

RETHINK WASTE

IN MADISON COUNTY

SOLID WASTE TECHNICAL COMMITTEE

Research and Recommendations Presentation

11 September 2025

Technical Committee Charge

- Evaluate Option of Increasing Landfill Waste to make overall Operations more Cost Effective and ensure long-term viability
- Research and Identify Options for PFAS and related substances
- Evaluate Gas to Usable Energy Cost Effective Options
- Research Possible Expansion of the Solar Array at the Landfill



MISSION:

Provide stakeholder input and knowledge in the long-term viability of the Madison County Waste Management programs for the benefit of residents, employees and the community.



MADISON COUNTY SOLID WASTE MANAGEMENT TECHNICAL COMMITTEE

MEMBERS:

MADISONCOUNTYRECYCLES.NY.GOV

County Members:

- Jim Cunningham, Chairman, Board of Supervisors
- Eve Ann Shwartz, Technical Committee Chairwoman, Town of Hamilton Supervisor
- Greg Gelewski, Director Madison County Department of Solid Waste

Community Members:

- Randy Hershey, P.E., Retired
- Robert Kukenberger, P.E., Retired
- John Pumillio, CEM, Lead Green Associate, Colgate University
- Richard Williams, P.E., Retired



TECHNICAL COMMITTEE RECOMMENDATIONS:



#1 – Volume and Efficiencies

Increase the annual waste acceptance by 50 to 100% as soon as reasonable and practical



#2 – Permit Needs

Modify current operating permit to accept up to 125,000 tons per year



#3 – Regional Partnerships

Develop plans to accept approximately 100,000 tons per year through intermunicipal agreements with neighboring counties and agencies



#4 – Disaster and Emergency Preparedness

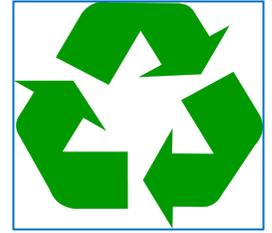
Develop plans to accept large quantity of debris over a short time period in case of natural disasters



#5- Public Engagement

Engage the public with clear communications and transparency regarding the above recommendations

HOW WE ARRIVED WITH THESE CONCLUSIONS:



How will we can scale up and preserver the future

VALIDATED CORNERSTONE REPORT WHICH INDICATED:

- Current waste flow does not support labor and equipment efficiency
- Costs to comply with new and pending regulations for PFAS, leachate, gas, liners and waste reduction are overwhelming for smaller landfill operations

EVALUATED CURRENT OPERATIONS:

- Current operations are efficient as can be for this size landfill
- Did not find opportunities for substantial cost savings at existing waste flow
- Recognize the community's desire to maintain programs

GOALS & FUTURE:

- County's goal is to maintain existing transfer stations
- County's goal is to continue and improve current recycling program
- Considered the impacts of future organic waste recycling and Composting

BENEFITS OF RECOMMENDATION:



Enables County to maintain existing recycling program, transfer stations, and other community programs

Potential increase in quantity and quality of landfill gas to enable gas utilization as an energy source

ADDITIONAL BENEFITS OF RECOMMENDATION:



Ability to balance the budget and fund reserves for future requirements; capital equipment and closure

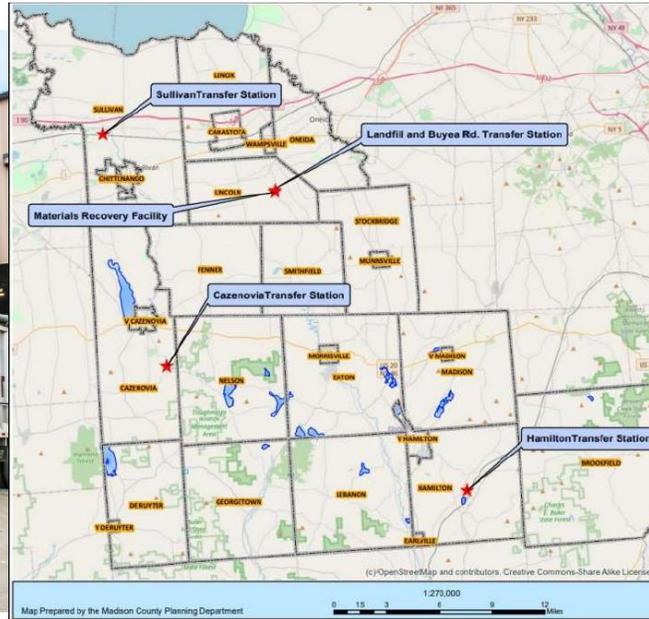
Financial ability and size to comply with leachate pretreatment requirements particularly for PFAS

Increased host community benefits – Town of Lincoln and Town of Lincoln Fire Department

POTENTIAL CHALLENGES



1 - Waste Hauling



2 - Community and Environmental Impacts



3 - Landfill Life Expectancy



CHALLENGE : #1- WASTE HAULING



Recent in-County changes have been driven by market competition and efficiency

- Larger trucks have meant fewer loads – recent changes to 6.5 tons per truck load from 3 tons per truck load (e.g. Syracuse Hauling purchase of HR Refuse)
- Reduction of truck traffic – 12 fewer truck visits to landfill per day
- Competition and automation will continue to drive this scenario



Potential waste hauling from outside of Madison County

- Haulers use much larger, live bottom, trailers handling 22-36 Tons per load
- Average truck traffic projected at 6 to 10 trucks per day

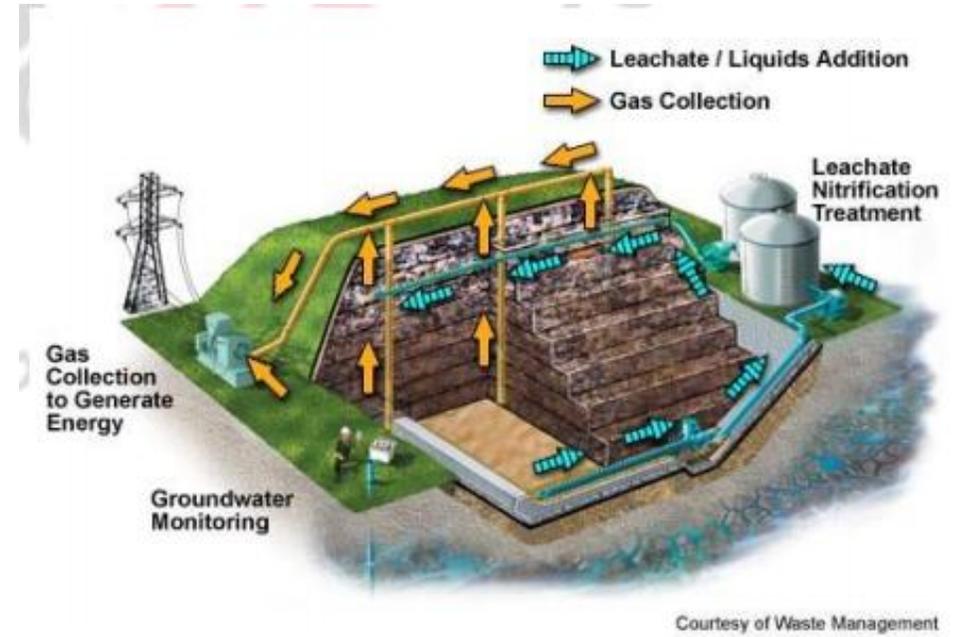
No net increase in truck traffic is projected when compared to its peak in 2022 with the addition of 50,000 tons per year from outside of Madison County

CHALLENGE #2 – MITIGATING COMMUNITY AND ENVIRONMENTAL IMPACTS



- Larger landfills have a wider range of options for daily cover that can reduce neighborhood impacts

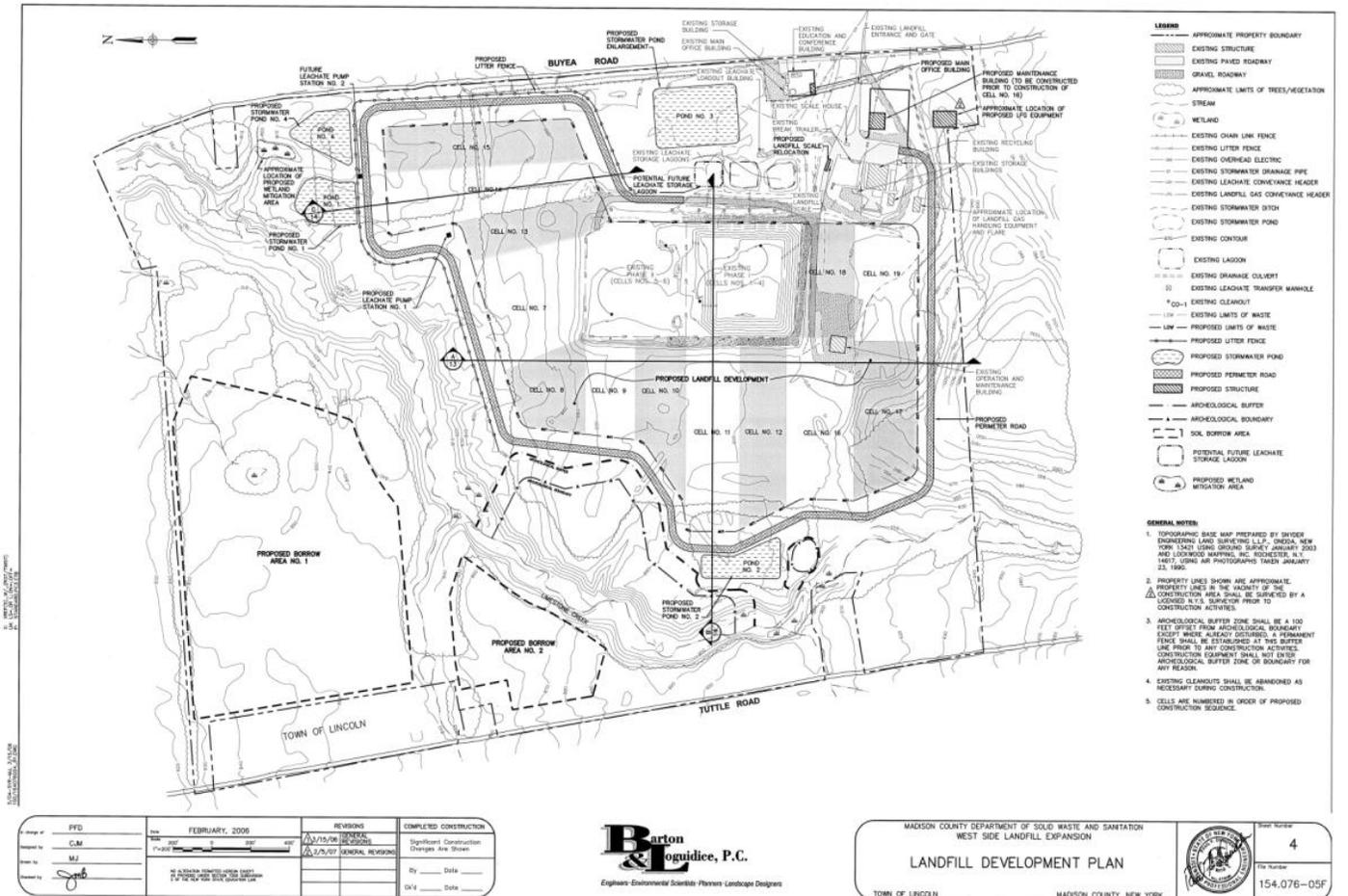
- Operational changes can be made with increased revenue to improve gas collection and potentially reduce fugitive gas emissions



- Beneficial use of gas will offset energy consumption elsewhere
- Leachate treatment will reduce environmental impacts related to forever chemicals (PFAS/PFOA)

CHALLENGE #3 - LIFE OF THE MADISON COUNTY LANDFILL

- 2007 Permit & Projections: 100 year development plan to 2107
 - Based on 60,000 TPY, more biosolids, low shear wastes, alternate daily cover
- Current projection based on Annual Survey/Fill Progression
 - 120 Years remaining at current waste flow to 2145
- Projection with increase waste flow to 100,000 TPY
 - 72 years remaining to 2097
 - 2097 compared to 2107 – 10 years less life of landfill than projected in 2007



ADDITIONAL RECOMMENDATIONS:

EMERGING CONTAMINANTS:	PROGRAMS:	LFG OPPORTUNITIES:	COMMUNITY BENEFITS:
<ul style="list-style-type: none"> • PFAS/PFOA – Engage a consultant to lead the County through this complex issue and stay ahead of regulations 	<ul style="list-style-type: none"> • Continue with County’s recycling program, transfer stations and other County programs benefitting our community 	<ul style="list-style-type: none"> • Beneficial use of landfill gas <ul style="list-style-type: none"> • Direct fired heat exchanger or boiler for wood kiln • Direct fired heat exchanger or boiler for pottery/art kiln • Heating landfill buildings 	<ul style="list-style-type: none"> • Increase host community benefits for the Town of Lincoln and surrounding community

DISCUSSION:

-THANK YOU



ROBERT KUKENBERGER, P.E. 

Solid Waste Technical Committee

[MadisonCountyRecycles.ny.gov](https://www.MadisonCountyRecycles.ny.gov) 