

# CRA ANNUAL REPORT



2023



PREPARED BY  
THE CITY OF TROY  
RECYCLING DEPARTMENT

# Comprehensive Recycling Analysis – 2023 Report

## Introduction

As in the prior reporting years, this Comprehensive Recycling Analysis (CRA) report (as required by 6 NYCRR 360.11) (d) will serve as an overview of the City of Troy initiatives (and their respective results) in the areas of resource management, recycling, diversion, community engagement, and solid waste handling. This report is for the calendar year of 2023. It is our continued intention to ensure that this information is shared in an inclusive and accessible manner, being mindful of the variety of learning and comprehension styles of reviewers and residents alike.

It is the City's plan to annually begin this report by recognizing the importance of land acknowledgement, starting with gratitude for this 11-mile-long City, located along the Eastern side of the mighty Hudson River. The aim is to honor the tapestry of life that has been woven along this majestic river, near roosting spots of eagles and their eaglets each year. Long before this became Troy, this area was known as the Cahohatatea by the indigenous Haudenosaunee People. Reiterating from the 2021 report, The Great Law of the Haudenosaunee (Iroquois) Nation, stating that the impact of decisions must be considered seven generations into the future. It is with this in mind that the City of Troy tackles the complicated issues surrounding solid waste, recycling, and resource management.

This document is meant to be an interactive and "living" document for the use of the community and City, not merely to fulfill reporting requirements for New York State. It will continue to be a roadmap by which the City's decisions are to be made, as well as an opportunity for the City to gauge the effectiveness of our objectives and intentions. The updated timeline, reflecting the accomplishments for 2023 associated with these objectives is included in City's submission (Annex 1).

The City of Troy aspires to be a leader (or early adopter) in the resource management industry, while collaborating with others across the county, state and nation. This report will summarize how the City worked toward these goals in 2023 and plans to continue to do so in 2024 and beyond. The City of Troy recognizes that it is both a privilege and duty to care for this corner of the planet as each one of us is a part of an irreplaceable planet with her awesome regenerative cycles.

As noted in prior CRA reports, the primary areas of focus are aligned with the parameters delineated by the following seven objectives:

1. Establish a recycling center
2. Establish organics/composting facility
3. Develop re-use center
4. Establish clear collection procedures and participation levels
5. Education and outreach
6. Increase data collection and reporting
7. Create deconstruction permit and education/outreach plan

## Objective 1: Establish a recycling center

The Alamo/TRMF was officially purchased back from the Troy Land Development Corporation (TLDC) in July of 2023. The Recycling Department hopes to revisit discussions on revitalizing the facility with a physical structure/workspace for City employees. Additionally, the facility is in need of resurfacing.

## Objective 2: Establish organics/composting facility

In September 2021, the City of Troy entered a cooperative agreement for food scrap diversion. The City applied for the opportunity in summer of 2021 and was approved to begin related activities in fall of 2021. This cooperative agreement was awarded by the United States Department of Agriculture (USDA) and National Resources Conservation Service (NRCS). The agreement was for a pilot program over two years; it was executed in three phases to gradually increase residential curbside food scrap diversion within the pre-approved budget. The City used local food scrap hauler FoodScraps360 to collect and transport food scraps and other accepted materials. FoodScraps360 had an existing arrangement with the Town of Bethlehem, where they brought the materials to be composted at the Town's composting facility.

### Features of the program:

- No cost to participating households; monthly subscriptions and materials/supplies were covered with grant funding and the City of Troy's match
- Three phases
  - First phase, six months: 75 households
  - Second phase, six months: add 50 households for total of 125 households
  - Third phase, 11 months: add 125 households for total of 250 households
- Curbside collection in a five-gallon bucket with BPI-certified compostable liners (one bucket per household; an additional could be requested but was not encouraged)
- Program participants could opt-in for one 20-pound bag of finished compost for free, annually; any additional would be a cost to the participant
- Participating households can track their diverted weights and other metrics in their customer portal (the vendor used the software StopSuite)
- Monthly e-newsletters (with option to be mailed a hard copy) addressing food waste reduction, gleaning, food scrap diversion and related topics



**Figure 1:** a five-gallon bucket from the curbside food scrap diversion pilot, "From the Ground Up."

### Program successes:

- High resident interest with additional households consistently on the waitlist
- Majority of feedback was positive on ease of use and program benefits
- Provided food scrap diversion data in its own category rather than it being wrapped up with general residential household waste
- In winter of 2023 the Recycling Department was asked to speak on a nationwide call hosted by the USDA to present their successes and challenges with the pilot

### Program challenges:

- Program limitations (budget, participation cap)
- Logistics of compost deliveries

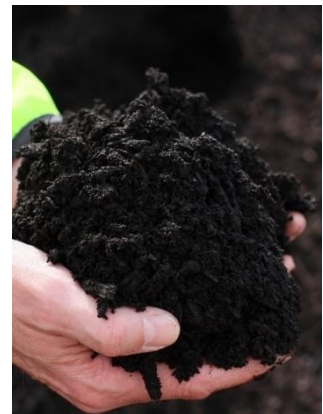
- Phase change onboarding and curbside service route planning
- Two-bucket subscriptions
- Participants under-utilization of the “skip service” feature in the portal

The curbside food scrap diversion pilot program concluded in late September of 2023. In total, 50.54 tons of food scraps and accepted materials were collected. More information is included under the data collection and reporting section of this report.

Since the pilot’s conclusion, the Recycling Department has been strategizing to address food scrap diversion on a citywide level. Between the results of the curbside pilot program, and other municipalities’ approach to divert food scraps, the Recycling Department shifted its focus from a curbside model that had its materials processed out-of-house to a model that kept finished compost within City limits. The Recycling Department applied for two grant opportunities to financially support the implementation of a citywide food scrap diversion program.

The first grant opportunity was the Environmental Protection Agency’s Solid Waste Infrastructure for Recycling program (EPA SWIFR). At this point in time, the City still viewed a curbside model as the most viable; it builds on existing separation habits and “meets residents where they are.” The model also prioritized processing food scraps within City limits as there are areas with high erosion rates that could benefit from finished compost. The City was not awarded funding through this opportunity.

The second grant opportunity was through the USDA and NRCS, as they’ve recently expanded their Community Composting and Food Waste Reduction (CCFWR) program to accept expansion projects from previously awarded entities. The Recycling Department’s application detailed a drop-off model with 30 Big Belly containers stationed throughout the City with 24/7 access. The Recycling Department felt that a drop-off model better utilized grant and City funds. They had learned that curbside options are expensive to implement through a private hauler. This model also sought to keep finished compost within City. The City of Troy was not selected for funding through this opportunity, however, the USDA did provide an in-depth review of the application with feedback.



*Figure 2: finished compost from the Town of Bethlehem’s composting facility.*

With the completion of the curbside composting pilot program, the City wanted to ensure a pathway for residents to continue diverting their food scraps. At the Troy Resource Management Facility, or as residents call it, “the Alamo,” there are four 32-gallon barrels for food scraps. Residents can access the facility on Tuesdays and Thursdays during set hours to drop off their materials to be composted. Materials are hauled by FoodScraps360 to the Town of Bethlehem’s composting facility.

### Objective 3: Develop re-use center

The Recycling Coordinator started conversations regarding opportunities for reuse with the previous administration in 2023. The idea of developing a re-use center in the City remains an objective. However, meeting this objective will involve a learning curve for a new recycling coordinator, be resource intensive and require more information to determine the feasibility. The City is participating in regional discussions about creating a ReUse Center in the Capital District. With 2024’s new administration, conversations have been revisited to determine if the arrangement would be viable. No decision has been made on whether to move forward with this objective.



## Objective 4: Establish clear collection procedures and participation levels

### Citywide Trash Barrel Program

[Home](#) > News Flash

City News

Posted on: April 17, 2023

#### Troy Launches "Clean Streets" Trash Barrel Program Today

**TROY, NY** – The City of Troy announced today that residents will begin receiving new trash barrels free of charge through the city's "Clean Streets" initiative. The high-quality barrels will be delivered through April 29th and will provide years of service that will reduce problems with litter and vermin. The program will also reduce the risk of labor-related injury to the city workforce, and was made possible in part with funding through the American Rescue Plan (ARPA), signed into law by President Joe Biden on March 11, 2021.

"Providing a clean, safe and healthful environment is one of my top priorities as mayor, and it was important to me that the Clean Streets program works toward this goal in an equitable way," said **City of Troy Mayor Wm. Patrick Madden**. "The program is delivering barrels to all neighborhoods, including neighborhoods previously underserved by the city, because universal access to high-quality, lidded barrels is a first step in addressing litter problems in every Troy and Lansingburgh neighborhood."



**Figure 3: the City of Troy's announcement for the citywide trash barrel program, "Clean Streets."**

The City rolled out a citywide trash barrel program to all residents with municipal collection service. This program addressed several long-standing priorities: reducing wind-blown litter, reducing pest and vermin access, and making sure residents had standardized containers. This program was greatly supported by American Rescue Plan Act (ARPA) funding. The original roll-out was planned to be a right-sized container approach where residents could choose the appropriate sized container out of three sizes (96-gallon, 64-gallon, and 32-gallon). Due to budgetary restraints and logistical challenges, the implemented program was modified; two sizes (96-gallon or 32-gallon) were offered to residents with no price differential.

Regarding logistics, the majority of the roll-out was successful. There were pre-existing City-issued barrels for around 3,000 residents that needed to be accounted for in the final drop-off list. Errors in the list led to delayed container swap outs after the vendor's pre-scheduled drop-off days. In spite of this, the City received many positive comments from residents on the initiative. Even into 2024, residents have provided feedback that it has helped "clean the streets."

### Intermunicipal Household Hazardous Waste Disposal Event Series

Regarding special collection events, the City of Troy once again partnered with Rensselaer County and the Town of Bethlehem for an inter-municipal household hazardous waste disposal event series. In 2023 there were four events: one in Troy in May, one in Schodack in July, one in Brunswick in September, and the last in Bethlehem in October.

Troy event:

- 209 total attendees, 114 from Troy
- 26% total attrition rate

Schodack event:

- 160 total attendees, 15 from Troy
- 18% total attrition rate

Brunswick event:

- 296 total attendees, 43 from Troy
- 17% total attrition rate

Bethlehem event:

- 254 total attendees, 6 from Troy
- 14% total attrition rate



**Figure 4: a social media post promoting the City of Troy's hosted household hazardous waste disposal event.**

Event attrition is once again an area the City is looking to improve. There are several potential reasons the levels were high: time slot emails, event access, and differences in municipal solid waste programs. To help control traffic for the event, the City assigns time slots via email (or by phone if requested). The Recycling Department asks residents to double check spam and junk folders and to cancel in advance if they know they are unable to attend. Another potential reason is the increased accessibility/convenience. For Troy residents, household hazardous waste disposal events have been a regularity since 2019. Rensselaer County municipalities have not had the same opportunity for hosting these events due to insufficient staff support and financial barriers; as a result, their attrition levels are significantly lower. The last potential reason for high attrition levels is the difference in each municipality's solid waste collection program. The City of Troy has no price differential for trash barrel sizes. While residents are encouraged to divert as many materials as possible, there is not a financial incentive for residents to do so. For the program partners, the majority have private haulers which use tiered pricing for their containers.

Looking ahead, the 2024 memorandum of agreement between the three entities (City of Troy, Town of Bethlehem, and Rensselaer County) is complete and approved, continuing the partnership for its third year.

An additional special collection event for paint recycling was discussed at length during 2023. During the household hazardous waste event series, the City of Troy wanted to ensure that any paint collected at the HHW events was being kept in New York State if possible. This is to ensure a lower carbon footprint from transportation of the materials, as well as offering them the opportunity to be recycled instead of used for waste to energy. Green Sheen, a local paint recycler under PaintCare, is looking to process the materials in-house. To do so, they need to collect a higher volume of the materials at special collection events. The Recycling Coordinator reached out to Rensselaer County to accomplish multiple objectives at once: host a paint recycling collection event and, hopefully, help increase the volume Green Sheen is collecting so the materials can be recycled locally.

There were no paint recycling events scheduled in 2023.

However, a household hazardous waste collection day was conducted at Hudson Valley Community College in April 2024 that involved GreenSheen New York and the collection of old paint. According to GreenSheen, 500-600 vehicles participated, 77 Cubic Yard/ Gaylord Boxes were collected, 59,534 lbs of Water/ Acrylic/ latex based paint and 5,697 oil based paint was collected. A similar event is scheduled for April 2025.

### **Electronics Recycling Event**

The last special collection event for 2023 was for electronics. In 2022, the City was unable to offer one as the majority of electronics recycling vendors were unable to support municipal collection events. The Recycling Coordinator continued searching throughout 2022 into 2023 and succeeded mid-year. This offered Troy residents the opportunity to recycle their electronics and appliances responsibly, safely, and conveniently. 6.64 tons of electronics were collected.

### **Other Diversion Data**

The Troy Resource Management Facility has bays for the following materials streams: leaves and yard materials; street sweepings; food scraps; tires; metals; and electronics. Here are the 2023 totals for each category are as follows:

- Leaves and yard materials: 663 tons
- Street sweepings (screened and diverted): 127.1 tons
- Food scraps: 53 tons
- Tires: 32 tons
- Metals: 17 tons
- Electronics: 13.5 tons

The only materials that residents can bring to the facility during set hours are leaves/yard materials and food scraps. The remaining streams in this list are outputs from City operations/programs.

The textiles diversion program continued to be popular in 2023. 32 tons were diverted from the landfill from six locations:

- Lansingburgh Boys and Girls Club: 2.85 tons
- Troy School 2: 3.02 tons
- Troy Resource Management Facility: 1.71 tons
- Troy Fire Station - #3: 11 tons
- Troy Fire Station - #5: 2.6 tons
- Rensselaer Polytechnic Institute (RPI): 6.7 tons

## Objective 5: Education and outreach

### **Recycling Club at Troy School 2**

The City has been applying for grants through Russell Sage College's Rubin Community Fellows Program since 2021. The program seeks to connect community fellows with community organizations to address economic, organizational, social and managerial problems. 2023 marked the City's second year collaborating with Troy School 2's Recycling Club (also known as Public School 2 or PS2) as part of the fellows program. Objectives include textile recycling education and general materials management education.

In 2023, the City Recycling Coordinator and Recycling Specialist collaborated with their community fellow from Rensselaer Polytechnic Institute (RPI) and liaison at Troy School 2 to design a curriculum which focused on experiential learning. Public School 2's student population does not have regular opportunities to experience activities outside City limits, so the Recycling Coordinator and Specialist wanted to continue prioritizing that through the execution of this grant program. Experiential learning opportunities created the foundation for students' 2024 goals: to divert food scraps to be composted, and the second to discontinue using Styrofoam trays.

The first field trip the City Recycling Department scheduled was to Engelke Farms in Brunswick, NY. The farm owners brought students around the property to learn about horticulture and agriculture as their way of living. Students were able to see plants in the greenhouse, meet farm animals (some of which the students had never seen in-person before) and ask many questions about the process of farming. The field trip finished with a celebratory hay wagon ride around the planting fields.

The next field trip was to the county waste facility, Sierra Processing, in Albany, NY. This facility sorts single stream recycling commodities. Students were able to see sorting equipment working in real time, see finished bales of materials, and step onto a truck scale.



**Figure 5:** *Troy School 2 students pose in safety gear before their tour of Sierra Processing.*



**Figure 6:** *Troy School students pose outside of Sierra Processing in Albany.*

The RPI community fellow is a specialist in community composting, so the Recycling Department asked him to lead a session with students in their outdoor classroom. He dove into how to turn a backyard compost pile, the elements of composting, and how decomposers help the process. Students were particularly invested in having hands-on experiences with some worms they had discovered in the garden beds. The lesson on composting also led into a conversation on using finished compost. There are several garden beds in the outdoor classroom with seasonal vegetables and fruits that would greatly benefit from the nutrient-rich compost.

Building on the previous field trip's content, the last one for 2023 was a visit to the Town of Bethlehem's composting facility. This field trip highlighted the difference between a small-scale, backyard compost pile and something at a commercial level (using windrows). While the weather was chilly, students showed real resilience and interest. One of the piles had food scraps which special attention was directed toward. A 2024 goal of the students is to initiate a fifth-grade food scrap diversion pilot program.

### Rensselaer Polytechnic Institute's End of Year Cleanout – Take 3

The City of Troy reached back out to Rensselaer Polytechnic Institute (RPI) in 2023 for an end of year cleanout. This initiative is to divert usable bulky items and other dorm necessities for reuse. was the second attempt to successfully divert items generated this college campus. The City partnered with their contact at RPI his class for student involvement, input, and engagement in the process; Capital Region Furniture Bank and the college's environmental and site services department supported logistics transportation. Unfortunately, there was a last-minute warehouse with the furniture bank (the crux of the operation), and no bulky were able to be diverted. Students involved in the project pivoted encouraging their peers to divert school supplies instead. The 2024 year cleanout is taking previous years' lessons into consideration in logistics planning to capture the bulky items stream.

### Involvement in Statewide Association, NYSAR<sup>3</sup>

The Recycling Coordinator and Specialist once again participated in statewide NYSAR<sup>3</sup> (NYS Association of Reduction, Reuse and Recycling) committees. Both



**Figure 7:** *the 2023 End of Year Cleanout flyer that RPI student collaborators created.*

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individuals continued participating in the monthly MEDI+ (Membership, Equity, Diversity, Inclusion and Young and Emerging Professionals) committee. The Recycling Specialist also participated in the Young and Emerging Professionals (YEP) committee, which implemented a guest speaker series to highlight professionals' experiences within the industry. As well, the Recycling Specialist and Coordinator jointly planned a young professional centered session at NYSAR<sup>3</sup>'s annual fall conference, called "The Elephant in the Room." The session offered young, emerging, and experienced professionals an opportunity to discuss how to advocate and make space for individuals new to the professional workforce and industry.

### Children's Composting Workshop Series

The City of Troy, Troy Public Library's Lansingburgh branch, and a local composter partnered once again for a children's composting workshop event series. The workshops were built around exploration and experiential learning. Workshops started off with an introduction to home vermicomposting and the role of decomposers; a transition into looking at finished compost under a microscope (in the hopes of spotting a nematode); examples of compostable items; and it finished with the "Dirt Made My Lunch" song. The first workshop needed to be cancelled due to unforeseen circumstances. The second workshop had lower attendance than preferred. The City would like to partner with the Lansingburgh branch of the Troy Public Library again for other programs in the future to compare their attendance rate.

### Social Media and The City Website

The Recycling Specialist overhauled the recycling department's Facebook page in 2023. Several new campaigns were developed, and the frequency of posts was increased to daily. New campaigns aimed to address frequently asked questions and recycling myths, and general education. There was a 5.7% increase in reach, a 99.5% increase in content reactions, and a 7% increase in link clicks.



**Figure 8:** A Facebook post to promote year-round opportunities to recycle paint.



**Figure 9:** A Facebook campaign highlighting the Recycling Guide, a database with reduction, reuse, and recycling information.



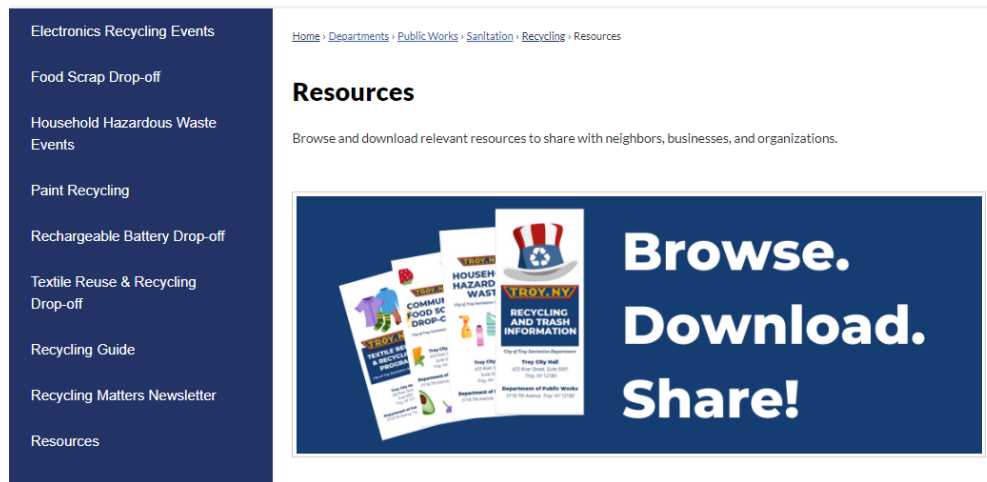
**Figure 10:** A Facebook campaign describing tanglers.



**Figure 11:** A Facebook campaign showcasing accepted items for the City's textiles reuse and recycling program.

In addition to the social media campaigns, the Recycling Specialist also designed a "resources" page on the City website. Resources include educational graphics, diversion program pamphlets, and other materials. Any Troy-based entities are welcome to download and use the information on the page. There are digital viewing and

printable copies of all files.



**Figure 12:** A snippet of the City’s “resources” web page.

### **Other Troy School Collaborations**

The Recycling Department formed several new connections with Troy-based schools – Emma Willard, Troy Community School, and Hudson Valley Community College’s/QUESTAR’s STEM High School. The City also connected with a liaison at Troy City School District.

Emma Willard called the City of Troy with questions about recycling, and it led to a partnership on a schoolwide audit of recycling practices. The Recycling Coordinator and Specialist visited Emma Willard’s Environmental Club several times to discuss their findings regarding recycling practices at the school and provide recommendations to increase the recycling rate. The partnership has continued into 2024 with the hope of expanding to other education and diversion opportunities.

The Troy Community School was interested in learning about how to incorporate sustainability, environmental stewardship and materials management into their curriculum. The Recycling Coordinator and Specialist reviewed the faculty’s existing materials and spoke at length about different materials streams. Also, the Recycling Department provided several other ideas for lessons including field trips. The department hopes to collaborate again.

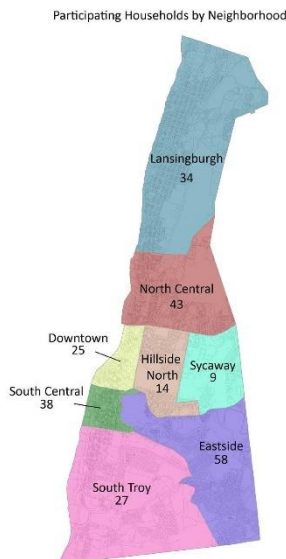
The STEM High School invited the Recycling Department to speak and provide feedback on students’ projects which addressed real-world problems on their campus. Students would identify specific areas of improvement for reduction, reuse, and/or recycling on their campus and do research to propose potential solutions. The Recycling Department highlighted several of its municipal programs to get students thinking about their own context. Students were very engaged discussing potential projects, and the Recycling Department came back to see their finished presentations. The City hopes to collaborate in this way again in the future.

The Recycling Department has been trying to collaborate with as many schools as possible; when a connected to a liaison for Troy City School District, the department set up a meeting to discuss potential pathways to partner. Unfortunately, no collaboration has come to pass as there are difficulties with after-school staffing within many of the public schools. The Recycling Department will continue to reach out to see if anything changes within 2024.

## Objective 6: Increase data collection and reporting

### Food Scrap Diversion Data

As mentioned earlier, the curbside food scrap diversion pilot program ended in September 2023. This was a significant accomplishment in several ways, but especially regarding data collection. Up until this point, food scraps were not a separate stream. The City could not report clear data on the amount of food scrap that was being landfilled as it was wrapped into residents' regular household garbage. With the curbside food scrap diversion pilot, there was an opportunity to capture data on this material stream. The City was fortunate to have participants from all neighborhoods, included in the graphic here.



**Figure 13:** *The number of households per neighborhood in the curbside composting program.*

#### Phase 1 (six months):

- 13.35 tons of food scraps diverted
- 4% attrition
- Survey results indicated over 50% of participants were extremely satisfied with the program

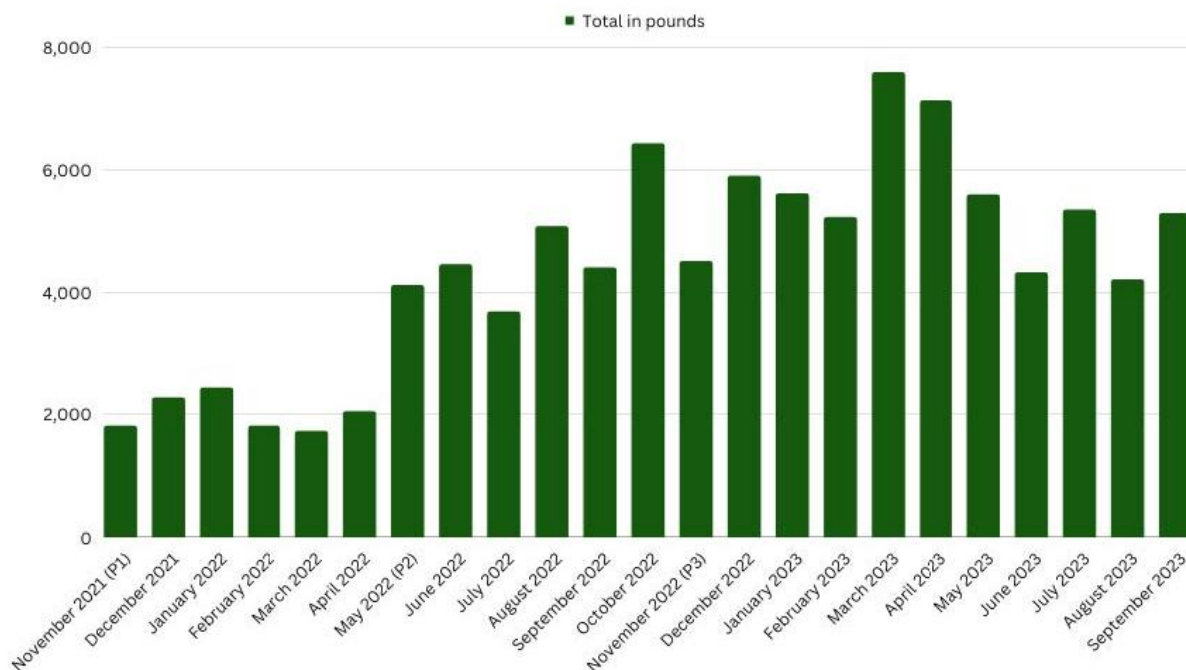
#### Phase 2 (six months):

- 8.5 tons food scraps diverted
- 7% attrition
- Survey results indicated over 60% of participants were extremely satisfied with the program

#### Phase 3 (11 months):

- 30.39 tons of food scraps diverted
- 6% attrition
- Survey results indicated over 50% of participants were extremely satisfied with the program

Included here is a monthly breakdown of food scrap weights for the duration of the pilot program.



**Figure 14:** A bar graph depicting monthly weights from the curbside food scrap diversion program.

Overall, the pilot was a successful indication of how a citywide program would fare. During its execution, the City implemented a food scrap drop-off at the Troy Resource Management Facility during open hours. This was to provide residents on the waitlist with an opportunity to divert their food scraps. The City saw incredible growth in the drop-off in 2023 -- 2.32 tons total, a 159% increase from 2022. Since the pilot's conclusion, the City has expanded the number of drop-off containers at the facility and hopes to address food waste reduction on a citywide level in the future.

### Trash Audit Data

Since 2021, the City has been interested in conducting a trash audit to better understand the composition of the City's municipal solid waste (MSW). Originally, the audit was to be in collaboration with SUNY Stonybrook, as a Professor at the college is conducting them around the state. It was determined that a partnership with them would not be feasible as the City did not have the necessary personnel to support. In 2023, the City started conversations with the Recycling Partnership, who indicated that they could provide personnel both to collect materials and sort them. In the context of the food scrap diversion objective, an audit could help determine the feasibility of a permanent citywide food waste reduction program and how much food waste could potentially be diverted from disposal. However, the City was unable to coordinate a date with the Recycling Partnership, but will try again in 2025 when it is expected that the recently vacated recycling coordinator position is filled.

### Objective 7: Create deconstruction permit and education/outreach plan

The Recycling Department continued to collaborate with CROWD (Circularity, Reuse and Zero Waste Development) in monthly Zoom meetings. The Recycling Department strongly advocated for CROWD to be the pre-conference day speaker for NYSAR<sup>3</sup>'s annual conference and succeeded. During the conference, CROWD facilitated a workshop to have participants address one of the four pillars of deconstruction: a statewide network of physical warehouses; state policy and incentives; workforce development; and a digital marketplace. CROWD scanned and saved all notes to inform future proposed legislation. Dr. Anna Kelles, Assemblymember for the 125<sup>th</sup> district, is also collaborating closely with CROWD. The City hopes to create its own deconstruction ordinance in the future based on the results of CROWD and Dr. Kelles' current work.

### **Annex 1a:** *The Comprehensive Recycling Analysis timeline, with progress up to the end of 2023* (continued on next three pages).

City of Troy Solid Waste Management Plan (2019-2028) - 10 Year Implementation Schedule					
Objectives and associated tasks	2019	2020	2021	2022	2023
<b>Recycling Programs</b>					
<u>Monitor National Recycling Situation</u>			Ongoing		
Recycling Contract			renewed		5-year extension w/CW
Annual Recycling Update	Update	Update	Update	Update	Update
<u>Textile Recycling</u>					
partner with K-12 schools to develop student liaisons			In progress	Pilot with PS2	PS2, Boys/Girls Club L'burgh
create pilot program w/colleges for textile recycling expansion				RPI	RPI: 4 bins
<u>Household Hazardous Waste</u>					
develop comprehensive RFP for HHW bidding process	complete				
set up RFP review board	complete				
Increase Annual Events	complete				
2 events per year	complete				
4 events per year			Inter-municipal partnership - complete		added Rensco to partnership
<u>Recycling/drop-off Center</u>					
PILOT - Open Alamo April - Oct.		Report	open Thursdays 9a-1p	added Tuesdays 9a-1p	
Ongoing facility upgrades (include in 5-year Capital Planning)		completed		completed	
Alamo Site Buy or Lease			Process started	Transfer expected	purchase complete 6/23
Open Drop Center (Year Round)			completed		
Expansion of hours					
<u>Additional diversion events</u>					
Electronic waste events			completed	Ongoing	
Paint-only diversion events					



<b>Education &amp; Outreach</b>				
<u>Develop systems/strategies</u>				
prioritize tasks and objectives				
Recycling Coordinator				
"Recycling Matters" (monthly online newsletter)				
Update forms (bulk pickup, annual solid waste fee) to reflect current info				
Increased Event Offerings (other types of diversion events)				
partner with schools/colleges to brainstorm opportunities				
Improved visibility of shared information				
All portions of DPW pages of city website updated/linked to ReCollect				
Website maps and links also cross-linked to ReCollect				
Develop phone-tree for DPW/DGS to reach correct personnel				
Regular neighborhood meeting visits/updates				
Partner with RPI, Sage and New Visions to create curricula and databases				
Utilize Rubin Grant to develop community outreach toolkit				
Outreach to public, private and charter schools to provide access to materials				
Do waste audit for presentation to City Council				
Do community-based waste audits				
Design and order bin stickers for recycling bins				
Host "online store" for composter and rain-barrel orders				
Design and order "food scrap" fridge magnets				
Create social media account(s)				
Develop departmental branding and collateral material				
Design and order reusable bags (5-cent bag tax revenues)				
<b>Hauler Licensing</b>				
<u>Research other county/municipal permit applications</u>				
Hauler Permit developed and legislation approved				
Notification to Haulers				
Permit stickers designed and ordered				
Permit requests from haulers				
Second request permit application completion				
Revise permit to reflect fee-uniformity				
Notify haulers of approval/send permit sticker				
Quarterly reports on hauler statuses (in violation or no)				
Assign program maintenance to account clerk				
Annual Notice/Data Requests				
<b>Organics Recovery</b>				
<u>Food Waste/ Source Separated Organics</u>				
Pilot Compost program with other municipalities/private hauler				
Stumps re-located from Alamo to alternate site				
Fully implement compost program (citywide)				
Partner with food-gleaning agencies to divert edible food				
Partner with private or non-profit entity to develop community food-service program				
<u>Yard Waste</u>				
Create separate bays for storage at Alamo				
Develop regular schedule for maintenance of areas				
Separate out leaves (no charge to city from vendor to haul out)				
Screen Material				
Open Alamo for Private Yard Waste drop-off and mulch pickup				
<u>Registered Mulch/Re-use/Transfer Facility</u>				
Permits for all functions of Alamo from DEC				
Determine viability of additional organics materials handling				

<b>Incentive Based Pricing</b>					
<u>Solid Waste Management Fees</u>		Ongoing			
Determine area for "fair share" business/multi-unit program		Research	complete		
Set pricing for fair-share and send out notification/information			complete		
Hold community meetings to inform property-owners for Q and A			complete		
Roll out fair-share program			complete		
<u>Hybrid PAYT</u>					
Research types and applicability		research	research		
Implement Hybrid PAYT				implement?	
Evaluation					report
<u>Bulk Pricing</u>					
Implement Clear Bulk Waste Pricing		complete			
Furniture Donation		Ongoing			
Report			Report		
<b>Waste Disposal</b>					
<u>Trash Disposal</u>					
New Equipment Investment		Ongoing			
Order SSR signs for trucks to properly identify when MSW trucks re-deployed					
Provide residents with larger SSR bins (16g and 22g available)					Ongoing
Provide SSR receptacles with lids for residents					
Provide uniform barrels for waste disposal to all residents with municipal pickup					completed
<u>Bulk Disposal</u>					
New Equipment Investment		Ongoing			
Integrate into specific pickup day (route-based) structure					
Access to information (pickup maps, etc)		complete			
<u>Street Sweeps Disposal</u>					
Screen and divert maximum possible for erosion prevention (PREBUO)		complete		complete	complete
<b>Enforcement Programs</b>					
<u>Litter Patrol Officer</u>		complete			
Add 2nd LPO		complete			3rd LPO added
Provide in-house work-space for LPO's at City Hall			complete		
<u>Sanitation Workers</u>		Ongoing			
Utilize contamination stickers and hang-tags for doors					
<u>Account Clerk</u>			complete		additional account clerk
Provide billing and invoicing structure for violations					
Visibility of addresses (safety and accountability)					
Research Cost of Implementation					
Implement across City					
Develop sufficient and satisfactory waste/recycling plan with zoning project applications				complete	
Require enforcement of waste/recycling plan for approved properties					
<u>Solid Waste Advisory Board (after 2019-2028 plan approval)</u>		complete			
Assist in New Plan (2029 Publication)					
Assist Recycling Coordinator with annual report to Mayor					
<b>Data Collection &amp; Evaluation</b>					
<u>Collect Missing Data</u>					
Update Plan with New Data		Ongoing (include in first year a more detailed timeline)			
Decide on and commit to platform as clearinghouse for data		complete			
Create accurate databases of various informational resources					
GIS mapping (routes, violations, recycling bins, etc.)					
Create and maintain monthly MSW and SSR data from County Waste		Ongoing			
Develop large-scale generator letter		complete			
Deploy generator letter with response requirement					
Track quantities of materials diverted from waste stream		Ongoing			
<u>Regional Approach</u>					
Research Possible Regional Options					
Join or Create a Planning Unit or materials handling authority					
<b>Flow Control</b>					
Maintain Recycling Mandates		Ongoing			
Private Sector Opportunities					
RFP for Services					
RFP for Solid Waste Services for Comparison		2x during 10-years			
Explore ReUse Partnership Opportunities					begin
<b>C&amp;D Demolition, Reuse &amp; Recovery</b>					
<b>Research Deconstruction policies, ordinances and protocol</b>				begin	continue research
Host Deconstruction Summit				complete	
Participate in regional and statewide deconstruction discussions and events				Ongoing	
Generate a Deconstruction Permit					
<u>City Deconstruction RFP</u>					
Create an RFP for deconstruction					
Issue RFP for Demolition Jobs					
<u>Business and homeowner Education</u>					
<u>Salvage Yard</u>					
public-private opportunity research					
Salvage yard Opportunity Update					
<u>Recycling Clearinghouse</u>					
Online Database of Recycling and Reuse services		Ongoing			
<b>ReUse Programs</b>					
<u>ReUse Center</u>					
Household Donation (private/non-profit) Options		Ongoing			
Research Center/Partnership Plan				Report	
Plan Update				Report	
Affiliate with existing partners and agencies				In process	
<b>Thermal Treatment Technologies</b>					
<u>No Plans</u>					
<b>Waste Reduction Programs</b>					
<u>Green Procurement</u>					
NYC DEC Green Procurement Law-current				Ongoing	

**Annex 1b: The Comprehensive Recycling Analysis timeline, with projected progress up to the end of 2028**  
(continued on next three pages).

City of Troy Solid Waste Management Plan (2024-2028) - Implementation Schedule					
Objectives and associated tasks	2024	2025	2026	2027	2028
Recycling Programs					
Monitor National Recycling Situation	Ongoing				
Recycling Contract	5-year extension w/CW				
Annual Recycling Update	Update		Update		New Plan
Textile Recycling					
partner with K-12 schools to develop student liaisons	On Hold				
create pilot program w/colleges for textile recycling expansion	No Action				
Household Hazardous Waste					
Increase Annual Events		Evaluation			
2 events per year					
4 events per year	1 event				
Recycling/drop-off Center					
PILOT - Open Alamo April - Oct.	Open				
Expansion of hours					
Additional diversion events					
Electronic waste events	Ongoing				
Paint-only diversion events	Complete	Ongoing			
Education & Outreach					
Develop systems/strategies					
prioritize tasks and objectives	Ongoing				
Recycling Coordinator	Ongoing				
"Recycling Matters" (monthly online newsletter)	Ongoing				
Increased Event Offerings (other types of diversion events)	Added paint collection				
partner with schools/colleges to brainstorm opportunities	Ongoing				
Improved visibility of shared information	Ongoing				
All portions of DPW pages of city website updated/linked to ReCollect	On Hold				
Website maps and links also cross-linked to ReCollect	Improvements and upgrades				
Regular neighborhood meeting visits/updates	Ongoing				
Outreach to public, private and charter schools to provide access to materials	Ongoing				
Do waste audit for presentation to City Council	On hold				
Do community-based waste audits	On hold				
Design and order bin stickers for recycling bins	updated and ordered				
Host "online store" for composter and rain-barrel orders	Cancelled				
Create social media account(s)	Facebook				
Develop departmental branding and collateral material	Ongoing				
Design and order reusable bags (5-cent bag tax revenues)	Quarterly orders				

<b>Hauler Licensing</b>				
<u>Research other county/municipal permit applications</u>				
<i>Second request permit application completion</i>				
<i>Quarterly reports on hauler statuses (in violation or no)</i>				
<i>Assign program maintenance to account clerk</i>				
<i>Annual Notice/Data Requests</i>				
<b>Organics Recovery</b>				
<u>Food Waste/ Source Separated Organics</u>				
<i>Fully implement compost program (citywide)</i>				
<i>Partner with food-gleaning agencies to divert edible food</i>				
<i>Partner with private or non-profit entity to develop community food-service program</i>				
<u>Yard Waste</u>				
<i>Develop regular schedule for maintenance of areas</i>				
<i>Separate out leaves (no charge to city from vendor to haul out)</i>				
<i>Screen Material</i>				
<i>Open Alamo for Private Yard Waste drop-off and mulch pickup</i>				
<u>Registered Mulch/Re-use/Transfer Facility</u>				
<i>Permits for all functions of Alamo from DEC</i>				
<b>Incentive Based Pricing</b>				
<u>Solid Waste Management Fees</u>				
<u>Hybrid PAYT</u>				
<i>Research types and applicability</i>				
<i>Implement Hybrid PAYT</i>				
<i>Evaluation</i>				
<u>Bulk Pricing</u>				
<i>Furniture Donation</i>				
<i>Report</i>				
<b>Waste Disposal</b>				
<u>Trash Disposal</u>				
<i>New Equipment Investment</i>				
<i>Order SSR signs for trucks to properly identify when MSW trucks re-deployed</i>				
<i>Provide residents with larger SSR bins (16g and 22g available)</i>				
<i>Provide SSR receptacles with lids for residents</i>				
<u>Bulk Disposal</u>				
<i>New Equipment Investment</i>				
<i>Integrate into specific pickup day (route-based) structure</i>				
<i>Access to information (pickup maps, etc)</i>				



Enforcement Programs				
Sanitation Workers				
Utilize contamination stickers and hang-tags for doors	Ongoing			
Account Clerk				
Visibility of addresses (safety and accountability)				
Research Cost of Implementation	On Hold			
Implement across City	On Hold			
Require enforcement of waste/recycling plan for approved properties				
Assist in New Plan (2029 Publication)	Pending			
Assist Recycling Coordinator with annual report to Mayor	Pending			
Data Collection & Evaluation				
Collect Missing Data	On Hold			
Update Plan with New Data	Ongoing (include in first year a more detailed timeline)			
Create accurate databases of various informational resources				
GIS mapping (routes, violations, recycling bins, etc.)	On hold			
Create and maintain monthly MSW and SSR data from County Waste	Ongoing			
Deploy generator letter with response requirement	On hold			
Track quantities of materials diverted from waste stream	Ongoing			
Regional Approach				
Research Possible Regional Options	On Hold			
Join or Create a Planning Unit or materials handling authority	On Hold			
Flow Control				
Maintain Recycling Mandates	Ongoing			
Private Sector Opportunities	On Hold			
RFP for Services	On Hold			
RFP for Solid Waste Services for Comparison	On Hold			
Explore ReUse Partnership Opportunities	On Hold			
C&D Demolition, Reuse & Recovery				
Research Deconstruction policies, ordinances and protocol				
Participate in regional and statewide deconstruction discussions and events	Ongoing			
Generate a Deconstruction Permit	On Hold			
City Deconstruction RFP				
Create an RFP for deconstruction	On Hold			
Issue RFP for Demolition Jobs	On Hold			
Business and homeowner Education				
Salvage Yard				
public-private opportunity research	On Hold			
Salvage yard Opportunity Update	On Hold			
Recycling Clearinghouse				
Online Database of Recycling and Reuse services	Ongoing			
ReUse Programs				
ReUse Center				
Household Donation (private/non-profit) Options	Ongoing			
Research Center/Partnership Plan	Report			
Plan Update	Report			
Affiliate with existing partners and agencies	In process			
Thermal Treatment Technologies				
No Plans	N/A			
Waste Reduction Programs				
Green Procurement	On Hold			
NYC DEC Green Procurement Law-current				

**Annex 2: Diverted materials summary (annual comparison).**

DIVERTED MATERIALS SUMMARY (year to year)						
		Diverted (in tons)				
		2019	2020	2021	2022	2023
Single stream recycling		1,174	1,283	1,326	1,194	1,245
Scrap metals		35	26	7	9	17
Textiles			5	19	21	28
Yard materials		1,267	273	1,103	326	663
Food scrap				0	22	53
Tires		43	23	28	21	32
Electronic waste		9	9	32	29	14
Sub-Total Annual Diversion excluding asphalt millings, brush, biosolids, sweeps		2,493	1,592	2,508	1,613	2,051
Asphalt milling		100		1,282	1,549	1,801
Brush, trunks, stumps			415	244	324	440
Biosolids		50	4,590	2,680	1,396	876
Sweeps		324		238	102	127
Sub-total, non household waste		474	5,005	4,444	3,371	3,244
Total Diversion		2,967	6,597	6,952	4,984	5,296
*Although some items have processing fees associated, there are avoided costs with these commodities being diverted						
Additional information						
1. Textile total includes new binds placed @PS2 and RPI for which they collect revenue						
2. Food scrap includes both residential pickup and materials dropped off @ bins @ Alamo						
3. E-waste includes bulk pickup as well as electronics recycling day collections						

### Annex 3: Municipal solid waste and recycling totals for 2023.

Year/Q	Month	Total MSW \$	8160 Residential \$	8170 Municipal \$	8175 Bulk \$	8175 roll-offs \$	Roll-off weights (T)	MSW WEIGHT (T)	SSR WEIGHT (T)	SSR % of MSW	NOTES
2023	January	76,430	72,079	2,651	4,700	1,727	24	1062	119	11.20%	bulk suspended
	February	60,775	57,320	2,239	1,216	1,028	14.2	844.4	96.7	11.45%	bulk suspended
	March	73,908	68,849	2,654	2,405	1,547	21.5	1026	106	10.33%	bulk suspended
1st Q		211,113	198,248	7,544	8,321	4,302	59.7	2932.4	321.7	10.99%	
	April	80,542	71,415	2,452	6,675	1,547	21.5	1,118	95.2	8.50%	college cleanouts
	May	88,173	80,672	3,537	3,964	1,785	21.8	1,225.1	117.5	9.60%	
	June	83,284	75,447	2,463	5,374	1,245	17.3	1157.2	105.9	9.15%	
2nd Q		251,999	227,534	8,452	16,013	4,577	60.6	3,500.30	318.6	9.08%	
	July	83,290	77,557	1,836	3,897	1,165	16.2	1,157.20	114.7	9.90%	
	August	93,133	85,395	2,996	4,742	1,353	18.8	1,294	79.5	6.14%	
	September	80,409	74,059	2,030	4,320	780	10.8	1,117	99	8.86%	
3rd Q		256,832	237,011	6,862	12,959	3,298	45.8	3,568.20	293.2	8.30%	
	October	81,051	75,457	2,197	3,397	1,238	17.3	1,126	101.3	9.00%	
	November	86,596	81,625	2,182	2,789	870	12.1	1157	106.1	9.17%	
	December	72,750	68,944	2,273	1,533	874	12.14	1,011	104	10.28%	
4th Q		240,397	226,026	6,652	7,719	2,982	41.54	3,294	311.4	9.48%	
ANNUAL	(\$71.97 PER TON)	960,341	888,819	29,510	45,012	15,159	207.64	13,294.00	1,244.90	9.46%	

### Annex 4: Household hazardous waste schedule of purchases.

#### HHW State Assistance Program SCHEDULE OF PURCHASES

Applicant:	City Of Troy, NY (as lead agency; with Town of Bethlehem and Rensselaer County)
Calendar year covered by request: (January-December):	2023

#### a. Contractual Expenses for HHW Collection or disposal (contractual costs)

Description of expense and vendor	Invoice/manifest number	Invoice date	Check number	Check date	Total amount	Ineligible amount	Eligible Amount
MXI, Inc. HHW Vendor (Troy hosted event)	119104	05/22/23	00099369	07/07/23	\$23,606.55	\$220.00	\$23,386.55
MXI, Inc. HHW Vendor (Rensselaer County/Schodack hosted event)	119541	7/31/23			\$18,748.00	\$1,320.00	\$17,428.00
MXI, Inc. HHW Vendor (Rensselaer County/Brunswick hosted event)	119882	10/15/23			\$26,332.50	\$960.00	\$25,372.50
MXI, Inc. HHW Vendor (Bethlehem hosted event)	120042	11/04/23	093806	12/01/23	\$23,157.34	\$1,620.00	\$21,537.34
<b>Subtotal</b>					<b>\$91,844.39</b>	<b>\$4,120.00</b>	<b>\$87,724.39</b>
Subtract costs for CESQG, farm and municipality's wastes	N/A		N/A		N/A	N/A	N/A
State grant funds (50% of eligible amount for contractual expenses)							\$43,862.19
Local match funds (50% of eligible amount for contractual expenses)							\$43,862.20
<b>Total:</b>							<b>\$87,724.39</b>

# Annex 4A: Household hazardous waste annual report.



Department of  
Environmental  
Conservation

## HOUSEHOLD HAZARDOUS WASTE COLLECTION EVENT ANNUAL REPORT

Submit the Annual Report no later than March 1, 2022.

This annual report is for the year of operation from January 01, 2021 to December 31, 2021

### SECTION 1 – EVENT INFORMATION

SPONSOR INFORMATION			
SPONSOR NAME: City of Troy, Rensselaer County, Town of Bethlehem			
SPONSOR ADDRESS: 433 River Street, Suite #5001	SPONSOR CITY: Troy	STATE: NY	ZIP CODE: 12180
SPONSOR CONTACT: Renee Panetta	SPONSOR CONTACT PHONE NUMBER: 518-278-7171	SPONSOR CONTACT FAX NUMBER: n/a	
COSPONSOR: Ann Shaughnessy	COSPONSOR PHONE NUMBER: 518-270-2888	COSPONSOR FAX NUMBER: n/a	
CONTRACTOR INFORMATION			
CONTRACTOR NAME: Maumee Express Inc. &/Or Mxi Environmental Services, LLC			
CONTRACTOR ADDRESS: 26319 Old Trail Road	CONTRACTOR CITY: Auburn	STATE: VA	ZIP CODE: 24210
CONTRACTOR CONTACT: Marc Kodrowski	CONTRACTOR CONTACT PHONE NUMBER: (732) 328-0320	CONTRACTOR CONTACT FAX NUMBER: n/a	
EVENT LOCATION INFORMATION (Attach additional sheets if necessary)			
LOCATION OF COLLECTION: Troy Resource Management Facility	DATE: 5 / 13 / 23	COUNTY: Rensselaer	
TOWN: (City of) Troy			
LOCATION OF COLLECTION: Schodack Highway Dept	DATE: 7 / 29 / 23	COUNTY: Rensselaer	
TOWN: (County of) Rensselaer			
LOCATION OF COLLECTION: Brunswick Highway Dept	DATE: 9 / 16 / 23	COUNTY: Rensselaer	
TOWN: (County of) Rensselaer			
LOCATION OF COLLECTION: Bethlehem Town Highway Garage	DATE: 10 / 14 / 23	COUNTY: Albany	
TOWN: Bethlehem			
LOCATION OF COLLECTION:	DATE:	COUNTY:	
TOWN:			
LOCATION OF COLLECTION:	DATE:	COUNTY:	
TOWN:			

### SECTION 2 – GENERAL INFORMATION

Total population of area served:	<u>204,000</u>
Number of participants during the year:	<u>1172</u>
Households	
Farmers	<u>0</u>
CESQGs (Conditionally exempt small quantity generators)	<u>0</u>

Disposal costs, including contractor fees:	<u>\$91,844.39</u>
Publicity and educational costs:	
Other costs:	
Total cost:	<u>\$91,844.39</u>
*Comments: This report is for an inter-municipal program of events held in 2023	
with the City of Troy, Rensselaer County, and Town of Bethlehem. We did not accept e-waste.	

\*List any restrictions on the type of household hazardous waste that was collected. Also, include any other relevant comments/information not included elsewhere on this form.



SECTION 3 – HOUSEHOLD HAZARDOUS WASTE COLLECTION DETAILS

Household Hazardous Waste	Weight/Volume*	Units
Antifreeze	385	Gallons
Hazardous Paint	8282	Gallons
Automotive Batteries	570	Pounds
Hazardous Household Batteries	273	Pounds
Pesticides (Solids)	8600	Pounds
Pesticides (Liquids)	1815	Gallons
Mercury Containing Devices	0	Pounds
Bulk Mercury	91	Pounds
Fluorescent Bulbs	509	Pounds
CRT TVs/Monitors	0	Pounds
Non-CRT TVs/Monitors	0	Pounds
Other Electronics	0	Pounds
Other HHW (Solids)	7698	Pounds
Other HHW (Liquids)	11288	Gallons
Miscellaneous Solid Waste (Solids)	0	Pounds
Miscellaneous Solid Waste (Liquids)	0	Gallons
Other (specify)		
Total Disposed For Year	17,171	Pounds
Total Disposed For Year	21,770	Gallons

\*Please report the weight/volume of household hazardous waste in the container, not the size of the container.

## **Step 1. Planning Unit and Plan Period Selection**

Please, select from the drop-down list the name of your **planning unit** and the **planning period** of your **LSWMP**. Be aware that a LSWMP must be developed for **period**, and that your selection will be replicated on each one of the following tabs.

<b>Planning Unit</b>	City of Troy
<b>Planning Period</b>	2024-2033

## Step 2. Waste Generation Rate

In order to project how the amount of waste generated in the planning unit will change over time, data regarding the current amount of waste generated by the planning unit is needed. This can be the total tons of waste generated by the planning unit in the current year (Tons/yr), or this can be the estimated daily quantity of waste generated per person in the planning unit (lb/person/day). If both the total annual generation and the estimated generation rate per person are unknown, the state average for MSW generation rate can be used along with the planning unit's population to estimate the total amount of waste generated in the planning unit.

For this step, select one of the options that describes the known information about the planning unit. Enter the waste generated in Tons (MSW disposed & Recycled Materials) or the waste generation rate in lb/person/day in the purple cell. If no data on the waste generated in the planning unit is available, choose the corresponding option from the list. The calculator will estimate the total amount of waste generated based on the state's average generation rate and the planning unit's population.

### City of Troy

The amount of waste generated (by all residents, institutions, etc.) in the planning unit will be based on what is known. If the MSW generation amount and the generation rate are unknown, the state average for MSW generation rate will be used.

☐ I know the amount of MSW generated (Tons/year):

Leave this cell blank:

☐ The planning unit Average MSW Generation Rate (lb/person/day) is:

Leave this cell blank:

☒ The amount of MSW Generated and the planning unit Average MSW Generation Rate are unknown.

### Step 3. Planning Unit Population - Projections & Municipal Solid Waste (MSW) - Projections

This tab will provide you with population projections and MSW generation projections for the planning period you had previously selected. It is recognized that Municipal Solid Waste (MSW) generation is reliant on population changes, hence, it is necessary to project both and identify their correlation.

In the first **purple cell** enter the total tons of MSW that was disposed in the year immediately before your plan period starts. For example: If the plan period is 2016-2026, the MSW disposed data should be from 2015.

#### Population Projection:

Calculations are determined by a linear regression based on the latest census population data and an annual growth rate percentage specific to the planning unit. If it is anticipated that the population is going to decrease overtime, the minus sign (-) will be used.

#### MSW Generation Projection:

The MSW generation rate (Lb/person/day) calculated on the previous tab from the **Waste Generation Rate** will serve as a start point for the planning period. On the calculator, three options are considered to anticipate the MSW generation over time, and one must be selected according to the goals of the planning unit.

##### First Option:

MSW generation rate does not change. Consequently, MSW generation fluctuates with the population of the planning unit. If the population increases, waste generation will rise as well, and vice versa.

By selecting this option, the planning unit is in "status quo", meaning that is not making any improvements, and consequently is getting far from reaching the State's goal by 2030.

##### Second Option:

MSW generation amount remains the same, regardless of whether or not the planning unit's population changes.

##### Third Option:

As a result of successfully implementing the Local Solid Waste Management Plan, MSW generation will be reduced by an annual factor of ...

An **Annual Factor of Reduction (%)** should be calculated, defined, and selected by the planning unit. This factor will be the numerical representation of one of the planning unit's goals for the planning period. Once calculated, the Annual Factor of Reduction can be chosen from the drop down list provided.

#### Note:

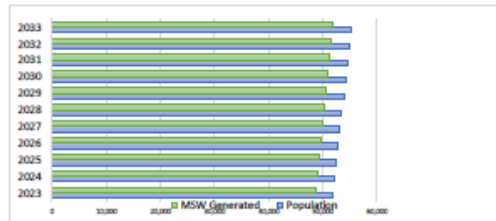
The graphic will display the Population and MSW Generation projections over the selected planning period. It has been designed to visualize the contrast of the final outcomes, based on the selections of each planning unit.

#### City of Troy

2024-2033

#### Current Data

2020 Population Census	51,401
2023 Population	51,794
2023 MSW Generated (Tons/yr)	48,680
2023 MSW generation rate (Lb/person/day)	5.15
2023 MSW Disposed (Tons/yr)	46,628
2023 MSW Diverted (Tons/yr)	2,051



Annual rate of population growth (%)	0.65%
--------------------------------------	-------

#### Population Projection

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
51,794	52,131	52,471	52,813	53,158	53,504	53,853	54,204	54,558	54,913	55,271	55,632	55,995

Forecasting future conditions... What do you expect to happen to the MSW generation rate over the next 10 year period plan?

- ☒ MSW generation rate does not change. Consequently, MSW generation fluctuates with the population of the planning unit, if the population increases, waste generation will rise as well, and vice versa.
- ☐ MSW generation amount remains the same, regardless of whether or not the planning unit's population fluctuates.
- ☐ As a result of successfully implementing the Local Solid Waste Management Plan, MSW generation will be reduced by an annual factor of ...

Reduction Factor (per year) 1.0%

## Step 4. Municipal Solid Waste (MSW) Detailed Composition Analysis

The next step is to Identify the Materials Composition of the Waste Stream based on population density, and demographic characteristics of the Planning Unit.

This tab will provide the PU with a more detailed estimate of the materials present in the waste stream, which could be crucial when prioritizing the initiatives and programs of the LSWMP.

The population density distribution has been calculated based on the 2010 Census data and will be auto populated when a planning unit is selected. The following parameters were used:

- Rural: <325 persons/mi<sup>2</sup>
- Suburban: >325 and <5,000 persons/mi<sup>2</sup>
- Urban: >5,000 persons/mi<sup>2</sup>

Under Density Population Distribution, the user has the option to modify the percentage values for the Sector (Residential and Commercial/Institutional) based on land use and specific characteristics of each planning unit. For example: A rural population in Westchester County could be 64% Residential and 36% Commercial / Institutional, while in Wyoming County might be 50% Residential and 50% Commercial / Institutional.

The results are presented on the last right column under MSW Materials Composition. Be aware of color changes on the cells, whenever a category represents over 15% of the total waste generation, the cell will turn **red** to easily identify key categories of the waste stream. It will also facilitate the selection of initiatives, programs, and infrastructure for the solid waste management system.

Note: If no data exists, use the pre-populated information in the worksheet.

City of Troy

2024-2033

Density Population Distribution		Rural			Suburban			Urban			MSW Materials Composition (%)	
		0.00%			68.00%			32.00%				
		Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined		
		58.00%	42.00%	100.00%	55.00%	45.00%	100.00%	58.00%	42.00%	100.00%		
	Newspaper	5.20%	1.90%	3.81%	5.00%	1.90%	3.61%	6.60%	2.00%	4.67%	3.95%	
	Corrugated Cardboard	6.60%	13.90%	9.67%	6.60%	13.90%	9.89%	6.90%	13.70%	9.76%	9.84%	
	Other Recyclable Paper	Paperboard	3.20%	1.10%	2.32%	3.30%	1.00%	2.27%	3.60%	0.90%	2.47%	2.33%
		Office Paper	0.80%	3.80%	2.06%	0.90%	4.20%	2.39%	1.10%	5.80%	3.07%	2.61%
		Junk Mail	3.00%	0.70%	2.03%	3.20%	0.70%	2.08%	3.50%	0.70%	2.32%	2.15%
		Other Commercial Printing	1.70%	2.30%	1.95%	1.70%	2.40%	2.02%	2.30%	2.60%	2.43%	2.15%
		Magazines	1.10%	0.90%	1.02%	1.00%	0.80%	0.91%	1.10%	1.00%	1.06%	0.96%
		Books	0.50%	0.30%	0.42%	0.50%	0.30%	0.41%	0.60%	0.40%	0.52%	0.44%
		Paper Bags	0.50%	0.20%	0.37%	0.50%	0.20%	0.37%	0.60%	0.20%	0.43%	0.39%
		Phone Books	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.20%	0.26%	0.29%
	Poly-Coated	0.20%	0.30%	0.24%	0.20%	0.20%	0.20%	0.30%	0.20%	0.26%	0.22%	
	Other Recyclable Paper (Total)	11.30%	9.90%	10.71%	11.60%	10.10%	10.93%	13.40%	12.00%	12.81%	11.53%	
	Other Compostable Paper	6.80%	6.80%	6.80%	6.40%	6.40%	6.40%	6.80%	6.80%	6.80%	6.53%	
	Total Paper		29.90%	32.50%	30.99%	29.60%	32.30%	30.82%	33.70%	34.50%	34.04%	31.85%
	Ferrous/Aluminum Containers	Ferrous Containers	1.90%	1.00%	1.52%	1.20%	0.70%	0.98%	1.40%	0.70%	1.11%	1.02%
		Aluminum Containers	0.70%	0.40%	0.57%	0.60%	0.30%	0.47%	0.50%	0.40%	0.46%	0.46%
	Ferrous/Aluminum Containers (Total)		2.60%	1.40%	2.10%	1.80%	1.00%	1.44%	1.90%	1.10%	1.56%	1.48%
	Other Ferrous Metals		5.20%	5.40%	5.28%	5.00%	5.80%	5.36%	3.30%	3.70%	3.47%	4.75%
		Other aluminum	0.20%	0.30%	0.24%	0.20%	0.30%	0.25%	0.20%	0.30%	0.24%	

Material	Other Non-Ferrous Metals	Automotive batteries	0.80%	0.50%	0.67%	0.70%	0.40%	0.57%	0.20%	0.20%	0.20%	0.45%
		Other non-aluminum	0.50%	0.30%	0.42%	0.30%	0.40%	0.35%	0.40%	0.20%	0.32%	0.34%
	Other Non-Ferrous Metals (Total)		1.50%	1.10%	1.33%	1.20%	1.10%	1.16%	0.80%	0.70%	0.76%	1.03%
	Total Metals		9.30%	7.90%	8.71%	8.00%	7.90%	7.96%	6.00%	5.50%	5.79%	7.26%
	PET Containers		1.10%	0.80%	0.97%	0.90%	0.80%	0.86%	1.20%	1.00%	1.12%	0.94%
	HDPE Containers		1.10%	0.60%	0.89%	0.90%	0.70%	0.81%	1.00%	0.70%	0.87%	0.83%
	Other Plastic (3-7) Containers		0.20%	0.10%	0.16%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
	Film Plastic		5.70%	5.90%	5.78%	5.50%	5.80%	5.64%	5.80%	5.80%	5.80%	5.86%
	Other Plastic	Durables	3.10%	3.20%	3.14%	3.00%	3.20%	3.09%	3.20%	3.30%	3.24%	3.14%
		Non-Durables	1.60%	1.80%	1.68%	1.60%	1.80%	1.69%	1.80%	1.90%	1.84%	1.74%
		Packaging	1.40%	1.10%	1.27%	1.40%	1.10%	1.27%	1.50%	1.10%	1.33%	1.29%
	Other Plastic (Total)		6.10%	6.10%	6.10%	6.00%	6.10%	6.05%	6.50%	6.30%	6.42%	6.16%
	Total Plastics		14.20%	13.50%	13.91%	13.50%	13.60%	13.55%	14.70%	14.00%	14.41%	13.82%
	Glass Bottles, Jars and Containers		4.10%	3.80%	3.97%	3.90%	3.80%	3.86%	4.30%	3.80%	4.09%	3.93%
	Other Glass (Flat glass, dishware, light bulbs, etc.)		0.50%	0.40%	0.46%	0.30%	0.40%	0.35%	0.40%	0.40%	0.40%	0.36%
	Total Glass		4.60%	4.20%	4.43%	4.20%	4.20%	4.20%	4.70%	4.20%	4.49%	4.29%
	Food Scraps		12.70%	13.30%	12.95%	12.90%	15.50%	14.07%	17.20%	25.20%	20.56%	16.15%
	Leaves and Grass / Pruning and Trimmings		3.10%	1.10%	2.26%	11.30%	9.10%	10.31%	4.20%	1.50%	3.07%	7.96%
	Total Organics		15.80%	14.40%	15.21%	24.20%	24.60%	24.38%	21.40%	26.70%	23.63%	24.14%
	Clothing Footwear, Towels, Sheets		4.60%	3.00%	3.93%	4.40%	3.20%	3.86%	4.80%	2.50%	3.83%	3.85%
	Carpet		1.40%	1.30%	1.36%	1.70%	1.40%	1.57%	1.70%	0.90%	1.36%	1.50%
	Total Textiles		6.00%	4.30%	5.29%	6.10%	4.60%	5.43%	6.50%	3.40%	5.20%	5.35%
	Total Wood (Pallets, crates, adulterated and non-adulterated wood)		4.10%	9.00%	6.16%	2.90%	4.10%	3.44%	2.00%	3.50%	2.63%	3.18%
	DIY - Construction & Renovation Materials		8.00%	7.60%	7.83%	3.80%	2.70%	3.31%	4.40%	3.80%	4.15%	3.57%
	Diapers		1.90%	1.10%	1.56%	2.10%	1.20%	1.70%	2.30%	1.10%	1.80%	1.73%
	Electronics		1.30%	1.40%	1.34%	1.60%	1.70%	1.65%	1.30%	1.30%	1.30%	1.53%
	Tires		1.80%	1.80%	1.80%	1.70%	1.40%	1.57%	0.50%	0.40%	0.46%	1.21%
	HHW		0.60%	0.00%	0.35%	0.60%	0.00%	0.33%	0.50%	0.00%	0.29%	0.32%
	Soils and Fines		0.60%	0.60%	0.60%	0.10%	0.20%	0.15%	0.10%	0.10%	0.10%	0.13%
	Other Composite Materials - Durable and/or Inert		1.90%	1.70%	1.82%	1.60%	1.50%	1.56%	1.90%	1.50%	1.73%	1.61%
	Total Miscellaneous		16.10%	14.20%	15.30%	11.50%	8.70%	10.24%	11.00%	8.20%	9.82%	10.11%
Total			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



## Step 5. Municipal Solid Waste (MSW) Detailed Composition Analysis

On this tab, the composition of the municipal waste stream will be estimated based on the amount of material generated in the planning unit and the state average of the different waste materials. A pie chart will be generated to clearly show the composition of the waste stream and to identify key categories of the waste stream for the planning unit.

The total tons of MSW diverted per year will be auto populated based on previous data inputs, while the amount tons diverted for each material by category should be populated by the user. **purple cells** should be used for amounts of diverted waste by type of material, and a totaled number by category (e.g. paper, metal) should be put in **the green cells**. After inputting the data, a graphic will be generated to show the MSW generation and diversion streams in Tons.

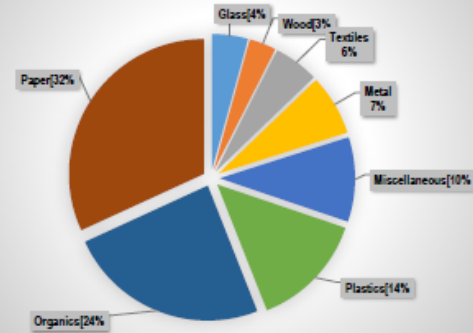
Make sure that the total amounts at the bottom of the page are consistent with the data you already put into the calculator. If the cell is highlighted in **red**, you should revise the amounts of diverted waste by category.

City of Troy

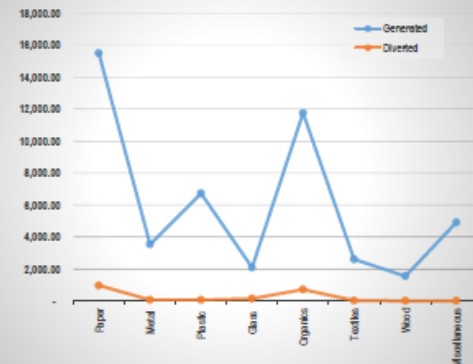
2024-2033

		2023		
		MSW Materials Composition (%)	MSW Generated (Tons)	MSW Diverted (Tons)
Material		100.0%	48,680	2,051.16
Paper	Newspaper	3.9%	1,920	150.31
	Corrugated Cardboard	9.8%	4,792	377.39
	Other Recyclable Paper (Total)	11.5%	5,612	443.23
	Other Compostable Paper	6.5%	3,178	0.00
	<b>Total Paper</b>	<b>31.8%</b>	<b>15,502</b>	<b>970.93</b>
Metal	Ferrous/Aluminum Containers (Total)	1.5%	720	57.81
	Other Ferrous Metals	4.8%	2,314	11.00
	Other Non-Ferrous Metals (Total)	1.0%	500	6.00
	<b>Total Metals</b>	<b>7.3%</b>	<b>3,535</b>	<b>74.81</b>
Plastic	PET Containers	0.9%	457	34.69
	HDPE Containers	0.8%	404	30.83
	Other Plastic (3-7) Containers	0.2%	97	0.00
	Film Plastic	5.7%	2,769	0.00
	<b>Total Plastics</b>	<b>13.8%</b>	<b>6,728</b>	<b>65.52</b>
Glass	Glass Bottles, Jars and Containers	3.9%	1,913	150.31
	Other Glass (Flat glass, dishware, light bulbs, etc.)	0.4%	177	0.00
	<b>Total Glass</b>	<b>4.3%</b>	<b>2,090</b>	<b>150.31</b>
Organics	Food Scraps	16.1%	7,860	53.00
	Leaves and Grass / Pruning and Trimmings	8.0%	3,890	662.58
	<b>Total Organics</b>	<b>24.1%</b>	<b>11,751</b>	<b>715.58</b>
Textiles	Clothing Footwear, Towels, Sheets	3.9%	1,875	28.00
	Carpet	1.5%	731	0.00
	<b>Total Textiles</b>	<b>5.4%</b>	<b>2,606</b>	<b>28.00</b>
Wood	Total Wood (Pallets, crates, adulterated and non-adulterated wood)	3.2%	1,548	0.00
Miscellaneous	DIY Construction & Renovation Materials	3.6%	1,740	0.00
	Diapers	1.7%	841	0.00
	Electronics	1.5%	747	14.01
	Tires	1.2%	589	0.00
	HHW	0.3%	154	0.00
	Soils and Fines	0.1%	54	0.00
	Other Composite Materials - Durable and/or inert	1.6%	785	0.00
	<b>Total Miscellaneous</b>	<b>10.1%</b>	<b>4,920</b>	<b>14.01</b>
<b>Total</b>		<b>100.0%</b>	<b>48,680</b>	<b>2,051.16</b>

MSW Material Composition



MSW Generated vs. MSW Diverted



## Step 6. Municipal Solid Waste (MSW) Diversion Projections

This tab will be used to create goals for the amount of material the planning unit will divert for each year of the planning period. These goals will be entered as percentages, based on how much of the material generated will be diverted for recycling or beneficial use.

The diversion goal percentages will be entered in the **purple cells** for each material and each year of the planning period.

City of Troy														2024-2033				
Year				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035			
Projected MSW Generation (Tons/yr)				48,596	48,912	49,231	49,552	49,875	50,201	50,528	50,857	51,189	51,523	51,859	52,197			
MSW Diverted (Tons/yr)				2,019	1,858	2,176	1,179	236	199	200	202	203	204	205	207			

				2023				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
				MSW Materials Composition (%)	MSW Generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted	% MSW Diverted
Material				100.0%	48,680	2,019	4.1%	4.2%	3.8%	4.4%	2.4%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Paper	Newspaper			3.9%	1,920	150	7.8%	7.8%	8.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	Corrugated Cardboard			9.8%	4,792	377	7.9%	7.9%	8.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	Other Recyclable Paper (Total)			11.5%	5,612	443	7.9%	7.9%	8.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	Other Compostable Paper			6.5%	3,178	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Paper			31.8%	15,502	971	6.3%	6.3%	8.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Metal	Ferrous/Aluminum Containers (Total)			1.5%	720	58	8.0%	8.0%	8.5%	9.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
	Other Ferrous Metals			4.8%	2,314	11	0.5%	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Other Non-Ferrous Metals (Total)			1.0%	500	6	1.2%	1.2%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	Total Metals			7.3%	3,535	75	2.1%	2.1%	1.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Plastic	PET Containers			0.9%	457	35	7.6%	7.6%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
	HDPE Containers			0.8%	404	31	7.6%	7.6%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
	Other Plastic (3-7) Containers			0.2%	97	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Film Plastic			5.7%	2,769	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Plastic (Total)			6.2%	3,000	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Glass	Total Plastics			13.8%	6,728	66	1.0%	1.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Glass Bottles, Jars and Containers			3.9%	1,913	150	7.9%	7.9%	8.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
	Other Glass (Flat glass, dishware, light bulbs, etc.)			0.4%	177	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Glass			4.3%	2,090	150	7.2%	7.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Organics	Food Scraps			16.1%	7,860	53	0.7%	0.7%	1.0%	2.0%	2.0%	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Leaves and Grass / Pruning and Trimmings			8.0%	3,890	663	17.0%	17.0%	18.0%	19.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
	Total Organics			24.1%	11,751	716	6.1%	6.1%	8.6%	7.6%	8.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Textiles	Clothing Footwear, Towels, Sheets			3.9%	1,875	28	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
	Carpet			1.5%	731	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Textiles			5.4%	2,606	28	1.1%	1.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Wood	Total Wood (Pallets, crates, adulterated and non-adulterated wood)			3.2%	1,548	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Miscellaneous	DIY Construction & Renovation Materials			3.6%	1,740	0	0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	Diapers			1.7%	841	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Electronics			1.5%	747	14	1.9%	1.9%	2.0%	3.0%	4.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Tires			1.2%	589	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	HHW			0.3%	154	0	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	Soils and Fines			0.1%	64	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Composite Materials - Durable and/or inert			1.6%	785	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Miscellaneous			10.1%	4,920	14	0.3%	0.3%	1.1%	3.0%	4.0%	5.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

## Step 7. Municipal Solid Waste (MSW) Gene

The final result of the Population and Municipal Composition Calculator is presented here. This tab also shows the projected waste generated and waste diverted from disposal. This tab also shows the projected waste that will divert for recycling. Total amounts of waste diverted will be calculated for each material.

### City of Troy

		MSW Materials Composition (%)	2023			2024			2025			2026			2027			2028		
			MSW Generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted	% MSW Diverted	MSW generated (Tons)	MSW Diverted	% MSW Diverted	MSW generated (Tons)	MSW Diverted	% MSW Diverted	MSW generated (Tons)	MSW Diverted	% MSW Diverted	MSW generated (Tons)	MSW Diverted	% MSW Diverted
Material		100.00%	48,680	2,019	4.1%	48,596	2,019	4.2%	48,912	2,211	5%	49,231	2,582	5.2%	49,552	2,654	5.4%	49,875	2,697	5.4%
Newspaper		3.95%	1,920	150	7.8%	1,917	150	7.8%	1,930	164	9%	1,942	194	10.0%	1,955	195	10.0%	1,968	197	10.0%
Corrugated Cardboard		9.84%	4,792	377	7.9%	4,784	378	7.9%	4,815	409	9%	4,846	485	10.0%	4,878	488	10.0%	4,910	491	10.0%
Other Recyclable Paper (Total)		11.53%	5,612	443	7.9%	5,603	443	7.9%	5,639	479	9%	5,676	568	10.0%	5,713	571	10.0%	5,750	575	10.0%
Other Compostable Paper		6.53%	3,178	0	0.0%	3,172	0	0.0%	3,193	0	0%	3,214	0	0.0%	3,235	0	0.0%	3,256	0	0.0%
Total Paper		31.85%	15,502	971	6.3%	15,476	970	6.3%	15,577	1,053	7%	15,678	1,245	8.0%	15,780	1,255	8.0%	15,883	1,263	8.0%
Ferrous/Aluminum Containers (Total)		1.48%	720	58	8.0%	719	58	8.0%	724	62	9%	728	66	9.0%	733	73	10.0%	738	74	10.0%
Other Ferrous Metals		4.75%	2,314	11	0.5%	2,311	12	0.5%	2,326	23	1%	2,341	23	1.0%	2,356	24	1.0%	2,371	24	1.0%
Other Non-Ferrous Metals (Total)		1.03%	500	6	1.2%	500	6	1.2%	503	8	2%	506	10	2.0%	509	10	2.0%	513	10	2.0%
Total Metals		7.26%	3,535	75	2.1%	3,529	75	2.1%	3,552	92	3%	3,575	99	2.8%	3,599	107	3.0%	3,622	108	3.0%
Plastic	PET Containers	0.94%	457	35	7.6%	456	35	7.6%	459	37	8%	462	37	8.0%	465	37	8.0%	468	37	8.0%
	HDPE Containers	0.83%	404	31	7.6%	404	31	7.6%	406	32	8%	409	33	8.0%	412	33	8.0%	414	33	3.1%
	Other Plastic (3-7) Containers	0.26%	97	0	0.0%	97	0	0.0%	98	0	0%	98	0	0.0%	99	0	0.0%	100	10	10.0%
	Film Plastic	5.69%	2,769	0	0.0%	2,764	0	0.0%	2,782	0	0%	2,800	0	0.0%	2,818	0	0.0%	2,837	28	1.0%
	Other Plastic (Total)	6.16%	3,000	0	0.0%	2,995	0	0.0%	3,015	0	0%	3,034	0	0.0%	3,054	0	0.0%	3,074	0	0.0%
	Total Plastics	13.82%	6,728	66	1.0%	6,716	65	1.0%	6,760	69	1%	6,804	70	1.0%	6,848	70	1.0%	6,893	89	1.3%
Glass	Glass Bottles, Jars and Containers	3.93%	1,913	150	7.9%	1,910	151	7.9%	1,922	154	8%	1,935	174	9.0%	1,948	175	9.0%	1,960	176	9.0%
	Other Glass (Flat glass, dishware, light bulbs, etc.)	0.36%	177	0	0.0%	176	0	0.0%	177	0	0%	179	0	0.0%	180	0	0.0%	181	0	0.0%
	Total Glass	4.29%	2,090	150	7.2%	2,086	151	7.2%	2,100	154	7%	2,113	174	8.2%	2,127	175	8.2%	2,141	176	8.2%
Organic	Food Scraps	16.15%	7,860	53	0.7%	7,847	55	0.7%	7,898	79	1%	7,949	159	2.0%	8,001	160	2.0%	8,053	161	2.0%
	Leaves and Grass / Pruning and Trimmings	7.99%	3,890	663	17.0%	3,884	660	17.0%	3,909	704	18%	3,935	748	19.0%	3,960	792	20.0%	3,986	797	20.0%
	Total Organics	24.14%	11,751	716	6.1%	11,730	715	6.1%	11,807	783	7%	11,884	907	7.6%	11,961	952	8.0%	12,039	958	8.0%
Textiles	Clothing Footwear, Towels, Sheets	3.85%	1,875	28	1.5%	1,872	28	1.5%	1,884	28	2%	1,896	28	1.5%	1,909	29	1.5%	1,921	29	1.5%
	Carpet	1.58%	731	0	0.0%	729	0	0.0%	734	0	0%	739	0	0.0%	744	0	0.0%	748	0	0.0%
	Total Textiles	5.35%	2,606	28	1.1%	2,601	28	1.1%	2,618	28	1%	2,635	28	1.1%	2,652	29	1.1%	2,670	29	1.1%
Wood	Total Wood (Pallets, crates, adulterated and non-adulterated)	3.18%	1,548	0	0.0%	1,546	0	0.0%	1,556	0	0%	1,566	0	0.0%	1,576	0	0.0%	1,586	0	0.0%
Miscellaneous	DIY Construction & Renovation Materials	3.57%	1,740	0	0.0%	1,737	0	0.0%	1,749	17	1%	1,760	35	2.0%	1,771	35	2.0%	1,783	36	2.0%
	Diapers	1.73%	841	0	0.0%	839	0	0.0%	845	0	0%	850	0	0.0%	855	0	0.0%	862	0	0.0%
	Electronics	1.53%	747	14	1.9%	746	14	1.9%	751	15	2%	756	23	3.0%	760	30	4.0%	765	38	5.0%
	Tires	1.21%	589	0	0.0%	588	0	0.0%	592	0	0%	596	0	0.0%	600	0	0.0%	604	0	0.0%
	HHW	0.32%	154	0	0.0%	154	0	0.0%	155	0	0%	156	0	0.1%	157	0	0.1%	158	0	0.1%
	Soils and Fines	0.13%	64	0	0.0%	63	0	0.0%	64	0	0%	64	0	0.0%	65	0	0.0%	65	0	0.0%
	Other Composite Materials - Durable and/or inert	1.61%	785	0	0.0%	783	0	0.0%	788	0	0%	793	0	0.0%	799	0	0.0%	804	0	0.0%
	Total Miscellaneous	10.11%	4,920	14	0.3%	4,911	14	0.3%	4,944	33	1%	4,976	58	1.2%	5,008	66	1.3%	5,041	74	1.5%