



Material characterizations (waste audits)



Overview

Achieving your company’s waste diversion and sustainability goals requires data. You need to know the contents of your waste streams to properly develop programs and strategies to achieve your goals. Engaging in a “material characterization study”, or waste audit, can help you identify and quantify items in your waste stream, assess stakeholder adherence to existing programs, and determine opportunities for improving material management systems; both upstream and downstream.

Rubicon takes pride in working with our customers to properly design and conduct actionable material characterizations. Our team of experts will work with your company to determine the information needed and provide precise data, while making specific recommendations for steps you can take to launch an effective sustainable materials management, or zero waste, program. Rubicon’s mission is to end waste, and our promise to our customers is that we want you to have the most efficient waste and recycling program possible.

Our offerings

The intent of a material characterization, or waste audit, is to determine the composition of a selected waste stream at a defined point in time. For this process to be informative and actionable, it is crucial that the material identification, sorting criteria, weighing process, photo journaling, irregularities capture, and reporting procedures be purposefully designed and closely followed.

Rubicon utilizes a material characterization methodology consisting of three predefined levels:

- 1 **Site assessment:** Facility walk-through intended to identify material types, collection processes, immediate service needs, and other identifiable program gaps or regulatory concerns.
- 2 **Material characterization:** Waste audit to quantify the types, volumes, and weights of material types being generated by a business at a specific location to create an accurate representation of your waste stream and current diversion efforts.
- 3 **Materials mapping:** Custom audit approach intended to track waste types and upstream points-of-generation (buildings, departments, etc.).

Our promise to you

Upon completion of a material characterization, Rubicon will provide you with a written Material Characterization Findings Report. This report will summarize the key findings and outcomes of the study, identify observed data trends, note any irregularities or anomalies, and provide targeted “next step” recommendations.

Unlike a traditional audit report, Rubicon takes an additional step and makes direct, specific recommendations targeting a customer’s specific objectives needed and materials observed. Rubicon can also assist in developing an action plan to gain alignment throughout your organization.

Resulting actions can include:

- Cost savings through right-sizing and right-streaming initiatives
- Optimization of service levels
- Introduction of new recycling programs
- Identification of opportunities to reduce, reuse, or convert upstream products
- Recommendations to increase employee adherence to programs
- Reporting needed to achieve zero waste or other certifications



Customer Story

In May 2021, a controlled environment agriculture company came to Rubicon for help becoming more sustainable. The company, which operates multiple greenhouses around the United States, wanted to divert as much of their discarded organics and other materials as possible from landfills.

The Rubicon team performed a greenhouse site visit and learned about each of their waste streams: trash, recycling, and organics. Our findings indicated that most of their waste was organic material. Although the company had a local farmer take as much of the material as possible for reuse, he could not take it all, so waste remained.

In October 2021, we tapped one of the hauler partners from our nationwide network of 8,000+ vendors to assist. Atlas Organics began picking up spent growing medium and vegetative material from this greenhouse to turn into compost products. Atlas sells large volumes of finished compost to local organizations of all sizes for horticulture and agriculture, where it has many benefits including improving soil health, combatting the effects of drought, and preventing erosion.

Since the program's start in November 2021, over 2,500 tons of organics have been sent to compost. The greenhouse currently has a 92% diversion rate!



Ready to get started with a materials characterization project?

Visit rubicon.com/get-started or contact your account representative today.

We look forward to working with you and continuing our mission to end waste.