

# zero|waste

## Principles and Practices

Presented in partnership between the Solid Waste Association of North America and the California Resource Recovery Association



Presented by



**kessler consulting inc.**  
innovative waste solutions

# COURSE OVERVIEW

This course is intended to provide a source of professional development for individuals seeking to gain an understanding of Zero Waste principles and practices. The intent is not to define Zero Waste, but to give professionals the tools needed to develop a plan toward achieving Zero Waste. At the conclusion of this course participants will be able to discuss the methods of and approaches to Zero Waste, including program planning, budgeting, contracting, and public involvement.

## Lesson 1. Introduction to Zero Waste

Lays the groundwork for all other lessons in the course. The concept of Zero Waste is introduced and outlines the various aspects of a Zero Waste management system. One of the most important aspects is developing an understanding of the meaning of Zero Waste and how it can be applied in your organization.

### Lesson Objectives:

- Describe the components of a Zero Waste System.
- Describe the roles and responsibilities of a Zero Waste Program Manager.

## Lesson 2. What is in the waste stream and who is generating it?

Addresses the importance of understanding what is in your waste stream and where it is generated. Only after this critical information is known, can Zero Waste management plans be made.

### Lesson Objectives:

- Explain why you need to understand what is in your waste stream to effectively manage it.
- Identify various generator sectors.
- Discuss how the types and quantities of discarded materials have evolved over time.
- Evaluate waste composition data to understand what materials could be prevented, reduced, reused, recycled, or composted.

## Lesson 3. Upstream, Midstream, Downstream

Addresses the importance of pre-consumer decisions, consumer behaviors, and policies on the waste stream.

### Lesson Objectives:

- Describe the flow of materials over their entire life cycle.
- Describe impacts of Product Design on resource use.
- Define how Policies and Regulations impact our use of materials.

## Lesson 4. Collections Infrastructure

Addresses the collection of recovered materials generated from residential and commercial properties.

### Lesson Objectives:

- Prepare a Zero Waste collection system.
- Describe options for residential Zero Waste collection systems.
- Describe options for commercial Zero Waste management systems.

## Lesson 5. Processing Technology Options

Addresses the processing of recovered materials, which is an essential step between collection and marketing. Potential marketing options were also discussed.

### Lesson Objectives:

- Evaluate a low tech processing facility.
- Evaluate a high tech material recovery facility (MRF).
- Evaluate markets for recovered materials.

## Lesson 6. Managing the Organics Stream

Discusses the role organic waste plays in a Zero Waste management plan and discusses how to manage these wastes.

### Lesson Objectives:

- Understand the nature of the organic materials stream (as distinct from the inorganic materials stream)
- Understand the need to reduce food scraps
- Identify a number of zero waste program ideas for organic materials
- Understand the types of technologies available to process organic materials

## Lesson 7. Challenging Venues & Materials

Addresses challenging and hard to manage materials and wastes generated away from home or businesses and at special events and venues. This is an essential element to Zero Waste.

### Lesson Objectives:

- Describe Zero Waste management of challenging material types.
- Set up and run a Zero Waste event.
- Set up a venue to achieve Zero Waste

## Lesson 8. Bringing About Change

Addresses how to communicate your Zero Waste goals in a way that is accepted by all of the members of your community which is essential to achieving Zero Waste.

### Lesson Objectives:

- Inform their target audience about their program.
- Select an effective tool of behavior change for a Zero Waste program.
- Design a behavior change program.

## Lesson 9. Financing and Funding the Zero Waste System

Addresses how to identify sources of funding for Zero Waste programs. Once these sources of funding are identified, contracts and partnerships will be needed to carry these programs to fruition.

### Lesson Objectives:

- Describe how program design impacts program costs.
- Describe the options for program funding.
- Assess program funding alternatives.

## Lesson 10. Contracting & Partnerships

Builds upon the information contained in previous lessons regarding strategies to develop a Zero Waste system and provides information on how to incorporate those strategies into contracts and partnerships. This lesson includes information to help participants understand how to develop and maintain successful partnerships that will help to achieve high diversion goals.

### Lesson Objectives:

- Describe pre-procurement preparations.
- Identify the different types of procurements.
- Develop contracts that assist in achieving Zero Waste goals.
- Assess mechanisms for achieving high diversion.
- Explain contract management.

### Case Studies

Case studies are embedded throughout the course guide. They give examples of some of the best practices being applied in communities across North America.