

HOW WASTE DIVERSION CAN HELP PROMOTE LANDFILL SITING AND LONGEVITY



MH LEAGUE OF WOMEN VOTERS AND AAUW

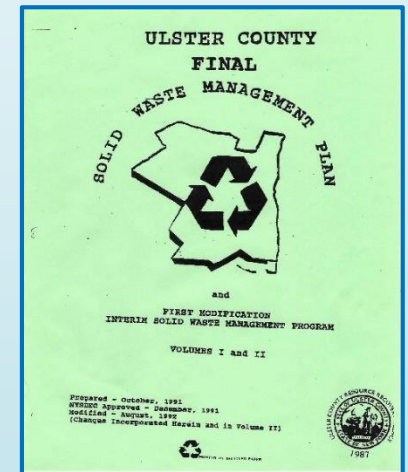
MARCH 10, 2022

County Executive



Background

- Pre-RRA: ~ 20 unlined municipal landfills, backyard burn barrels, early recycling efforts
- **1986: Ulster County Resource Recovery Agency** formed by State Law as a Public Authority for the comprehensive management of Ulster County's Solid Waste
- **NYS Solid Waste Management Act 1988**
 - **Source Separation and Segregation of Recyclable or Reusable Materials:** Local Municipalities are required to define mandatory recyclables for which economic markets exist by Sept. 1, 199 (and ongoingly).
- **1991: Ulster County Solid Waste Plan:** As UCRRA helped to close local landfills, it attempted unsuccessfully to site a county-wide landfill. New Paltz and Town of Ulster were last to close in 1997. Ulster County passed the Solid Waste Management Law of 1991.
- **1992: Ulster County Solid Waste Agreement with UCRRA** expires 3/31/25.
- **Dec. 2012: Ulster County Flow Control** was passed and instituted. No net service fees have been required since flow control was implemented.
- The UCRRA's current Local Solid Waste Management Plan was adopted in Feb. 2020, with the understanding that a Zero Waste Implementation Plan would be developed and adopted within 2 years.



Ulster County Zero Waste Laws, Policy & Climate Emergency Declaration

“Trifecta”

- Ulster County Food Service Waste Reduction Act – Styrofoam Ban (2014)
- Ulster County BYO Bag Law (plastic bag ban) – went into effect July 15, 2019. NYS Bag Waste Reduction Law goes into effect in March, 2020.
- Ulster County Straw & Other Single-Use Law (2019) -- Customer must request straw or other single use items.
- Ulster County Declares A Climate Emergency (Res. 409, Oct. 2019), as did Gov. Cuomo in Dec. 2019
- Established A Policy That Ulster County Shall Be A Zero Waste Community ([Res. 451, Nov. 2019](#))
- Ulster County Food Waste Prevention & Recovery Act (Dec. 2019; amended 2021) – NYS Law; both went into effect in Jan. 2022.



SUSTAINABLE
ULSTER COUNTY
— COUNTY EXECUTIVE MICHAEL P. HEIN —
GREENER BY DESIGN

A SUMMARY OF ULSTER COUNTY'S
**FOOD SERVICE WASTE
REDUCTION ACT**
LOCAL LAW NUMBER 12 OF 2014

A green, textured, recycled-style cup with a white recycling symbol in the center. The cup has a mesh-like pattern on its sides and a solid green base and rim.

Regulating the Use of Polystyrene Foam
Disposable Food Service Ware By Food
Service Establishments in Ulster County

Ulster County Local Law No. 5 of 2019

Comparison of Ulster County's Law Mandating Food Scrap Diversion By Large Generators to the NY State Law

| | <u>NY State</u> | <u>Ulster County</u> |
|--|---|--|
| Amount Generated | 2.0 or more tons per week from 2022 on | 2.0 or more tpw in July 2020 1.0 – 1.9 tpw in Jan. 2021 0.75 – 0.9 tpw in Jan. 2022 0.50 – 0.7 tpw in Jan. 2023 |
| Distance from Composting Facility or Digester | 25 miles | Includes all of Ulster County -- regardless of distance |
| Exemptions | Exempts Schools and Health Care Facilities | Includes Schools and Health Care Facilities <i>(they are <u>not</u> exempt)</i> |
| Pre- vs. Post-Consumer | Doesn't distinguish | Business or institution can request a waiver for post-consumer food scraps |
| Education & Enforcement | NYS DEC and Ag & Markets | UC DoE with UCRRA |

DRAWDOWN Climate Solutions – Materials Management

Reduced Food Waste (#3): Uneaten food squanders resources and generates 8% of GHG emissions. We can greatly reduce waste as food moves from farm to fork.



Household Recycling (#55): Paper, plastic, glass, and metal comprise more than 50% of the waste stream.

Industrial Recycling (#56): At least half of waste is industrial and commercial. Emissions are reduced when new products are made from recovered materials; also addresses resource scarcity.

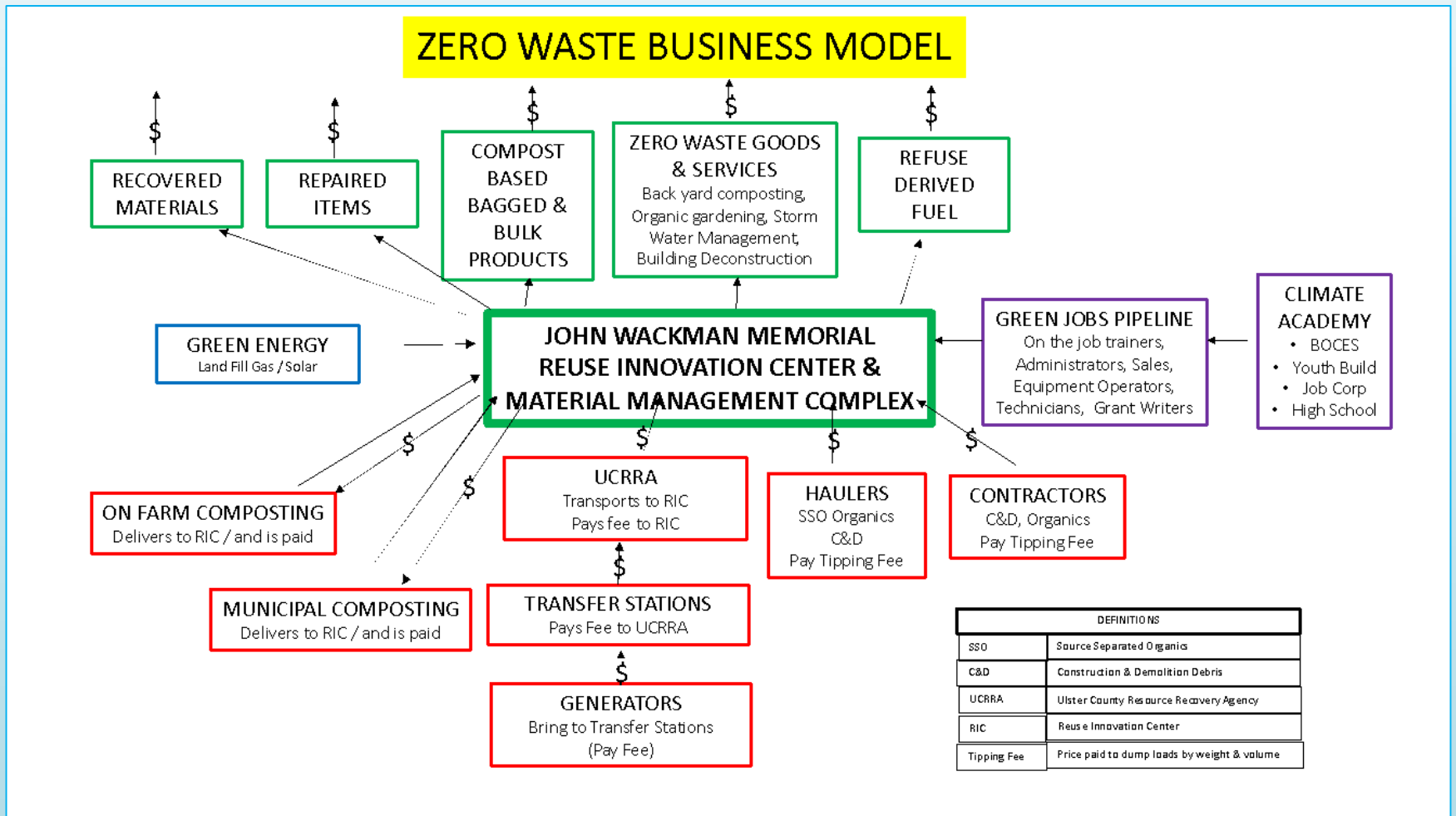
Bioplastics (#47): The big challenge: separation from other waste and appropriate processing.



Refrigerant Management (#1): The primary chemical refrigerant, HFCs, is a potent greenhouse gas. Avoid emissions by managing leaks and by ultimately phasing out the use of HFCs with less harmful alternatives. Capturing the refrigerant from 5 home AC units is the equivalent of taking 1 car off the road for a year.



John Wackman Reuse Innovation Center and Material Management Complex



John Wackman Resource Recovery Center

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John Wackman Resource Recovery Center

For Ulster County Zero Waste Implementation Plan (ZWIP) Working Group

Resource Recovery Centers/Radical Reuse Centers/Circular Craft Centers

Finger Lakes ReUse, Ithaca, NY (est. 2008)

Enhancing community, economy and environment through ReUse.

Operates stores at 4 locations: Ithaca ReUse Center; Triphammer ReUse Center; ReUse Community Hardware; ReUse Caboose & Training Center.

ReSET Job Training Program: Job training program

eCenter: Service, repair and sell a wide range of electronics and an “unbelievable” volume of stand-alone parts

Deconstruction: reuse material instead of conventional demolition

Fixers Collective: enthusiasts fix stuff every Saturday

ReUse Materials Access Program (ReMAP): helping community members in financial crises and in need of materials by granting store credit via referrals from partnered human service agencies.

Pickup (free) & Delivery (for fee) service

Acceptable Donations: <https://ithacareuse.org/donategoods/>

Member: Reuse Alliance <http://reusealliance.org/> and Tompkins County ReUse Trail <http://reusetrail.com/> “Think Second First”



ReSOURCE VT: Burlington, Barre, Williston, Hyde Park (est. 1991)

We empower individuals and strengthen communities through our job training and poverty relief programs rooted in a foundation of environmental stewardship.

Retail Stores in 4 locations: gently used household goods & building materials

Essential Goods: provide essential household items to low-income families and families in crisis

Computers: repair, upgrades, sales & service

Large Appliances: repair, sales & in-home service

Training programs: Youth Build, Career Path, apprenticeships & more

The Flying Stage: community performance space at the Burlington store

St Vincent de Paul Society, Oregon (est. 1953)

We assist the poor and those in need of consolation, seeking out and utilizing every resource.

Retail stores in 15 locations

Reclaim, repair and prepare for reuse: household goods, electronics, furniture, clothing & textiles, appliances, mattresses, C&D, polystyrene foam, cars, trucks, RVs and campers.

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Quadruple bottom line: materials recovery; provide goods & services to the community; provide jobs & job training; generate revenue to fund other projects.

Landfill diversion: 22,000 tons in 2018

Urban Ore Ecopark, Berkeley, CA (est. 1980): *To End the Age of Waste.*

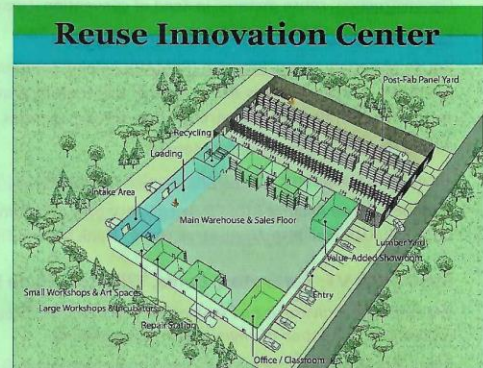
A 3-acre warehouse that accepts donations in virtually every category (i.e., 4,000 doors) and prepares them for re-sale. Located next to the tipping area for the City of Berkeley. 8,000 tons salvaged in 2019.

Second Chance, Inc., Baltimore, MD (est. 2001): *Retrain – Reclaim – Renew*

An innovative social enterprise. “We deconstruct buildings and homes, salvage usable materials, and make those and other donated items available to the public for reuse at our more than 200,000 square foot retail center. With the revenue generated, we provide job training and workforce development for those with various employment obstacles in the Baltimore region.

Reuse Innovation Center (in development)

Project being developed by the Building Deconstruction Institute (Bellingham WA) for the Virgin Islands, with funding from the EPA. These are business cooperatives that focus on reuse and focus on helping small businesses while helping the community. (click to enlarge image)



Circular Craft Centers, the Netherlands (est. 2019)

Brings together non-profit and for-profit reuse and thrift operations in one location. Work spaces and retail stores side by side generate innovation and create a destination for homeowners and shoppers.

The World's First Recycling Mall, Sweden (est. 2015)

ReTuna Återbruksgalleria is the world's first recycling mall, revolutionizing shopping in a climate-smart way. Old items are given new life through repair and upcycling. Everything sold is recycled or reused or has been organically or sustainably produced.

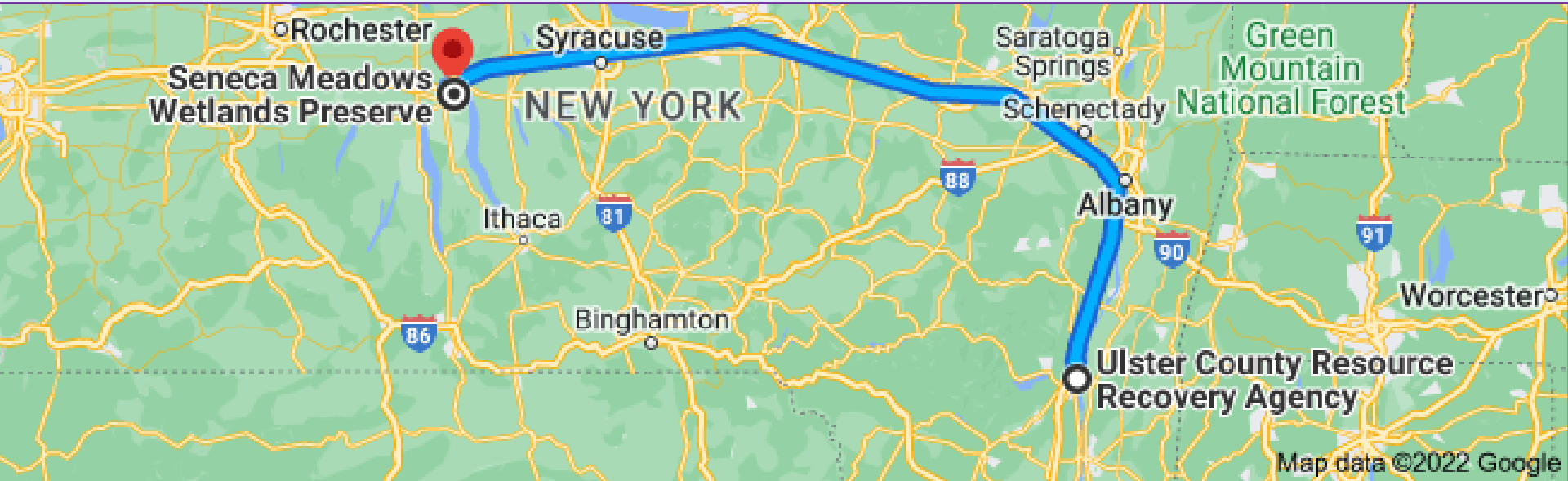
The mall is 70 miles west of Stockholm. It is easy for visitors to sort materials they are discarding into the containers and then drop off reusable toys, furniture, clothes, decorative items, and electronic devices in the mall's depot, called “Return.” In the depot, staff from AMA (Eskilstuna Municipality's resource unit for activity, motivation and work) perform an initial culling of what is usable and what is not. The items are then distributed to the recycling shops in the mall. The shop staff then perform a second culling, where they choose what they want to repair, fix up, convert, refine – and ultimately sell. In this way, the materials are given new life.

How Waste Diversion Can Help with Landfill Siting, Cost and Climate Change



- **Waste Diversion reduces odors, toxicity and traffic.**
 - Diverting food and other organics reduces odors
 - C&D reuse and recycling also reduces odors and saves landfill space. Sheetrock causes hydrogen sulfide, which is the “rotten egg” smell
 - Other bulky items can be repaired or disassembled and recycled, including mattress and furniture
- **Food and organic waste composting also reduces methane, which results from anaerobic digestion in landfills.**
- **A Countywide or Regional Landfill can become an asset:** Saves transportation costs and keeps tipping fees in County to pay for bonds and manage operations. **Exporting waste to Seneca Meadow, which is currently 467 miles each way, costs UCRRA \$8 to 9 million/year.**
- For materials that cannot currently be recycled, consider creating **monofills** (as in Virgin Islands) to store materials until better options become available.
- Delaware practices **landfill recycling** with 20 cells that rotate, are exhumed and reused. Also, there may be a possibility to reuse former landfill sites.
- Provide **fair Host Community Benefit Plan** to the local community.

**UCRRA, 999 Flatbush Ave., Kingston to
Seneca Meadows, 1786 Saloman Rd., Waterloo, NY**
3 hr 30 min. or 233.7 mi. x 2 = 7 hrs. or 467.4 miles R/T via I-90 W



Cost: \$8 to \$9 million per year in transportation and tipping fees.

GHG: 10,180 grams of CO₂/gallon of diesel = 10.180×10^{-3} or 10,180 metric tons
CO₂/gallon of diesel x 6.5 gallons per mile = **6,170 MT of CO₂ per trip!**

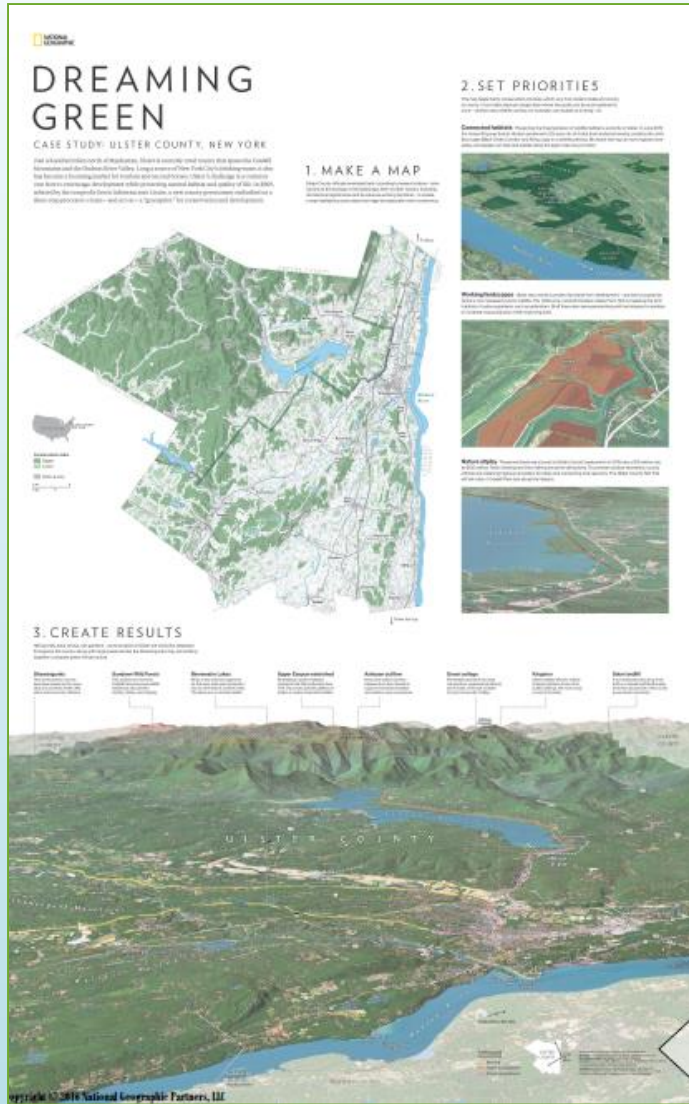
We can and must do better!

Ulster County Zero Carbon Initiatives

- Ulster County Carbon Footprint Reduction Program
- Ulster County Government Operations Greenhouse Gas Inventory (2012)
- Green Fleet Policy & Electric Vehicle Charging Stations
- Ulster County Climate Smart Communities Certification Bronze Sept. 2016; Silver 2018
- National Geographic Recognition -- Dec. 2016
- Green Infrastructure and Green Stormwater Management
- Food Service Waste Reduction and Commercial Composting
- Solar at Ulster Landfill, Hwy Garage and other locations; purchase renewable energy credits



Thank you!



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