

# Dutchess County Waste Reduction & Diversion Feasibility Study



# Project Tasks

**TASK 1:**  
PROJECT  
MANAGEMENT

**Task 2:**  
Waste Composition &  
Gap Analysis

**Task 3:**  
Menu of Waste Diversion  
Options

**Task 4:**  
Waste Reduction,  
Environmental Impact  
Cost & Stakeholders by  
Initiative

**Task 5:**  
Final Report

# TASK 1

## PROJECT MANAGEMENT

Completed

### Subtasks

➤ **Project Kickoff Meeting**

Confirm scope, expectations, and deliverables. This phase established project management framework, and basic data organization

➤ **Work Plan Development**

Outlining major tasks, timeline benchmarks, and deliverables.

➤ **Data Coordination Protocol**

RRS outlined basic protocol for data coordination, including the identification of source materials, data request lists, and points of contact for validation.

➤ **Project Coordination**

Established calendar for monthly virtual check-in calls with Dutchess County to report progress, surface emerging needs, and ensure alignment with project objectives.

# Task 2

## Waste Composition & Gap Analysis

Completed

### Subtasks:

- **Disposal characterization:** Analyze waste composition and final destination of waste stream.
  
- **Recovery estimation:** Calculate total additional recycling tonnage. Will include special materials (e.g. HHW, scrap tires).
  
- **Gap analysis:** Identify data and waste system infrastructure gaps that limit diversion and/or increase costs.
  - Collection
  - Education & Outreach
  - Processing & Facilities
  - End Markets
  - Supporting Policies
  - Funding/Public-Private Partnerships

# Material Flows and Waste Composition

Dutchess County does not own or operate waste facilities; therefore, the planning unit relies on data submitted by licensed solid waste haulers, private and municipally owned transfer stations, and private businesses. Information is gathered from annual municipal solid waste reports and voluntarily shared by businesses in the county.

## MSW Disposal Summary

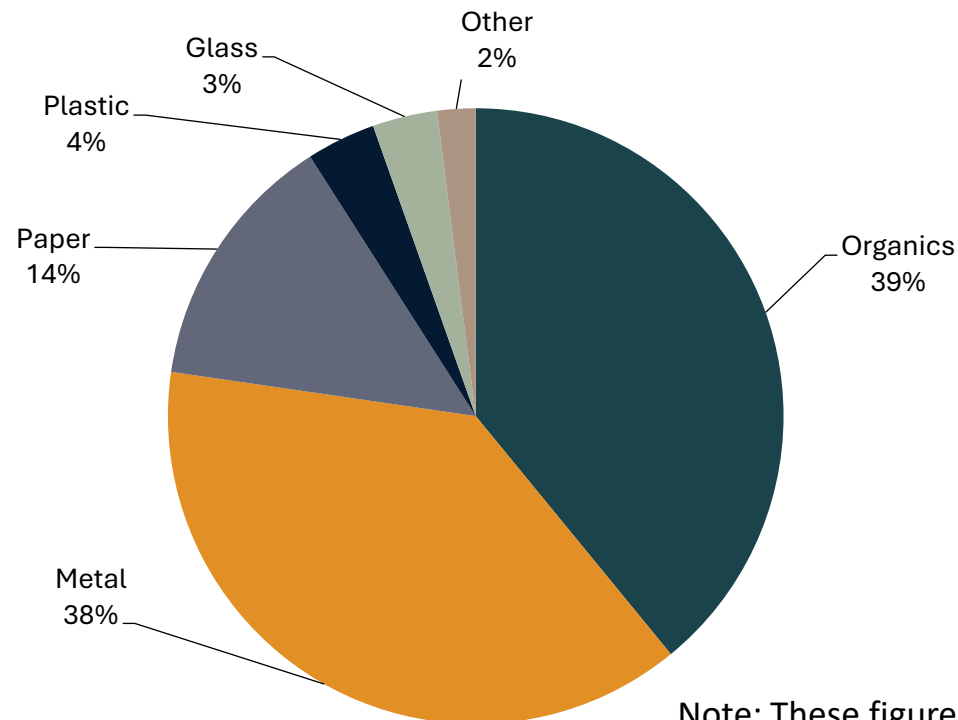
YEAR	% DISPOSED OUTSIDE OF COUNTY	% DISPOSED IN COUNTY
2021	30%	70%
*2022	48%	52%
*2023	40%	60%
2024	29%	71%

\*The Dutchess County Resource Recovery Agency underwent significant maintenance resulting in a lower processing percentage in 2022 and 2023.

# Current Waste Composition

Understanding the composition of the MSW stream is essential for identifying opportunities to prevent, recover, and better manage materials. Dutchess County curbside recycling collection operates as single-stream collection, therefore, to reflect current conditions, this report utilizes data gathered by the Stony Brook University Waste Data & Analysis Center (WDAC). The results of these waste sorts were averaged and applied to the average of Dutchess County's MSW tonnages from 2020 to 2024.

The waste characterization sort data does not distinguish between residential and commercial sources.



Note: These figures represent the percentages of each material with respect to the total diverted recycling data.

# The Potential Recovery Within Each Specific Category

The table below represents materials found in the current disposed stream and shows what could be diverted if appropriate programs and infrastructure were available. It does not include materials already captured through recycling or organics programs. Diversion estimates reflect theoretical potential; actual recovery is constrained by access, contamination, and market demand.

Specific Category	Potential Percentage Increase
Paper	11%
Plastic	9%
Glass	4%
Metal	4%
Organics	22%
Household Hazardous Waste (HHW)	1%
Other	12%

Note: These figures represent the potential recovery rate for the specific material only; ie. of the 100% of paper in Dutchess County, we currently recycle X%. There is potential to recover an additional 11 %, bringing the potential recovery to X + 11% out of 100%.

# Gap Analysis

## Collection

### **Gaps & Opportunities**

- Expand the impact and reach of the current home composting program.
- Explore pathways to expand food waste collection offerings to residents and businesses through private partnerships.
- Explore pathways to expand drop-off offerings for hard-to-recycle materials.

## Processing

### **Gaps & Opportunities**

- Additional organics processing capacity is needed to support an increase in food waste collection within the county.
- Insufficient local disposal capacity to process waste generated, resulting in 27% of waste generated being disposed of at landfills 100-300 miles away. Additional local disposal capacity and/or a decrease in waste discarded in Dutchess County is needed.

# Gap Analysis cont'd

## End-Markets

### **Gaps & Opportunities**

- Opportunity to support further development of end markets for compost and hard-to-recycle materials.

## Supporting Policies

### **Gaps & Opportunities**

- Unit-based pricing (waste services pricing based on the volume of waste disposed by the household) is a potential opportunity but would require significant effort given the current open-market hauler system.
- A C&D deconstruction and/or recycling ordinance could help to increase C&D recycling rates (tracked separately from MSW).

# Gap Analysis cont'd

## Education & Outreach

### **Gaps & Opportunities**

- Explore partnerships with private haulers to strengthen education and outreach and reduce contamination in the recycling stream.
- Increase education and outreach efforts available to businesses and multifamily residents, potentially including waste composition audits, educational flyers and programming and industry specific guidance on material management.

## Funding & Partnerships

### **Gaps & Opportunities**

- Consistent funding at the town level for programs outside transfer station activities is unknown.
- The Division of Solid Waste is largely dependent on County general funds to sustain its operations. This reliance can make long-term funding less predictable, as Solid Waste services may be deprioritized relative to other County services during annual budgeting processes.

# Task 3

## Menu of Waste Diversion Options and Alternative Technologies Overview

(Expected late spring 2026)

Current as of 4/8/2026

### Subtasks:

- Develop menu of waste diversion strategies: covering recycling, organics, construction and demolition, special waste, outreach & education, and governance, and advocacy.
- Provide overview: For each strategy provide examples of where it has been implemented, and what the outcomes were.
- Provide evaluation of strategies: Evaluate each strategy based on performance in other US communities, literature review and data from equipment and/or service providers.
- Feasible Strategies: Strategies selected will be assumed to be feasible for implementation within 10 years or less.

# Task 4

Waste Reduction,  
Environmental Impact  
Cost & Stakeholders by  
Initiative

(Expected Summer 2026)

Current as of 4/8/2026

## Subtasks:

- Estimate/detail the following for each strategy:
  - Waste reduction impact
  - Climate emissions reduction impact
  - Capital cost range
  - Annual operating costs
  - Whether new or modified legislation is needed.
  
- Identify stakeholders and partners associated with each initiative.
  
- Present established ranges for each category of strategies.

# Task 5

Final report

(Expected Fall 2026)

## Subtasks:

- Hold a virtual public presentation with RRS. The presentation will explain the findings and methodology.
- Release a draft of the full report for public viewing.
- Open public comment period.
- Deliver the final report to the Dutchess County Legislature inclusive of comments received.