local conditions.
5. Identify waste streams and materials to be targeted for future waste reduction programs.
6. Be consistent with California statutory and regulatory requirements for performing waste characterization studies, understanding that material types may be condensed for the Alameda County study as compared to the state study.
7. Meet the standards for SB 1383 capacity planning.

## Scope of Services

The consultant shall recommend and implement methodologies that meet the objectives listed above, as well as the research questions provided below. Proposers shall prepare separate cost figures for the main project as well as the sub-projects. The Authority will select one or more projects, depending primarily on cost.

### Main Project

All proposals must include the following scope of work numbered 1-6, at a minimum. In addition, submitters are encouraged to include a scope and separate budget for optional Sub-projects #1 and #2.

1. Gather total material flow information, including disposed waste and capture of recyclables and organics by single family, multifamily, commercial, roll off, self-haul sectors on a countywide level.
2. On a countywide basis, estimate by sampling material composition for refuse, recyclables, and organics for commercial, roll off and self-haul according to 70+ proposed material categories in two seasons of 2023. The final list is to be determined in consultation with the successful bidder, taking into consideration cost and special handling issues. Alameda County material flow involves four transfer stations and two landfills. Organics facilities may be sampled under Sub-Project #2 below.
3. Profile predominant types of contamination in recycling and organics streams and materials in the waste stream that could be recycled or composted.
4. Assist with survey and/or interview design and methodology for facilities and haulers to better understand processing challenges, including contamination and end markets for sorted materials.
5. Compare the 2023 material categorization above with the base year categorization in the 1990 Study, and the categorizations in the 1995, 2000, 2008, and 2017-2018 studies.
6. Compare to most recent statewide Waste Characterization Study.

### *Sub-Project #1: MRF and Organics Processing Contamination Methodology*

- Develop a methodology to quantify incoming materials to processing facilities materials based on contamination issues. This may include different units of measurement (e.g., count of materials instead of weight) or characterizing by types related to processing challenges (e.g., quantify the number of materials such as “stranglers” that inhibit MRF operations).
- Perform secondary sampling according to this methodology to recycling and composting streams.

### *Sub-Project #2: Organics residuals*

- Provide sampling on residuals from four organics processors, both in order to understand contamination and to determine quantity of organics lost to contamination (e.g., composition of overs). Apply results to the overall countywide tables as appropriate.

Research Questions

Proposer should submit a scope of work outlining a sampling methodology, including material subcategories, metrics, and study design, informed by the research questions below. As the Agency transitions from diversion-based goals to landfill obsolescence, the study may require alternative or supplemental methodologies to traditional weight-based sorting.

1. What is the quantity and make up of materials in refuse, organics, and recyclables in Alameda County? What is our overall capture rate in diversion programs, by material?
2. What is the impact and scale of the main sources of contamination in recycling and organics streams, especially those that are confusing for consumers to sort? For example, plastics may be sorted by number or material (i.e., PET) but programs related to reducing single-use plastics may be better informed by the product’s use (i.e., plastic water bottles, utensils, or food packaging).
3. What is the impact and scale of materials that are especially problematic in processing? For example, hoses and other “stranglers” would typically get lumped into a plastic category, but provide unique challenges. Similarly, different bags (clear vs. black) create different types of problems for processors.
4. Are there alternative methodologies to address the questions above, that can quantify impact of problematic materials using metrics other than weight? For example, film plastics may create processing difficulties, but do not weigh a significant amount. Is there a way to estimate counts via weight or visual audits that better capture impact? Ideally, these methodologies could be implemented in ongoing and less expensive manner than a traditional waste characterization study.

Material List

The sampling methodology proposed by the submitter should include the following materials, at a minimum. However, additional materials or material sub-categories may be needed to fulfill the study objectives and respond to the research questions. The Agency expects approximately 70 material types to be sampled. Proposers should look at materials sampled in the 2017-2018 study, the most recent state waste characterizations study from CalRecycle, and studies from similar agencies (such as San Francisco Department of the Environment and Oregon DEQ) for example material lists. Materials should be sampled for refuse, organics, and recycling streams, as well as for single family, multifamily, commercial, roll-off, and self-haul.

Major Material Group	Known Material Types	Considerations in Finalizing Types	Anticipated Number of Types
Paper	OCC Compostable paper Recyclable paper Other paper TBD: packaging	Consistency with SB1383 sampling Identification of activity/use (e.g., food/non-food; packaging/non-packaging) Paper bags, as relevant for reusable bag ordinance	4-10

Plastics	HDPE PETE Other plastic bottles (3-7) Plastic bags Film plastic Durable plastic items Expanded polystyrene Bioplastics	Comparison to state study Identification of activity/use (e.g., food/non-food; packaging/non-packaging) Plastic bags, as relevant for reusable bag ordinance Plastic containers per SB 54 Impact of bioplastics on recycling quality/marketability	6-10
Glass	N/A	CRV, non-CRV, and potential CRV (wine, spirits) Usefulness of sorting by glass color (e.g., do facilities sort by color or are there better markets for certain colors?)	3-6
Metals	Aluminum cans Tin/steel food and beverage Ferrous Non-ferrous	CRV, non-CRV, and potential CRV (wine, spirits) Identification of activity/use (e.g., food/non-food; packaging/non-packaging; construction)	4-8
Compostable organics - food	Food waste – donatable Food waste – non donatable	Consistency with SB1383 sampling; consider categorizing by “donatable” vs. “non donatable” or “edible” vs. “inedible” GHG emissions of various materials	3-8
Compostable organics - wood	Untreated lumber Pallets	Consistency with SB1383 sampling GHG emissions of various materials What wood from C&D could be potentially recycled but there is no market? (No longer going to biomass and too much quantity for some uses, such as mulch)	4-6
Compostable organics - non-wood	Leaves/Grass/Chips Branches/Stumps/Prunings Bioplastics	Consistency with SB1383 sampling GHG emissions of various materials Impact of bioplastics on compost quality and marketability	3-6
Textiles/Other	Textiles/Leather Carpet	Potential for Extended Producer Responsibility Organic textiles vs. synthetic	3-5
Inerts	Crushable inerts Gypsum boards Treated wood waste Asphalt roofing	Compliance with C&D ordinances and CALGreen Building Code	4-6

HHW	Paints/Adhesives Vehicle/Equipment fluids Universal hazardous waste Medical waste E-waste Universal hazardous waste Other hazardous waste	Proper disposal Safety and handling concerns for facilities	7-15
Special/Other	White goods Brown goods Diapers, animal waste Manure Tires		5-10

### General Requirements

All submissions must include the following:

1. Identify and explain potential error sources. Precision should be similar to that resulting from the 2017-18 study. Methods yielding lesser margins of error may be considered.
2. Explain all methodologies, calculations, formulas, and assumptions in reports submitted, including provision of corroborating documents and references.
3. Submit preliminary and final reports documenting the findings and result of this project as follows:
  - a) Complete copy of the executive summary and final report in PDF format of sufficient quality to reproduce and one reduced-size PDF.
  - b) Raw data in compatible software in an Agency-approved format.

The consultant shall:

- Be consistent with California statutory requirements contained in Public Resources Code 41030, et. seq. and regulatory requirements of the CIWMB for performing waste characterization studies, including use of the CIWMB Uniform Waste Characterization Study Methodology, with the exception of the identified material types.
- Identify and resolve inconsistencies within the data and develop sensitivity analyses for possible errors.

### **Submittal Requirements**

Proposals shall include the following:

1. A cover letter identifying the consultant team, including the name of the applicant, and the applicant's principal place of business. The letter is to be signed by an officer of the firm authorized to contract with the Alameda County Waste Management Authority.
2. A description of the abilities, qualifications, and experience of all the persons who would be involved in providing the requested service, including resumes for key individuals.

3. A list of contracts completed by the proposer under which services similar to the required services were performed, the dates the services were provided, and the name and telephone number of a reference familiar with the services provided.
4. An outline description of the scope of services to be provided, including a list of work products to be developed.
5. If subcontractors are to be used, please provide detailed information on the particular individuals or firms and the part of the contract they will perform.
6. A description of the proposer's management structure and how this contract will be managed within that structure, including an organizational chart indicating key individuals and lines of responsibility.
7. A cost proposal listing the hours and hourly rates of personnel, cost by task, total project costs, and estimate of monthly billings.
8. A schedule for the work. Sampling period is one year, with an estimated start date in Spring 2023.
9. A conflict of interest statement noting financial interest in projects or companies doing business in Alameda County or in other counties which may raise a conflict.
10. Proof of the following insurance coverage:
  - a) Comprehensive general liability insurance, including personal injury liability, blanket contractual liability, and broad-form property damage liability coverage. The combined single limit for bodily injury and property damage shall be at least \$2,000,000.
  - b) Automobile bodily injury and property damage liability insurance covering owned, non-owned, rented, and hired cars. The combined single limit for bodily injury and property damage shall at least \$1,000,000.
  - c) Statutory workers' compensation and employer's liability insurance as required by state law with a limit of at least \$1,000,000 per accident for bodily injury or disease.
  - d) Professional Errors and Omissions Liability Insurance. The limit of liability shall be at least \$1,000,000.

Proposers are encouraged to contact staff or visit the Agency website at [www.stopwaste.org](http://www.stopwaste.org) in order to obtain pertinent information to respond to the RFP. The appropriate contact person is Emily Alvarez, Program Manager, 510-891-6585; or via email at [ealvarez@stopwaste.org](mailto:ealvarez@stopwaste.org).

## **Process and Timeline**

Proposals must be submitted by email and should be sent to [RFP@stopwaste.org](mailto:RFP@stopwaste.org) with the subject line clearly marked "**2023 Waste Characterization Study RFP**". Upon submittal, you will receive an automatic confirmation of receipt. If you do not receive this confirmation, please contact Holly Mayne ([hmayne@stopwaste.org](mailto:hmayne@stopwaste.org)).

Selection of consultant will be on the basis of the proposal submitted and interviews. Responses to this RFP will be reviewed using criteria developed by the Alameda County Waste

Management Authority. Staff may request additional clarifying information from any or all proposers and request interviews at its discretion.

### Schedule

The deadline for receipt of proposals is **5:00 p.m. Friday, October 21, 2022**. *Late submittals will not be accepted.*

Submitters should hold Thursday, October 27, 2022 for potential interviews.

It is anticipated that the study will commence in Spring 2023 and will be completed pursuant to a schedule and final scope of work developed jointly by the selected proposer and the Agency. Final approval by the Alameda County Waste Management Authority and execution of a signed contract shall take place before the study start date.

### Contract and Payments

The consultant will enter into a written agreement for services with the Alameda County Waste Management Authority.

Upon successful execution of a written agreement for services, the consultant will be paid upon regular submission of an invoice and acceptable project progress reports in an agreed to format.

### **Action by StopWaste**

This Request for Proposals does not commit or obligate StopWaste to fund any proposals received. The Agency reserves the right to cancel this Request for Proposals in whole or in part at its sole discretion, and/or to accept or reject any proposal received based upon the review of proposals. Each proposer understands in submitting a proposal that the decision of the Agency will be final. In addition, proposals submitted become the property of StopWaste and will not be returned. StopWaste reserves the right to request additional clarifying information and to meet with any or all proposers at its discretion.