



Engaging the Community

WATERVLIET ORGANIC WASTE PROGRAM

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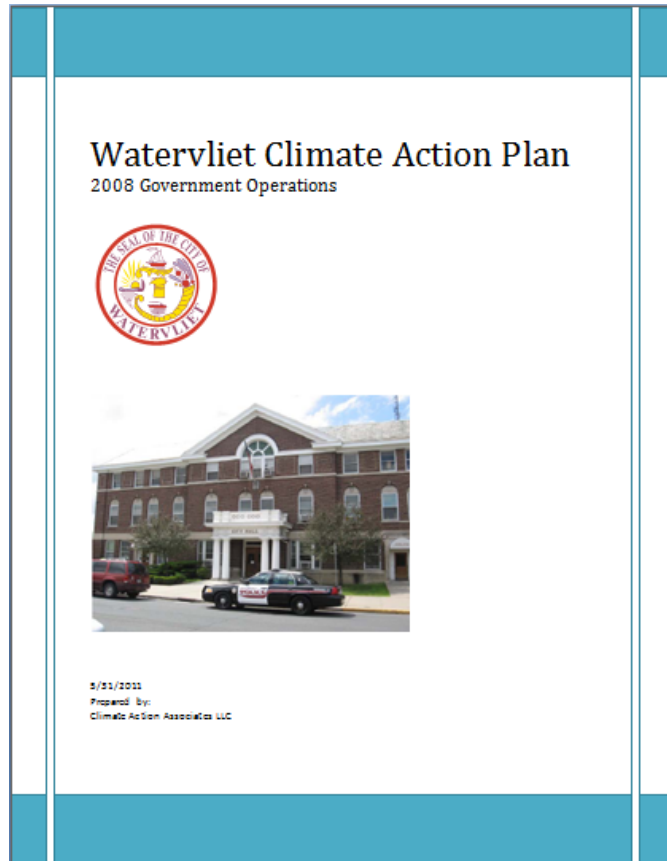
About Watervliet

- Urban community north of Albany on the Hudson River
- 2nd most dense community outside of NYC
- Population of ~10,000 in one square mile
- City owns and operates garbage collection
- Residents pay through property taxes
- First to introduce curbside recycling in the Capital Region





Watervliet Sustainability Commitment



Climate Action Plan (2008)
Reduce GHG emissions by 20%

*Specifically calls out intent to
launch organics recycling*



Watervliet Organic Waste (WOW)

Goals

- Reduce waste to landfills and save city money on tipping fees
- Reduce GHG emissions as part of the City's Climate Action Plan
- Prepare for a future when organics recycling is mandated by regulation



Strategies

- Introduce curbside organics pickup and recycling to residents
 - Start as a pilot with 50 households, hope to scale
- Engage businesses, institutions, and the Watervliet School District
- Compost collections within the city
- Pilot a compact anaerobic digester at DPW to generate power



WOW Kit, Easy as 1-2-3



1. Put compostable bag in inside bin
2. Fill bag with organic waste
3. Remove bag, tie and place in outside bin
4. Outside bin collected bi-weekly



Composting in the City

Residential Separation



Municipal Pick Up



Yield Compost

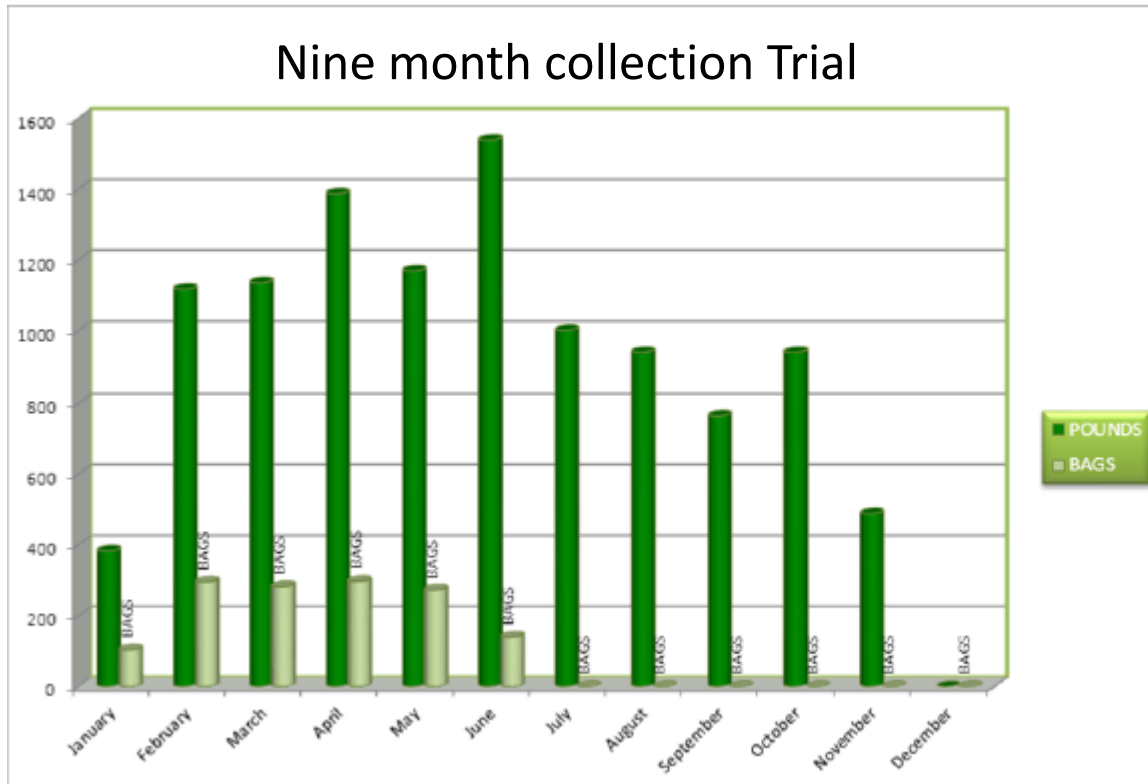


Mix With Other Organics

All operations are run by city staff



Trial Household Collection Data



WEEKLY COLLECTION AMOUNT

MONTH	POUNDS	BAGS
January	383	103
February	1117	296
March	1135	283
April	1387	298
May	1169	273
June	1539	140
July	1001	0
August	939	0
September	765	0
October	939	0
November	489	0
December	0	0
GRAND TOTALS	10863	1393

12 lbs./week
per household



Engaging the Community

Residents

- Direct appeal by Mayor and members of the Sustainability Working Group for volunteers.
- Email to over 1000 members of city's e-listserv.
- 50 families volunteered in less than one week.

Businesses / institutions

- Personal outreach to businesses and institutions.
- Received letters of support including from Price Chopper, Watervliet Arsenal, Watervliet School District, among others.
- Institutional support was critical to obtain funding.



Important: Get the Word Out



Watervliet's organic waste pilot program goes through trial run today

WATERVLIIET — With a unique organic waste program currently in a trial stage, the city of Watervliet is expecting to decrease the amount of actual garbage sent to the local landfill which will help save the environment and save the city money.

The first curbside pickup of the pilot Watervliet Organic Waste Program (WOW) is set for today. About 35 residents, mostly city employees, are participating in the service that the city would like to include a total of 50 people in the trial program to work out any issues or bugs before eventually offering it to the residents citywide. In general reviews, said Watervliet Mayor Mike Manning.

According to a recent survey of the participating residents, they are getting much less actual garbage

out than before since most items are either going in the recycling bin or in the organic waste bin.

"It's working out well. And it's easier and easier for them we actually expected," said Manning, who is also participating in the trial that is expected to last about 10 weeks.

Because there is less garbage, the city expects to pay less in landfill tipping fees. About 25 percent in current landfill costs, or \$100,000 annually, will likely be saved, said Manning.

Though, the program also comes with an initial price of at least \$30 per household for an initial bin and outdoor bin for the organic waste. The program uses a newly-developed composting and digestion system using an anaerobic digester. The digested

compost is recycled and methane gas is captured that could be used for fuel or heating.

Organic waste items include meat food items like vegetables or fruits.

"This is a great opportunity and effort to make our city greener," said Manning. "Not only are we saving space in our landfill, but we are putting our waste to better use which will go back into the community."

It is unclear how the WOW curbside supplies would be paid for since the city is looking into possible grant funding or partnerships. The city's Public Works Department is in collaboration with the Cornell Cooperative Extension.

"They are very interested in our results," said City General Manager Mark Lawson noting that city

officials believe this is the first program of its kind in the state.

The trial program was funded using a \$6,000 grant that was matched by the city.

Watervliet is working to secure grant funding to pay

Watervliet, New York SMALL-SCALE RESIDENTIAL FOOD COMPOSTING

The city of Watervliet completed a 6-month pilot program in August that involved collecting source separated organics from 50 residences and taking them to a pilot-scale anaerobic digester set up at the Albany County Sewer District's South Plant. As part of its Watervliet Organic Waste (WOW) program, participating households were given a kitchen compostable bucket, an outside bin and compostable bags and were asked to divert food scraps only from the rest of their waste stream. The organics were picked up biweekly. The pilot diverted 6,730 pounds of food waste from the landfill. The city has decided to continue collecting organics from the 50 residences and compost them using passive aeration at its recently built facility. A campaign is under way to recruit more participants to the program, with the initial goal of signing up an additional 50/quarter. Watervliet will also compost residents' yard trimmings in the spring and summer, leaves in the fall and Christmas trees in the winter.

"We used to shred these materials and haul them away, but now they are used in the composting mix," says city Mayor Mike Manning. Piles are turned with a front-end loader. Finished compost will be used in municipal parks and distributed to participating residents. Currently, Watervliet pays a \$5/ton landfill tipping fee for residential waste and, according to the pilot project's report, would save more than \$28,000 annually if 75 percent of its residences participated in the source separation program. Manning notes that the city is still interested in pursuing development of an anaerobic digester, and is exploring options.





Important: Have a Can Do Attitude

- Don't be afraid to make mistakes
- Rely on local champions to build enthusiasm
- Start with volunteers and make it easy
 - Provide kits and supplies
 - Design composting to accept as much as possible, including bones, paper, and dairy
 - Be available for troubleshooting and questions
- Be honest with volunteers about challenges, ask for feedback



Important: Be Flexible and Proactive

Constantly adapt and change to solve problems:

- Premature “composting” in collection bins – smell. Increase summertime collection.
- Messy totes – TOTE Swapping rather than bag removal.
- Not convenient to get supplies – deliver liners with clean bins when requested.
- Compostable bags, NOT composting. Purchased a grinder to speed things up.



Important: Rely on Partners / Friends



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How to scale a program citywide?

Profile of households **

“Green Committed” – compost in the backyard and support the idea (5-10%)

“Responsible Citizens”- take the initiative to be responsible when offered the opportunity (25%)

“Everyday Rule Followers”- will participate/pay attention only when required and made easy (50-60%)

“The Problem Types” (10-15%) – you know the types

** VERY unofficial observations by the City

Watervliet School District (WSD)



- Provided a commitment to trial test collection
- Went on field trip to Bethlehem schools to learn
- Decided ultimately not to start cafeteria collections immediately
 - Decided to start in a more measured way
 - First start a school garden to cultivate a garden club
 - Then explore composting cafeteria food scraps for use in the garden later

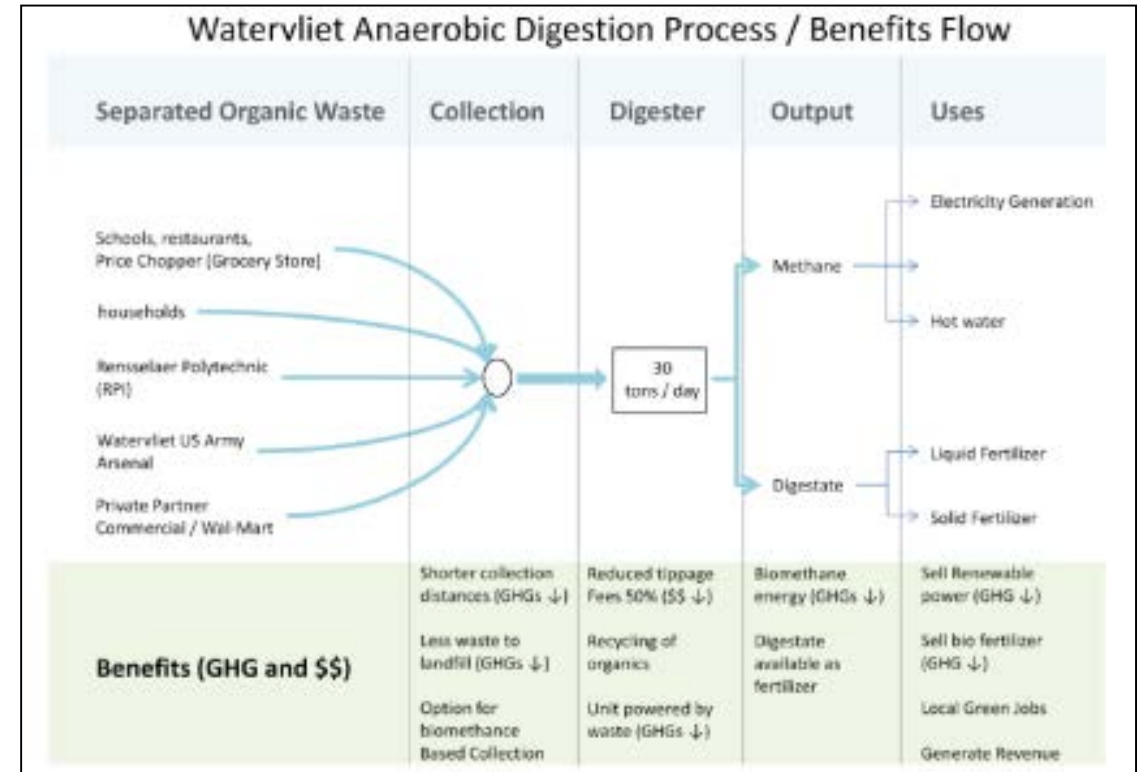


Collection Station at Bethlehem High School



Pilot Digestion - NYSERDA

- NYSERDA Funded Pilot
- Public / Private partnership with SKD LLC
- Compact digester for tight urban environments
- Cost effective, less than \$20,000 in parts
- Intent is demonstrate and then commercial technology
- Design complete, construction summer 2017.





Questions

THANK YOU!

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