Household Hazardous Waste Feasibility Study for the County of Erie

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by Solara, Inc. 661 Main Street Niagara Falls, NY 14301

TABLE OF CONTENTS

EX	XECUTIVE SUMMARY	
	LOSSARY	
1.	INTRODUCTION	1
2.	CURRENT HHW COLLECTION PROGRAM	.2
	2.1. BACKGROUND	
	2.2. OBSERVATIONS	
	2.3. MUNICIPAL & PRIVATE SECTOR RESPONSE	
3.	SUMMARY OF REGIONAL HHW COLLECTION PROGRAMS	10
	3.1. COMPARABLE MUNICIPALITIES / ORGANIZATIONS	
	3.2. DATA COLLECTION	
	3.3. OBSERVATIONS	
	3.4. BEST PRACTICES	
	3.5. NOTABLE PROGRAMS	
4.	STATE REGULATIONS & POLICIES IMPACTING HHW	19
	4.1. ENVIRONMENTAL REGULATIONS, PERMITTING & INCENTIVES	
	4.2. CURRENT & PROPOSED POLICIES	
5.	ALTERNATIVES ANALYSIS.	24
	5.1. CONSIDERATIONS & OBJECTIVES	
	5.2. COLLECTION METHODS	
	5.3. ALTERNATIVES	
6.	PROGRAM RECOMMENDATIONS & IMPLEMENTATION STEPS	32
	6.1. RECOMMENDATIONS	
	6.2. STEPS TO IMPLEMENT PREFERRED ALTERNATIVE	
7.	OTHER CONSIDERATIONS: UNIVERSAL & ELECTRONIC WASTE	37
	7.1. UNIVERSAL WASTE	
	7.2. ELECTRONIC WASTE	
	7.3. RECOMMENDATIONS	
8	CONCLUSION	47

TABLE OF CONTENTS

A DDENIDIW	E.C.			
APPENDIX				
A.01	1			
A.02	\mathcal{E}			
A.03 A.04	NYSDEC HHW Grant Application			
	Municipal Correspondence List			
A.05	EPS HHW Price List for Syracuse Waste Management Facility			
A.06 A.07	Monroe County EcoPark Website Screenshot			
	Niagara County 2017 Voucher Sample			
A.08	NYSDEC Managing and Disposing of Household Hazardous Waste Packet			
A.09	NYSDEC Household Hazardous Waste Disposal and Alternatives Chart			
A.10	Effective HHW Program Education and Awareness Tools			
A.11	Effective HHW Program Registration and Surveying Pieces			
FIGURES				
F.01	HHW Disposal Solutions in Erie County Map			
F.02	Erie County Satellite Barns Map			
F.03	Role of Erie County			
F.04	Elements & Characteristics of a Successful HHW Program			
F.05	Erie County 2010 Population Density Map			
F.06	Erie County 2016 Population by Municipality Map			
CD A DUIG				
GRAPHS	2017 W. 1. D. W G.			
G.01	2017 Weight Per Waste Stream			
G.02	Erie County Participants per Event 1988 - 2017			
G.03	Residential Real Estate Transactions in Eric County 2012 – 2017			
G.04	Erie County Average Cost Per Participant Per Year 2010 - 2017			
G.05	Erie County HHW Program Budget 2010 - 2017			
G.06	2017 Cost Per Waste Stream			
G.07	Benefits of Budgeting			
TABLES				
T.01	Waste Stream Overview			
T.02	Current & Notable HHW Program Data Overview			
T.03	Collection Method Matrix			
T.04	Erie County 2017 Event Data			
T.05	Municipal HHW Program Data Overview			

Hazman Drop-off Center Data 2012 - 2017

T.06

- T.07 Hazman Event Data 2012 2015
- T.08 Quantification of Demographics
- T.09 Regional Event Costs
- T.10 Permanent Site Costs
- T.11 Satellite Events Costs
- T.12 Voucher Costs
- T.13 Alternatives' Assumptions and Costs
- T.14 Resource Matrix
- T.15 HHW Program Data Collection Template
- T.16 Program Cost Summary and Analysis Template
- T.17 Program Waste Stream Summary and Analysis Template

EXECUTIVE SUMMARY

In an effort to provide residents of Erie County (County) with the opportunity to safely dispose of household hazardous waste (HHW), the County, in conjunction with the Erie County Solid Waste Management Boards, currently hosts two annual HHW collection events. These events are free to the participating public and often see over 1,000 participants per five-hour event. Post-event surveys have indicated that participants were in favor of the program, but not pleased with long wait-times and lack of convenient access. The primary goal of this HHW Feasibility Study (study) was to thoroughly review the County's current program and identify areas slated for enhancement and improvement based on experiences of other regional HHW collection programs as well as regulatory, policy and industry trends.

Less than 1% of Erie County households participate in the collection events annually, which underscores the program's limited scope. Funding sources are budgeted annually and have been variable. The County's events are hosted in accessible, populated areas. This creates increased travel distances therefore lower participation from rural community residents. This has encouraged independent municipally-run HHW collection events in outlying areas of Erie County.

The regional HHW program data analysis provided notable observations about HHW collection programs, such as:

- The average cost per participant is \$60. Erie County's cost per participant is just over \$40, almost \$20 less than the average. There are several reasons why the cost is lower. First and foremost, the County's MRU are considered *hidden costs* per *Section 2.2.7 Unrealized Expenses* and are not being quantified in this study. Second, limitations are placed on the types of material accepted. Finally, NOCO and The Battery are handling waste oil and batteries at no charge.
- 70% of the municipal programs that participated in the study are funded by Enterprise Funds. Other funding mechanisms include property tax levy, authorities, councils, and participants themselves.
- Municipally-run programs are successful; they have the highest service rate. Local elected officials and management are involved and enthusiastic. Participant satisfaction is high.
- Programs with a promotional strategy have the highest service rates.
- HHW programs are **not** able to take advantage of economies of scale; as participation and convenience increase, costs increase.

Because Erie County contains urban, rural and suburban communities, selecting one preferred HHW collection alternative is a complex determination. Several criteria must be considered in choosing program parameters such as funding mechanisms, site selection, and available supporting resources. After extensive research, cost-benefit analysis and assessment, the study determined the recommended, preferred alternative to be 20 Regional Events and 1 Permanent Site, phased in over three years. This preferred alternative is designed to efficiently and cost-effectively service 20,000 participants annually, fulfilling the County's annual HHW disposal demand (determined by characterization and quantification of HHW participant demographics presented in *Section 5.1.3, Demographics and Demand*). Events will have a participant cap and

mandated participant pre-registration. These practices will steady traffic flow thereby minimizing participant wait-times. The overall result being an increase in service rate and participant satisfaction, safer homes and a protected environment.

Numerous other alternatives were considered, such as multiple permanent sites, voucher programs, and satellite events. The preferred alternative is based upon precedents set in regional HHW collection programs, such as Niagara County's recently closed multiple permanent sites and piloted Voucher Program, and Monroe County's existing hybrid program.

Erie County has expressed interest in maximizing participation and convenience but doing so in a manner that leverages assets available through the County, Solid Waste Management Boards, and local governments. This commitment by the County and local governments has been demonstrated by the inclusion of a County-wide HHW collection program in the Erie County-Wide Shared Services Plan submitted to and approved by New York State in fall 2017. Under a shared services model, the County can pursue grant funding, offer in-kind services such as technical support, and assist with messaging and promotion.

Long-term solutions are entirely dependent upon the availability of consistent funding sources. Erie County has interest in pursuing a permanent permitted HHW site(s), which is anticipated to qualify for NYS Department of State Local Government Efficiency grant funding. Permanent collection sites are extremely effective at keeping per capita expenses low; however, high start-up costs need to be considered upon initiation. It is recommended that Erie County identify interested stakeholders, initiate discussions to identify practicability and location, and seek sustainable funding.

This preferred alternative for meeting the HHW disposal demand of 20,000 participants per year has the highest annual cost. However, this alternative *also* has the highest *per-participant cost-benefit*, when considering service capacity and participant convenience. This can be seen in **Table T.13, Alternatives' Assumptions and Costs**, summarized here:

- The lowest-cost-per-participant-program is **Alternative D**, at \$53.15 per participant. **Alternative D** is an improvement to the current program, as it provides a hybrid solution (6 events and 1 permanent site via voucher program) however, service capacity is limited to 6,000 participants. This alternative includes an 1,800 permanent site participant maximum. The permanent site may not be centrally-located, therefore overall participant satisfaction will fluctuate.
- The preferred alternative, **Alternative F**, cost-per-participant is \$54.94. **Alternative F** is a significant improvement to the current program, as it provides a hybrid solution (20 events and 1 county-owned permanent site) which meets the HHW disposal demand of 20,000 annual participants. The permanent site will be centrally-located, therefore a convenient solution. Service rate and participant satisfaction will be maximized.
- The difference in cost-per-participant is only \$1.79, a minute price to pay for a tremendous benefit.

The preferred alternative can be implemented in phases over the course of three years:

Phase Year Program		Number of Participants	Annual Cost*	
Phase I 2019 6 Regional Events		4,200	\$228,900	
Phase II 2020	8 Regional Events	5,600	\$305,200	
Phase III 2021	8 Regional Events 1 Permanent Site	11,600	\$640,903 Section 5.3, Alternative E	
and/or up to 20 Satellite MRU, to service up to 9	p to 12 Regional Events* Events*, depending on ,000 additional participants ection Methods for event	11,600 – 20,000	Up to \$1,098,703 Section 5.3, Alternative F	

^{*} Excluding MRU (Municipal Resources Utilized)

A permanent site and regional events are a good primary objective for the program, with the intent of revisiting the issue once full realization of costs, effectiveness, and efficiency become apparent. The program will continue to evolve as data is collected and trends are seen.

If resources are not forthcoming, several other program alternatives to increase efficiency and effectiveness at a lower cost are presented. For example, a Voucher Program has been utilized in other counties to supplement collection events.

GLOSSARY

- Cathode Ray Tubes (CRTs) The glass video display component of an electronic device (usually a television or computer monitor).
- CESQG (Conditionally Exempt Small Quantity Generator) If a business generates no more than 220 pounds (100 kilograms) of hazardous waste per month, it is a CESQG. CESQGs must comply with several basic waste management requirements to remain exempt from the full hazardous waste regulations that apply to generators of larger quantities. A generator is a CESQG if, in a calendar month:
 - They generate no more than 220 pounds of hazardous waste, and
 - They generate no more than 2.2 pounds of acute hazardous waste, and
 - They generate no more than 220 pounds of material from the cleanup of a spillage of acute hazardous waste, AND, at any time:
 - They store no more than 2,200 pounds of hazardous waste, and
 - They store no more than 2.2 pounds of acute hazardous waste.
- **Cost-benefit** Relationship between the cost of a program and the value of benefits (service capacity, service rate, participant convenience, participant satisfaction).
- Convenience Standard (Paint Stewardship Program) Permanent collection site or annual collection event within a 15-mile radius of a population center, at no charge to the consumer.
- Covered Electronic Equipment (CEE) Electronic equipment covered under NYS Electronic Equipment Recycling and Reuse Act. Includes: computers (including laptops, desktops, tablets and e-readers), televisions, cathode ray tubes (CRTs), small scale servers, computer peripherals, monitors, electronic keyboards, electronic mice or similar pointing devices, facsimile machines, document scanners, and printers (only those intended for use with a computer and weighing less than 100 lbs.), small electronic equipment (including any cable, cord, or wiring permanently affixed to or incorporated into the small electronic equipment), VCRs, digital video recorders, portable digital music players, DVD players (including projectors with DVD player capabilities intended for home-use), digital converter boxes, cable or satellite receivers (including digital media receivers), electronic or video game consoles (including both handheld devices and those intended for use with a video display device)
- Economies of Scale A business term referring to reduced costs per unit that arise from increased total output of a product or service.
- **Enterprise Fund** In governmental accounting, fund that provides goods or services to the public for a fee that makes the entity self-supporting.
- Generator Any person or organization, by site, whose act or process produces hazardous waste identified or listed in NYSDEC Title 6 Chapter IV Subchapter B Part

- 371, *Identification and Listing of Hazardous Wastes*, or whose act first causes a hazardous waste to become subject to regulation.
- **HAZWOPER** Hazardous Waste Operations and Emergency Response Standard program developed by OSHA to protect workers at hazardous waste sites.
- HHW Facility HHW collection site holding a NYSDEC HHW facility permit. According to the NYSDEC List of Active Household Hazardous Waste Facilities, there are two within the County's region, Region 9: American Recyclers Transfer Station (a.k.a. Hazman, privately owned and operated) and Tonawanda HHW Storage Facility (owned and operated by the Town of Tonawanda).
- **Household Hazardous Waste (HHW)** Chemical products such as cleaning solvents, paints, pesticides, disposed of by residential consumers. These wastes may also contain substances that can catch fire, react with other chemicals, explode, or are corrosive or toxic.
- **Manufacturer** Company that manufactures products.
- Municipal Resources Utilized (MRU) The resources that are contributed to a public service for the HHW program. Examples include site locations, labor, equipment and supplies. MRU can be quantified based on the expense to the sponsoring municipality.
- MSW (Municipal Solid Waste) Consists of everyday items we use and then throw away, such as product packaging, furniture, clothing, bottles, food scraps, newspapers, appliances, paint, and batteries.
- **NYSDEC** New York State Department of Environmental Conservation
- **Participant** A resident of a municipality participating in an HHW collection event.
- **Program Sponsor** Municipality hosting an HHW collection event or site and/or contributing resources such as funding, labor, location, equipment or supplies.
- **Service Rate** The number of households participating in the HHW program divided by the total number of households within the County.
 - **Solid Waste Management Boards (SWMB)** Consisting of two groups of all municipalities within Erie County, with the exception of the City of Buffalo. The two boards are the NEST (Northeast Southtowns) and NW (Northwest). The membership for each board is provided in **Appendix A.01 SWMB Members List & Map**.
- **SWOT** Traditionally used in business: a strategic tool used to outline an entity's Strengths, Weaknesses, Opportunities & Threats.

1. INTRODUCTION

Household hazardous wastes (HHW) are common household products that have reached their end-of-life and have corrosive, flammable, toxic or reactive characteristics. Examples of HHW include oil-based paint, paint thinner, insecticides, herbicides and pool chemicals. Once a homeowner deems their unwanted and unused hazardous product 'waste' and brings it to a collection point the hazardous product is now deemed household hazardous waste. Household hazardous waste must be handled by trained and experienced personnel. The personnel sort the HHW according to New York State Dept. of Transportation (NYSDOT) hazard class to ensure safe transportation and disposal. HHW is an expansive and expensive waste stream to manage, making it one of the most problematic waste streams facing municipalities and homeowners alike. Most homes contain 50 – 150 lbs. of HHW at any given time. The cost for proper disposal of HHW in Western New York is approximately \$1,000 per ton, up to twenty times more expensive than regular trash. In New York State (NYS) municipalities are not mandated to provide HHW collection programs, although the state provides financial support for such programs.

In Erie County (County), the Department of Environment and Planning (DEP) has been offering single-day HHW collection events to residents since 1988. The County's HHW program is cost effective yet only services a small percentage of residents within the County. The purpose of this study is to conduct an assessment of current practices for HHW collection in Erie County and throughout the state, assess what other counties are doing for HHW outreach, collection and disposal and analyze service rates, collection amounts and program cost. The study presents alternatives, cost assessments, funding mechanisms, implementation appraisals and a preferred plan for Erie County to better serve the needs of residents for the proper, efficient and effective collection and disposal of household hazardous waste. As a complement to the text, tables, graphs and figures are provided to present the study data in visual form.

Solara, Inc. (Solara) was selected to conduct this study due to its extensive experience in household hazardous waste program design and implementation. The research has been conducted by the founder, Sarah Battaglia, M.B.A. Ms. Battaglia has worked in the environmental field for five years. Her experience with household hazardous waste is broad; while working for a hazardous waste contractor, she launched the first privately-held household hazardous waste collection site in New York State and designed and organized custom household hazardous waste programs. She worked closely with Niagara County to revamp their household hazardous waste program over the course of 2014-2016. Niagara County recently launched the HHW Voucher Program, a partnership between the private drop-off center and the municipality. The HHW Voucher Program provides a convenient year-round solution for residents while being cost-effective for Niagara County.

2. CURRENT PROGRAM

2.1. BACKGROUND

Since 1988, the County has been offering single-day household hazardous waste collection events to residents. The objective of the collection events is to give residents the opportunity to safely discard hazardous material which has accumulated in homes to minimize risk for children, pets, sanitation workers and emergency responders while protecting the environment from uncontrolled releases and illegal dumping.

2.1.1. About the Program

The current County program consists of two HHW collection events between the months of April and October. The events are free to residents of the County. The collections take place on Saturdays from 9am to 2pm at local community colleges. In 2017, the June event took place at ECC South (Orchard Park, NY) and the August event took place at ECC North (Williamsville, NY).

2.1.2. Site Selection

The SUNY Erie sites were selected as the host locations because of the existing relationship with the County government. The locations were well-suited for collection events due to their familiarity to the public, their proximity to population centers, facility and equipment access, and the availability of large, open parking lots.

2.1.3. Equipment and Supplies

SUNY Erie also provides maintenance staff support, a front-end loader, 2-3 golf carts/gators, and facilities for bathrooms/breaks and food. They also cater a light breakfast, lunch and water, but charge separately for these costs. Security personnel assist with road closures and blocking off parking areas. It should be noted that some members of the public use ECC sites as a dumping ground during the year. ECC maintenance staff collects the materials and have accumulated HHW ready for disposal during events.

Erie County Emergency Services Division provides a Traffic Incident Management Trailer with cones and signs to use for site management, while the Highway Department provides large, lighted signs to direct traffic from roadways onto campus areas. The signs are set up the day before the events.

2.2.2 Material Collected

The County's list of acceptable material mirrors that which is considered eligible for partial reimbursement from the NYSDEC HHW Grant. Accepted and Unaccepted Items are listed below:

	Accepted		Unaccepted
•]	Pesticides, Fertilizers, Pool & Household	•	Latex Paint
(Chemicals / Cleaners (limit 2 gal. or 20 lbs.)	•	Tires
• (Oil-based Paints, Spray Cans (limit 10 gal.)	•	Lightbulbs
• (Oil, Gasoline, Kerosene, Antifreeze (limit 10 gal.)	•	Electronics
•]	Paint Stripper, Thinner & Solvents (limit 2 gal.)	•	Smoke Detectors

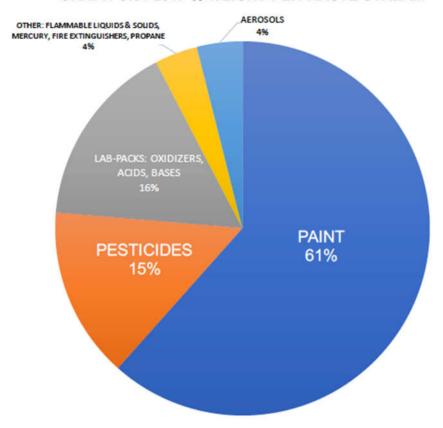
• Lead-Acid & Rechargeable Batteries	Alkaline Batteries
Thermostats & Thermometers	• Pharmaceuticals
 Propane Tanks & Cylinders 	Commercial / Industrial Waste
Fire Extinguishers	Compressed Gas Cylinders

A complete Waste Stream Overview is provided in **Table T.01 Waste Stream Overview**, which outlines residential waste streams and how they relate to the County's current HHW program, including:

- Contractor Info and Pricing
- NYSDEC Waste Classification
- NYSDEC Reimbursement Grant Eligibility
- NYSDEC Post-Event Report Category and Units
- NYS Stewardship Programs / Policies
- Promotional Pieces (e.g., flyers, website, etc.)
- Final Destination

Below is a pie chart of the 2017 Weight per Waste Stream (Graph G.01). Paint is the most common waste stream collected at an HHW collection program, followed by pesticides and miscellaneous chemicals (oxidizers, acids and bases).

GRAPH G.01 2017 % WEIGHT PER WASTE STREAM



2.1.4. Promotion

The events are promoted to the public using in-kind services by the County. The means of promotion include a link on the Erie County website to an event flyer (.pdf), social media posts, and free press releases in local newspapers, radio and television. The event flyer file is distributed to municipalities electronically for distribution to communities as they see fit. To date, no funding has been allocated to event promotion. Further promotion, education and outreach has not been pursued due to the lack of dedicated funds and current service rates, which exceed program capacity.

2.1.5. Contractors

The largest expense of the HHW program is the hazardous waste contractor. It is the contractor's responsibility to provide HAZWOPER-trained staff to sort and package waste, chemist(s) to identify waste, and finally the transportation, disposal and/or recycling of the HHW. In 2017, the hazardous waste contractor selected via bid process was Care Environmental Corp. (Care). The invoices from Care for both events totaled \$111,948. There were two additional contractors onsite: The Battery to collect lead-acid and rechargeable barriers and NOCO to collect waste oil, gasoline, antifreeze and automotive fluids. Both The Battery and NOCO provided these services at no cost to the County.

2.1.6. Event Staff

Erie County recruits staff and volunteers to help with day-of-event operations. Primary roles include traffic control, survey data sheet and informational flyer distribution, collection of forms at the exit, site set-up and cleanup and adding additional directional signs around the area. Between 20-30 persons help out at the events, the majority are County staff, 2-3 from the solid waste boards and 2-3 are general volunteers from various environmental organizations. Some County staff receive 'comp time' and others are paid overtime. The Erie County Highway Department provides 10 staff to assist with bringing the public from the street onto the collection site. These staff are scheduled to work Saturdays. It is difficult to quantify the exact in-kind non-contractor costs as the compensation type and rate vary considerably. Based on a number of assumptions, this estimate can be made:

- ~175 man-hours per event
- \$65 per hour (due to overtime)
- Total event staff MRU: \$11,375 per event
- Total event staff MRU with 2 events: \$22,750 per year

2.1.7. Participation

In 2017, there were 2,709 participants, many of whom experienced 60-120 minute wait times in their cars to have their HHW unloaded. While in line, participants had the opportunity to make comments on the HHW Registration Form. A copy of the 2017 HHW Registration Form has been provided in **Appendix A.02 Eric County HHW Registration Form**. According to the tabulated 2016 HHW Registration Form results, over half of the commenting respondents considered the event positive and shared responses such as: 'Thank you!', 'Appreciate the program!' and 'These are great and responsible events!' 32% of the responses contained constructive criticisms full of observations and suggestions, such as: 'Wish you had these more often!', 'Conflicting information between media promotions and Eric County Site. County says 10 GAL limit, TV doesn't mention

limit. County site can put you into a loop when researching about event.' and 'Need better signage.' The remaining 13% of responses were negative, expressing disbelief that this is how they were spending their Saturday morning and discouraged from ever attending an event again. Comments from this segment included: 'Waiting for over an hour is excessive and unacceptable.', 'Just heard TODAY on radio.' and 'Very, very, very disorganized.' All remarks are worth considering for future programs.

2.1.8. Funding

The County's HHW collection program has been funded by three entities: Erie County, Northeast Southtowns (NEST) Solid Waste Management Board, and the Northwest (NW) Solid Waste Management Board. The solid waste boards have supplemented the County's budgeted costs. Of note, the City of Buffalo runs their own hazardous waste collections for City residents. The amount available is completely dependent on the County's budget for that year. In 2017, the HHW program exceeded the County allocation of \$70,000, which then cost each board approximately \$30,000. This caused a major depletion of both the NEST and NW funds. To prevent this from happening again, Erie County has increased the 2018 budget to \$120,000. Each board will have a projected \$5,000 for 2018. NEST and NW utilize a per capita member municipal assessment to fund the program.

Each year, the County applies for a NYSDEC HHW Grant. This grant reimburses 50% of eligible HHW program expenses. The reimbursement goes to the County's General Fund rather than to the Erie County DEP. It should be noted that while it has yet to become an issue, the NYSDEC HHW Grant is not guaranteed. Both boards have also applied for this reimbursement.

2.2. OBSERVATIONS

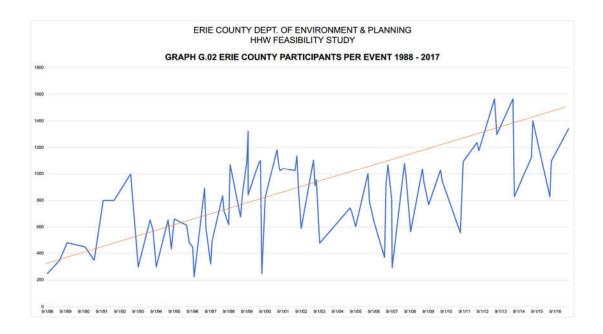
In-depth analysis of the County's program took place over a six-month period. A variety of methods were used to conduct the research. The following components of the County's HHW program have been acquired/considered and analyzed:

- August 2017 HHW Event Observations
- 2016 HHW Registration Form Results
- 2011-2016 Participation Summary
- 1988 2017 Types and Amounts of Material
- 2016 NEST Dues
- 2014 2017 HHW Contractor Manifests and Invoices
- Various Event Photos
- Promotional Pieces (including website, flyers, social media)
- 2017 HHW Registration Form
- Meetings, Email Correspondence, Phone Conversations with Erie County DEP
- Site Maps (requested 06/03/18 via email)

All data and supplements (listed above) can be provided upon request (Erie County HHW Program Data & Supplements). The County's tabulated and quantified program data is presented in **Table T.02 Current & Notable HHW Program Data Overview**, Current Program and **T.03 Collection Methods Matrix**, Current Program.)

After reviewing the material and analyzing the data, the following observations can be made:

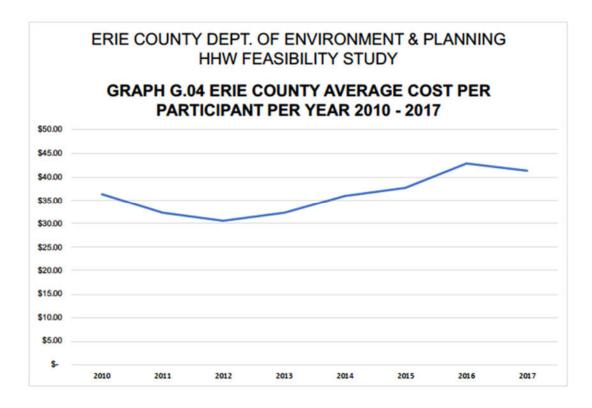
• Increasing Participation – Over the twenty years of the program's existence, the number of participants has steadily increased. See **Graph G.02 Erie County Participants per Event 1988 – 2017** for a visual depiction of this trend.



In the earliest years of the program, there was an average of 500 participants per event. By the early 2000s, there was an average of 900 participants per event. In more recent years, there has been an average of 1,300 participants per event. The largest events are managing as many as 1,500 participants. Over the course of a six-hour collection event, this is equivalent to four vehicles being unloaded each minute. Significantly, there is a correlation of increasing participation with an increase in residential real estate transactions in Erie County. See **Graph G.03 Residential Real Estate Transactions in Erie County 2012** – **2017** for an illustration of this increase.

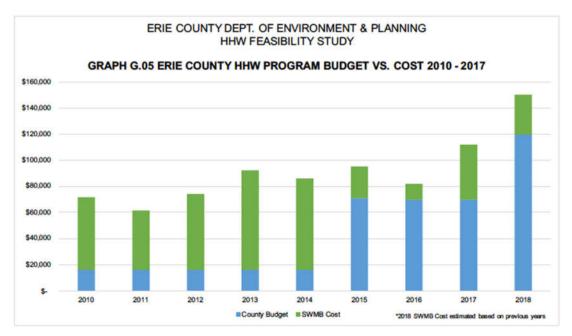
- Low Service Rate According to the US Census Bureau, there are approximately 382,000 households in Erie County. Serving 2,700 households equates to serving less than 1% of the total number of households annually in the County. This low service rate means that the majority of the homes in the County likely retain household hazardous waste.
- Limiting Participation To control cost, the current program is not extensively promoted, and places limits on types and quantities of material to collect. In addition, when participants attend and have a negative experience, it discourages them (and their friends and family) from attending a future event. This creates a whiplash effect on the service rate, as it drastically fluctuates from one year to the next. This cyclical trend can be seen in Graph G.02 Erie County Participants per Event 1988 2017.

• Increasing Costs – A number of factors are contributing to increased program costs. Perunit disposal bid prices have consistently rises over the study period, although County bidding procedures have kept these increases within reasonable limits. Increases in the participation totals have had a notable impact (Graph G.02). The total amount of HHW collected at each event has been increasing as has the amount of material brought by each participant. This may be a result of "wastepooling" by residents where vehicle loads are generated by multiple households. The increased cost trend can be seen in Graph G.04 Erie County Average Cost Per Participant Per Year 2010 – 2017.



Since 2012, the cost per participant has increased to about \$41, or about 30% above the low point for the period in 2012. It should also be noted that there has been a change in HHW disposal contractors during this period. In addition to increased unit costs, participation, and waste amounts, other factors contributing to the increased costs may include contractor material characterization and packaging methodologies, changing acceptable HHW types, and contractor staff experience.

• **Inconsistent Funding** – The budget allocation from the County has a history of fluctuation. It has been the responsibility of the NEST and NW boards to pay the difference between the County budget and the contractor cost. Inconsistent County funding combined with increasing contractor costs makes this a volatile line-item for the boards. This can be seen in **Graph G.05 Erie County HHW Program Budget 2010 - 2017**.



Both entities rely on receiving the NYSDEC 50% Reimbursement Grant. However, this is a risk; the Grant Application Package states "The NYS State Legislature must appropriate funding each state fiscal year for implementation of the HHW State Assistance Program. Accordingly, full 50% reimbursement is not guaranteed." For a copy of the full application, see Appendix A.03 NYS DEC HHW Grant Application.

• Unrealized Expenses – There are substantial unquantified non-contractor event staff and event coordination man-hours. These hours are contributed by both the County and municipal entities each year. Total staffing costs are unquantifiable due to variations in employee pay structures, compensation, and overtime agreements.

2.2.3 Data Limitations

The manifests held by the County were completed by the contractor on the day of the event and generated based upon total shipping containers as opposed to actual container weights. The exact weights of material collected are on the facility-signed manifests, which are held by the contractor. In addition, a definitive comparison of material types and actual weights collected over time could not be completed due to the variety of shipping containers used for specific materials. This may have been caused by the change in contractors and should be better delineated in future bid specifications. For example, 2017 event data was compiled from invoices and manifests into **Table T.04 Erie County 2017 Event Data**. For the purpose of this report, weights from the manifests were used to prepare the table.

2.3 MUNICIPAL & PRIVATE SECTOR RESPONSE

In recent years, public and private entities within the County have responded to the deficient HHW program in various ways. See **Figure F.01 HHW Disposal Solutions in Erie County** to see the location of current events and sites in the County.

2.3.2 Municipal Impact

Local municipalities have contributed and supported the current HHW program through direct financial support, dues paid to the solid waste boards, and employee HHW event staffing. However, some municipalities, in particular those from rural areas of the County, have expressed dissatisfaction with the current program. They have relayed the frustrations of their residents stating that the events are both infrequent and inconvenient. Additional collection events located in more remote areas would mitigate the problem noted by underserviced rural communities. Some municipalities have opted to host HHW collection events for their own residents. The Towns of Colden and Holland, Newstead and the Village of Akron, and the Town of Brant have held HHW collection events to service the needs of their residents. In addition, the Town of Tonawanda has an HHW facility permit and collects a limited list of HHW curbside each week. These municipalities are approximately located in the four corners of the County, and represent an area where residents would have to travel the greatest distance to access the current HHW program events at ECC sites. Overall, there is agreement among local municipalities that the County's current HHW program needs improvement. There is a willingness by the majority of municipalities to participate in a dialogue about a collaborative effort to increase program access and effectiveness.

In recognition of the concerns expressed by these communities, and the potential savings in offering a more comprehensive HHW collection service, Erie County has identified the HHW program as a significant part of its Shared Services Plan. The Shared Service Plan states, "Currently, many municipalities simply do not provide HHW services and those that do incur incredible costs. It is believed that an expanded program could cost approximately \$1 million per year, whereas if each municipality managed their own HHW program it would total at least \$3 million per year."

2.3.3 Private Sector Impact

The private sector saw a need in the community to provide a convenient location for homeowners to safely dispose of HHW. In 2012, The Environmental Service Group (ESG) obtained a permit for the first private HHW facility in NYS: Hazman. Hazman is the only permitted and operational HHW collection facility in Western New York. The program is discussed further in *Section 3.5*, *Notable Programs*. In addition to offering a permanent site, Hazman also works with municipalities to do custom events. Hazman's service bundle includes permitting, reporting, promotion, and day-of-event operations. Hazman is a growing division and currently has 11 collection events scheduled for 2018. Hazman has also developed a pre-registration scheduling tool for streamlining event management and participant communication. In addition, Clean Harbors provides pick-up only for homeowners with hazardous waste. Clean Harbors' website is difficult to navigate, but the County's website instructs homeowners to call for details. Both Hazman and Clean Harbors are listed as HHW companies on the County's recycling website.

3 SUMMARY OF REGIONAL HHW COLLECTION PROGRAMS

3.1 COMPARABLE MUNICIPALITIES / ORGANIZATIONS

HHW collection programs exist across New York State. Agencies and municipalities in Western New York with comparable HHW programs were contacted on behalf of the County for the purpose of gathering program costs and best management practices. Comparable municipalities / organizations / agencies that were contacted include:

- City of Buffalo
- Cattaraugus County
- Chautauqua County
- Development Authority of the North Country (DANC)
- Genesee Livingston Wyoming Region Solid Waste Management Committee (GLW)
- Hazman HHW Drop-off Center, a division of The Environmental Service Group (ESG)
- Monroe County
- Niagara County
- Onondaga County Resource Recovery Agency (OCRRA)
- Steuben County
- Town of Colden & Town of Holland
- Town of Newstead & Village of Akron

3.2 DATA COLLECTION

The data was collected via phone interviews, email correspondence, and file sharing. The following data was collected on each program:

- Point of Contact
 - Who is the contact to collect data regarding program details and history?
- Program Information
 - Collection Type
 - Are they hosting events or is there a permanent site? Or is there a combination?
 - *Is the permanent site privately held or publicly operated?*
 - Acceptable / Unacceptable Material
 - What material is accepted as part of their HHW Program?
 - What creative ways are they using to manage the material?
 - Eligibility Requirements
 - Who is eligible to participate in the program?
 - Material Collected (lbs, assumptions, if any)
 - *Do they collect this data?*
 - *If so, what assumptions do they make when calculating?*
 - Number of Participants
 - *How many participants do they have each year?*
 - Per collection type, event vs. permanent site?
 - Number of Eligible Households

What are the requirements / stipulations for participants?

HHW Contractor Name & Cost

- *Who collects the material?*
- What services are they providing?
- What is the cost for the program?
- *Is there a preferred vendor? Why?*

• Bidding Process

- Frequency
 - *How frequently is the RFP issued?*
 - Are there any renewal clauses?
- Metrics
 - What is the price structure: per pound, participant, full waste container?
- Funding Sources
 - o Mechanism
 - *How is the program funded?*
 - What are the formulas used, if any?
 - Do the participants pay for anything out-of-pocket?
 - Grant
 - Are there any grants contributing toward funding the program?
 - Sponsors
 - Are there any sponsors for the program? What do they contribute / gain?
 - Volunteers
 - *If using volunteers, what are their roles?*
 - Training?
 - *Do they return each year?*
 - Partnerships
 - What types of partnerships are there?
 - *How have these evolved?*
- Outreach
 - Methods
 - *How is the program promoted?*
 - *Is it done in-house or via third-party?*
 - What are the costs associated with promotion?
 - Newsletter
 - *Is there a 'recycling newsletter'?*
 - Frequency? Content? Costs?
- Misc.
 - **Registration**
 - *Is there mandatory pre-registration?*
 - What are the prerequisites?
 - Post-Event
 - *Is there a post-event survey?*
 - Best Practices
 - What makes their program successful?

A list of municipal / industry / agency contact correspondence can be found in **Appendix A.04 Municipal Correspondence List**. In addition, the summary of this data and sources can be found in **Table T.02 Current & Notable Program Data Overview** and **Table T.05 Municipal HHW Program Data Overview**. The compilation of documents containing phone interviews, promotional pieces (screenshots of websites and flyers, etc.), surveys, and tabulated data from agencies and municipalities that participated in the study (Municipal Data Supplements) can be provided upon request.

3.3 OBSERVATIONS

Based on the data collected from the participating municipalities and organizations, the following observations can be made:

- The average cost per participant is \$60. Eric County's cost per participant is just over \$40, almost \$20 less than the average. There are several reasons why the cost is lower. First and foremost, the County's MRU are considered *hidden costs* per *Section 2.2.7 Unrealized Expenses* and are not being quantified in this study. Second, limitations are placed on the types of material accepted. Finally, NOCO and The Battery are handling waste oil and batteries at no charge.
- 70% are funded by Enterprise Funds. Other funding mechanisms include property tax levy, authorities, councils, and participants themselves.
- Municipally-run programs are successful; they have the highest service rate. Local elected officials and management are involved and enthusiastic. Participant satisfaction is high.
- Programs with a promotional strategy have the highest service rate.
- HHW programs are **not** able to take advantage of economies of scale.
 - More advertising and greater convenience results in greater participation and greater cost. Typically, we assume that greater participation means lower cost per participant. However, consumers are not cost-driven, they are convenience-driven. Convenience and communication are the two biggest driving factors; both cost money. What makes participation convenient? Multiple events per year, nearby locations, efficient acceptance process.
- HHW program participants can be broken down into two demographics: socially-driven and economically-driven. These two demographics operate independent of one another.
 - Socially-Driven This group wants to protect the environment and/or prevent accidents at home, and intends to remove hazardous material from their homes on a regular basis. This group will respond to an imposed deadline (i.e., scheduled local collection event) so the event becomes an opportunity as well as a priority. This group is most likely to participate in an *event* collection program. *Convenience* to this demographic means "around-the-corner."
 - o **Economically-Driven** This group is facing a deadline and/or mandate and needs an immediate solution. Many times, they are from out-of-town and cleaning up a relative's estate or they are sellers of a home who ensured buyers 100% empty basements and garages (e.g., real estate transactions). This group is most likely to participate at a *permanent site* collection program. *Convenience* to this demographic means "immediate."

3.4 BEST PRACTICES

The most successful programs are mitigating risks, efficiently managing costs, maximizing participation, fostering creative partnerships, and are reaping the benefits of public satisfaction.

HHW Best Practices

Risk Mitigation	 Utilization of County-Owned Facilities or Privately-Held HHW Facilities No Volunteers Formal Training or Paid HAZWOPER-Trained Employees
Cost Efficient	 Control Variables (Pay per Lb. or per Resident) Enforce Unacceptable Items to Contractor Use RFP (rather than Bid; Grade Contractors on Evaluation Criteria rather than Price Alone) Maximize Consolidation of Material Smart Material Management (Leverage Market and Policies)
Maximum Participation	 Host Events in Population Centers Identify and Serve Both Socially-Driven and Economically-Driven Demographics Strategic Partnerships for Promotion / Funding Indoor Collection Point (Minimize Weather Issues)
Creative Partners	 Funding: Easy to Justify Putting Money Towards a Program with Stakeholders who Understand Community Benefits and/or Share Mission (e.g., Elected Officials, Waste Water, Storm Water Management, Conservation Groups) Enthusiasm and Momentum Around Program Private Companies as Sponsors, Event Hosts, Promoters Local Organizations as Sponsors, Promoters Private HHW Contractors as Labor, Collection Site Elected Officials as Promoters
Public Satisfaction	 Convenience (Year-round, Not Weather-dependent, No Wait Time, Close-by) Awareness (Education Programs, Newsletter, Strong Event Promotion Campaign) Consistent Dates and Locations

- Clarity (What-to-expect, Breakdown by Location of HHW in Home, e.g., Waste in Garage vs. Basement vs. Garden Shed)

 Compared to the C
 - Efficient (Appointments, Registration Packet with Stations, Map)

3.5 NOTABLE PROGRAMS

The following five programs are unique in their creative partnerships and/or participant costsharing. Notable program tabulated and quantified data is provided in **Table T.02 Current & Notable HHW Program Data Overview**.

3.5.1 Onondaga County Resource Recovery Agency (OCRRA) Permanent Site

OCRRA's HHW program has evolved from event style to year-round permanent site. The permanent site is privately owned and operated by an HHW contractor. Interestingly, annual participation has dropped from 3,000 to 2,000 per year since switching to a permanent site.

Funding Mechanism: OCRRA's services are predominantly funded by trash disposal fees and the revenue generated by the sale of electricity at OCRRA's Waste-to-Energy Facility. The NYSDEC HHW Reimbursement Grant is a source of funding as well. OCRRA spends approximately \$97,000 each year on hazardous waste disposal. OCRRA pays the contractor a flat fee of \$48.50 per participant for up to 20 gallons of liquids and up to 30 pounds of solids. Quantities exceeding the limits or materials listed as unacceptable by OCRRA *are* accepted by the HHW contractor for a fee paid by the participant. (e.g., latex paint is considered an unacceptable item, but participants can dispose of it at the HHW contractor's site for \$2.00 per gallon.) For a list of the HHW contractor's pricing structure see **Appendix A.05 EPS HHW Price List for Syracuse Waste Management Facility.**

Operations: Appointments are required, and available Monday – Friday, 6am to 6pm. OCRRA deliberately removed bulbs, batteries and thermostats from their HHW program to maximize the hazardous waste collected, as there are alternative recycling solutions for these waste streams. (See *Section 7.2 Universal Waste* for alternative recycling solutions for bulbs, batteries and thermostats).

Outreach: OCRRA spends approximately \$31,000 on education and awareness each year. They have a consistent recycling campaign that generates email blasts and quarterly newsletters, as well as a user-friendly website, which provides links, photos and videos for proper recycling solutions, and a search tool for how to get rid of waste.

The elements that make OCRRA's HHW solution unique and successful are:

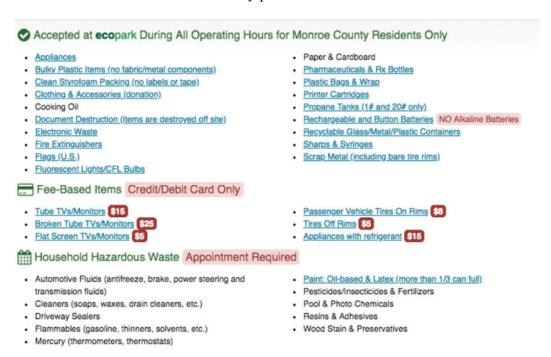
- Budgeted pricing by paying a flat fee per participant
- Providing an HHW solution for "unacceptable" wastes or waste quantities exceeding the limits *for a fee* determined by the HHW contractor.
- Zero capital required due to partnership with local, private, permanent facility
- Excellent educational resources.

3.5.2 Monroe County – EcoPark

Permanent Site & Collection Events

Monroe County operates a year-round recycling facility called the EcoPark. The EcoPark is the closest thing to a "One-Stop-Drop", as it accepts almost everything ranging from HHW to clothing to sharps and syringes. The EcoPark is open twice per week: Wednesdays from 1pm to 6pm and Saturdays from 7:30am to 1pm. In addition to the permanent site, Monroe County hosts 2-3 collection events in large, surrounding municipalities. The large municipalities are used because they can provide the employees while Monroe County provides the necessary training, logistics support, and permit and grant application submissions.

Funding Mechanisms: Funded by Monroe County's Enterprise Fund, they budget approximately \$350,000 each year for the program, and usually end up spending \$300,000. In addition to the long list of Monroe County's acceptable items, there is are a handful of items that homeowners can recycle for a fee. **Appendix A.06 Monroe County EcoPark Website Screenshot** shows how they publicize 'Fee-Based Items'.



Operations: Two Monroe County employees tend to the collection at the facility at a time. There is a designated Haz Waste Bunker for unknowns. The HHW contractor provides a chemist to review the Haz Waste Bunker as needed, as well as supplies PPE and disposal. The event staff consists of collection and pour-off labor provided by County and town DPW employees, and one chemist provided by the HHW contractor for lab packs and manifesting. In total, Monroe County services approximately 4,000 residents at the recycling facility and 1,500 residents at events for a total of 6,500 residents each year.

The elements that make Monroe County's EcoPark unique and successful are:

- HHW program stakeholders support the program with ample funding and resources; large department and pool of people that do this as part of their job (30-40 persons)
- This hybrid program is servicing both economically-driven and socially-driven demographics (See *Section 3.3 OBSERVATIONS* for definitions of the two HHW program participant demographics)
- They are a "One-Stop-Drop", making it easy for residents
- Share some recycling fees with participant a well as accept material from CESQG for a fee.

3.5.3 Niagara County

Collection Events & Voucher Program

Niagara County hosts two or three collection events each year averaging 400 participants per event. In addition, Niagara County piloted a Voucher Program in 2017 from May 1 to August 31 and totaled 101 participants. The Voucher Program pilot offered residents a year-round HHW disposal solution at a Hazman, privately-owned HHW facility, in the event a resident needed an immediate solution. Niagara County residents would go online to obtain a voucher and schedule an appointment. The voucher outlined the program details including acceptable waste, exclusions and limitations, directions to the facility and F.A.Q. See **Appendix A.07 Niagara County 2017 Voucher Sample**. The participant brought their voucher with them to their scheduled appointment at Hazman, where Hazman staff tallied the material and billed Niagara County and the participant accordingly. The Voucher Program was limited to a number of participants each year, on a first-come-first-served basis. The Voucher Program has been suspended. Currently, Niagara County is piloting a project to collect paint and paint-related materials.

Funding Mechanisms: From 2013 to 2016 HHW was a line-item in the Niagara County Refuse Disposal District budget (Enterprise Fund). In 2017, this line was moved to the Department of Public Works. Both lines are funded through the property tax levy.

Community Outreach: Each event is advertised by the host community by newsletter and announcement. Niagara County promotes the events on its website, at public meetings, and by emailing past users. Three weeks prior to each event, a mailer is sent throughout the host community by a sponsoring member of the NYS legislature. In 2017 the Voucher Program was offered to residents who called Niagara County in need of an immediate solution. Niagara County would direct the residents to the website to obtain the voucher.

The elements that make Niagara County's solution unique and successful are:

- Providing convenient, year-round HHW solutions (via voucher and cost-sharing with participants who exceed limits or have unacceptable items to dispose)
- Mandating pre-registration (helps control traffic and set participant expectations)
- Collecting other material at events, such as pharmaceuticals or paper for shredding.

3.5.4 Hazman, a division of The Environmental Service Group (NY), Inc. Permanent Site

Hazman was founded in 2012 as the first privately-owned and operated HHW collection facility in NYS. Located in the City of Tonawanda, Hazman accepts HHW, electronics, appliances, and other items from both homeowners and CESQG. Hazman is open Monday to Friday 8am to 4pm and the first Saturday of every month 9am to 12pm.

Funding Mechanisms: There is a recycling fee of \$0.75 per pound for most items, while others are priced by the unit. According to the Hazman data, the average weight of HHW dropped off by a customer is 100 lb., therefore, a customer's average cost is \$75.

Participation: Hazman's top five participating municipalities are Buffalo, Tonawanda, North Tonawanda, Amherst and Cheektowaga. Together, they made up 872 of the 1,340 customers in 2017. There is a correlation between the number of customers per municipality and the municipality's distance from the facility; the greater the distance between the municipality and Hazman, the lower the number of customers. For a more indepth look at Hazman's program, see Table T.06 Hazman Drop-off Center Data 2012 – 2017 and Table T.07 Hazman Event Data 2012 – 2015.

ERIE COUNTY DEPT. OF ENVIRONMENT & PLANNING HHW FEASIBILITY STUDY

TABLE T.06 HAZMAN DROP-OFF CENTER DATA 2012 - 2017

Year	Number of ar Participants Weight (Ibs		Avg. Weight per Participant	Avg. Cost per Participant		
2012	778	77,005	99	\$	74.23	
2013	892	90,066	101	S	75.73	
2014	1085	115,030	106	S	79.51	
2015	1145	111,982	98	S	73.35	
2016	1410	140,318	100	S	74.64	
2017	1340	121,821	91	S	68.18	

Conclusions: Some homeowners are willing to pay Not many are willing to drive

The elements that make Hazman's HHW solution unique and successful are:

- Year-round, weather-independent solution
- Driven by customer demand, offering both "one-stop-drop" and pick-ups
- Accepts material for a fee from both homeowners and CESQG.

3.5.5 Town of Colden & Town of Holland Collection Event

The Town of Colden and Town of Holland partner up each year to host a joint HHW and e-waste collection event for their residents. They were inspired after receiving a complaint about the long distance and wait-time to participate in the County's HHW program. The first event was held in 2015. Three years later, the supervisors take note of the substantial amount of material they are continuing to collect. They continue to have the events because the need is there, and they have had such positive feedback from the people who have taken advantage of it.

Community Outreach, Participation & Funding Mechanism: The event is promoted by every-door-direct-mailers three weeks prior to the event. They are reluctant to do any more advertising than that as they average a 4% service rate. Town of Holland Supervisor Mike Kasprzyk believes that even if there was a permanent site in the City of Buffalo, his residents would rather wait for the nearby event. Out of the Town of Holland's \$305,000 Waste & Recycling Budget, \$9,000, or 3%, is used to fund the HHW and E-Waste collection event. This equates to \$6.38 per unit (single and multi-unit homes).

The elements that make the Town of Colden and Town of Holland's joint HHW program unique and successful are:

- Shared-services success story
- Highest service rate
- Local, convenient solution for homeowners
- HHW contractor provides an entire event-planning bundle, including permitting, registration and every-door-direct-mailers

4 STATE REGULATIONS & POLICIES IMPACTING HHW

4.1 ENVIRONMENTAL REGULATIONS, PERMITTING & INCENTIVES

Household Hazardous Wastes (HHW) are exempt from solid waste regulations, meaning that disposal of common household products such as paint, cleaners and fuels is not regulated if they are derived from a residential source. Rather, residentially-derived household hazardous wastes are deferred to the solid waste hauler or transfer facility that specifies materials that it will accept or not accept based on operational and liability concerns. Most facilities and transporters managing curbside municipal solid waste (MSW) are prohibited from accepting HHW since the materials pose a risk to their employees and operations. The NYSDEC places regulatory requirements on the organizations and businesses that handle, store and transport HHW to minimize risks to the environment and public health.

4.1.1 HHW Permits

Historically, there have been two types of HHW collection permits available: **event permit** and **permanent site permit**. A program sponsor completes a permit application, in which they are required to describe their facility design and operating plan and how it meets the required criteria. In *most* cases, the operating plan utilizes a private HHW contractor to actually collect and transport the material. It is the HHW contractor's responsibility to provide adequately-trained staff as well as a fleet of vehicles with a waste transporter permit.

In 2018, the NYSDEC issued updated HHW regulations in which a *third* type of HHW permit is offered: **satellite collection event permit**. The main difference between a traditional HHW event permit and a satellite collection event permit is that the HHW **can be transported by the program sponsor to a permitted HHW facility without need for a waste transporter permit.** HHW must be removed from the satellite collection event site within three days of collection, and the site must be returned to its original condition after the collection event is complete. As a transporter of HHW, the program sponsor must comply with the same transportation requirements as if they held a permit (proper sorting and packing, labeling, manifesting, etc.). This provides a significant opportunity for increased municipal participation in the collection of HHW without incurring the cost of transporting HHW, which is up to 25% of an event's cost. It is worth noting that while the municipalities transporting HHW will decrease out-of-pocket HHW program expenses, it will increase MRU, requiring training, labor, fuel as well as an increase in risk and liability.

4.1.2 Grant Program

New York State does not mandate local governments to implement an HHW program, but it is encouraged through a reimbursement program made available each year in the state budget. To incentivize HHW collection by municipalities, the NYSDEC provides an HHW Reimbursement Grant. The grant requires full payment for HHW collection programs and provides reimbursement of up to 50% the following calendar year.

4.1.3 Satellite Collection Event Benefits to Municipalities in Erie County

Erie County can reach out to its municipalities and provide support for them to do their own collection events in the following ways:

- Provide compliance expertise
- Prepare grant application
- Provide partial funding
- Apply for event permit
- Arrange for on-site training and support for workers
- Obtain bids for waste disposal
- Arrange for site equipment and packaging materials
- Provide templates for marketing the event

Many municipalities that are responsible for managing MSW transfer facilities are interested in successful HHW collection programs, which would reduce the volume of HHW that is placed at the curb for collection. Municipalities are best-suited to determine the need for collection events because they know their community members. They can tap into local businesses and grassroots organizations to sponsor and implement a collection program. It can be an opportunity for elected officials to show support for their communities. When well-publicized and well-organized, HHW events are enthusiastically attended by the community.

4.2 CURRENT & PROPOSED POLICIES

Recently, New York has taken legislative steps to impose regulations on specific waste streams through the Extended Producer Responsibility (EPR) policy or Product Stewardship, which establish a collection and management infrastructure to responsibly manage materials at the conclusion of their useful life.

4.2.1 EPR Benefits to Erie County

The ideology associated with EPR is to involve manufacturers and/or retailers in the end-of-life management of items they generate or distribute. EPR policy seeks to develop a collection and management infrastructure funded by manufacturers and/or retailers that is accessible, convenient and free to participants. The role of local governments in the management or collection of specific items is defined with each separate policy. Often, this policy reduces the financial burden of the municipal program, but arguments have been made that a manufacturer-funded program increases the cost of a product at the time of purchase and therefore the consumer bears the brunt of the expense. On the contrary, EPR policy reduces (often eliminates) the financial burden on local government to provide a collection program funded through the tax levy or fees. EPR is also credited with stimulating or generating reuse and recycling markets, which are dependent upon the individual policy language for each specific product.

A summary of successful New York State EPR policy includes:

Lead-Acid Batteries: New York banned the disposal of lead-acid batteries and established
a financial incentive to facilitate collection and recycling by establishing a financial
incentive for the return of used batteries and requiring lead-acid battery retailers and

distributors to accept batteries free of charge from the public. Retailers must accept up to two lead-acid batteries per calendar month from any individual at no charge. Consumers purchasing a new lead-acid battery must either offer a lead-acid battery at the time of purchase, or pay a five-dollar fee.

- Mercury Thermostats: New York banned the disposal of mercury thermostats in 2005. The
 law provides for the mandatory collection and environmentally sound management of
 mercury thermostats, allowing homeowners more convenient opportunities for the safe
 drop-off and recycling of out-of-service mercury thermostats.
- Waste Oil: New York has banned the disposal of used oil. Service and retail establishments that meet minimum criteria must accept up to five gallons of used oil per person per day at no charge.
- Rechargeable Batteries: Manufacturers are required to arrange for and finance recycling of all used rechargeable batteries collected by retailers. Any retailer selling a rechargeable battery must post signage advising consumers of a disposal ban and the opportunity to recycle at their location. Rechargeable battery manufacturers are financially responsible for recycling all rechargeable batteries collected.

Currently, New York has introduced, but not yet passed into law, EPR policy for the management of household paints and primary (single-use) batteries.

4.2.2 Paint Stewardship Legislation

New York Senate Bill 881 (S.881) and same-as Assembly Bill 1038 (A.1038) target waste paint. This "Paint Stewardship" policy would task the paint industry, through a third-party organization, with collecting and managing waste paint in New York. According to the New York Product Stewardship Council, it is estimated that nearly four million gallons of leftover paint are generated annually in New York and local governments would need to spend \$31 million to properly manage this waste stream. Currently, New York municipalities are spending \$3.1 million each year to responsibly manage waste paint. The State's Household Hazardous Waste Grant Assistance Program excludes reimbursement for expenses related to latex paint.

New York's proposed Paint Stewardship policy is sponsored by PaintCareTM, an industry-run non-profit organization, which would implement a program to manage latex and oil-based paint, including transportation, recycling, and processing. PaintCare Inc. is a non-profit 501(c)(3) organization developed by the American Coatings Association (ACA), a membership-based trade association of the paint manufacturing industry, that plans and operates paint stewardship programs in U.S. states and jurisdictions that pass paint stewardship laws.

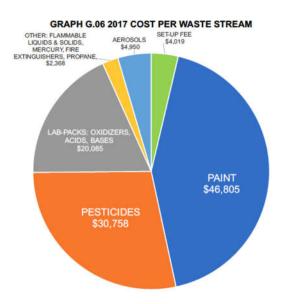
The current policy model of S.881 and A.1038 mimics the policy implemented in eight other states and the District of Columbia by placing a fee on each pint, gallon and five-gallon can of paint sold in the state of New York. For example, in New York it is proposed that a \$0.75 fee per gallon of paint sold would fund a collection program for all unwanted latex and oil-based paint in New York per the convenience standards outlined in the draft policy. Advocates for the bill argue that the policy reduces the role of government-financed collection, establishes new convenient locations for residents to drop off their paint, increases paint reuse and recycling, and creates recycling-sector jobs. Opponents argue that the fee is a tax and are concerned about anti-trust issues associated with management by a third party, private industry.

4.2.3 Primary Battery Policy

New York Assembly bill A.6280-A and Senate bill S.1448-A are EPR bills that would establish a single-use battery recycling collection program (or collection program for single-use (alkaline) batteries) paid for and managed by manufacturers. The proposed bill establishes a convenience standard based on population to ensure that large and rural communities are served. The program laid out by the bill could capture nearly 7 million pounds of primary batteries annually.

4.2.4 EPR Policy Impacts on Erie County HHW Program

Tabulated data from 2017 Erie County Household Hazardous Waste collection events indicate that 61% of the waste stream collected is related to paint, accounting for 39% of the overall expense or nearly \$47,000 in 2017. New York State emphasizes and encourages HHW collection; however, expenses related to non-hazardous wastes, such as latex paint, are not eligible for reimbursement. According to the data provided, the impact of the proposed Paint Stewardship policy would remove the burden of responsibility from Erie County municipally-funded sources by liberating approximately \$47,000 that could be used to expand the existing HHW program or reduce the tax burden to manage a municipally-funded program. Below is an illustration of County's **2017 Cost per Waste Stream (Graph G.06)**.



New York State has also effectively passed a non-EPR policy that targets the toxicity or probability of pollution for materials such as waste oil, lead-acid batteries and plastic bags. This policy has been effective in generating a collection infrastructure accessible to the public, as well as a consistent source of material for reuse or recycling.

4.2.5 Additional Policy Impacting HHW in Other Jurisdictions

The state of Vermont has introduced an HHW EPR bill that covers a broad range of products that contain hazardous substances. The intent of the bill is to improve diversion of HHW from landfills, reduce the financial burden on public entities (i.e., taxpayers), and lessen the environmental and public health risk associated with improperly managed HHW. The manufacturer must register the

household product and pay an annual fee of \$100 for each registered product. The fee would be deposited in an Assistance Fund that will be distributed to solid waste districts and municipalities in the State. This bill has not become law, but serves as a starting point for potential legislation that would identify a funding mechanism and outline specific goals for a safe and effective HHW collection program.

The regional government of Portland, Oregon has also developed a bill that was introduced in March 2017. This bill was shaped by research conducted on the operational and program challenges identified from EPR policy for HHW programs used in British Columbia, Manitoba and Ontario, Canada. The Portland bill was drafted based on key learnings, such as the inclusion of a convenience standard, seen in similar policy that has been active in the three Canadian provinces for nearly twenty years.

The expansion of policy related to management of common products accepted in a community-based HHW program may foster a paradigm shift in how jurisdictions fund HHW programs. For example, financing has been demonstrated to be a major program hurdle. Policy levying responsibility to manufacturers and/or users or the development of a collection infrastructure may reduce the demand for a publicly financed program. In turn, the combined impact of savings and greater access to disposal may substantially reduce the expenses of hosting a program while simultaneously expanding residents' ability to safely dispose of their undesired materials.

5 ALTERNATIVES ANALYSIS

5.1 CONSIDERATIONS & OBJECTIVES

- **5.1.1** A number of factors have been taken into consideration to provide the criteria for the proposed alternatives to Erie County's existing HHW program. First and foremost are the NYSDEC HHW regulations governing the way HHW is managed. The regulations outline the permit requirements, which in turn dictate the program type. The program type dictates who can participate, staff safety and training requirements, site requirements, limitations on material collected, length of time it is in storage, and transportation requirements. Secondly, the best practices accumulated from the numerous interviews and data collection with HHW program managers throughout the region were considered. The study looked for common characteristics shared by programs with the highest service rates and participant satisfaction. Finally, the study considered the demographics of HHW program participants, as well as current and pending policies related to EPR.
- **5.1.2** The alternatives described in *Section 5.3 ALTERNATIVES* address the following primary objectives:
 - **Increase Participant Satisfaction** Satisfied participants will be more likely to participate at future programs and promote the program to their friends, families and colleagues.
 - Increase Service Rate Monitoring the number of households serviced each year, rather than total amount of material collected, is a significant indicator of a program's impact, as it is a direct result of public education and awareness of the program.
 - Identify the Demographic Serviced Designing a program that services both demographics will increase public satisfaction. (See Section 3.3 OBSERVATIONS for definition of HHW program participant demographics and Table T.08 Quantification of Demographics.)
 - **Optimize Resources** Utilization of external public/private partnerships while maximizing County/municipal shared services can simultaneously reduce cost and increase participation. There are many combinations of entities and contributions to consider, which will ensure optimization of both the effort and funding being invested in a successful HHW program.

5.1.3 Demographics and Demand

First of all, an HHW solution is not a one-size-fits-all solution. It is important to note that Erie County has three distinct geographic characteristics:

- **URBAN** = Inner Circle (i.e., Buffalo, Tonawanda, Amherst, Cheektowaga, West Seneca, Lackawanna)
- **SUBURBAN** = Next ring of towns (i.e., Grand Island, parts of Amherst, Clarence, Lancaster, Elma, Orchard Park, Hamburg, Evans)
- **RURAL** = Outer ring of towns (i.e., Newstead, Alden, Marilla, Wales, Holland, Sardinia, Concord, North Collins, Collins, Brant, Boston, Colden)

The people and governing bodies in these three rings do things differently, which includes methods and philosophies related to waste management.

Second, there are two different demographics of residential HHW participants that have been identified in this study. (See *Section 3.3 OBSERVATIONS* for definition of HHW program participant demographics.) Both demographics are characterized in **Table T.08 Quantification of Demographics**. The result is the quantified HHW disposal demand to be used for annual HHW program participation goals:

Homeowner Demographic	Estimated Annual Number of Participants (HHW Disposal Demand)	Preferred HHW Program Type
Socially-Driven	15,280	Event
Economically-Driven	6,000	Permanent Site
Total	21,280	Event + Permanent Site

5.2 COLLECTION METHODS

Two HHW program types, events and permanent sites, provide framework for four collection methods:

Event Collection Methods:

- County-run **Regional Event** (Collection Method #1, below)
- Municipally-sponsored **Satellite Events** (Collection Method #3, below)

Permanent Site Collection Methods:

- County-owned **Permanent Site** (Collection Method #2, below)
- Privately-owned permanent site with County-issued **Voucher** (Collection Method #4, below)

See Collection Methods Matrix (Table T.03) for an overview of Collection Method features (such as Service Hours and Locations Participation, SWOT Analysis, and Staffing and Capacity Calculations). Each Collection Method is summarized below.

5.2.1 Collection Method #1 – Regional Event

• <u>Summary</u>: Regional events will take place in high-density locations throughout the County between the months of May and October. Each event will take place on a Saturday from 9am to 3pm. The annual event schedule will be promoted at the start of the year, with all dates and locations predetermined. The event schedule will include a map of Erie County with collection sites indicated so participants can plan accordingly. Each event will accommodate a *maximum* of 700 participants. Participants will be required to pre-register. The County should be split into zones and the locations will rotate within the zone each year to ensure that each municipality has the opportunity to host an event. The municipalities within the zones will also partner-up on event promotion. Hosting

municipalities will send a two-sided mailer two weeks prior to the event to their residents, including an annual event schedule and other County HHW program solutions (e.g., permanent site and/or voucher program information).

- <u>Pros</u>: Most cost-effective way to collect HHW. It is easy to promote and provides multiple service locations.
- <u>Cons</u>: If frequency of events is less than monthly then it misses the economically-driven demographic. Introducing a pre-registration system may upset or confuse public.
- <u>MRU</u>: Half-time County employee to oversee compliance, facilitate procurement, logistics and promotion. Hosting municipality to provide mailers to residents.
- <u>Financial Basis</u>: Historical County program cost and performance.
 - o 700 participants = \$38,150 / event*
 - o Approximately \$54.40 per participant
 - See Table T.09 Regional Event Costs

See Table T.03 Collection Method Matrix, Collection Method #1, *Regional Event* for overview of features (such as Service Hours and Locations, Participation, SWOT Analysis and Staffing and Capacity Calculations).

5.2.2 Collection Method #2 – Permanent Site

- <u>Summary</u>: A permanent site located in easily-accessible population-dense regions of the County will be open year-round. The service hours will be two Saturdays per month, 9am to 3pm, and one or two Wednesdays per month, 5pm to 8pm. There will be a strategic plan for education and promotion, as well as mandatory pre-registration. The site will have a service goal of 5,000 participants each year. With regard to site selection, there are five County-owned satellite barns, as well as an existing privately-owned HHW collection facility, that could be utilized. A map of the satellite barn locations is provided as **Figure F.02 Erie County Satellite Barns**. There is confirmed interest from SWMB members to explore joint efforts to operate a permanent site. For example, the Hamburg Sub-Plant satellite barn (8730 Delamater Road, Angola) in the Town of Evans, is conveniently located off a main road and zoned for industrial use. The Town of Evans has expressed sincere interest and enthusiasm about a municipal/County collaboration.
- <u>Pros</u>: This is the most convenient solution for the economically-driven HHW participant. Additional materials, services or recycling fees could be easily added. Weather will minimally affect participation.
- <u>Cons</u>: Potentially misses the socially-driven demographic, which responds best to an imposed recycling deadline. Highest capital cost and longest time to implement.
- <u>MRU</u>: Full-time County employee to oversee compliance, facilitate procurement, logistics and promotion, 3 County/municipal employees for 15 20 hours per month to collect and sort material.
- Financial Basis:
 - o 6,000 participants = \$335,703 / year*
 - o Approximately \$55.95 per participant
 - **Our See Table T.10 Permanent Site Costs**

See Table T.03 Collection Method Matrix, Collection Method #2, *Permanent Site* for overview of features (such as Service Hours and Locations, Participation, SWOT Analysis and Staffing and Capacity Calculations).

5.2.3 Collection Method #3 – Satellite Events

- <u>Summary</u>: Rural municipalities will take turns sponsoring collection events. The satellite events will take place on the first Saturday of each month, 9am to 12pm. The municipalities will collect, sort and transport the waste to an HHW facility. The HHW facility responsible for disposing of waste will also provide event training, manifesting, and labeling and packaging material for safety and compliance. Satellite event permitting should be done by third-party due to the complexity of the program.
- <u>Pros</u>: Potentially lowest *non-grant* out-of-pocket cost per participant. There is interest from some SWMB members to participate. (e.g., Village of Hamburg).
- Cons: This is the most complicated collection type as far as compliance, logistics and promotion. County/municipal event employees may be reluctant as this may not be part of their current job description. In addition, most County/municipal event employees are inexperienced in HHW waste identification and sorting, therefore inefficient and high-risk. Initially, event capacity to be <100 participants initially to maintain participant satisfaction. Satellite event should not exceed 200 participants until municipal staff are experienced and efficient in identifying and sorting HHW.
- MRU: Full-time County employee to oversee compliance, facilitate procurement, logistics and promotion, 7 County/municipal employees per satellite event to collect, sort and transport material.
- Financial Basis:
 - o 200 participants / event x 20 satellite events / year = \$147,134*
 - o Approximately \$36.78 per participant
 - o See Table T.11 Satellite Events Costs

See Table T.03 Collection Method Matrix, Collection Method #3, Satellite Events for overview of features (such as Service Hours and Locations, Participation, SWOT Analysis and Staffing and Capacity Calculations).

5.2.4 Collection Method #4 – Vouchers

• <u>Summary</u>: The County will hire an HHW contractor to provide a permanent site for yearround collection. The County will direct residents to go online to complete a preregistration process and be issued a voucher. The participant will print the voucher and
submit it with their material for disposal. Vouchers will have eligibility requirements,
limitations and exclusions for material types. (See **Appendix A.07 Niagara County 2017 Voucher Sample** for a sample of the voucher used for the Niagara County Voucher
Program in a partnership with Hazman.) Printed on the voucher will be waste eligibility,
financial responsibility and F.A.Q. There will be a maximum voucher cost, a monthly cap
on number of participants, and it will be promoted on a first-come-first-served basis. In
addition, the HHW contractor should be required to provide a monthly report summarizing
cost, participant information and waste stream quantities.

- <u>Pros</u>: Most service hours. Budget friendly. Easily share cost with participants. This is the only collection method having economies of scale (as participation increases MRU remains constant). Most flexibility to County.
- <u>Cons</u>: Farthest average distance. Potentially misses socially-driven demographic and those unwilling to drive.
- MRU: ¼-time County employee to facilitate procurement and promotion.
- Financial Basis:
 - o \$50 per participant*
 - See Table T.12 Voucher Costs

See **Table T.03 Collection Method Matrix, Collection Method #4,** *Voucher* for overview of features (such as Service Hours and Locations, Participation, SWOT Analysis and Staffing and Capacity Calculations).

* Costs are approximated. Includes HHW Contractor fees, pre-registration, promotion and education. Does not include MRU or grant funding. To see MRU approximation, see corresponding Collection Methods Costs Tables (T.09 - T.12).

5.3 ALTERNATIVES

Hypothetical budget caps and participation goals were determined. Then, program alternatives were designed to meet budget caps or participation goals using considerations, objectives and the Collection Methods above. (Excerpt from **Table T.13 Alternatives' Assumptions & Costs** below.)

Alterna	tive A: \$120,000 Program Bu	Including MRU		
Qty.	Collection Method	Participants	Out-of-Pocket (OP) Cost	Total Cost
3	Regional Event	2,100	\$114,450	\$169,450
	Totals	2,100	\$114,450	Avg. Cost per Participant
		Avg. OP Cost per Participant	\$54.50	\$80.69

Alterna	ntive B: \$170,000 Program Bu	Including MRU		
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
4.4*	Regional Event	3,080	\$167,860	\$222,860
	Totals	3,080	\$167,860	Avg. Cost per Participant
		Avg. OP Cost per Participant	\$54.50	\$72.36

Alterna	tive C: \$320,000 Program Bu	Including MRU		
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
6	Regional Event	4,200	\$228,900	\$401,400
1,800	Vouchers	1,800	\$90,000	Avg. Cost per Participant
	Totals	6,000	\$318,900	\$66.90
		Avg. OP Cost per Participant	\$53.15	

Alterna	tive D: \$420,000 Program Bi	Including MRU		
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
8	Regional Event	5,600	\$305,200	\$500,200
2,250	Vouchers 2,250 \$112,500		Avg. Cost per Participant	
	Totals	7,850	\$417,700	\$63.72
		Avg. OP Cost per Participant	\$53.21	

Alterna	tive E: 11,500 Participation (Including MRU		
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
8	Regional Event	5,600	\$305,200	\$900,903
1	Permanent Site	6,000	\$335,703	Avg. Cost per Participant
	Totals	11,600	\$640,903	\$77.66
		Avg. OP Cost per Participant	\$55.25	

Alternative F: 20,000 Participation Goal (Full Quantified Demand)		PREFERRED ALTERNATIVE	Including MRU	
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
20	Regional Event	14,000	\$763,000	\$1,358,703
1	Permanent Site	6,000	\$335,703	Avg. Cost per Participant
	Totals	20,000	\$1,098,703	\$67.94
·		Avg. OP Cost per Participant	\$54.94	

* 4.4 Regional Events = Five events total. Four events will have a 700-participant cap. One event will have a participant cap of 280 (0.4 * 700 max. = 280)

After extensive research, cost-benefit analysis and assessment, the study determined the recommended, preferred alternative to be 20 Regional Events and 1 Permanent Site (**Alternative F**), phased in over three years. This preferred alternative is designed to efficiently and cost-effectively service 20,000 participants annually, fulfilling the County's annual HHW disposal demand (determined by characterization and quantification of HHW participant demographics presented in *Section 5.1.3*, *Demographics and Demand*). The result being an increase in service rate and participant satisfaction, safer homes and a protected environment.

There are a number of benefits to the County for pursuing the preferred alternative, such as:

- Addressing the commitment by the County and local governments to a County-wide HHW
 collection program per Erie County-Wide Shared Services Plan, submitted to and approved
 of by New York State in fall 2017,
- Increasing participant capacity and satisfaction,
- Easily contract or expand to service demand in the future,
- Avoiding costs associated with resident HHW dumping and clean-up,
- Easily incorporate municipal satellite events,
- Various opportunities to minimize out-of-pocket cost, such as utilization of permitted and operational HHW facilities, grant funding and participation in EPR programs, deployment of municipal resources, cost-sharing with participants, public-private partnerships for permanent site locations (e.g., Waste Management's Chaffee Landfill, currently hosts 2 events at their facility for Town of Sardinia residents). Potential savings of up to \$400,000 annually.

This preferred alternative has the highest annual cost. However, this alternative *also* has the highest *per participant cost-benefit*, when considering service capacity and participant convenience. This can be seen in Table T.13, excerpt above:

- The lowest-cost-per-participant-program is **Alternative D**, at \$53.15 per participant. **Alternative D** is an improvement to the current program, as it provides a hybrid solution (6 events and 1 permanent site via voucher program) however, service capacity is limited to 6,000 participants. This alternative includes an 1,800 permanent site participant maximum. The permanent site may not be centrally-located, therefore overall participant satisfaction will fluctuate.
- The preferred alternative, **Alternative F**, cost-per-participant is \$54.94. **Alternative F** is a significant improvement to the current program, as it provides a hybrid solution (20 events and 1 county-owned permanent site) which meets the HHW disposal demand of 20,000 annual participants. The permanent site will be centrally-located therefore a convenient solution. Service rate and participant satisfaction will be maximized.
- The difference in cost-per-participant is only \$1.79, a minute price to pay for a tremendous value.

The preferred alternative can be implemented in phases	The	preferred	alternative	can be i	implemente	d in	phases:
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Phase Year	Program	Number of Participants	Annual Cost*
Phase I 2019	6 Regional Events	4,200	\$228,900
Phase II 2020	8 Regional Events	5,600	\$305,200
Phase III 2021	8 Regional Events 1 Permanent Site	11,600	\$640,903 Section 5.3, Alternative E
Forthcoming Years Add additional events; up to 12 Regional Events* and/or up to 20 Satellite Events*, depending on MRU, to service up to 9,000 additional participants * See Section 5.3, Collection Methods for event descriptions		11,600 – 20,000	Up to \$1,098,703 Section 5.3, Alternative F

^{*} Excluding MRU (Municipal Resources Utilized)

If resources are not forthcoming, several other program alternatives to increase efficiency and effectiveness at a lower cost are presented (Alternatives A - C).

A permanent site and regional events are a good primary objective for the program with the intent of revisiting the issue once full realization of costs, effectiveness, and efficiency become apparent. The program will continue to evolve as data is collected and trends are seen.

Note:

None of the alternatives in Collection Methods Matrix, Table T.13 include a Satellite Event collection method. This is because it is difficult to evenly allocate County funding and/or resources to individual municipalities. However, it is a cost-effective collection method and the County should provide technical assistance to municipalities that opt to provide this service to residents (e.g., sharing templates for procurement, promotion, general best practices and grant application assistance. See Figure F.03 Role of Erie County).

6 PROGRAM RECOMMENDATIONS & IMPLEMENTATION STEPS

Based on the data collection and analysis, several recommendations are provided for the County to consider in managing its HHW program as it moves forward.

6.1 RECOMMENDATIONS

6.1.1 Define the County's Role and HHW Program Mission Statement

The County has the opportunity to act as the hub for a successful County-wide HHW program. The County is uniquely positioned to leverage buying power, provide expertise and support, and streamline communications. For a visual depiction of the recommended role of Erie County as it relates to the improved HHW program, see **Figure F.03 Role of Erie County**. As the hub of the program, the County needs to understand the key, high-level elements of a successful program and put them into practice via program implementation, management and operation. See **Figure F.04 Elements & Characteristics of a Successful HHW Program**.

6.1.2 Determine and Create Sustainable Funding Mechanism(s)

The majority of HHW programs in NYS are funded by landfill enterprise funds. The County is at a disadvantage because it doesn't have the funding or leverage that coincides with owning a landfill. Once a government service is offered, it sets a precedent and creates expectations from residents. It is very difficult for a government to take a service away. Therefore, the County needs consistent and sustainable funding for an HHW program so it is not in jeopardy of being cut in the future under new legislation, or change in grant availability. Potential funding mechanisms include:

- Erie County General Fund: Increase the budget to accommodate program cost.
- Erie County Revenue Stream:
 - Mandate a County-wide waste hauler fee-based permit for any business transporting MSW. The fee structure could be based on annual tonnage or quantity of pick-ups.
- SWMB Dues: Restructure the SWMB dues formula to reflect proportionate service costs.
- Participants: Share the cost with participants; the benefits the County brings to participants are convenience and buying power. For example, rather than a homeowner having to drive 30 minutes to the City of Tonawanda and paying \$75 to dispose of 100 lb. of HHW, they have the option to participate at an event just five minutes away and paying just \$20.

6.1.3 Strategically Promote Program And Educate Public

Regardless of which program alternative is selected, it is imperative that there is an imaginative strategy for promoting the program to the public. In addition, there is an opportunity to educate the public on the importance of responsible HHW management both for our environment and within our communities. The promotional and educational strategy will make or break the program. Key elements for promotion and education include:

• Attractive Branding: Designed by professionals to attract awareness. The branding should be clean, concise and consistent. It should incorporate a theme and tagline. For example, the theme idea could be preservation of fresh water, since the entire County borders one of the largest sources of fresh water in the world. The concept of fresh water preservation can

- unify County residents. The tagline, "One-Stop-Drop", makes this program *sound* convenient and easy to residents.
- Visual Appeal: Designed by professionals to clearly show the hierarchy of information in an eye-catching manner, including graphics such as icons and a map of sites.
- Maximize Technology: Incorporating technology around the program is an efficient way to maintain constant communication with the public. Methods include social media, blog, newsletter, etc. as ways to receive input and questions from the public. An improved website can act as a waste FAQ resource and information hub. The website also needs to be more user-friendly, better-promoted, and able to grow with the program.
- Clear Dates and Locations: Make program dates and locations consistent and predictable. If they vary, have a schedule posted in its entirety at the first of the year.
- Track both Municipal Resources Utilized (MRU) and third-party costs associated with promotion and education in the HHW Program Cost Summary and Analysis Template, allowing both to be assessed and quantified as needed.
- Identify Promotion Partnerships:
 - Municipalities
 - o Colleges and Universities
 - Waste Haulers
 - o Realtors
 - Industry Associations
- Identify Education Partnerships:
 - County Authorities and Divisions: Campaign together on fresh water preservation using facts and figures about the County's unique location and valuable resource (e.g., with Erie County Water Authority or Erie County Division of Sewage Management).
 - School Districts: Incorporate sustainability education. Young children will bring good recycling habits home and educate their parents; young adults are potential participants.
- Use the **Table T.14 Resource Matrix** to organize and prioritize program partners.
- Use touch points with the public as an opportunity to educate about alternatives to hazardous products, beginning with the list of alternatives provided by NYSDEC. See Appendix A.08 Managing and Disposing of Household Hazardous Waste and Appendix A.09 Household Hazardous Waste Disposal and Alternatives Chart.
- See Appendix A.10 Effective HHW Program Education and Awareness Pieces for design and content inspiration and ideas.

6.1.4 Mandate Pre-Registration

The benefits of mandatory pre-registration are considerable. Benefits include the ability to control traffic by scheduling arrival times, apply a cap to number of participants, gather emails for post-event surveys, and build a database for future recycling information outreach. In addition, there is the opportunity to provide each participant with expectations for the event via a "Registration Packet", which includes driving directions, a site map, etc. In addition, most pre-registration systems will send out reminders to registered participants prior to the event. It is estimated that the cost for a pre-registration system will be \$0.75 per participant. Therefore, for the preferred alternative per *Section 5.3.2*, the cost would be \$9,750 per year. This is eligible for the NYSDEC HHW Reimbursement Grant; therefore, the County's actual cost would be \$4,875 per year. See

Appendix A.11 Effective HHW Program Registration and Surveying Pieces for design and content inspiration and ideas.

6.1.5 Cap Participation and Staff Accordingly

For safety and cost management purposes it is best to have a cap on the number of participants at an event or permanent site. A recommended event cap is 700 participants per event. Monroe County shared two formulas for HHW program participation and staffing:

- Events: 6 participants per employee per hour, 500-700 cars per event
- Site: 2 employees = 4 participants per 30 min., 3 employees = 6 participants per 30 min. These staffing recommendations have been applied to the preferred alternative presented in *Section 5.3.2.*; calculations can be found in **Table T.03 Collection Methods Matrix**, **Row #4**, **Event Staffing & Permanent Site Capacity Calculations**.

6.1.6 Improve Data Collection

Consistent person = consistent data; one person should be the HHW program *data guru*. The data guru should be both ExcelTM and HHW savvy. The benefits of improved data collection include the ability to identify trends and patterns in material collection and participant behavior. Utilizing technology to collect and manage material and participant data saves time and resources. In addition, utilizing spreadsheet software (such as ExcelTM) streamlines calculations; therefore, increasing accuracy. Data collection templates are provided; below is a summary of each:

Template	Description	Objective
Table T.15 HHW Program Data Collection Template	Compilation of individual event/site data including number of participants, amount of materials collected, costs and municipal resources utilized (MRU).	To provide the inputs for the Cost Summary & Analysis and Waste Stream Summary & Analysis
Table T.16 HHW Program Cost Summary & Analysis Template	Compilation of overall program costs incurred.	Input HHW Program Data and Output: cost per participant, cost per pound both including and excluding value of MRU
Table T.17 HHW Program Waste Stream Summary & Analysis Template	Compilation of overall weight and cost per waste stream.	Input HHW Program Data and Output: total weights, cost per waste stream, NYSDEC Post-Event Report Data

6.1.7 Price 'By the Pound' or 'By the Participant'

Either of these pricing alternatives provides the ability for the County to manage a budget while simultaneously improving data collection. Contractors use various methods to sort and package waste; per pound pricing will ensure accurate billing of the material collected and level the playing field when reviewing bids. An illustration of the **Benefits of Budgeting** can be found in **Graph G.07**.

6.1.8 Increase Contractor Responsibility

- Require Post-Event Waste Stream Summary All contractors should be required to provide a post-event waste stream summary. The summary shall include a list of the waste streams and their exact weights, using the weights from facility-signed manifests. It is important to request this with the contractor invoice, to ensure a timely response.
- Request Collection of Items Not Covered by NYSDEC HHW Grant Contractor to provide disposal service for items and impose participant fees.

6.1.9 Review and Reconsider "Acceptable Items" and "Unacceptable Items" Lists

- **Grow the List of Acceptable Items** Identify problematic waste streams that the County may be able to include in the program. There may be creative partnerships to provide a disposal solution without increasing cost.
- Management of "Unacceptable Items" An important consideration is how to instruct the contractor to manage the wastes classified as "Unacceptable Items". If the contractor is instructed to not accept them, the County must enforce this by monitoring at the point of collection.
- Provide County Residents with Disposal Alternative for "Unacceptable Items" Especially for common items such as latex paint, waste oil, batteries and bulbs. One solution would be for the contractor to accept these items for a fee to be paid by participants. This way the contractor is not penalized for collecting them, and the participants are able to dispose of their waste safely and efficiently.
- Use **Table T.01 Waste Stream Overview** to evaluate and organize waste stream disposal alternatives.

6.1.10 Complete and Utilize Resource Matrix (Table T.14)

In addition to leveraging municipal resources for promotional and educational purposes, there are other key elements of a successful HHW program that could be contributed by municipal partners. It is recommended that the County complete the provided **Resource Matrix**, (**Table T.14**), to ensure a thorough analysis is done to incorporate these measures. The **Resource Matrix** will help to identify opportunities for:

- Promotional and Educational Piggy-Backing
- Shared Services Sponsor Communities to Provide Labor, Equipment, Location(s)
- Consolidated Funding
- Potential Cost Savings:
 - o Eliminate the high-cost expenses of the program (e.g., labor: train county and/or municipal employees to provide the collection and sorting of HHW at events.)
 - o Initiate an event fee (for participants or host community)
 - o Impose and enforce restrictions

6.2 STEPS TO IMPLEMENT PREFERRED ALTERNATIVE

In order to proceed with implementation of the preferred alternative, Erie County would secure "buy in" by various stakeholders. Public sector support at the state, County and local level would be needed. State Environmental Quality Review (SEQR), siting and operating permits, and local fire and building code approvals would likely all be necessary for permanent HHW collection facilities. The identification of existing, underutilized public facilities ideally located and configured for repurposing would represent a potential cost savings and would expedite implementation. Local public support for the facility would be needed as residents may have concerns about hazardous waste, noise, traffic and other issues. Private sector cooperation, including support for possible revenue streams, would be necessary to ensure sustainability of the program once established.

Steps necessary for implementation would include:

- Municipal zone determination event rotation and/or satellite events
- Facility/site identification utilize population density maps Figures F.05 and F.06
- Secure long-term sustainable funding
- Permit/SEQR application and acquisition
- Public outreach
- Design and construction for site retrofit for HHW collection and storage
- The identification and training of staff
- Development of operating procedures, guidelines and hours
- RFP for disposal contractor

To facilitate the above, the hiring of a technical consultant with experience in design, permitting and construction of permanent HHW facilities would streamline and expedite implementation.

7 OTHER CONSIDERATIONS: UNIVERSAL & ELECTRONIC WASTE

7.1 UNIVERSAL WASTE

To encourage and facilitate safe materials management, New York has designated specific waste types as Universal Waste. The New York State Universal Waste Rule 6 CRR-NY Part 374-3 designates management criteria for any handler that generates, receives, stores, accumulates and/or transports Universal Wastes. New York State determines that the following materials may be managed as Universal Waste and not hazardous waste:

- Batteries: includes lead acid, nickel-cadmium, silver, lithium or mercury,
- Pesticides,
- Thermostats and other mercury-containing equipment, and
- Lamps

As defined under 6 CRR-NY Part 371.1(e)(2)(1), the following are exempt from management as Universal Waste:

"household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. Household waste means any waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day use recreation areas)."

Based on this criteria, households generating Universal Waste are exempt from state regulations; however, businesses and municipalities that receive or store these wastes are not. Furthermore, due to the inherent dangers of these items, residential consumers often seek an outlet for these materials at the conclusion of the products' useful life or if the materials are in excess supply. Conversely, local governments have an inherent interest in providing collection of these materials due to the environmental and public health concerns they pose if used, disposed, or stored improperly.

The purpose of this section is to discuss the regulatory conditions for specific waste types that are often subject to management requests, as there are limitations to what a local hauler or facility will collect, thus creating a situation requiring safe and convenient management options.

7.1.1 Alkaline (Single-Use) Batteries

Alkaline batteries, also known as single-use batteries, have recently been subject to proposed legislation in New York. To date, no law has been passed concerning the disposal or management of household, single-use batteries. Single-use batteries contain fewer heavy metal components than rechargeable batteries, and have not benefited from legislation to develop a recycling infrastructure. Under current state law, alkaline batteries may be disposed in regular trash by residents. Expenses incurred in community HHW programs to collect and dispose of single-use batteries are ineligible for reimbursement.

The most widely used program is the Big Green Box, which is a nationwide program available to companies, consumers, and generators. The program is pre-paid and includes the costs for all shipping, handling and recycling fees at a low, flat rate. Acceptable items include all alkaline, nickel cadmium, nickel-metal hydride and lithium ion batteries. Also, silver oxide, carbon zinc

and portable electronics can be placed in the same box for collection. A single, 40-lb pre-paid box retails for \$63.00, or \$1.57 per pound. A smaller box holding 10 lbs. retails for \$35.00 or \$3.50 per pound.

7.1.2 Thermostats and Mercury-Containing Devices

Common mercury-containing products identified in the residential waste stream include thermostats, thermometers, switches, medical/scientific equipment, and electrical relay applications. New York has banned the sale of many mercury-containing products and requires adequate labeling to advise of proper end-of-life management for mercury-containing products.

Since 2005, New York has banned the disposal of mercury thermostats in the trash. The Mercury Thermostat Collection Act of 2013 provides for the mandatory collection and environmentally-sound management of mercury thermostats. According to policy, thermostat wholesalers and retailers are prohibited from the sale or distribution of thermostats unless they participate in the state's registration program, thus creating a local collection infrastructure.

Mercury is considered a persistent and toxic pollutant, therefore mercury-containing devices derived from in-home use are subject to 50% reimbursement from the NYSDEC Household Hazardous Waste Program. Community HHW programs often accept mercury-containing devices; however, an infrastructure exists for residents to responsibly manage old thermostats and switches. A complete list of acceptable drop-off sites is maintained on the NYSDEC website.

7.1.3 Fluorescent and High-Intensity Discharge (HID) Lamps

Fluorescent lamps, when compared to incandescent lamps, are more energy efficient and last approximately 10 times longer. High-intensity discharge lamps include metal halide, high-pressure sodium, and mercury vapor that are common in commercial indoor and outdoor lighting. Both fluorescent and HID lamps contain mercury that is subject to release once broken or sent for disposal. Mercury poses a significant threat to human health and the environment, specifically as it relates to consumption of fish from contaminated water bodies.

Although households are exempt from regulations concerning specific disposal requirements, the following options exist for residents:

- The NYSDEC encourages residents to recycle fluorescent and HID lamps through their local Household Hazardous Waste Program. The NYSDEC incentivizes local municipalities to develop a program to collect these items by offering 50% reimbursement for expenses related to fluorescent and HID lamp management.
- Absent a locally sponsored collection program, the NYSDEC, through its website, publishes a list of fluorescent lamp recyclers available for residential and commercial applications (https://www.NYSDEC.ny.gov/chemical/9089.html).
- Distributors and retailers provide convenient arrangements to buy back spent lamps upon purchase of new lamps.
- Retailers such as the Home Depot and Lowes offer compact fluorescent lightbulb (CFL) recycling as a free service.

7.1.4 Waste Oil

Crude or synthetic oil derived from private citizens, such as automotive, small engine or recreational vehicles, but also including hydraulic fluids, refrigerant coolants and other lubricants that is managed by household do-it-yourself oil changes, is exempt from regulation. Under Article 23, Title 23 of the Environmental Conservation Law, New York requires all service establishments that sell new oil or perform vehicle service, to accept up to five gallons of used oil per person per day. For all non do-it-yourself household-derived waste oil, state and federal regulations apply.

7.2 ELECTRONIC WASTE (E-Waste)

The New York State Electronic Equipment Recycling and Reuse Act (Act) was signed into law in May 2010 and was heralded as one of the nation's most comprehensive and progressive e-waste laws. The Act, through an extended producer responsibility policy approach, requires manufacturers who sell or offer products for sale in New York, to fund and establish a convenient acceptance program for the collection and recycling and/or reuse of electronics. The Act includes three primary product stewardship elements: convenience requirements, performance standards, and environmental standards.

7.2.1 Convenience Requirements

The Act requires manufacturers (also known as Original Equipment Manufacturers or OEMs) to provide year-round, free and convenient access to e-waste recycling for not only household consumers, but small businesses, corporations, not-for-profit corporations, and government entities (including schools and institutions).

Manufacturers are allowed to utilize a variety of acceptance methods to meet the convenience requirements, as long as all expenses remain with the manufacturer and are not passed to the user at the time of recycling. These options include:

- Mail-back programs: Manufacturer must provide packaging, shipping/postage of material based on size or weight limits,
- Collection events: Manufacturer may host single- or multiple-day events,
- Fixed acceptance locations: Manufacturer may identify dedicated acceptance sites that may include local governments, retail sites, and not-for-profit organizations that have agreed to provide facilities for the collection of e-waste.

Based on NYSDEC data from 2015, mail-back programs accounted for 0.7% of total volume of e-waste collected. Collection events accounted for 6.9% and permanent collection sites accounted for 70.1%. The remaining 22.3% of waste was collected from a combination of "other" programs.

7.2.2 Performance Standard

The Act first took effect on April 1, 2011 and began a phased management approach that concluded with a full disposal ban for all Covered Electronic Equipment (CEE) by January 1, 2015. The Act provides for the establishment of performance goals developed by NYS. The first three years' goals were based on population estimates to arrive at a per capita collection rate. Starting in 2014, and annually thereafter, the statewide goal was calculated using an average weight of e-waste collected for recycling during the previous three years (as reported to NYSDEC), which was meant to allow for market adjustments. Once the statewide goals were calculated, manufacturers were

responsible for meeting convenience requirements and collecting for recycling or reuse their share based on their market share of CEE sold in New York.

7.2.3 Environmental Standards

Of the 22 previous e-waste laws passed in the United States, New York's covers the broadest range of items, including computers, computer peripherals, televisions, cathode ray tubes, small-scale servers and small electronic equipment. Additional components such as video game consoles, tablets/e-readers, cable/satellite boxes and VCR/DVR/DVD players are also included. The broad scope of covered products has contributed to the success of diverting millions of pounds of e-waste from the disposal stream.

7.2.4 Municipal Challenges

Prior to the Act's implementation, local governments were tasked with meeting the large public demand for recycling e-waste, which was the fastest growing element of the municipal solid waste stream. In the mid-2000s, due primarily to demand for recycling combined with rapid obsolescence and the plethora of recoverable materials, municipalities assumed responsibility for the high costs to plan, host and manage all collected materials. Two years after the passage of the Act, it was reported by many local governments that the heavy financial burden of providing e-waste collection programs was lifted. In some cases, a revenue stream was provided as manufacturers or recyclers were compensating collection sites in order to meet performance standards. In turn, programs flourished and were enhanced by the revenue generation potential to expand infrastructure at collection points by purchasing storage sheds and staging units, and increasing staff to enhance collection opportunities.

After the first three years of the Act, performance standards shifted and the management of cathode ray tubes (CRT) devices evolved into a major, multi-faceted issue. The market for CRT glass had continued to shrink and proper management expenses had increased significantly. Also complicating matters was the state's weight-based performance standard, which distributed market share based on material weight. While the television and monitor market had transitioned to flat panel displays that were much lighter, the end-of-life waste stream was dominated by heavier CRT devices. Across the state, CRT displays comprised the majority of weight accepted. Data from Region 9 indicates as much as 65% of the volume of e-waste collected is CRT waste, a ratio that climbs to as high as 70% based on location and accessibility to collection events.

The final phase of the Act's implementation resulted in a full disposal ban of all CEE by January 1, 2015. The combined impact of the disposal ban and the lack of consistent manufacturer funding was felt even more by municipalities as CRTs were removed as an eligible expense in the state's HHW grant program. A municipal survey conducted in 2013 by the New York Product Stewardship Council, just as municipalities began facing the reality of e-waste management expenses, produced over 40 responses from local governments who ranked their electronic waste management program needs according to the following priority:

- Top Priority: Having a reliable, year-round service with a consistent provider,
- Middle Priority: Providing an environmentally-sound option at lowest possible cost,
- Low Priority: Maximizing revenue through business relationships with e-waste recycler.

Survey respondents also offered opinions concerning the fate of their local programs, citing inconsistency of funding, rising expenses, and program disruption as manufacturer funding ceased

part-way through the calendar year. Primarily from factors beyond their control, local governments were forced to make critical choices between discontinuing service, charging a fee for service, or absorbing the increased costs. In the post-2% property tax freeze climate in New York State, non-mandated programs such as e-waste collection became expendable and further contributed to a management void for e-scrap materials. As programs were cut or limited, Highway Superintendents reported increased frequency of individuals placing materials at the curb despite the ban, and elevated rates of illegal dumping.

Disruption in New York's e-waste recycling infrastructure not only impacted the collection end, but the recyclers as well. Multiple electronics recyclers servicing the state have reduced or eliminated services to municipal collection locations and several have gone out of business entirely. Many municipalities report that they are unable to identify e-waste recycling service providers offering no-cost services. One upstate planning unit advised that their most recent request for proposals (for e-waste processing services) brought responses with proposed charges ranging from \$0.20 to \$0.40 per pound, with broken CRTs costing in excess of \$1.00 per pound. With a statewide e-waste recycling rate of 90 million pounds per year, these charges would burden local governments with an additional \$18 million to \$36 million in unbudgeted expenses.

A NYSDEC December 2017 Report to the Governor and Legislature identified that the glut of older, heavy CRT units in the recycling stream has made managing CRT glass a challenging task. Despite the success of the Act to effectively recover electronics from the waste stream through the development of a collection infrastructure, the initial success was eroded by the tenuous and unbalanced economics underlying the law. Many recyclers claim they are not being adequately compensated by manufacturers, who may have already achieved their annual performance goals prior to the end of the year, and due to existing contacts and relationships, pass expenses on to collection sites. In many cases, collection sites facing management expenses are local governments, who are left with little choice other than to negotiate a rate to continue to provide disposal options for residents.

7.2.5 Proposed Regulatory Solutions

In the 2017 Report submitted to the governor and legislature, the NYSDEC outlined other recommendations and conclusions to enhance the success of the Act, which include arriving at an earlier acceptance standard for manufacturers, improving manufacturer and collective programs and the development of regulations. Also included in the report was recognition that the manufacturers' responsibility to implement a public education program to inform consumers about their e-waste acceptance programs, was an area lacking attention. As a response, NYSDEC, following review of manufacturers' acceptance programs, may consider enforcement options for manufacturers that have failed to provide the minimum outreach and education requirements under the Act.

The New York Product Stewardship Council, in close cooperation with statewide solid waste organizations, and the New York State Association of Counties (NYSAC) have extensively reviewed and lobbied for statutory and regulatory changes to the Act. NYSDEC identified that municipalities were suffering as a result of the interpretation of the Act and to assist municipalities, implemented a short-term grant opportunity to inject a cash infusion into local programs. New York made available \$3 million in grant funding from the state's Environmental Protection Fund

to help municipalities across the state address the unintended costs associated with the collection and recycling of e-waste, such as environmental fees to manage CRT waste and other expenses paid to a recycler. Labor and infrastructure expenses were non-reimbursable expenses.

7.2.6 Erie County Experience

Prior to passage of the Act, Erie County enjoyed funding from various sources, including the NYSDEC Household Hazardous Waste Grant that previously deemed CRT waste as an eligible expense allowing up to 50% reimbursement. With consistent funding in place, Erie County was able to budget for, and provide multiple collection events from 2000 to 2009.

According to conversations with Erie County staff, sponsorship from local, private sources provided for one event each fall from 2013 to 2016. Attendance at these events fluctuated, averaging between 300 and 400 cars over a four-hour collection event. On the contrary, in 2017 a private recycling company partnered with the County and a second private entity to host an Earth Day e-waste collection event. The turnout was significant in terms of traffic (and resulted in shutting the event down early) and also in the total volume of CRT waste collected. Given the timeframe of 2017 and the downward trend of local e-waste drop off points, it was indicative of a similar statewide trend of underserviced communities with substantial volume and nowhere else to take it. When approached to host a second event, the 2017 Earth Day Event recycler quoted a fee ranging between \$15,000 and \$20,000 to host a similar event. The County opted out due to the high cost and revoked state reimbursement grant.

Erie County currently contracts with Sunnking Inc., including both event pricing and residential municipal participation. From the inception of the Act to 2014, nearly all local municipalities participated in e-waste collection. To date, approximately 10 municipalities participate, following the state trend of local government electing not to provide collection services.

7.2.7 Local Solutions

NYSDEC has indicated they are developing draft regulations to clarify and strengthen provisions of the Act. It was anticipated that these regulations would be released in early 2018, however, as of June 20, 2018 they have not been. Until regulatory adjustments are made to tighten up requirements and return responsibility back to a free and convenient manufacturer-funded program, the burden of management remains on local governments.

Communities interviewed as part of this assessment have shared best management practices as they struggle to deliver an "on demand" service often linked as their responsibility to their local highway and sanitation department services. NYSDEC reported from 2013 to 2015 that the number of consumer collection site locations declined by 181. As previously outlined, providing e-waste collection services at the municipal level is a multi-faceted issue complicated by the impact of the 2015 disposal ban, absence of alternatives such as not-for-profit drop-off or retail drop off, poor end markets and low value for CRT glass, and inconsistent manufacturer funding to operate a year-long program. Many Western New York communities are forced to make decisions concerning the fate of their local programs by limiting collection, passing on fees or eliminating the service altogether.

7.2.8 Current Management Practices

Due to a combination of factors that have elevated the cost of managing e-waste, opportunities previously available from retail (e.g., Best Buy) and not-for-profit organizations (e.g., Goodwill, Salvation Army) no longer exist. The burden of management has fallen to municipalities as they are often a resident's only option. Several collection strategies have been employed and are summarized below.

Localized Permanent Drop-off Sites: A common practice among municipalities is to register as a collection site with NYSDEC and commit to waste collection site criteria including registration, annual report preparation, compliance and proper materials storage. The site manager is responsible for establishing collection hours, restricting site access, and assisting the public (if necessary) with unloading and stacking their items. Several local governments interviewed as part of this analysis have cited the following procedures in an effort to minimize expenses:

- Limiting collection days to one weekend day per month,
- Limiting collection hours,
- Limiting the quantity of materials allowed per resident,
- Requiring proof of residency of sponsoring municipality, and
- Restricting the total number of CRT devices allowed per year.

Local governments collecting e-waste as of 2016 include: Alden, Amherst, Akron, Brant, Cheektowaga, City of Tonawanda, Colden, Concord, Evans, Holland, Kenmore, Marilla, Tonawanda and West Seneca.

In most NYSDEC Region 9 municipalities there is an expense associated with the collection, transportation and recycling of CRT devices. The municipality may enter into a contract with a recycler through a competitive Bid or Request For Proposal process. On average, communities generating less than 20,000 lbs. per month (one full trailer load) are paying a \$0.10 environmental fee assessed per pound of CRT devices collected. In 2018, a recycler providing services to Western New York introduced a fee of \$0.05 per pound for all flat-panel displays (excluding tablets and ereaders) and \$0.50 per pound for broken or bare-tube CRT devices. Other fees cited by local governments include transportation surcharges for loads that do not meet minimum weight requirements.

Larger communities that operate permanent collection programs and can consistently fill one tractor trailer load (20,000 lbs.) have benefited from an arrangement with ERI, a leading national e-waste recycler. ERI has eight strategic locations in the United States and is licensed to demanufacture and recycle CRT and other types of electronic equipment through access to a high-capacity shredder, and efficient transportation and collection means. The City of North Tonawanda, due to providing space for temporary storage and volume, enjoys no-cost processing of all electronic waste, including CRT volume, by means of consistently meeting a full truckload requirement.

In an effort to produce a greater volume of collected materials, Niagara County combined effort with Orleans County to procure electronic waste collection recycling services for materials collected at permanent drop-off sites at single-day events. Due to the volatility in the recycling

market, the contracts have been subject to change, often involving a fluctuation in fees associated with CRT management and transportation (primarily due to minimum load thresholds not being met).

Single Day Collection Events: Single-day collection events are also a strategy employed by local governments and organizations within a community to collect electronics. These pre-scheduled, one-day collection events are often publicized to garner a broad audience and attempt to collect the maximum amount of acceptable CEE during the events' duration. Depending on the event host, a set-up fee or weight-based fee may apply. This is dependent upon factors such as labor source and material volume.

The large volume of materials collected at single-day collection events often has potential to offset the management costs to supply materials, transportation, and any fees associated with the handling of CRT waste. Cases have existed where either recyclers or event sponsors are faced with increased expenses due to the high volume of CRT devices in the event waste stream.

A strategy that has been successful across the state is a program operated by Sunnking Inc., who sponsors collection events along with Spectrum and a local state-elected official. The program involves a public service advertisement provided by Spectrum and promotion throughout the election district of the sponsoring official. For example, on June 30, 2018, Senator Jacobs is the sponsor of an event taking place from 9am to noon at the Tonawanda Middle/High School at 600 Fletcher Street. The specific terms of the program arrangements are volume-dependent and vary based on each sponsor. Similar events have been promoted through not-for-profit fundraising organizations and professional sports teams.

Single-day collection events are not limited to political or organization sponsorship. Municipalities have sought single-day collection events for their residents, which involve the proper registration with NYSDEC and an agreement/contract in place with a recycler to manage the materials. The discretion of event planning is entirely left to the event promoter and may or may not include limitations on participants. For example, the Town of Newfane in Niagara County elected to host several collection events per year instead of staffing a permanent collection site. The Town Supervisor, recognizing a community demand for the service and rising labor and management expenses, opted to host two single-day events each year. The events are financed through the Town's Refuse District tax and through contract pricing with a recycler that is responsible for transporting all accumulated items offsite for recycling and reuse. The Town will only accept waste from residents, thus restricting participation from surrounding communities.

7.2.9 Electronic Waste Conclusion

There is no quantitative data that suggests New Yorkers are taking advantage of mail-back opportunities for CEE. The fact that manufacturers make available the option to mail back items qualifies them to meet their convenience standard, much to the dismay of state solid waste management organizations that have extensively lobbied NYSDEC to eliminate mail-back as an option.

The relationship between distance traveled to safely drop off an item is lacking data and analysis. This, however, could be the result of low retail and not-for-profit participation, limitation of

municipally-operated programs to "residents only", and the lack of manufacturers adhering to the convenience standard outlined in the Act. In conclusion, due to limitations thoroughly discussed in this section, the Act intended for a manufacturer-funded program, but many local governments have abandoned collection efforts due to a combination of factors. Until regulatory relief is issued through the legislative process, residents and local governments are electing to operate within the confines of programs that are available to them locally. After the statutory and regulatory regulations are approved, the expectation is that the collection infrastructure, as it existed during the first few years of the program, will return to a manufacturer-funded program that meets performance goals, convenience standards, and environmental standards.

7.3 RECOMMENDATIONS

Under 6 CRR-NY 371.1(e)(2)(1), universal waste components such as alkaline batteries, mercury containing devices, fluorescent lamps, and waste oil are exempt from regulatory requirements. This exemption does not diminish the impact improper management of these materials has on the environment; however, the regulations have established disposal alternatives for these materials. It is critical to point out that the infrastructure established for these materials may be underutilized by the general public; therefore, it is recommended that outreach and education, as well as development of relationships/partnerships with retailers required to accept these materials (except alkaline batteries) should be an important first step in enhancing opportunities for safe and proper disposal.

With respect to e-waste, local governments are caught in an interesting dilemma due to differing interpretations of the NYS Electronic Equipment Recycling and Reuse Act. The Act was intended to create a manufacturer-funded program that was convenient and accessible across the state. What has been found is that the language of the Act has exposed portions of it that are in need of clarification, amendment or statutory changes on order to match the state's intent. NYSDEC has acknowledged, despite the bill's tremendous success, that regulations are needed, and has indicated their intent to issue these regulations in early 2018.

Local governments are unfortunately faced with budgetary concerns when deciding to continue hosting e-waste collection in their communities. In the short term, until revisions to the Act are released, local governments are encouraged to continue their e-waste collection programs and attempt to employ strategies to mitigate costs and take advantage of economies of scale, such as:

- Host consolidated collection events to collect adequate volume to offset transportation expenses,
- Share expenses with adjacent municipalities to leverage resources,
- Partner with public and or private entities willing to promote and or share costs,
- Implement a fee for the management of CRT devices to cover municipal expenses,
- Implement restrictions at local collection sites such as quantity limitations, residency and date/time of collection.

With regard to the HHW preferred alternative in *Section 5.2.3*. and e-waste, it is recommended that that County work with an e-waste recycler to formulate a synergistic partnership at the permanent site. The table below outlines each partner's roles and benefits:

	Erie County	E-Waste Recycler
Roles	 Provide designated storage area in permitted permanent site Promote e-waste recycling to residents 	 Provide labor to collect, sort and package e-waste Collect fees from participants to cover costs
Benefits	 Convenient for residents (One-Stop-Drop) Saves municipalities from the costs associated with e-waste collection and/or clean-up from illegal dumping 	Access to consistent, large volume of e-waste without the heavy lift of operating a facility or organizing events

This recommendation mirrors a partnership between Waste Management and Sunnking (e-waste recycler) at Monroe County's EcoPark. See **Appendix A.06 Monroe County EcoPark Website Screenshot** to see how they address 'Fee-Based Items' on their website. The alternative recommendation is for the County to host large collection events where they can maximize economies of scale and reduce cost.

8 CONCLUSION

Erie County Department of Environment and Planning in conjunction with the Erie County Solid Waste Management Boards have been offering single-day HHW collection events to residents since 1988. The current HHW program is cost-effective and well-attended by County residents; however, it is limited in scope and effectiveness. This study assessed current HHW collection practices in Erie County and gathered data from municipal-based HHW collection programs across the region and state.

The objective of the study is to pinpoint ways in which the County can better serve the needs of residents for the proper, efficient and effective collection and disposal of household hazardous waste.

The study presents collection alternatives, cost assessments, funding mechanisms, implementation appraisals and a preferred plan for Erie County to enhance and improve its HHW collection program and offer a solution that will enhance participation and identify funding sources. The collection methods and financial models that were developed illustrate the program options that were considered for the County.

In order to adequately address the removal of HHW from the solid waste stream and provide service commensurate with the County population, the recommended, preferred alternative is a hybrid program with a combination of 20 Regional Events and 1 Permanent Site. The preferred alternative will provide service to those with immediate needs as well as to those who don't want to travel long distances, will more effectively remove HHW to minimize health and safety risk in homes, and protect the environment. Significant costs associated with establishing a permanent site, hosting satellite events and annual disposal expenses were acknowledged for the preferred alternative. The preferred alternative is the most costly of the alternatives and if resources are not forthcoming from stakeholders, then several other options are presented in *Section 5.3*, *Alternatives* (Alternatives A – E) to increase efficiency and effectiveness at a lower cost.

The study concludes with an assessment of NYS's universal waste and electronic waste programs and alternatives, in particular the role policy plays in managing each waste stream.



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Appendix A.01

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SWMB Members List & Map

ERIE COUNTY DEPT. OF ENVIRONMENT & PLANNING HHW FEASIBILITY STUDY

APPENDIX A.01 SWMB MEMBERS LIST & MAP

Erie County Solid Waste Management Boards



Northwest (NW)

Amherst (Town of) Grand Island (Town of) Kenmore (Village of) Tonawanda (City of) Tonawanda (Town of) Williamsville (Village of)

Northeast Southtowns (NEST)

Akron (Village of) Gowanda (Village of) Alden (Town of) Hamburg (Town of) Alden (Village) Hamburg (Village of) Angola (Village of) Holland (Town of) Aurora (Town of) Lackawanna (City of) Blasdell (Village of) Lancaster (Town of) Boston (Town of) Lancaster (Village of) Brant (Town of) Marilla (Town of) Newstead (Town of) Cheektowaga (Town of) Clarence (Town of) North Collins (Town of, Village of) Colden (Town of) Orchard Park (Town of) Collins (Town of) Orchard Park (Village of) Concord (Town of) Sardinia (Town of) Depew (Village of) Sloan (Village of) East Aurora (Village of) Springville (Village of) Eden (Town of) Wales (Town of) West Seneca (Town of) Elma (Town of) Evans (Town of)

Appendix A.02

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Erie County HHW Registration Form

ERIE COUNTY HOUSEHOLD HAZARDOUS WASTE DROP-OFF SAFETY IS IMPORTANT!

1. While waiting in line: Please turn your vehicle off.

PRINT NAME:

2. While being unloaded: Our staff will unload your hazardous materials.

Please put your vehicle in **PARK** and **REMAIN INSIDE**. No smoking or cell phone use.

I certify that the material offered for disposal is <u>household generated waste</u> and is not associated with any business, agricultural or commercial operation.

SIGNATURE:

□ CITY □ TOWN □ VILLAGE OF:
Have you participated in an Erie County collection event before?
☐ NO ☐ YES: ☐ HHW ☐ Electronics/computers ☐ Pharmaceutical
Acceptable materials:
Automotive products: antifreeze, gasoline, motor oil, transmission/brake fluid, diesel fuel, dry-gas, cleaners
Batteries: re-chargeable (NiCd, NiMH), button (watch), lithium, and lead-acid batteries
Household products: adhesives & glues, oil-based paints/primers/thinners/strippers, rust remover, spray paint (any aerosol can), turpentine, varnish, waxes and polishes, kerosene, drain and oven cleaners, wood preservatives, polyurethane, mothballs, tars, driveway sealers, roof cement, degreasers.
Lawn, garden, and yard: fertilizers, pesticides (bug killers), fungicides, weed killers, rodent poison, pool chemicals, propane tanks & small cylinders
Other: mercury products - thermostats and thermometers
Latex paints and alkaline household batteries are <u>not hazardous and may not</u> be accepted at this event.
Not accepted: Material not listed above, including: tires, computers-electronics-appliances, pharmaceuticals, freon, flares, and smoke-detectors.
Please use the space below to write any comments.
Thank you for your participation.

Appendix A.03

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NYSDEC HHW Grant Application

Grant Application Package for Household Hazardous Waste State Assistance Program



New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Permitting & Planning
625 Broadway, 9th Floor
Albany, New York 12233-7260
(518) 402-8678
(518) 402-9024 fax

RecyclingGrants@dec.ny.gov

TABLE OF CONTENTS

I. INT	rodu	CTION 3
II. AP	PPLICA	TION PROCEDURE 4
III. F	REQUE	ENTLY ASKED QUESTIONS 8
APPE	ENDICE	ES AND WORKSHEETS
	A.	Sample Resolution and Certificate of Recording Officer
	В.	HHW State Assistance Program Application Cover Form
	C.	Project Description Worksheet
	D.	Budget Worksheet
	E.	Application Checklist
	F.	M/WBE & EEO Instructions and Forms
	G.	DEC Regional Offices

I. <u>INTRODUCTION</u>

What is Household Hazardous Waste?

Household hazardous waste (HHW) are materials found in residential wastes that would be regulated as hazardous waste if they were generated outside of a household at a business or industry. Examples of HHW include, but are not limited to, oil-based paints, pesticides, automotive fluids, home hobby chemicals, and compact fluorescent bulbs.

HHW Collection Programs

A HHW collection day is an event where HHW is received from residents, properly packaged, and shipped to appropriate management facilities. Collection days are most often sponsored by a municipality, which hires a contractor to collect, separate and manage the waste received from residents. A collection day sponsor must submit a detailed plan to the appropriate New York State Department of Environmental Conservation (DEC) regional office at least **60 days** before a collection day takes place, and must receive DEC's written approval prior to the collection day.

Permitted HHW collection and storage facilities (often referred to as permanent HHW facilities) can receive HHW from residents on a regular basis. These facilities must receive a permit from the DEC before construction or operation may begin. "Mobile HHW facilities" can also be included as a component of a permitted HHW collection and storage facility's permit to collect HHW at different locations throughout a municipality and consolidate it at the permitted facility for processing, packaging and shipping.

Funding Availability

For HHW collection programs to effectively reduce HHW, they must be readily accessible to residents, and must be accompanied by both promotion of the collection program and education about source reduction. To assist in achieving these goals, the State, through authorization provided by the Environmental Protection Act, provides State funding to reimburse up to 50% of the costs of municipal HHW collection programs.

The NYS State Legislature must appropriate funding each state fiscal year for implementation of the HHW State Assistance Program. Accordingly, full 50% reimbursement is **not** guaranteed.

Department Review

Complete applications are received and evaluated by the department on a quarterly basis and, if acceptable, will be approved for state assistance of up to 50% of eligible costs. All applications received during April of each fiscal year will be given that year's highest priority for funding, followed in descending order of priority by those received during July, October, and January. (An application not received in one of the months listed above will be considered received during the next listed month.)

If there are insufficient funds to provide 50% reimbursement to all applications received during the same quarterly review period, the department may either lower the percentage or set a dollar maximum on the level of funding to be provided to each municipality. This lowered percentage or dollar maximum will be the same for all municipalities that submit an application during the same quarter.

Applications that have a lower priority, based on the date of receipt may be assigned a lower level of funding due to insufficient or exhausted funds. Applications received after all funds for that fiscal year have been obligated will not be awarded funding.

II. APPLICATION PROCEDURES

Please follow ALL of these steps in order to properly conduct a HHW collection program and apply for state assistance funding.

STEP 1: OBTAIN HHW COLLECTION EVENT OR HHW PERMITTED FACILITY APPROVAL

Submit a detailed written plan at least 60 days before the date of the collection event addressing all the requirements of 6 NYCRR Part 360-1.7(b)(6) to your DEC Regional office for approval to conduct a HHW collection day. Regional Office contacts are listed in Appendix G or,

Obtain a permit for a HHW collection and storage facility in accordance with the requirements outlined in 6 NYCRR Part 373-4.4.

- STEP 2: PASS A RESOLUTION authorizing the filing of the grant application. A Sample Resolution is included in Appendix A.
 - a. Use the language in the sample resolution. Write your resolution so that it names an Authorized Representative by **TITLE**, *not* by name, in case that person leaves during the application process. **To avoid rejection of the resolution**, **DO NOT make changes to the language of the** *Sample Resolution*.
 - b. Place the resolution on your governing body's agenda for passage.
 - c. **Certify** both copies by completing the Certificate of the Recording Officer in Appendix A. The recording officer must do this by:
 - Entering an **original signature** on **each** copy, or
 - Affixing or **embossing the seal** of the municipality to **each** copy

Two (2) certified copies of the resolution are required with your application.

- **STEP 3: COMPLETE THE WORKSHEETS** in Appendices B-E in this Application Package.
 - a. Fill out and sign the **Cover Page** in Appendix B
 - b. Answer the questions in the **Project Description Worksheet** (Appendix C) Include sufficient information to allow DEC to determine whether the level of funding requested is reasonable for the described activities.
 - c. Complete the **Budget Worksheet** (Appendix D)

Revised July 2014

If the application is for a HHW collection program that has already been completed, then the actual costs should be included.

If the application is for a HHW collection program that has NOT been completed, then the estimated costs should be included.

Budget Preparation Tips

- ▶ Provide written justification for any one-time or unusual costs.
- ► "Miscellaneous" costs are not eligible.
- ▶ Documentation of actual costs will be necessary to receive payment for reimbusement.
- ► In-house reproduction costs are eligible ONLY if an invoice is generated and the invoice has been fully paid.

STEP 4: SUBMIT APPLICATION

Applications must be submitted to the **DEC Central Office** by the final business day of April, July, October, or January of a State fiscal year. Any applications received by DEC in a month other than these months, will be considered to be received during the next month listed. All complete applications received by DEC during the same month, will be considered to be received simultaneously. For collection day activities, municipalities may submit **one** application for HHW State Assistance each state fiscal year (April 1 - March 31) for either the current or the previous state fiscal year. An application is limited to one collection program per year and must therefore include all collection program costs paid or expected to be paid during that year.

For construction of a permitted HHW collection and storage facility, a municipality may only submit one application for funding which must include the total amount of construction costs for the facility, regardless of whether the construction costs are expected to be paid within one state fiscal year period.

SEND only the following items to DEC Central Office:

ONE original of your application components and **TWO** (2) certified resolutions to:

HHW State Assistance Program
New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Permitting & Planning
625 Broadway - 9th Floor, Albany, NY 12233-7260

Send only ONE full copy of your application

Do NOT send copies of your Collection Day Plan. The Collection Day Plan must be submitted to the Regional Office at least 60 days prior to the event and be approved prior to the event.

STEP 5: DEC EVALUATES THE APPLICATION FOR PROJECT ELIGIBILITY

a. Applications that are complete will be reviewed to establish the eligibility of the applicant and the costs for which State assistance is requested.

- b. Applications that are not complete will be returned to the applicant for completion and re-submission.
- c. The DEC will determine if the activities included in the application are eligible under the HHW State Assistance Program, and if the requested level of funding is appropriate for associated HHW activities.
- d. If DEC determines that any activity or cost is <u>not eligible</u> or unreasonable for an associated HHW activity, the DEC will deny funding or a portion of funding. DEC reserves the right to make any necessary changes or adjustments to the cost estimate included in the application.
- e. HHW grant funding is contingent upon DEC Regional Office receipt and approval of the applicants Collection Day Plan and any required State, Federal or local permits or licenses for HHW collection and storage facilities.

STEP 6: SUBMIT REQUIRED HHW REPORTS

Ensure that the required HHW collection day or permitted facility report forms are complete. The required **Collection Day and Permitted Facility Annual Report Forms** are available on the DEC website at: http://www.dec.ny.gov/chemical/8778.html.

- a. A copy of your collection day approval letter is required in order to receive reimbursement for eligible Program activities and costs. If a copy of the approval letter is not included as part of the application, it must be included as part of the payment request supporting documentation.
- b. For collection days, the HHW Collection Day Report Form (and all shipping papers) is due to the DEC **10 days** after the collection day.
- c. For HHW collection and storage facilities, a calendar-year report is due to DEC by **February 1st** for collection activities conducted the previous calendar year.

STEP 7: RESPOND TO A CONTRACT AWARD LETTER

- a. When funding becomes available, DEC will send an official award letter to applicants notifying them of the grant award amount and the necessary steps required of the grantee to enter into a NYS Master Grant Contract (MGC) for reimbursement of eligible Program costs. The MGC contains Statewide, Agency and Program specific terms and conditions, a Work Plan, an Expenditure Budget, and Payment and Reporting requirements. The full MGC can be viewed at: http://www.grantsreform.ny.gov/. The DEC will send the municipality four (4) copies of the contract.
- b. The municipality's authorized representative (identified in the resolution) must sign the contracts and return all of them to DEC.
- c. After the signed contracts have been returned to DEC, full approval of the contract normally takes 2-3 months. A copy of the fully executed contract will be returned to the municipality.

STEP 8: REQUEST REIMBURSEMENT

- a. Detailed payment instructions will be mailed to the municipality along with the fully approved contract.
- b. All collection activities for which reimbursement is sought must be completed and required reports must be submitted to DEC.
- c. A completed "State Aid Voucher," and an itemized list of costs, must be provided, along with copies of backup documents, including copies of receipts, invoices, payment vouchers and canceled checks to support eligible costs paid by the municipality during the contract term.
- d. DEC or the NYS Office of the State Comptroller may conduct an audit of payment records at any time during this period and up to six years after the final payment is disbursed to the municipality.

III. FREQUENTLY ASKED QUESTIONS (FAQs)

Who is eligible for funding?

Only <u>municipalities</u> are eligible to apply for and receive State assistance under this Program. Under this State assistance program, a municipality is any:

- County, City, Town, or Village,
- Local Public Authority or Public Benefit Corporation,
- School District or Supervisory District, or
- Native American tribe or nation located within New York State.

What costs are eligible?

All costs must be reasonable and necessary, as determined by DEC, for the operation of the HHW Program.

- **A. Operating Costs** Typical eligible operating expenses are:
 - 1. Contractor costs to accept, segregate, package, transport and properly manage the collected HHW.
 - 2. Costs of safety equipment, such as protective clothing and respirator cartridges, for municipal workers and volunteers.
 - 3. Costs of packaging supplies and containers for HHW, container labels and ground covers used during the collection of HHW.
- **B.** Educational Costs Educational and outreach activities must focus on educating the public on reducing the volume of HHW generated in the home, or must provide promotion for a HHW collection program. Costs of "mixed-use" brochures/advertisements will be pro-rated only if a minimum of 50% of the materials are dedicated to HHW information. Typical eligible educational expenses are:
 - 1. Costs of preparing and printing posters, brochures, flyers, and other materials that focuses on HHW collection programs;
 - 2. Costs of purchasing advertising space in newspapers or other periodicals, or of providing public service announcements to local radio stations or other media.

Are there any other requirements for funding?

- 1. Permitted HHW Collection and Storage Facilities must have a valid DEC permit to operate.
- 2. Collection day programs must have received DEC's written approval prior to conducting the collection day.
- 3. Educational costs will be eligible for reimbursement only if the municipality offers a collection program for HHW.

Which types of wastes are eligible for reimbursement?

Only the costs of collecting and managing categories of wastes that meet the definition of HHW and do not have separate State or federally mandated take-back, deposit or product stewardship programs, will be reimbursed under this program. Categories of waste potentially eligible for reimbursement may include, but are not limited to:

Pesticides, corrosives, pool chemicals, driveway sealers, hazardous paints and stains, polishes and waxes, adhesives, solvents, hazardous cleaning products, antifreeze, vehicle fluids, fluorescent light tubes, compact fluorescent lamps (CFLs) and ballasts, photography chemicals, non-rechargeable hazardous batteries, products containing mercury (*excluding thermostats), propane gas cylinders (that still contain propane).

*For information on thermostat disposal, or to participate in the Thermostat Recycling Corporation program, go to http://www.thermostat-recycle.org. For more on managing mercury thermostats, go to http://www.dec.ny.gov/chemical/92655.html.

What costs are NOT eligible?

Items that will **NOT** be reimbursed under this program include, but are not limited to:

- 1. Costs that are reimbursed to the municipality or paid by outside sources, such as State and Federal Governments, or private donations or funding;
- 2. In-kind services, employee salaries, general supplies and overhead;
- 3. Costs paid outside the term of the contract;
- 4. Costs of issuing bonds, obtaining financing, obtaining permits, applying for State assistance, interest, bid document production or bid document distribution:
- 5. Cost of recycling waste materials if the recycled product is returned to the municipality, such as through a "buy-back" system;
- 6. Costs of operating a fluorescent bulb collection program or other similar single material collection programs, unless collected as part of an approved HHW collection program;
- 7. Costs of any HHW collection program that does not comply with an approved collection day plan or facility permit, and all applicable rules and regulations;
- 8. Cost of managing hazardous waste not generated by households, such as hazardous waste generated by municipalities, municipal departments, State agencies, schools, farms commercial establishments or industries.;
- 9. Costs related to and for municipal workers and volunteers except for personal safety equipment (e.g., salary, overhead, travel and medical expenses);
- 10. Costs incurred from the collection, handling, and disposal of types of solid waste that, except under extraordinary circumstances, would not meet the definition of HHW (e.g., explosives, alkaline batteries, ammunition, asbestos, bulk metal,

construction and demolition debris, empty containers, empty paint cans, empty aerosol cans, empty refrigerant cans, empty propane tanks, unserviceable extinguishers, household medical waste, latex paint, radioactive material, rechargeable batteries, smoke detectors, tires, used oil, white goods, roll-off containers with municipal solid waste, and any miscellaneous materials and packaging received).

Are the costs of collecting electronics eligible?

No. Municipalities have no responsibility under the **New York State Electronic Equipment Recycling and Reuse Act**. In fact, a key purpose of the Act was to remove the burden and expense of managing costly electronic waste acceptance programs from municipalities, and introduce a producer responsibility approach to managing this expanding waste stream.

Instead of requiring municipal collection, the law requires manufacturers of Covered Electronic Equipment (CEE) to provide all counties of the State, and all municipalities which have a population of ten thousand or greater, with at least one convenient method of recycling. Manufacturers and/or collective electronic waste acceptance programs may make arrangement with municipalities to operate electronic waste acceptance programs.

As of **April 1, 2011**, when electronic waste acceptance programs were required to be implemented, costs for municipal collection of CEE were no longer eligible for reimbursement through the Household Hazardous Waste State Assistance Program. Municipalities participating in an electronic waste acceptance program might be able to receive some form of financial assistance through their agreements with those programs.

For further information pertaining to electronics waste collection, please go to our web site at: http://www.dec.ny.gov/chemical/66879.html.

Are the costs of collecting rechargeable batteries eligible?

No. Municipalities have no responsibility under the **NYS Rechargeable Battery Recycling Act**. The law requires manufacturers of covered rechargeable batteries to collect and recycle the batteries statewide in a manufacturer-funded program at no cost to consumers or municipalities. Most rechargeable batteries contain toxic metals that can be released into the environment when improperly disposed. As of June 8, 2011, consumers across the state have been able to safely return to retailers rechargeable batteries, from a large number of electronic products, for recycling or proper management at the end of their useful life. Rechargeable batteries covered under the law include: *Nickel-cadmium*, sealed lead, lithium ion, nickel metal hydride, any other such dry cell battery capable of being charged and battery packs containing any of the above-mentioned batteries.

Since retailers that sell covered rechargeable batteries are required to accept used rechargeable batteries from consumers during normal business hours, cost for municipal collection of rechargeable batteries covered under the act are no longer eligible for reimbursement through the Household Hazardous Waste State Assistance Program.

For further information pertaining to The NYS Rechargeable Battery Recycling Act (Article 27, Title 18 of the Environmental Conservation Law), please go to our web site at: http://www.dec.ny.gov/chemical/72065.html.

Mercury Thermostats

It has been illegal to dispose of mercury thermostats in the trash in New York State since 2005. The Mercury Thermostat Collection Act of 2013 provides for mandatory collection and environmentally sound management of mercury thermostats, therefore the costs for municipal collection of mercury thermostats are not eligible for reimbursement through the Household Hazardous Waste State Assistance Program. For more information, go to http://www.dec.ny.gov/chemical/92655.html.

Automotive Batteries

Retailers have been required to accept automotive lead-acid batteries in New York State since January 1, 1991, therefore the cost for municipal collection of lead-acid batteries are not eligible for reimbursement through the Household Hazardous Waste State Assistance Program. For more information, go to http://www.dec.ny.gov/chemical/86024.html.

What if my program collects waste from other than households?

The HHW State assistance program will reimburse the costs of collecting and properly managing waste from households. Municipalities may however, still collect hazardous waste from other than households [e.g., farmers, municipal departments, conditionally exempt small quantity generators (CESQGs)] at a HHW collection program if authorized by DEC and if received from a CESQG. However, costs incurred from the collection or management of wastes that are not from households are not eligible for reimbursement and must be managed as a hazardous waste. Municipal HHW collection programs that also collect non-household waste must meet the following conditions in order to remain eligible for this State assistance program:

- 1. All participants that are not households must qualify as CESQGs. Please view the following website to determine who qualifies as a CESQG http://www.dec.ny.gov/chemical/60838.html.
- 2. The sponsor municipality must register participating farmers and businesses to determine their generator status. This information must be provided to DEC upon request.
- 3. The sponsor municipality must determine the portion of costs from collection of waste from households, exclusive of costs resulting from collection of waste from CESQGs / farms waste, etc. The separation scheme should be described in the State assistance application program description and is subject to DEC approval.

Can I file more than one Application?

For HHW collection day activities, a municipality may submit only <u>one</u> application for all HHW State Assistance per State fiscal year (April 1 - March 31) for either the current or the previous State fiscal year. All program costs expected to be paid during that year should be included in the application.

For construction of permitted HHW collection and storage facilities, a municipality may submit only **one** application for funding for the total construction cost of the facility regardless of whether construction costs are expected to be paid in more than one state fiscal year.

Special Guidance for Permitted Household Hazardous Waste Collection and Storage Facilities

In addition to the required information contained in the Grant Application Package for the Household Hazardous Waste State Assistance Program, the following supplemental information is required as part of the application for construction of permitted Household Hazardous Waste Collection and Storage Facilities.

Eligible Costs

- 1. Reasonable costs, as determined by DEC, incurred in constructing a household hazardous waste collection and storage facility may be eligible for reimbursement. Eligible costs include the following, to the extent that they are necessary for actual facility construction:
 - a. Costs for engineering and architectural services, surveys, plans and specifications;
 - b. Costs for directly related consultant and legal services;
 - c. Costs for lands acquired, to the extent that the lands are used for permitted household hazardous waste collection and storage facilities; and
 - d. Costs for facility construction and other DEC approved directly related expenses.

Project Description

- 1. Describe the **layout and operation** of the project, detailing methods, schedules, equipment, and services required for each subsystem, including:
 - a. Collection and handling methods at the HHW facility;
 - b. Hours and days of operation, equipment and personnel required for HHW collection, aggregation, and storage;
 - c. Processing design, including:
 - 1. Design and operational capacities of the facility and component equipment;
 - 2. Number and design structures;
 - 3. Overview of all existing and planned equipment;
 - 4. Floor plans and equipment layout; and
 - 5. Description of basic processes of all equipment;
 - d. Methods of preparing collected HHW for management;
 - e. Methods to be employed for protecting HHW from contamination and deterioration; and
 - f. Methods for storage and protecting HHW from mixing of non-compatibles.

Project Budget

- 1. Provide an itemized list of each item for which funding is requested, including:
 - a. Estimated costs;
 - b. Brief summaries of use;
 - c. Dates of purchase or anticipated purchase dates; and
 - d. Vendor specification, equipment brochures, or bid specifications issued by the municipality, for each equipment item, and for buildings to be funded.
- 2. For **EQUIPMENT COSTS** only, prepare an "Equipment List" to describe items for which funding is requested. The following is a sample of the information that must be provided on the Equipment List:

Reference No.	Equipment / Description	Quantity Unit Cost	Total Cost	Purchase Date	Brief use summary, materials, quantity handled & location
1	Chemical Storage Locker	1 @ \$20,000	\$20,000	9/20/08	6'x3'x8' storage cabinet used to store incompatible chemicals. Anticipated capacity to allow ample storage between pickups. To be located at the Route 66 HHW Facility/Transfer Station.

- 3. For **CONSTRUCTION OR PROFESSIONAL SERVICES**, provide an estimate of costs and justification for each service. The following are examples of eligible services;
 - a. Engineering and architectural services;
 - b. Surveys;
 - c. Plans and specifications;
 - d. Legal and consultant services; and
 - e. Construction services (general, HVAC, electrical, plumbing).
- 4. **WORK FORCE ACCOUNT COSTS** (the cost of construction services/time provided by municipal employees). This item MAY be eligible for inclusion in the project budget under the following conditions:
 - a. Only a reasonable amount of the Total Project Cost, as determined by DEC, and only for the following:
 - 1. Site preparation;
 - 2. Facility construction; and
 - 3. Engineering, architectural, legal, and other professional services.
 - b. The applicant must provide an explanation of why using municipal work force is the preferred alternative.

If you have any construction costs which you wish to include in your application, please call the telephone number on the cover page of this application package for further instructions.

Appendix A SAMPLE RESOLUTION

Note: The text of this resolution has been pre-approved by DEC attorneys. Use of the language of this pre-approved resolution will reduce time for review.

A Resolution Authorizing the Filing of an Application for a State Assistance from the Household Hazardous Waste (HHW) State Assistance Program and Signing of the Associated State Master Grant Contract, Under the Appropriate Laws of New York State.

WHEREAS, the State of New York provides financial aid for household hazardous waste programs; and WHEREAS (Legal Name of Municipality) herein called the MUNICIPALITY, has examined and duly considered the applicable laws of the State of New York and the MUNICIPALITY deems it to be in the public interest and benefit to file an application under these laws; and WHEREAS, it is necessary that a Contract by and between THE PEOPLE OF THE STATE OF NEW YORK, herein called the STATE, and the MUNICIPALITY be executed for such STATE Aid; NOW, THEREFORE, BE IT RESOLVED BY _____ (Governing Body of Applicant) That the filing of an application in the form required by the State of New York in conformity 1. with the applicable laws of the State of New York including all understanding and assurances contained in said application is hereby authorized. 2. That _____ (TITLE of Applicant's designated Authorized Representative) or his/her designee is directed and authorized as the official representative of the MUNICIPALITY to act in connection with the application, to sign the resulting contract if said application is approved by the STATE; and to provide such additional information as may be required. 3. That the MUNICIPALITY agrees that it will fund the entire cost of said household hazardous waste program and will be reimbursed by the State for share of such costs as indicated in the

- 4. That two (2) Certified Copies of this Resolution be prepared and sent to the New York State Department of Environmental Conservation together with a complete application.
- 5. That this resolution shall take effect immediately.

contract.

CERTIFICATE OF RECORDING OFFICER

That the attached Resolution is a true and correct copy of the Resolution, authorizing the signing of an application for State Assistance, authorizing the signing of a State Contract, and assuring funding of the municipal portion of the cost of the project as regularly adopted at a legally convened meeting of the

	(Name of Governing Body of the Ap	pplicant)
duly held on the	day of	
and further that such Resolutio	n has been fully recorded in the	
		in my office.
	(Title of Record Book)	
In witness whereof, I ha	ave hereunto set my hand this	day
of,		
If the Applicant has an Official	l Seal,	
Impress here.		Signature of Recording Officer
If not, then please sign both certificates in original signature	es.	
		Title of Recording Officer



Appendix B

New York State Department of Environmental Conservation

APPLICATION FOR STATE ASSISTANCE

Household Hazardous Waste State Assistance Program

1. Applicant		2. County	3. DEC Region
4. Type of Applicant: [] Public benefit con	[] County [] Town rporation [] School distric	[] City [] Village [] Local] et [] Supervisory district [] Native	public authority e American tribe or nation
5. Name and Title of Contact Person:			
•		owledge about the HHW project. Photo	ne
E-mail address (if av	ailable)		
7. Total Project Cost S	S	[] total population or [] household 9. State Assistance Request (50%) \$	
CERTIFICATION:		e information in this application and nts, and exhibits is true, correct and	in the attached certified copies of complete to the best of my knowledge
Signature of Authoriz Representative	zed		Date
Name and Title			
Address:			
			4/2001

Appendix C (Project Description) **Household Hazardous Waste (HHW) State Assistance Program**

Answer all questions below. They are REQUIRED to be completed. You may use these pages or type the questions on a separate sheet of paper:

1. What are the dates and locations of collection days? Include street addresses of collection site(s)	
2. What categories of wastes are collected? (include ALL wastes collected, even if not eligible for funding)	
3. What methods are used to manage the collected HHW?	
4. What are your HHW educational and promotional activities?	

Project Description Worksheet (page 2 of 2)

5. What coordination/consolidation of HHW services was performed among municipalities? Write NONE if no coordination among municipalities was performed.
6. Are you using any innovative or cost-effective methods? Write NONE if no innovative or cost-effective methods were used.
7. Does this project meet all applicable State, Federal and Local laws and regulations? Yes No If no, please explain.
8. What have you done to secure other financial assistance for your HHW program? Write N/A if no efforts were undertaken to secure other financial assistance.
9. What inter-governmental or non-governmental arrangements have you entered into to carry out the HHW collection event? **Do NOT submit copies of all your correspondence** Write NONE if no arrangements were necessary.
10. Any other information which you believe may help DEC evaluate the reasonableness of funding for your project. This may include justifications for equipment needed, or explanations of costs unique to your program.
11. If you employ any contractors for this project: All contractors and/or subcontractors are subject to a vendor responsibility review by the State to ensure public dollars are being spent appropriately

Revised July 2014 Page 18

with responsible contractors. A vendor responsibility review may include a contractor and/or

subcontractor to present evidence of its continuing legal authority to do business in NYS, integrity,

experience, ability, prior performance, and organizational and financial capacity. Contractors or subcontractors that receive contract funding valued at \$100,000 or more must complete a Vendor Responsibility Questionnaire. To enroll in and use the NYS VendRep System, see the VendRep System instructions available at: http://www.osc.state.ny.us/vendrep/vendor_index.htm or go directly to the VendRep System at: https://portal.osc.state.ny.us.

You will be required to carry appropriate insurance as specified in the Master Grant Contract, (http://www.dec.ny.gov/docs/materials_minerals_pdf/dmmmgc.pdf) Attachment A-1 Program Specific Terms and Conditions, and agree that each project consultant, project contractor and project subcontractor secures and delivers to the contractor appropriate policies of insurance issued by an insurance company licensed to do business in the State of New York. Policies must name the contractor as an additional insured, with appropriate limits, covering contractor's public liability and property damage insurance, contractor's contingency liability insurance, "all-risk" insurance, and workers compensation/disability coverage for the project.

Appendix D

Household Hazardous Waste State Assistance Program **BUDGET WORKSHEET** (page 1 of 2)

Attach itemized lists of individual costs used to calculate these amounts. Miscellaneous amounts will not be approved.

Period covered: April 1, ______ - March 31, _____

1. HHW Management Contractual Costs	
Primary Contractor Cost of Collection and Disposal of HHW	\$
Timilary Conductor Cost of Concession and Disposar of Time	Ψ
Secondary Contractor Cost of Collection and Disposal	\$
Secondary Contractor Cost of Concetion and Disposar	Ψ
Specify type of weste collected by 2nd contractor	
Specify type of waste collected by 2nd contractor	
Subtract Cost of Ineligible Wastes	
Asbestos	
Electronics	
Latex Paint	
Tires	
Costs received directly from participants for management of waste	e
CESQG/farm/municipality's wastes	
Other (specify)	
Other (specify)	
Subtotal HHW Management Contractor Co	sts \$
	111
2. Public Education / Promotion Include items used to reach out to the	ne public.
	ne public.
newspaper/radio/TV advertising	ne public.
newspaper/radio/TV advertising	
newspaper/radio/TV advertising brochures, flyers mailing costs	
newspaper/radio/TV advertising brochures, flyers	
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items	
newspaper/radio/TV advertising brochures, flyers mailing costs	
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items	
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items	
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items	osts \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education Comparison of the compar	osts \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education Comparison 3. Supplies and Materials Must be necessary for carrying out HHW comparison (example: disposable containers, tarps, safety equipment, etc.)	osts \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education C 3. Supplies and Materials Must be necessary for carrying out HHW co	osts \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education Co 3. Supplies and Materials Must be necessary for carrying out HHW co (example: disposable containers, tarps, safety equipment, etc.) Include an itemized list for this category.	osts \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education C 3. Supplies and Materials Must be necessary for carrying out HHW co (example: disposable containers, tarps, safety equipment, etc.) Include an itemized list for this category.	osts \$ ollection \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education C 3. Supplies and Materials Must be necessary for carrying out HHW co (example: disposable containers, tarps, safety equipment, etc.) Include an itemized list for this category. 4. Equipment Costs (example: durable containers, carts, etc.)	osts \$
newspaper/radio/TV advertising brochures, flyers mailing costs other promotional items Subtotal Public Education C 3. Supplies and Materials Must be necessary for carrying out HHW co (example: disposable containers, tarps, safety equipment, etc.) Include an itemized list for this category.	osts \$ ollection \$

BUDGET WORKSHEET (page 2 of 2)

5. Construction Costs	
For work done by contractors, contractor cost (Attach an itemized list of these costs)	\$
For work done by municipal employees, materials cos (Attach an itemized list of these costs)	et \$
Total Cost of the Program (add items 1 through 5)	\$
Total State Assistance Requested (50% of total costs) (Also, write these amounts on the Cover Page)	\$
Indicate the amount of outside assistance or cost recovery that the municipality has received or expects to receive for the HHW collection program activities.	\$
Provide an explanation of this assistance on a separate page. Some types of cost recovery do not need to be subtracted from	m the eligible cost.
Provide the following info (provide estimates, if neces	
Number of collection days	
Expected or Actual Total Attendance	
Total volume of HHW collected (include the units of measure)	
Per person cost of collecting HHW (divide total cost by total attendance)	\$/person
Per unit cost of collecting HHW \$(divide total cost by total volume collected)	(units of measure)

Appendix E Household Hazardous Waste State Assistance Program APPLICATION CHECKLIST

To complete the application, submit all documentation below and place a check (\checkmark) in each box. Include this checklist with your application.

Name of Person completing checklist (print)	
1 0 1	

DO NOT bind your application. It needs to be separated for review.

check below when completed	Application Component
	Application Cover Signed by Authorized Representative
	Project Description Worksheet - 2 pages
	Budget Worksheet - 2 pages (include itemized lists, if necessary)
	M/WBE Policy Statement and Utilization Plan Form (for all State contracts in excess of \$25,000)
	Two (2) copies of the Certified Resolution Check for a municipal seal (or original signature) on each certificate
	Vendor Responsibility (Question 11 in Appendix C)
	Proof of Workers Compensation Insurance for the municipality – Question 12 in Appendix C
	Collection Event Approval Letter From Regional Office

If the applicant is a Public Authority,	
What is the applicant's Federal Tax ID number?	

If the applicant is a county, city, town or village, payments will be sent to the municipality's chief finance officer.

Reminders:

- 1. DO NOT forget to submit a collection plan for approval to your DEC Regional Office at least <u>60 days prior</u> to the HHW collection day. If you fail to do this you will not be eligible for reimbursement.
- 2. DO NOT send all of your HHW plans and specifications used to obtain a HHW collection day approval letter, or permit. **Just send the information required by this Application Package.**

Appendix F

MINORITY & SS ENTERPRISE (M/WBE) AND EQUAL EMPLOYMENT OPPORTUNITIES (EEO) REQUIREMENTS

The DEC is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 142-144 ("MWBE Regulations") for all State contracts with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.

Applicants subject to executing a future NYS Master Grant Contract agree, in addition to any other nondiscrimination provision of the MGC and at no additional cost to the DEC, to fully comply and cooperate with the DEC in the implementation of New York State Executive Law Article 15-A. These requirements include equal employment opportunities for minority group members and women ("EEO") and contracting opportunities for certified minority and women-owned business enterprises ("MWBEs"). Contractor's demonstration of "good faith efforts" pursuant to 5 NYCRR §142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the "Human Rights Law") or other applicable federal, state or local laws.

Failure to comply with M/WBE and EEO requirements may result in a DEC finding of non-responsiveness, non-responsibility and/or a breach of contract, leading to the withholding of funds or such other actions, liquidated damages or enforcement proceedings.

Please refer to the NYS Master Grant Contract - Article IV.(J) and Attachment A-1 Program Specific Terms and Conditions - Article X, to review M/WBE and EEO requirements. Required M/WBE and EEO related forms can be found at http://www.dec.ny.gov/about/48854.html

The local government is responsible for designating someone to serve as their Affirmative Action representative. The governing body should make this designation through official means.

A list of certified M/WBE enterprises can be obtained via the internet from the NYS Department of Economic Development at:

https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp?TN=ny&XID=9885

The following M/WBE-EEO "Fair Share" goals are established as follows:

Minority Business Enterprise (MBE) Participation Goals

Location/Commodity Group MBE Goals

Statewide:

Construction/Engineering 10%

Commodities 10%

Services/Technologies 10%

Women's Business Enterprise (WBE) Participation Goals

Location/Commodity Group WBE Goals

Statewide:

Construction/Engineering 10%

Commodities 10%

Services/Technologies 10%

Equal Employment Opportunity (EEO) Participation Goals

EEO Minority Workforce Participation Goals

(DEC Regions 1-9) 10%

EEO Female Workforce Participation Goals

(DEC Regions 1-9) 10%

DEC M/WBE Contact

NYS Department of Environmental Conservation Bureau of Contract and Grant Development/MWBE Program 625 Broadway, 10th Floor Albany, New York 12233-5028

Phone: (518) 402-9240 Fax: (518) 402-9023 mwbe@dec.ny.gov

Appendix G DEC Regional Offices

REGIONAL OFFICE ADDRESS	COUNTIES	TELEPHONE
Regional Materials Management Supervisor NYS DEC, REGION 1 50 Circle Road Stony Brook, NY 11790-3409	Nassau, Suffolk	(631) 444-0375
Regional Materials Management Supervisor NYS DEC, REGION 2 1 Hunters Point Plaza 47-40 21st Street Long Island City, NY 11101-5407	New York City (Bronx, Kings, New York, Queens, Richmond)	(718) 482-4896
Regional Materials Management Supervisor NYS DEC, REGION 3 21 South Putt Corners Road New Paltz, NY 12561-1696	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	(845) 256-3141
Regional Materials Management Supervisor NYS DEC, REGION 4 1130 North Westcott Road Schenectady, NY 12306-2014	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	(518) 357-2045
Regional Materials Management Supervisor NYS DEC, REGION 5 1115 Route 86, PO Box 296 Ray Brook, NY 12977-0296	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	(518) 897-1241 (518) 623-1200
Regional Materials Management Supervisor NYS DEC, REGION 6 State Office Building 317 Washington Street Watertown, NY 13601-3787	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	(315) 785-2513
Regional Materials Management Supervisor NYS DEC, REGION 7 615 Erie Boulevard West Syracuse, NY 13204-2400	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	(315) 426-7419
Regional Materials Management Supervisor NYS DEC, REGION 8 6274 East Avon-Lima Road Avon, NY 14414-9519	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	(716) 226-5411
Regional Materials Management Supervisor NYS DEC, REGION 9 270 Michigan Avenue Buffalo, NY 14203-2999	Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming	(716) 851-7220

Appendix A.04

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Municipal Correspondence List

ERIE COUNTY DEPT. OF ENVIRONMENT & PLANNING HHW FEASIBILITY STUDY

APPENDIX A.04 MUNICIPAL CORRESPONDENCE LIST

Municipality / Agency / Organization	Contact(s), Position	Date - Method
 Cattauraugus County Chatauqua County Development Authority of the North Country (DANC) Erie County Dept. of Environment & Planning Genesee Livingston Wyoming Region Solid Waste Management Committee (GLW) Monroe County Niagara County 	See HHW Data Overview	See HHW Data Overview
Onondaga County Resource Recovery Agency (OCRRA)Steuben County		
City of Buffalo	Susan Attridge Director of Refuse and Recycling	05/03/18 – HHW and EWaste Interview Templates
Erie County Division of Sewage Management	Joseph Fiegl, P.E. Deputy Commissioner	04/25/18 – Phone Interview
Erie County Water Authority	Paul Whittan Director of Water Quality	04/25/18 – Left Voicemail
Hazman	Justin Rainville Sales & Marketing	05/22/18 – Email Correspondence, Drop-off Center Data
Sunnking	Cindy Jessop Director of Community Outreach & Programs	04/17/18 – Phone Interview
Town of Amherst	Ryan Licata Refuse Control Officer	06/03/18 – Phone Interview Pending
Town of Elma	Dennis Powers Supervisors	06/03/18 – Phone Interview Pending
Town of Evans	Paul Michalec Councilman	04/27/18 – Phone Interview
Town of Holland	Mike Kasprzyk Supervisor	05/21/18 – Phone Interview
Town of Tonawanda	Steve Overbeck Administrative Aide	04/25/18 – Phone Interview
NYSDEC Division of Materials Management	Michael A Dauphinais, Jr. Chief, Waste Transport & State Assistance Section	04/12/18 – Email Correspondence
Village of Hamburg	Marc Shuttleworth Superintendent, Public Works	06/04/18 – Phone Interview Pending

Appendix A.05

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EPS HHW Price List for Syracuse Waste Management Facility

Syracuse Waste Management Facility – Household Hazardous Waste Pricing

Syracuse Waste Management Facility – Household Hazardous Waste Pricing						
Waste Stream	Common Names	Container Size	Unit	Quantity	Price	Total
Aerosol Cans	Spray paint, hair spray, etc.	Any Size	Each		\$0.75	
Asbestos	Asbestos – Friable, Non-Friable	Up to 50 pounds	Bag		\$11.50	
		Over 50 pounds	Pound		\$0.50	
Batteries, Dry Cell	Batteries, alkaline , typical household	Any	Pound		\$0.50	
Batteries, Lead Acid	Batteries, automotive, tractor	Any	Each		\$5.00	
Caustic Alkali/Bases	Cleaners, floor, all-purpose, Drano, liquid shoe polish	1 – 32 oz	Each		\$1.00	
		33 – 128 oz (gal)	Each		\$4.00	
Combustible Liquid	Resins adhesives, glues, grout	1 – 32 oz	Each		\$1.00	
		33 – 128 oz (gal)	Each		\$4.00	
Compressed Gases	*Note 5 gal pail (\$2.00 X 5 = \$10.00 ea) Propane, butane, fire extinguishers, etc.	1 lb	Each		\$1.50	
		20 lb	Each		\$5.00	
Computer Ports	CPU's	N/A	Each		\$10.00	
Computer Parts						
	Monitors	N/A	Each		\$12.50	
	Keyboards	N/A	Each		\$2.50	
	Printers, Mice & Other Peripherals	N/A	Pound		\$0.50	
Cons. Organic Liquid	Soaps, rinse water, etc.	1 – 32 oz	Each		\$0.50	
		33 – 128 oz (gal)	Each		\$2.00	
Construction Debris	Sheetrock, wood, shingles, carpeting	Any	Pound		\$0.50	
Corrosives (Acid)	Acids, metal polish, naval jelly, solid shoe polish	1 – 32 oz	Each		\$1.00	
		33 – 128 oz (gal)	Each		\$4.00	
Driveway Sealer	Driveway sealer, roof cement, tar, etc	1 Gallon	Each		\$2.00	
		5 Gallon	Each		\$10.00	
Ethylene Glycol	Antifreeze	128 oz (gal)	Each		\$1.00	
Fertilizers, Liquid	Plant Food, Lawn Grow, etc.)	1 –32 oz	Each		\$1.00	
		33 – 128 oz (gal)	Each		\$4.00	
Fertilizers, Solid	Turf Builder, Lawn Gro, Nitrogen Plus, etc.	Any Size	Pound		\$1.00	
Flammable Liquid	Thinners, solvents, mineral spirits,	1 – 32 oz	Each		\$1.25	
Flancon de la Calida	turpentine , etc.	33 – 128 oz (gal)	Each		\$5.00	
Flammable Solids	Mothballs, Flairs, Stenos	Any Size	Pound		\$2.50	
Florescent Tube	Florescent tube, lighting	4 foot 8 foot	Each Each		\$1.00 \$2.00	
Gasoline	Gasoline, leaded, unleaded	Any	Gallon		\$2.00	
Grease	Auto, cooking	Any	Pound		\$0.50	
Light Ballast	Light Ballast	Any	Each		\$1.00	
Mercury	Thermometer, barometer, pure liquid, etc.		Pound		\$7.50	
Oxidizers		Any 1 – 32 oz	Each		\$1.00	
	Chlorine, Pool Chemicals, ammonia, bleach, etc					
		33 – 128 oz (gal)	Each		\$4.00	
Paint, Flammable	Oil- base, stains, etc. *Note 5 gal pail (\$3.00 X 5 = \$15.00 ea)	8 oz (pint)	Each		\$0.50	
		16 oz (quart)	Each		\$1.00	
		128 oz (gal)	Each		\$4.00	
Paint, Non-Flammable	Latex, enamel, etc	8 oz (pint)	Each		\$0.25	
	*Note 5 gal pail (\$2.00 X 5 = \$10.00 ea)	16 oz (quart)	Each		\$0.50	
		128 oz (gal)	Each		\$2.00	
Pesticides, Liquid	Lawn care prod., insecticides, herbicides	1 – 32 oz	Each		\$1.00	
		33 – 128 oz (gal)	Each		\$4.00	
Pesticides, Solid	Lawn care prod., insecticides, herbicides	Any	Pound		\$1.00	
Photographic Chemicals	Toners, developers	1 – 32 oz	Each		\$1.00	
<u> </u>		33 - 128 oz (gal)	Each		\$4.00	
Tires Waste Oils	Car (<20")	Any	Each		\$5.00	
	Truck (>20")	Any	Each		\$10.00	
	Fuel oil, motor oil, diesel fuel, kerosene	32 oz (quart) 128 oz (gal)	Each Each		\$0.25 \$1.00	
Used Appliances	Microwave, television.	Any	Pound		\$1.00	
		,y			ψ.00	

Appendix A.06

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Monroe County EcoPark Website Screenshot

- ecopark + HHW
- Appliances
- Automotive Waste
- Batteries
- Bulky Plastic Items
- Curbside Recycling
- ▲ Dangerous Materials
- iir Donations/Textile Recycling
- Electronics/Cell Phones
- Light Bulbs & Ballasts
- ≫ Paper Shredding
- Pharmaceutical Waste
- F Plastic Bags/Product Wrap
- C Scrap Metal
- I Single Use Plastics
- 🗞 Styrofoam
- Yard Waste/Compost Give Back
- Q All Search Terms

ecopark

10 Avion Drive, 14624 Directions

Wed 1pm-6:30pm

Sat 7:30am-1pm

Closed on Holidays &

Thanksgiving/Christmas Weekends

Appointment Required for Hazardous Household Waste mcdes@monroecounty.gov

Recycling Newsletter Signup

Resources

RECYCLE RIGHT === colors wa



Free Recycling Magnet



An innovative partnership between Monroe County and Waste Management to provide a "one stop drop off" for residential recycling.

For use by Monroe County residents only!

Click here for information on Small Business, Not-For-Profits and Out-Of County Residential Waste & Recycling Disposal.

Please note that the recycling stations at the ecopark are self-serve (with the exception of Household Hazardous Waste). Residents should be prepared to unload their own items.

10 Avion Drive, Rochester, NY 14624

Directions

Wed 1pm-6:30pm, Sat 7:30am-1pm Closed on Holidays & Thanksgiving/Christmas Weekends

Closed Wednesday, July 4th

Special Pharmaceutical Collection at Chili-Paul Wegmans on 8/4/2018 Mt Read Wegmans on 9/22, both 8am-1pm

Accepted at ecopark During All Operating Hours for Monroe County Residents Only

- Appliances
- Bulky Plastic Items (no fabric/metal components)
- Clean Styrofoam Packing (no labels or tape)
- Clothing & Accessories (donation)
- Cooking Oil
- Document Destruction (items are destroyed off site)
- Electronic Waste
- Fire Extinguishers
- Flags (U.S.)
- Fluorescent Lights/CFL Bulbs
- Fee-Based Items Credit/Debit Card Only
- Tube TVs/Monitors \$15
- Broken Tube TVs/Monitors \$25
- Flat Screen TVs/Monitors \$5

- Paper & Cardboard
- Pharmaceuticals & Rx Bottles
- Plastic Bags & Wrap
- Printer Cartridges
- Propane Tanks (1# and 20# only)
- Rechargeable and Button Batteries NO Alkaline Batteries
- Recyclable Glass/Metal/Plastic Containers
- Sharps & Syringes
- Scrap Metal (including bare tire rims)
- Passenger Vehicle Tires On Rims \$8
- Tires Off Rims \$5 Appliances with refrigerant \$15
- Household Hazardous Waste Appointment Required
- Automotive Fluids (antifreeze, brake, power steering and transmission fluids)
- Cleaners (soaps, waxes, drain cleaners, etc.)
- Driveway Sealers
- · Flammables (gasoline, thinners, solvents, etc.)
- · Mercury (thermometers, thermostats)

- Paint: Oil-based & Latex (more than 1/3 can full)
- Pesticides/Insecticides & Fertilizers
- Pool & Photo Chemicals
- Resins & Adhesives
- · Wood Stain & Preservatives

Click a date below to make a HHW appointment



If you are having trouble scheduling a household hazardous waste appointment or do not have a computer contact Monroe County by calling 585-753-7600 (Option #3). You can leave a message and we will return your call as soon as possible.

Not Accepted at ecopark

- 55-Gallon Drums
- Alkaline Batteries
- Asbestos
- Building Materials (wood, carpeting, concrete, dry wall, etc.)
- Bullets, Flares, Gunpowder, Explosives (call Sheriff's Office or local) police department)
- Dried Paint Can or Less Than 1/3 Can (discard lid, add kitty litter, stir, let dry, place in trash)
- Business Generated Waste
- Glazing/Spackle/Joint Compound (place in trash)
- Household Garbage/Trash
- Radioactive Materials (<u>carbon monoxide & smoke detectors</u>)
- Styrofoam™ Packing Peanuts and Food Containers (egg cartons, coffee cups, meat trays, etc.)
- Used Motor Oil (contact service station or retailer)

Appendix A.07

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Niagara County 2017 Voucher Sample

NIAGARA COUNTY Household Hazardous Waste Voucher

NAME John Smith

ADDRESS 123 Main St., Niagara Falls, NY 14301

DROP-OFF TIME Tuesday, October 13 at 10:00am

EXPIRATION DATE October 15 at 10:00am



Instructions

Bring the following items to your Hazman HHW Drop-off Center appointment:

- This Voucher
- Proof of Residency (ex: Driver's License, Phone or Water Bill)
- up to 100 lbs. of Acceptable Household Hazardous Waste (HHW)

Once you arrive at Hazman, a Hazman employee will unload, identify and weigh your HHW. Items requiring a recycling fee or exceeding the 100 lbs. voucher allowance will be totaled for payment.

Acceptable HHW (FREE if less than 100 lbs.)

Acids & Bases
Aerosols
Antifreeze
Cleaners
Driveway Sealer
Fluorescent Bulbs
Poil-Based Paint
Paint Thinner
Thermostats
Thermometers
Wood Polishes
Wood Stain
Fluorescent Bulbs
Solvents



Acceptable Items for Recycling Fee

Alkaline Batteries \$0.75 / lb.
Electronics \$0.50 / lb.
Fire Extinguishers \$10 each
Propane Tanks \$3 / 5 each
Tires \$3 / 5 each



HHW DROP-OFF CENTER

177 Wales Ave. Tonawanda, NY 14150



Questions?

Call (716) 998-8073
Email info@hazmanusa.com
Surf www.hazmanusa.com

F.A.O.

What if I exceed the 100 lbs. voucher allowance? Hazman will accept the additional HHW for a recycling fee of \$0.75 per pound.

How is payment acceptable?

Payment is acceptable by cash, check or credit card.

What if I need to change or cancel my appointment? Contact Hazman via phone or e-mail.

Appendix A.08

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NYSDEC Managing and Disposing of Household Hazardous Waste Packet

New York State Department of Environmental Conservation Division of Materials Management

Bureau of Waste Reduction and Recycling

Managing and Disposing of Household Hazardous Waste



Printed on 100% post-consumer recycled paper

Topics in this Publication

Facts on Household Hazardous Waste General Information Acids and Bases Aerosol Containers Antifreeze and Brake Fluids Automotive Batteries Electronics and Household Batteries Household Cleaners and Personal Products Medicines Mercury
Motor Oil and Automobile Products
Paint
Thinners, Strippers and other Solvents
Wood Preservatives
Pesticides
Miscellaneous Chemicals
For Further Information

Facts on Household Hazardous Waste

We like to think of our homes as our castles. But most of us are not thinking of what's stashed in the basement, garage or under the kitchen sink. Take a look sometime. Do you see old cans of cleansers, paint, bug spray and used motor oil? How long has it been since you used this stuff? How will you get rid of it? Those types of waste contain hazardous substances which can pose risks to the environment, wildlife and human health. Hazardous substances have one or more special characteristics which include:

- The potential to cause violent chemical reaction.
- The potential to be dangerously corrosive.
- The potential to ignite.
- The potential to be harmful to human health (toxic).

Every year in New York State, more than 100,000 tons of these household hazardous wastes are emptied into trash cans. They end up in landfills or incinerators, or may be dumped onto backyard soil or into small streams. Household hazardous wastes enter the environment from lawns, backyards, sewers, landfills and incinerators. When disposed improperly, those wastes can poison the air, soil, water, birds, fish, mammals and even people and pets in the following ways:

- Once in the landfill, liquid waste and rainwater can seep down through layers of trash picking up contam-inants along the way. This will cause leachate to be more difficult and expensive to treat.
- Streams and lakes, as well as groundwater, can become polluted where rain, melting snow and ice
 contact contaminated soil, sidewalks, streets and parking lots. Storm sewers drain directly into local
 waterways.
- Emissions from incinerators can contaminate air and the ash residues, which contain heavy metals, also present disposal problems.

As residents of New York State, we bear the responsibility to dispose of our household hazardous waste properly in order to protect and preserve the quality of our groundwater, streams and lakes. In the following pages, you will find instructions on how to SAFELY dispose of most of the household waste chemicals you may have at home right now. You will also learn how to REDUCE your use of these products by buying or making alternatives so you'll have less to throw out in the future. Follow these steps and you will be making your home, your neighborhood and all of New York State a cleaner, greener place to live. It's easy and it's good for the earth!

General Information

WASTE REDUCTION

- Use non-hazardous alternative products and materials when possible.
- Only buy as much as you need when purchasing hazardous substances.
- If you can't use it up, give it to someone who can. Schools and community groups may be especially grateful for donations of paint.

SAFE STORAGE

- Keep the product in its original container.
- Never mix different chemical products.
- Wrap the waste in newspaper and place in two layers of plastic garbage bags. Label the outside of the bag.
- Store in an out-of the-way location, away from heat and children or pets. Ignitable wastes should be stored away from the house if possible.

It is always best to avoid disposing of hazardous household products, Try to buy only what you need. Look for less toxic alternatives. Recycle when possible. Give unused products to someone else who can use them (unless the product is a pesticide which has been banned or restricted).

If you are left with a product which is unusable, banned, not recyclable, or which cannot be given away, look on the label for disposal information. Be aware, however, that older containers of pesticides and other wastes may give instructions which are no longer appropriate. In cases such as these, or if the label gives insufficient information, you may need to store the waste until a household hazardous waste collection program is held in your area.

Certain household hazardous wastes identified in the following pages can be safely dried out or solidified. Cat litter (clay type with no chemical additives), disposable diapers, vermiculite and other products specifically designed for use with chemicals do not react with chemical wastes and may be safely used as absorbents. Air drying should always be done in a well-ventilated area away from children and animals.

Explosive wastes usually cannot be handled through household hazardous waste collection programs. Explosives include not only ammunition, but certain chemicals, such as picric acid, ether, and concentrated hydrogen peroxide (household strength is not explosive). If you have any of these wastes, contact your local police department for further information.

This information is provided only for individuals who need to dispose of wastes derived from their residential use. Disposal of wastes which are the result of any commercial or industrial activity MUST comply with applicable hazardous waste regulations.

Acids and Bases



Both acids and bases are corrosive materials and may cause damage upon contact with the skin, eyes or respiratory system. They may also react violently if mixed with other substances, including water.

Acids are corrosive materials commonly found in toilet bowl and drain cleaners, swimming pool chemicals and a number of other home cleaning products. These are easily identifiable on ingredient labels because they usually contain the word "acid." Bases are also corrosive, and may be found in bleaches, oven and drain cleaners, disinfectants and other Household products. They may be listed on labels as lye, hydroxide, hypochlorite or a variety of other terms.

ALTERNATIVES

- Keep drains clean by using strainers and keeping grease, hair and coffee grounds out of the drain. Flush drains weekly with boiling water or a cup of warm vinegar. Use a plunger or snake to free blockage.
- To clean the oven, sprinkle baking soda or salt on spills with water and scrub with a steel wool pad.
- Scrub toilets with baking soda or borax.
- To polish metal, rub with a paste of baking soda and water; polish unlacquered brass, bronze or copper with a solution of equal parts of vinegar, flour and salt. Rinse and dry.

DISPOSAL

• If the acid or base is an ingredient in a useable consumer product, try to use it up or give it to someone else who can use it. Do not attempt to neutralize or treat the product yourself, as large amounts of heat may be generated and you could be burned. Never add water to an acid or base to dilute it, as this practice is dangerous. Acids and bases should be saved for a household hazardous waste collection program.

Aerosol Containers

Many hazardous materials, such as spray paints or degreasers, may be packaged in aerosol containers. This type of packaging can be dangerous because aerosol containers may explode under heat or pressure, spreading the hazardous contents and metal throughout the area. Also, the tiny particle size makes hazardous components easier to inhale and therefore more destructive.

ALTERNATIVES

- Use non-aerosol products, such as pump sprays.
- Keep indoor air clean-smelling by keeping an open box of baking soda in a room, or leaving a dish of vinegar or vanilla in a room for about an hour, or simmer in a saucepan of water pieces of orange, lemon or grapefruit to freshen air.

DISPOSAL

- Always try to use up the product or give it to someone else who can use it. The empty container can then be safely discarded with other household trash or recycled in some communities.
- If you cannot use the product for its original purpose and the material that it contains is not hazardous, you may be able to empty it by spraying it outdoors into an empty box or paper bag and allowing the contents to dry. This must be done very carefully in a well ventilated area because the aerosol produce very small particles which may pose a significant health threat if inhaled.
- If you cannot fully empty the aerosol container or if the materials it contains are hazardous, store it until a household hazardous waste collection program is held in your area.

Antifreeze and Brake Fluid

The primary component of new or used antifreeze is ethylene glycol, a toxic substance. Brake fluids are primarily propylene glycol, which is similar to and should be handled the same way as antifreeze. Pets and other animals are highly susceptible to antifreeze poisoning because they enjoy its sweet taste. Therefore it is very important that antifreeze never be allowed to form puddles in the work area. Antifreeze can also contaminate surface waters when improperly disposed.

DISPOSAL

- Clean, used antifreeze may be used as a substitute for the water that would normally be used to dilute the new antifreeze. Also, when replacing hoses, the antifreeze should be captured and reused. These actions reduce the volume of antifreeze requiring disposal.
- Antifreeze can be recycled. Check with a local garage, public works department or motor vehicle salvage yard to see if you can recycle your antifreeze with theirs.
- Never dispose of antifreeze down a storm sewer or on the ground.
- If you cannot find a location to recycle your antifreeze and you are connected to a local sewage treatment plant, call your local sewage treatment plant to see if they can adequately handle this waste. If so, small amounts of antifreeze may be safely poured down the sink or toilet diluted with plenty of water (at least one gallon of water per pint of antifreeze).
- If your waste water leads to a septic tank or cesspool rather than a sewer system, do not dispose of your antifreeze this way. It will damage both systems as well as harm the groundwater. You should ask a friend or relative whose home is connected to a sewer to dispose of it for you, or save it for a household hazardous waste collection program.

Automotive Batteries

Automotive batteries, also known as lead acid batteries, contain sulfuric acid and lead. These components are highly toxic. Lead can threaten groundwater supplies, and acid can severely burn skin. Store these batteries in an out-of-the-way place.

DISPOSAL

• Lead acid batteries are recyclable, and the improper disposal of lead acid batteries is prohibited by New York State Law. All lead acid batteries must be recycled or disposed at a hazardous waste facility. Retailers and distributors are required to accept two batteries per person per month at no charge. A \$5.00 charge will be imposed if you buy a new battery and do not return the old one. Other garages or scrap metal dealers may also be willing to accept batteries. Depending on the market price of lead, you may find that some dealers are willing to pay you for your old battery. Some landfills provide storage areas for used batteries, where they are accumulated for eventual recycling.

Electronics and Household Batteries

Industry experts estimate that U.S. consumers throw away 400 million units of electronic equipment per year. Recycling electronic waste protects human health and the environment by:

- Diverting thousands of pounds of waste from landfills and incinerators.
- Keeping toxins such as lead, mercury and cadmium from contaminating the air, water and soil.

• Conserving natural resources by allowing valuable materials to be reclaimed and reused, rather than using virgin materials.

Electronics include: computers, televisions, cathode ray tubes, small scale servers, computer peripherals, monitors, electronic keyboards, electronic mice or similar pointing devices, facsimile machines, document scanners, and printers, small electronic equipment VCRs, digital video recorders, portable digital music players, DVD players, digital converter boxes, cable or satellite receivers, electronic or video game consoles).

RECYCLING

 The NYS Electronic Equipment Recycling and Reuse Act requires manufacturers to provide free and convenient recycling of electronic waste to most consumers in the state. Check our website http://www.dec.ny.gov/chemical/65583.html

There are many varieties of household batteries. Small "button" batteries, such as those used in cameras and hearing aids, may contain mercury, silver or lithium. Common flashlight batteries, which are usually carbon zinc or alkaline, may contain mercury if manufactured before 1992. Rechargeable batteries most often contain cadmium and nickel. Each of these metal components can pose health hazards. For example, mercury is highly toxic when inhaled, swallowed or absorbed through the skin.

RECYCLING

The NYS Rechargeable Battery Recycling Act was signed into law on December 10, 2010. The law
requires manufacturers of covered rechargeable batteries to collect and recycle the batteries statewide in
a manufacturer-funded program at no cost to consumers. Check our website http://www.dec.ny.gov/chemical/72065.html

Household Cleaners and Personal Products

Household cleaners and personal products include a very wide range of products found around the home, with an equally wide range of environmental and health risks.

ALTERNATIVES

- Clean windows with a soft rag or newspaper. Use 1/4 cup of vinegar in 1 quart of water or try 1/4 cup rubbing alcohol in 1 quart of water (use 2 teaspoons detergent for heavy soil). Spray it on and wipe dry.
- Polish wood with a mixture of one tablespoon lemon oil and 1 quart mineral oil. Spray it on and rub in with cloth or just dip a cloth in olive, soybean or raw linseed oil.
- Clean porcelain using a nylon pad or net that has been rubbed with a cut lemon or dabbed with baking soda paste or cream of tartar paste.
- For bathroom and oven cleaners, see the information for *Acids and Bases*.

DISPOSAL

- It is always best to use up the product according to directions. If you can't use it, give it to someone who can. For products that must be disposed, check the label for instructions.
- Never mix household cleaners. Bleach and ammonia. for example, react to form a deadly gas.

- If a product is normally flushed down the drain during use, as most cleaners and detergents are, the product can usually be disposed by pouring it down the drain slowly, with water running. Do not dispose of highly toxic or corrosive materials this way. These materials should be saved for a household hazardous waste collection day.
- Metal polishes, wood polishes and waxes, and other solvent-based cleaners should be used up or safely stored for a household hazardous waste collection program.
- Mothballs are flammable and toxic. Unusable mothballs should be safely stored until a household hazardous waste program is held in your area.
- Avoid the use of septic tank cleaners or drain openers containing tetrachloroethylene, 1,1,1 -trichloroethane or dichlorobenzene. Any product that contain any halogenated hydrocarbon, aromatic hydrocarbon, or halogenated phenol in an amount greater than one part per hundred by weight are prohibited from sale and/or use in Nassau and Suffolk Counties (Long Island) due to their potential to contaminate groundwater. If you have any of these products, do not use them up. They should be saved for a household hazardous waste collection program.

Medicines

Until recently, consumers have been told to flush unwanted drugs. With technological advances and research, low levels of drugs are being found in our surface waters. We know that some drugs pass largely unaltered through our wastewater treatment plants and enter rivers and other waters. Drugs from heath care facilities, pharmaceutical manufacturing facilities and farms can also find their way into the water.

DISPOSAL

• Check our website for the proper disposal of unwanted drugs - www.dec.ny.gov/chemical/45083.html

Mercury

Mercury is commonly found in older thermometers and some batteries. This substance is readily absorbed through the skin and is highly toxic. Mercury vapors can also be toxic when inhaled.

DISPOSAL

- Mercury can be recycled. Mercury not recycled, should be saved for a household hazardous waste
 collection program. When storing and transporting mercury, however, be very careful to avoid any
 contact by keeping it well wrapped in a tightly sealed rigid container. Check our website http://www.dec.ny.gov/chemical/285.html
- Mercury Thermostats can be recycled check this website for locations that will accept them http://www.thermostat-recycle.org/

Motor Oil & Automobile Products

Used motor oil may contain toxic metals and organic compounds. Motor oil that is disposed on the ground or put into storm sewers may seep into groundwater and may contaminate drinking water supplies.

DISPOSAL

• Do not dispose of motor oil in the ground or sewers. New York State Law requires all service stations that change oil for their customers and retailers who sell more than 1000 gallons of oil per year to accept up to five gallons of used motor oil free of charge from members of the public (unless their storage tanks

are temporarily full). This service may not be limited to customers of the establishment, so you may bring your oil to another station if the one you normally use is full. Some landfills also have used oil storage facilities available for public use.

- Used motor oil can be recycled and service stations generally store used oil in tanks until it is collected by a recycler. Motor oil that is brought in to a service station will be recycled or otherwise handled properly. Your used motor oil can be easily transported by placing it in a clean plastic milk carton or similar container.
- Service stations may also be able to accept transmission fluid, brake fluid, diesel fuel or kerosene. Do not mix these products together or with your used motor oil.
- Gasoline is toxic and extremely flammable and should never be used as a cleaner. If small amounts of impurities are present in leftover gasoline, they may be filtered out using a strainer or coffee filter.
 Water may be eliminated by adding dry gas. It may then be diluted with fresh gasoline and used as fuel. If the gasoline cannot be used, bring it to a service station or save it in a proper gasoline storage container for a household hazardous waste collection program.

Paint



Most paints in use today are either latex or oil-based. Oil-based paints, including enamel, varnish and lacquer, contain solvents which can damage groundwater supplies unless precautions are taken. Latex paint manufactured before August 1990 may contain mercury, which may cause nerve and kidney damage. Also, some older paints may contain high levels of lead and can cause serious health problems if ingested directly or through contamination of drinking water supplies.

ALTERNATIVES

• Mix up your own whitewash for some jobs. The following recipe is for wood, glass or metal surfaces: Dissolve 15 pounds of salt or 5 pounds of dry calcium chloride in 5 gallons of water. In a separate container soak 50 pounds of hydrated lime in 6 gallons of water. Combine the mixtures, stir and thin with water until it is the consistency of whole milk. Yields 10 gallons and proportions can be reduced.

DISPOSAL

- To avoid disposal problems, try to buy only as much paint as you need. When you have leftover paint, try to use it up on a smaller project or give it away to someone else who can use it. Community groups, theater groups or schools may be able to put your leftover paint to good use. Latex paint which contains mercury should only be used outdoors.
- Some communities now recycle latex paint. If yours does, keep the paint well covered and protected from freezing until the next collection day.
- Paints that are too old or in too small quantities to be reused should be disposed of properly. Nonmercury-containing latex paint can be allowed to dry out and harden. This should be done outdoors in an area with very good ventilation and away from children, animals or heat. This process may be quickened by stirring the paint frequently, pouring the paint in layers into a cardboard box, or "painting" old pieces of wood or other materials. Cans containing hardened paint can then be disposed with other household trash, however, the lids should remain off. The paint may also be solidified by pouring it over clay cat litter and letting it dry out.

- Mercury-containing latex or oil-base paint or paint containing lead should be saved for a household hazardous waste collection program. Different colors of paint may be combined for easier storage, provided that the paints are of the same type (latex or oil-based). Make sure that the label clearly states the type of paint inside.
- Artist paints often contain much higher levels of toxic metals than other paints and should not be handled as ordinary paint. These paints should be saved for a collection program. Aerosol paints must also receive special handling and should be saved for a collection program.

Thinners, Strippers & Other Solvents

Solvents may cause serious health effects if they come into contact with the skin or eyes or are inhaled. Excessive solvent exposure can cause a wide range of symptoms, many quite serious. The most damaging are the halogenated solvents, which are often found in paint strippers, spot removers and degreasers.

USING SOLVENTS SAFELY

- Read labels carefully.
- Use gloves, goggles and respiratory mask when appropriate.
- Never smoke when using solvents and never use them near fires.
- Use excellent ventilation and work outside when possible. Don't use solvents on hot, muggy days.
- Use water-based products where possible they require less cleanup and less solvent.
- Never eat or drink where solvents are being used fumes can be absorbed by food or utensils and you may accidentally ingest them.

DISPOSAL

- Most solvents are recyclable, although this is not always practical to do at home. Always try to use up the product in its intended manner. Paint thinners that have paint mixed into them can be reused by capping the container tightly and allowing the paint to settle to the bottom of the container (this process may take several months for large volumes). The clean solvent may then be poured off the top and reused and the sludge that is left can be allowed to dry out (preferably outdoors) and then discarded. Paint thinners can also be used up by mixing them into oil-based paints or can be reused after filtering them through a coffee filter.
- Solvents which contain chlor-, chloro-, or a similar phrase in their chemical name are chlorinated, which is one type of halogenated solvent. Other types may include such phrases as fluoro-, bromo-, or variations of these. These halogenated solvents should be handled carefully.
- Waste solvents should be stored until a household hazardous waste collection program is held in your area. If the solvents must be disposed immediately, then very small amounts (less than one cup) of nonhalogenated solvents can be evaporated by mixing the solvent with an absorbent and leaving the solvent mixture outdoors. When the absorbent is fully dried, it should be wrapped in a plastic bag and placed with other trash. This should be done carefully so that children or animals cannot come into contact with the chemical. Always ensure proper ventilation when evaporating solvents.

Wood preservatives

Wood preservatives are generally a combination of a solvent and a pesticide. These mixtures are highly toxic and must be handled very carefully. Pentachlorophenol and creosote should only be used by individuals who have had training in their safe use. Finally, wood that has been treated with any of these products should never be used as firewood since toxic air contaminants could be emitted during burning.

ALTERNATIVES

- Use wood that is naturally weather -and insect- resistant such as cedar, honey locust or oak. As an alternative, use plastic lumber.
- Employ construction techniques that protect wood from dampness or insects

DISPOSAL

- For more information on creosote wood check our website http://www.dec.ny.gov/chemical/42394.html
- Wood preservatives that do not contain creosote or pentachlorophenol should be used up. If you can't use them, give them to someone who can. Leftover creosote, pentachlorophenol or other unusable products should be left in their original containers, placed in a double plastic bag, stored out-of-the-way and saved for a household hazardous waste collection program. If there is no such program held in your area, then very small quantities (less than one cup) of wood preservatives other than pentachlorophenol or creosote may be solidified with clay cat litter and discarded with your household trash.

Pesticides

Pesticides are chemicals that are intended to kill unwanted insects, animals, plants or microorganisms. These products may also be toxic to humans or pets. Many pesticides are not biodegradable; they accumulate in the environment and could eventually contaminate groundwater and food supplies. Pesticides include not only commonly recognized insecticides and herbicides but also products such as wood preservatives, flea products and some insect repellents.

DISPOSAL

- Many pesticides have been banned from use by both homeowners and licensed applicators within New York State because they pose high risks to human health or to the environment. Others are restricted to use by licensed applicators. These products should not be used by citizens or carelessly thrown away, but should be saved for a household hazardous waste collection program. If the pesticide is not banned or restricted, however, it is best to use the product up according to label directions or give the product to someone else who can use it for its intended purpose. Otherwise, it should be stored until a household hazardous waste collection program is held in your area.
- To safely store pesticides, keep them in their original container, wrap them in newspaper and place them inside a double layer of plastic garbage bags. Always keep them out of the reach of children and away from heat and pets.
- Empty pesticide containers should be triple rinsed before being thrown away. The rinse water should be saved and used as a pesticide. The empty container should then be wrapped in newspaper and discarded with household trash.

For pesticides that are banned or restricted in New York State and should not be used or thrown away (as of November, 1998) check our website - http://www.dec.ny.gov/chemical/298.html

Other Chemicals

PHOTOGRAPHIC CHEMICALS may contain a number of toxic or corrosive ingredients and should be handled very carefully. Photographic chemicals that contain silver, such as photographic fixer solutions, can be

reclaimed. Ask a local photographer or photo finishing lab if they can recycle your wastes. Otherwise, the chemicals are best brought to a household hazardous waste collection program. Small amounts (less than one pint) of photographic chemicals may be poured down the drain, if necessary, provided that they do not contain silver, hexavalent chromium or ferrocyanide.

SWIMMING POOL CHEMICALS contain chlorine, acids, or calcium hypochlorite an oxidizer). These materials are corrosive and may cause burns or injury on contact or if swallowed or inhaled. They may also pose a fire hazard. They should be stored carefully, away from any source of heat or spark, and saved for a household hazardous waste collection program.



SMOKE DETECTORS may be either photoelectric or ionizing. The ionizing variety is radioactive and may pose hazards to human health if large quantities are accumulated. However, single detectors may be safely discarded with household trash. Some smoke detectors can be returned to the manufacturer. Check the package of the new smoke detector to see if they offer a return service.

TRANSFORMERS & FLUORESCENT LIGHTS manufactured before 1978 may contain polychlorinated biphenyls (PCBs). These materials are highly toxic and should be safely stored until they can be taken to a household hazardous waste collection program. Fluorescent light bulbs may also contain mercury, and should be brought to a recycling program or a household hazardous waste collection if one is available in your area. Compact fluorescent light bulbs can be recycled at Home Depot or Lowes retail stores.

ASBESTOS has been shown to be dangerous when inhaled. If your home contains asbestos products, do not attempt to remove them yourself. Improperly removing asbestos may be more dangerous to your health than leaving it undisturbed. If the asbestos is encased or appears to be in a solid mass (not easily crushed), then it may not pose any significant health hazards. If you have any questions regarding asbestos removal, you should consult your local Health Department or a professional asbestos contractor.



GAS CYLINDERS can often be refilled and many retailers will accept used gas cylinders. Cylinders which are completely empty and have the valve removed may be recycled.

For More Information

- Write or call your NYSDEC Regional Office. For your local regional office check our website http://www.dec.ny.gov/about/50230.html
- Contact the NYSDEC Division of Materials Management at 518-402-8706

For Information On Household Hazardous Waste Collection Programs In Your Area

• Contact your local Department of Public Works or Solid Waste Management Authority.

Appendix A.09

Solara, Inc.

environmental and business consulting

NYSDEC Household Hazardous Waste Disposal and Alternatives Chart



New York State Department of Environmental Conservation Division of Solid and Hazardous Materials Bureau of Waste Reduction and Recycling

HOUSEHOLD HAZARDOUS WASTE DISPOSAL and ALTERNATIVES CHART



- U Use up according to label directions
- T Wrap and discard with other household trash
- P Pour down drain slowly with plenty of water
- S Save for a household hazardous waste collection program
- **D** Dry out and then discard with other household trash
- R Take to a Recycling center

PRODUCT	DISPOSAL	ALTERNATIVES
Cleaners		
general purpose liquid	U P	vinegar or lemon juice diluted with water; or three tablespoons washing soda in 1 quart water
scouring powder	U T	baking soda, salt, or borax
metal polishes	U S	use baking soda paste
furniture polish	U S	dip cloth in olive, soybean, or raw linseed oil; or mix 2 tablespoons olive oil with 1 tablespoon vinegar and slowly stir into 1 quart water
rug cleaners	U S	sprinkle baking soda on rug then vacuum; use club soda on stains

spot removers	U S	clean spill quickly with club soda, or use baking soda paste on stains
toilet bowl cleaner	U P	flat cola, borax, or baking soda
oven cleaner	U S	wipe up spills quickly; wash with baking soda using a scrubber; or sprinkle with baking soda or salt, let sit, and then rinse
Home Maintenance		
latex paint	U D	use whitewash or milk paint
oil-based paint	U S	use latex paint when possible
paint thinner	U S	let paint settle out and then reuse
glues/adhesives	U D S	use white or yellow glue; let glue dry out if it is water based; save if solvent based
drain opener	U S P	prevent problems by using strainer and flushing pipes weekly with boiling water; use a plunger or snake; and put 1/2 cup each vinegar and baking soda down the drain, flushing 15 minutes later
air freshener	U T	use flowers, herbs, or potpourri; place vinegar or vanilla in an open dish; or clean the source of the odor with baking soda
degreasers	U S	detergents
paint stripper	U S	sand or scrape paint
Auto Repair		
motor oil	R	none
antifreeze	R P	none
gasoline	S none; do not use as a cleaner	
vehicle batteries	R none	
carburetor cleaner	S	none
Pesticides		
bug sprays/insecticides	U* S	handpick or trap pests; keep household clean and food covered; caulk or seal entryways

weed killer	U* S	maintain a healthy lawn by adjusting the pH to 6.5, mowing high with a sharp blade, and watering deeply when the soil is too dry
flea killers	U* S	use a flea comb, vacuum often, and wash pets bedding
wood preservatives	U* S	use wood that is naturally resistant (cedar, honey locust, oak) and protect from dampness and insects; look for recycled plastic lumber
disinfectant	U* S P	borax or pine oil with soap
insect repellant	U* S	don't wear scented products outdoors; and burn citronella candles, punk, or incense
Hobby/Miscellaneous		
photographic chemicals	U S P	none
artist paints	U S	use water-based products whenever possible
swimming pool chemicals	U S P	none
household batteries	R S T	use rechargeable batteries
aerosols	T S	use pump or liquid; if not hazardous, wrap it up and discard with other household trash; save for a household hazardous waste collection program if it contains hazardous materials
mothballs	U S	keep garments clean; wrap in linen or seal in paper packages or cardboard boxes; use cedar chips; kill eggs by running dry garment through a warm dryer

ALWAYS READ ALL PRODUCT LABELS CAREFULLY!

* - Do Not Use Up Pesticide Products Which Have Been Banned or Restricted

Disposal recommendations are listed in order of preference. This chart only provides a small example of the known substitutes, not all are completely non-toxic. Use all hazardous products with care. Many of the possible alternatives listed in this chart have been taken from *Household Hazards: A Guide to Detoxifying Your Home*, published by the League of Woman Voters of Albany County, New York.

Appendix A.10

Solara, Inc.

environmental and business consulting

Effective HHW Program Education and Awareness Tools

Town of Newstead & Village of Akron



Household Hazardous Waste & Electronics Recycling Day





PRE-REGISTRATION INFORMATION

Please visit www.hazmanusa.com or call the Village.

Village of Akron (716) 542-9636

Monday - Friday 9AM - 3PM

Proof of residency will be required at time of disposal.

SATURDAY
OCTOBER 1st
9AM - 12PM

WHERE

Joint Municipal Facility 12707 Clarence Center Rd. Akron NY

SPONSORED BY

Town of Newstead Village of Akron New York State Department of Environmental Conservation

RECYCLING BY









ACCEPTABLE MATERIALS

Aerosols Gasoline
Antifreeze Latex Paint
Batteries Oil-Based Paint
Computers Paint Thinner
Fluorescent Bulbs Pesticides & Herbicides

Photo Chemicals Thermometers
Pool Chemicals Thermostats
Printers & Copiers Waste Oil
Propane Tanks Wood Polishes
Televisions Wood Stains

EVENT DETAILS

SCAN HERE FOR

- Community RECYCLING DAY

September 23rd, 20179:00am - 12:30pm

GREEN

Drop-off location:

Cummins Engine Plant

4720 Baker St., Lakewood, NY

(EMPLOYEE DRIVEWAY - FOLLOW THE SIGNS)





We're Collecting:

- Batteries (Lead-Acid, Alkaline, NiCad, NiMH & Lithium)
- Oil Based Paints & Stains
- Electronic Devices (Televisions, Computers, Stereos, etc.)
- Used Motor Oil (Containers no larger than 5 gallons)
- Fluorescent Bulbs (All Types)
- Scrap Metal
- Auto & Lt. Truck Tires (Limit 8 Per Vehicle, No Rims)
- Confidential Record Destruction (Limit 4 Banker Boxes Per Vehicle)
- Gently Used Coats

THIS IS A COMMUNITY EVENT - NO BUSINESSES! WE RESERVE THE RIGHT TO LIMIT QUANTITIES.

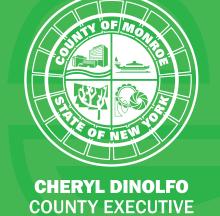






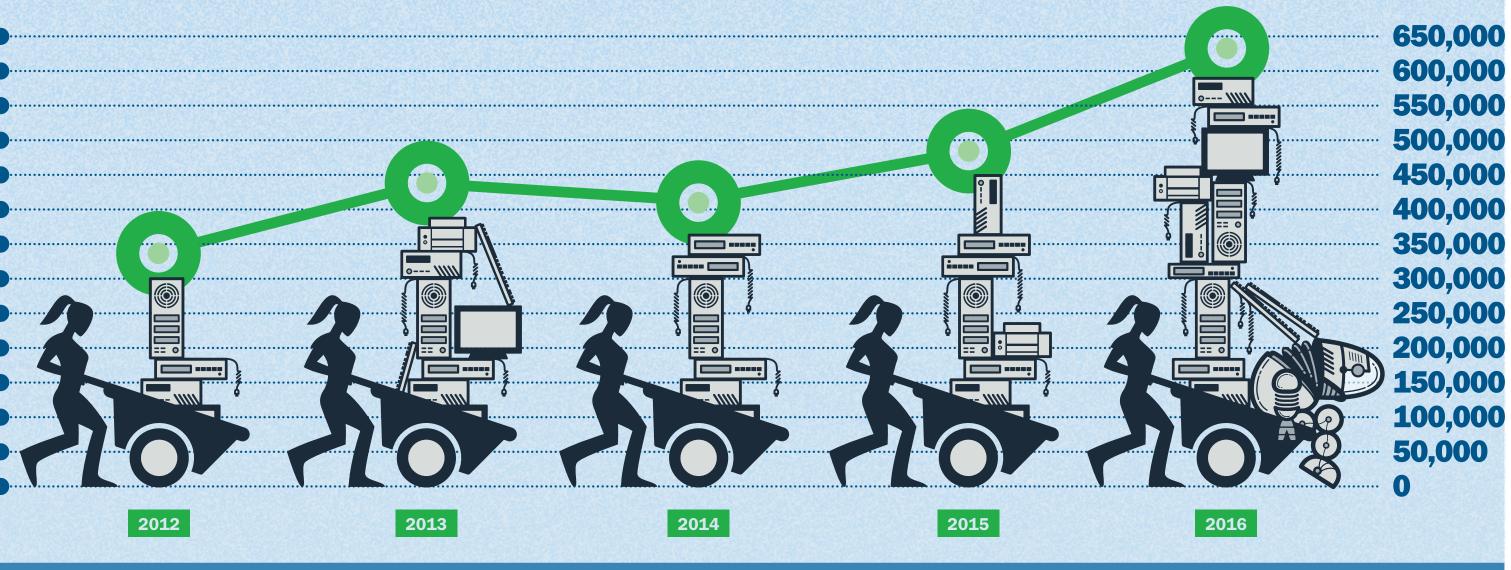


ecopark Park



The Monroe County EcoPark is a state-of-the-art recycling facility. Considered one of the first of its kind, the EcoPark is a one-stop shop for any recycling needs, and a great community resource to encourage environmental sustainability. Monroe County's partnership with Waste Management at the EcoPark has accelerated recycling innovation and will continue to protect the environment for years to come.

POUNDS OF CALL WASTE



Since its opening, 2.31 million pounds of electronic waste has been collected at the EcoPark. Televisions, radios, computers and other pieces of electronic equipment have been diverted from landfills, keeping the lead and other hazardous waste out of the ecosystem. The remaining material from this equipment is then recycled and re-used in many new consumer products available in stores.

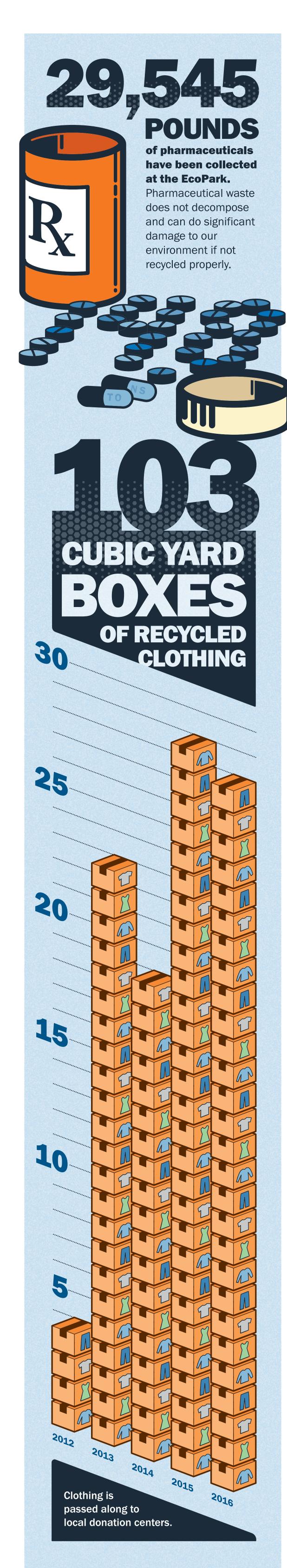
IJITAL TITLE COLLECTED (IN TONS) 2013 2014 2015 2016 2016 225 250 275 300 325 325 350

HOUSEHOLD HAZARDOUS WASTE

Household Hazardous Waste, such as paint, flammable substances and other home chemicals, can become environmental hazards when not disposed of properly.

These substances can leak into the soil and contaminate our drinking water. The trained professionals at the EcoPark have the equipment necessary to recycle these chemicals and convert them into harmless waste.

EcoParkMCNY.com



Subject: FW: Make it a Toxic-Free Valentine's Day

Date: Thursday, February 1, 2018 at 4:17:36 PM Eastern Standard Time

From: Andrew Radin
To: Sarah Battaglia

Here's an example of our email blasts . . .

From: OCRRA.org [mailto:ocrra@ocrra.ccsend.com] On Behalf Of OCRRA.org

Sent: Thursday, February 01, 2018 4:06 PM **To:** Andrew Radin <aradin@ocrra.org> **Subject:** Make it a Toxic-Free Valentine's Day

Hi, Just a reminder that you're receiving this email because you have expressed an interest in OCRRA. Don't forget to add ocrra@ocrra.org to your address book so we'll be sure to land in your inbox!

You may <u>unsubscribe</u> if you no longer wish to receive our emails.



Make it a Toxic-Free Valentine's Day

Enjoy more TLC with less HHW



- Show your love for Mother Earth, and safely manage your Household Hazardous Waste (HHW) with help from OCRRA.
- Most homes have household cleaners, pesticides, oil-based paints and automotive products hanging about that shouldn't be poured down the drain, or anywhere else.

Cleaning out the clutter is easy and free! Register for a drop-off appointment year-round.

You can pick a time and day at your convenience to drop off your toxic household materials (6:30 am - 6:00 pm, Mon. - Fri.).

Appointments must be made 5 business days in advance.

- What can I bring?*
- Where is the drop off?
- How do I register?

Make your <u>appointment</u> today!
Click <u>here</u> to make your appointment online.

*Latex paint is not accepted. Click <u>here</u> to learn how to properly manage latex paint.

Quick Link

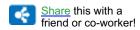
• <u>DIY: Recipes for environmentally-friendly cleaning products</u>

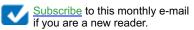


Sincerely, Your Friends at OCRRA

Save the world a little each day.







Monroe County ecopark 10 Avion Dr. Rochester, NY 14624

HOURS OF OPERATION Wed: 1pm to 6:30pm Sat: 7:30am to 1pm

(Closed on Holidays)



CFCs \$15

Tires \$5

AC units

dehumidifiers

Refrigerators

EXIT



Cellphones for Soldiers

Pop tab Donations



NO ALKALINES

American Flags

Rechargeable Batteries

- Ni-Cd, Ni-MH
- Lithium-ion
- Small lead acid

Button Batteries

Used Cooking Oil

Empty Pharm Bottles

CFL Bulbs









Ink/toner







Cartridges

BULKY PLASTIC

SCRAP METAL

vinyl siding, plastic lawn furniture, large kids toys

CLEAN Co-mingle

plastic, paper, glass, cans

CLEAN Co-mingle

plastic, paper, glass, cans

Clean Packing Peanuts

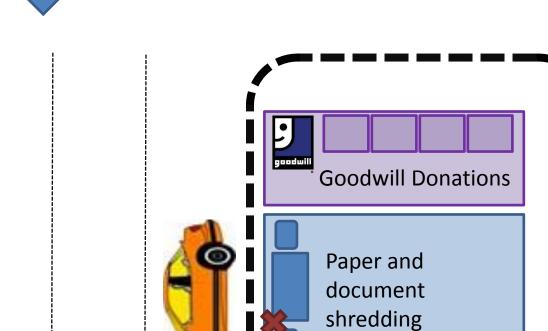
STYROFOAM

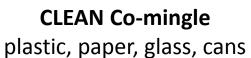
Clean, white, no tape or labels

CORRUGATED CARDBOARD

Electronics

- Electronic equipment, mobile devices
- Computers
- Televisions
 - Flat screens
 - CRTs \$10 fee





CLEAN Co-mingle plastic, paper, glass, cans

CORRUGATED CARDBOARD



Plastic bag recycling bin (clean, dry)























ARDOUS WAST





10 Avion Drive | Rochester, New York 14624

ecopark is your one stop drop off facility for expanded recycling options 🖒





Hours of Operation

Wednesday (New Evening Hours) . . . 1pm - 6:30pm (Closed on Holidays)

.... Need More Options?

Find alternate drop off locations and times by using the "Locator" tool at www.monroecounty.gov/ecopark

Compost Give Back Program

Unwanted leaves are collected from City of Rochester residents and

brought to ecopark.









Monroe County's recycling program is grant-funded, in part, through the New York State Department of Environmental Conservation.

Printed on Recycled Paper



ecopark accepts the following during all hours of operation:

- ☑ Appliances (without refrigerant)
- ☑ Bulky Plastic Items
- ☑ Clean Styrofoam Packing
- ☑ Clothing & Accessories (Donation)
- ☑ Cooking Oil/Grease
- ☑ Document Destruction (Items are destroyed off site)
- ☑ Electronic Waste
- ☑ Flags (U.S.)
- ☑ Fluorescent Lights

- ☑ Paper & Cardboard
- ☑ Pharmaceuticals & Rx Bottles
- ☑ Plastic Grocery Bags
- ☑ Printer Cartridges
- ✓ Propane Tanks (1# & 20# only)
- ☑ Rechargeable and Button Batteries (No Alkaline)
- ☑ Recyclable Glass/Metal/Plastic Containers
- ☑ Sharps & Syringes
- ☑ Scrap Metal

FEE-BASED ITEMS Credit/Debit Card Only

- ☑ Appliances with Refrigerant
- ☑ Tube TVs/Monitors
- ☑ Passenger Vehicle Tires with/without Rims



HOUSEHOLD HAZARDOUS WASTE Appointment Required*

(30-gallons liquid and 75 lb. solid limit per appointment)

- ☑ Automotive Fluids (antifreeze, brake, power steering and transmission fluids)
- ☑ Cleaners (soaps, waxes, drain cleaners. etc.)
- ☑ Driveway Sealer
- ☑ Flammables (gasoline, thinners, solvents, etc.)
- ☑ Mercury (thermometers, thermostats)
- ☑ Paint: Oil-based & Latex (more than 1/3-can full)
- Pesticides & Fertilizers
- ☑ Pool & Photo Chemicals
- ☑ Wood Stain & Preservatives
- * HHW appointments can be made online at monroecounty.gov/hhw

Not Accepted at ecopark

- ☑ 55-Gallon Drums
- Asbestos (see Yellow Pages 'Asbestos Abatement')
- ☑ Bullets, Flares, Gunpowder, Explosives (call 911)
- ☑ Dried Paint Can or Less Than 1/3 Can (discard lid, add kitty litter, stir, let dry, place in trash)
- ☑ Alkaline Batteries (see WM's Battery Tracker)
- ☑ Glazing/Spackle/Joint Compound (place in trash)
- ✓ Industrial-Use Products (call 753-7600 opt. 3)
- ☑ Used Motor Oil (contact service station or retailer)





Visit www.monroecounty.gov/ecopark Or email mcdes@monroecounty.gov





SATURDAY, JUNE 18TH 10AM - 2PM PUBLIC WORKS GARAGE 1785 NEW ROAD

SPECIAL WASTE DROP-OFF DAY

Please join State Senator Robert Ortt in collecting household hazardous waste and old, unwanted medications and prescriptions for safe disposal and recycling!

This one time, FREE collection event is available to all Niagara County residents. Those who wish to dispose of household hazardous waste must **schedule an appointment** by visiting **www.rethinkyourwaste.com** or calling 439-7250.

State Senator Rob Ortt said, "This is a great opportunity to get rid of dangerous household items in a safe manner. I hope to see you there!"



State SenatorRobert Ortt







For More Information:

Phone: 716-439-7250

E-Mail: recycling@niagaracounty.com

Household Hazardous Waste Collection is a service provided by the New York State DEC and the Niagara Couty Refuse Disposal District

City of Niagara Falls

SPECIAL WASTE DROP-OFF DAY

State Senator Ortt invites you to participate



Saturday, June 18th

10am - 2pm

Public Works Garage

1785 New Road

WWW RETHINKYOURWASTE COM



RECYCLE RIGHT









RECYCLE CURBSIDE

CURBSIDE RECYCLING **ITEMS**

MUST BE CLEAN!



RECYCLE at the ECOPARK



PAINTS AND OTHER CHEMICALS



DOCUMENT DESTRUCTION



USED ELECTRONICS



APPLIANCES AND SCRAP METAL



CLEAN USED CLOTHING



BULKY PLASTIC



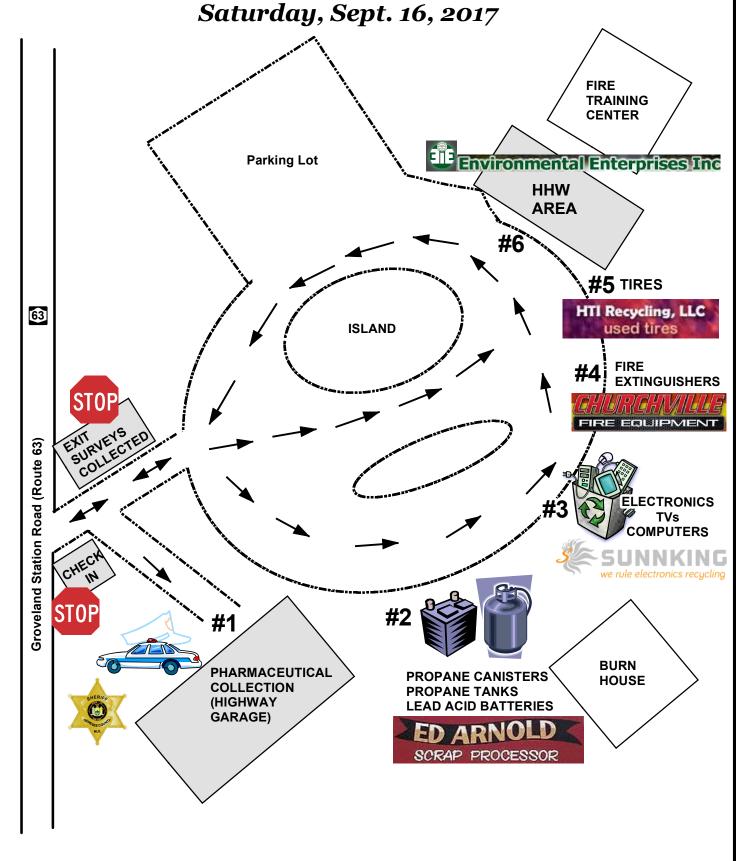
PHARMACEUTICAL WASTE







GLOW Solid Waste Committee Household Haz.Waste/Pharmaceutical Collection Livingston County Fire Training Center/Highway Garage Mt. Morris, New York







Confidential paper shredding event hits **NBT Bank Stadium on** Saturday, May 6.



COMPOSTPG

Learn about the three different ways you can get OCRRA Compost.



INSTRUCTIONSPG 5

Cut out this handy reference guide that reminds you what items go in the blue bin.



Waste-to-energy Pg 6

Understand the benefits of the capital improvements OCRRA is making to the Facility.



TV RECYCLING.....PG 7

Find out where you can recycle your old TVs.

Be Part of Our County's Litter Solution

Volunteer to collect litter with OCRRA on April 21 or 22; register by April 14

Theresa Evans, Recycling Specialist

Have you ever wondered how you could personally make an immediate, positive difference for the local environment, as well as in the quality of life for you and your neighbors? It is easy! Join OCRRA's awardwinning Earth Day Litter Cleanup campaign.

Organized community litter cleanup programs like this are an excellent way to get lots of people simultaneously involved in hands-on environmental conservation. Neighbors, colleagues, classmates and families all come together for a short time yet their collective efforts result in a massive physical impact on the environment. Further, when community members get involved in cleaning their neighborhoods, parks and open spaces, they are less likely to litter and more likely to keep them clean in the future.

Last year, more than 7,200 Onondaga County residents cared enough to make a difference in our both.

What area are you cleaning?



Huntington School students and parents and Girl Scout Troop 10714 amassed 30 bags of litter (including a lot of candy wrappers) cleaning along Sunnycrest Road and the school grounds during the 2016 Earth Day Litter Cleanup. Join groups like this for the 2017 Earth Day Litter Cleanup. Register at **OCRRA.org** or by filling out the form below. The deadline for registration is Friday, April 14.

community. They scoured the roadsides, streets, parks, ditches and gullies to collect over 95,000 pounds of litter (that is more than the weight of 30 electric cars).

Let us aim to make an even greater impact in 2017. Gather your co-workers for a lunchtime cleanup on Friday, April 21, or get your family, friends and neighbors together on Saturday, April 22. You could even do

In total, our community has collected more than 2,400,000 pounds of litter since OCRRA's first litter cleanup began 26 years ago.

How to Register:

Visit **OCRRA.org**, mail in the form below or call 453-2866. Groups will receive stickers to attach to their litter bags and instructions on where and when to take the bags for free disposal.

Theresa Evans can be reached at tevans@ocrra.org.

WHEN:

Friday, April 21, and Saturday, April 22.

WHERE:

Any public area in Onondaga County your choice.

Register By: Friday, April 14.

Register Online at

OCRRA.org

OR RETURN REGISTRATION VIA FAX 453-2872

OR MAIL TO: OCRRA

100 Elwood Davis Road

North Syracuse, NY 13212

Registration

Deadline

April 14

2017 Earth Day	I itter Clear	nun Registr	ation Form
zori Lartirbay	Litter Clear	iup negisti	ationioni

	J	3	
Name of Group:		Number of Workers	:
Name of Contact Person (on	e name only):		
Address of Contact (where information/stickers are to be sent):			
Street:	City:	Zip:	
Phone #: (W)	(H)	(Fax)	
E-Mail:			
Day(s) Your Group Will Be Cleaning: ☐ Friday, April 21 ☐ Saturday, April 22 ☐ Both			
You will receive two trash bag stickers per worker. Please indicate if you will need more. **Number of ADDITIONAL Stickers**			
Municipality (city/town/village) wh	ere you are cleaning. This info is us	sed to provide instructions on	litter drop off.

You may choose any public space in the county. Be as specific as possible to avoid cleanup overlap.

Cleanup supplies are your group's responsibility. OCRRA provides stickers for free disposal through your municipality.

Any questions, please call OCRRA at 453-2866, ext. 202.

Page 2 - Spring 2017 315-453-2866

Shred Confidential Docs and Protect Your Identity

OCRRA partners with local shredding companies May 6 at NBT Bank Stadium to help community

Theresa Evans, Recycling Specialist

Safeguard your identity by shredding and recycling your confidential documents in bulk at OCRRA's spring Shred-o-Rama event. Bank information, tax forms, credit card statements, medical papers and more can all be shredded at no charge on Saturday, May 6, from 8 am to 12 pm at NBT Bank Stadium in Syracuse. No reservations are required to attend.

OCRRA asks attendees to:

- Bring no more than five banker size boxes per vehicle.
- Pack confidential documents, loosely, in durable boxes, containers or paper bags. Do not bring items in plastic bags as they slow down the shredding process,
- Remove binders or other

bags; folders; spiral notebooks; laminated items; electronic media including computer disks, CDs, etc.). Staples, paperclips and tape are fine,

- Enter the stadium parking lot from the Grant Boulevard / Hiawatha Boulevard intersection,
- Stay in your vehicle.

Please note the event is FREE and open to household residents in Onondaga County only. Business materials will not be accepted. If your workplace needs shredding services, visit www.OCRRA.org for details on commercial shredding options.

Since OCRRA started hosting annual Shred-o-Rama events in 2004, more than 560 tons of personal papers have been safely non-paper items (plastic shredded and recycled in

Onondaga County.

Many thanks go to:

- The NBT Bank Stadium Facilities and Management Team, as well as the Syracuse Police, who respectively enable the use of the stadium's spacious parking lot and direct the traffic, resulting in a convenient and safe event.
- Confidata / SMR Fibre and Shred Solvers who provide a generous donation of staff time and mobile shredding vehicles.

Not able to attend the event in May? Have no fear - a second Shred-o-Rama event will take place in September 2017; stay tuned for details regarding the fall

Interested in reducing the amount of confidential documents you amass in the first place? Consider



Event staff empty confidential documents into Toters before shredding them at OCRRA's May 2016 Shred-o-Rama event. On Saturday, May 6, OCRRA again partners with Confidata and Shred Solvers for the spring event, which takes place at NBT Bank Stadium. The event is open to households only; reservations are NOT needed and the event is free.

signing up for e-state- you accumulate at home. ments with your bank, utilities, etc. and minimize the sensitive documents

Theresa Evans can be reached at tevans@ocrra.org.

Students Lead Charge with Cafeteria Waste Reduction

Theresa Evans, Recycling Specialist

A quarter of our community's trash is food scraps that could be turned into a material that enriches the soil of our lawns and gardens, instead of being discarded. Our waste is not really waste at all, it could be turned into compost.

Did you know that over 7,000 students, in 17 schools, daga County are already doing their part in combatting this problem by participating in compost programs in their cafeterias? Our community's young people in the Marcellus, Jordan-Elbridge, Westhill, Fayetteville-Manlius and LaFayette school districts are leading the charge in the fight against excess school food waste. They are making a significant environmental impact every day because of this effort.

not only a creative and efficient way to reduce cafeteria trash, it also serves as a valuable teaching tool. When students take part in a hands-on compost program, they explore threads of relevance that connect a wide array of curriculum standards such as environmental science, chemistry, matheacross 5 districts in Onon-matics, economics, sociology

> Through food scrap recovery, students learn about local systems of food production and waste disposal. They are encouraged to think critically about their habits, as they learn what happens to their waste once it disappears into a compost bin or trash can.

How does cafeteria composting work in the local schools? It is a collaboration between school administration, custodial and food Composting at school is prep staffs, waste haulers,

OCRRA and the students themselves.

All students, whether they bring or buy lunch, separate their uneaten food scraps for composting by scraping leftovers into the proper receptacle. All food scraps are brought to OCRRA's Amboy Compost Facility in Camillus where they are turned into a nutrient-rich soil amendment that bolsters plant growth.

"Since starting the composting program in two of our school buildings, I observed a drastic drop in trash," said Jordan-Elbridge Director of Facilities, Vinny Smith. "On a daily basis, we would have produced about 16 bags of trash [from the cafeteria]. Now we are down to just four bags of trash per day. The trend is continuing, and recycling is also increasing as a result."

At Enders Road Elemen-



Students at Jordan-Elbridge Middle School separate their cafeteria food scraps from their recycling and trash. Their school is one of 17 in Onondaga County that send their food scraps to OCRRA to be turned into nutrient-rich compost. Contact your child's elementary, middle or high school principal to request their school get involved in this innovative waste reduction effort.

tary School in Manlius, your district help lead our the total number of cafeteria trash bags per day went from 10 bags down to 2 bags as a result of the cafeteria compost program. That is an 80% reduction in their daily cafeteria trash.

Will your child's school come on board next? Will

community to environmental excellence? Call your principal today to voice your support for cafeteria composting, and encourage them to contact OCRRA right away to get started.

Theresa Evans can be reached at tevans@ocrra.org.

Page 3 - Spring 2017 315-453-2866



One of the more significant milestones in my horticultural career occurred during the summer of 1993 when my wife and I bought our first pickup truck. Soon after, I started referring to it as my "mulch-mobile," as I no longer had to haul mulch from the compost site to our home in buckets and plastic bins stuffed into the back seat and trunk of my tiny Nissan Sentra.

I'm sure you may have had – or maybe still have – the same experience each year when you visit the Amboy and / or Jamesville Compost Sites...

So, what are your options if you don't have a mulchmobile – and family, friends or neighbors don't either?

One option is to rent a pickup or small flatbed truck from a local vehicle rental company or a bigbox store. If you split the cost with a neighbor, for far less than \$100 per day, your delivery woes will be a thing of the past.

Another option might be to explore the new, Syracuse-based truck-hailing service, Truxx (www. **truxxit.com**). I have not used the service and, therefore can't offer a personal recommendation, but you download the app, put in a request, and one of the service's drivers will contact you for details.

And, though easy to overlook, many local landscape and trucking companies

Three Ways to Haul Compost or Mulch Without a Truck

offer hauling services, too.

"We have nine and eighteen ton capacity dump trucks that have multiple compartments," says Todd Schanbacher, President of Green Scapes in Jamesville. "That way, if one homeowner needs three (cubic) yards of compost or mulch, and their neighbor needs eight yards, we can accommodate both in one delivery, reducing the cost."

And, if having a pile of compost or mulch sitting in your driveway for a week or two while you gradually spread it throughout your landscape and garden isn't an option, Schanbacher says his company can deliver OCRRA compost or mulch in one and one-half cubic yard, reinforced nylon "bulk bags." The bag keeps the mulch have a mulch-mobile of from blowing around and when it's empty they'll pick



With OCRRA's new compost and mulch loading service you can readily get large volumes of material for a great price, but what if you don't have a truck or trailer to haul it? Rent or use the internet (www.Truxxit.com) to get a truck or hire a local landscape and trucking company to transport your compost or mulch for you.

it up, or you can return it to their store.

So, while you may not your own, there are enough reasonably priced options

available, that you probably don't need to fill the trunk of your car with mulch or compost!

Terry Ettinger can be reached at Tlettinger@esf.edu.



Recycling Rhoda

Cleaning Out Your Household Hazardous Waste

Talks Trash – and Recycling!

Dear Rhoda.

This year, with spring cleaning in mind, I am determined to finally tackle my garage. I hate to admit this, but, there are things in my garage that have been there since I bought my house - in 1987! Thirty years later, it's truly time to get rid of this junk, and I'm hoping you can provide some guidance.

I'm clear on what to do with the cardboard (recycle it) and the obvious trash items (throw them out), but what should I do with the ancient paints, old gasoline, and garden pesticides leftover from the last millennium?

Procrastinating in Pompey

Dear Procrastinating,

Thank goodness for spring cleaning! Said no one ever. Except today, says Rhoda, because OCRRA has a Household Hazardous Waste Program where you can drop off unwanted toxic items for sound environmental disposal, at no charge.

There are a boatload of items in a modern household that should NEVER go in the trash or down the drain - or in the backyard (shudder). So, OCRRA set up this nifty year-round program specifically for household toxics including

automotive products, cleaning supplies, smoke detectors, lighter fluid, oil-based residences in the OCRRA paints*, mercury thermometers, and more.

The drop off runs by appointment only, yearround, Monday-Friday. Visit: **OCRRA.org**, or call OCRRA at 453-2866, to make an appointment today! Once your appointment is set, you will receive instructions on how to prepare your items and directions on where to bring them (Environmental Products and Services of Vermont, located on State Fair Boulevard in Syracuse).

The Household Hazardous Waste Program serves Service Area (Onondaga bors, the waste hauler and County, excluding the Town and Village of Skaneateles), and is supported in part by a grant from the New York State Department of Environmental Conservation.

Have I said it yet? Never, NEVER put household toxics in your blue bin.

Never.

Ever.

Not even once.

Nope.

Don't even think about it.

When household toxics end up in the blue bin (or the trash), their containers are likely to break, which endangers you, your neighthe environment. So don't do it, okey-dokey?

Oh, and, maybe, just maybe don't wait 30 years to declutter...

Recycling Rhoda

*Latex paints are non-hazardous and should be dried out and placed in the trash with the tops off. Some inexpensive kitty litter can be used to soak up the paint.

OCRRA Compost is a Sure Bet

Ann Fordock, Recycling Operations Manager

starting a new garden or expanding an existing garden? Or will you be repotting plants this spring? If so, OCRRA has an ace up our sleeve for you! Using one of OCRRA's two types of Certified Compost (¼" and ½" screened) offers many benefits:

- Adds nutrients and organic matter to the soil, so plants grow better,
- Helps retain moisture, so you water less,
- Naturally suppresses plant diseases, so your garden stays healthy,

Are you thinking of • Reduces the need for chemicals and pesticides, so you keep pollutants out of our water supply.

> OCRRA's Certified Composts are made from a blend of local yard waste and food waste, and are registered Pride of NY products. OCRRA's Certified Composts are tested to meet the US Composting Council's Seal of Testing Assurance standards. This means you always get safe, consistent, weed-free and seed-free compost to nurture your soils and plants. Ann Fordock can be reached at

OCRRA's Certified Composts (1/2" or 1/4" screened) are available for purchase at the Amboy and Jamesville Compost Sites in bulk (by the yard). You can also get ½" Compost with a Site Pass (3 yards that you load yourself or that we load for you). The 1/4" Compost is also sold by the 1 cubic foot bag at over 30 local retailers. Visit **OCRRA.org** to purchase a pass online or to find the retailer closest to you.

Mother's Day Gift Idea

afordock@ocrra.org.

Is your mom (or dad) an avid gardener? Well, look no further for your Mother's Day (or Father's Day) gift. Buy an OCRRA Compost Site Pass online! There are several types of passes available, with price points at \$20, \$35 and \$50; one is sure to fit the bill. Visit

For timely arrival, all Mother's Day or Father's Day orders must be made 10 days in advance of the holiday. When ordering, please specify Mother's Day

Three Ways to Get **OCRRA Compost**

Get a Site Pass*

Buy a Compost Site Pass online: www.tinyurl.com/2017CompostPass

- Plus Pass costs \$35 and allows for the self-loading of three cubic yards of 1/2" screened compost (you can also drop off unlimited amounts of yard and food waste),
- **Premium Pass costs \$50** and OCRRA will load up to three cubic yards of ½" screened compost to your truck or trailer (you can also drop off unlimited amounts of yard and food waste).

Buy in Bulk

Purchase both types of compost by the yard at the Amboy or Jamesville Compost Site

- OCRRA General Purpose Compost (1/2" screened) costs \$15 per cubic yard; OCRRA loads your truck or trailer for you.
- Premium Compost (1/4" screened) costs \$25 per cubic yard; it is loaded for you and is only available at the Amboy Compost Site.

Purchase by the Bag

Buy 1 cubic foot bags (~40 lbs.) at over 30 local retailers

• Each store sets its own price point for this ¼" screened compost. Check out page 5 for a list of retailers or visit www. tinyurl.com/Compost-2017 to find the location nearest you.

*Both the Plus and Premium Pass allow for mulch pick-up too. (3 cubic yards of compost OR 6 cubic yards of mulch.)

OCRRA.org to order online.

or Father's Day delivery.

OCRRA COMPOST SITES

AMBOY COMPOST SITE

6296 Airport Road, Camillus

JAMESVILLE COMPOST SITE

4370 Route 91, Jamesville

Hours at both sites*:

December 1 – March 31: Monday-Friday, 7:30 am-4:00 pm.

April 1 – November 30: Monday–Saturday, 7:30 am–4:00 pm.

*Holiday Closings: New Year's Day, Memorial Day Weekend, Independence Weekend, Labor Day Weekend, Thanksgiving Day, Christmas Day.

Buy OCRRA's Bagged Compost at the Following Local Retailers*:

- Ace Village Hardware: Baldwinsville, Fayetteville, Weedsport
- Aspinall's Tree Nursery & Landscaping, Chittenango
- Ballantyne Gardens, Liverpool
- Buyea's True Value, Cazenovia
- B'ville Supply, Baldwinsville
- Carol Watson Greenhouse, LaFayette
- CountryMax Stores: Cicero, Dewitt, Cortland, Norwich, Seneca Falls
- Deaton's Agway, Pulaski
- **EverGreen Landscaping &** Garden Center, Syracuse

- Green Acres Garden Center, Liverpool
- Green Hills Farms, Syracuse
- Greenscapes, Jamesville
- Lan's Flower Farm, Clay

Manlius

- Lee's Feed Store, Syracuse
- Maldonado Gardens, Elbridge
- Manlius True Value Hardware,
- Neil Casey's Farm Market, Tully
- Oliver B. Paine Greenhouses, **Fulton**
- Silver Spring Farm Market, **Syracuse**
- Skaneateles Town Square Ace Hardware, Skaneateles



- T.J.'s Lawns Plus, Phoenix
- Valley View Gardens, Cortland
- **Vollmer Farms & Farm Market,**
- Watson Farms, Lafayette
- Westvale Gardens, Syracuse

*Each retailer sets their own price. Call ahead for details.

- East Syracuse
- Wagner Farms, Rome
- Zerrillo Gardens, East Syracuse

OCRRA's 2016 Achievements

Collected more than 15,000 mercury containing fluorescent lamps (4 tons+) in partnership with local Ace, TrueValue <mark>an</mark>d Valu Home Center hardware stores.

Over 92,000 fluorescent lamps collected / recycled since 2007.

Improved or established recycling programs at over 65 apartment complexes, 130 schools <mark>an</mark>d 130 local businesses.

Organized more than 7,200 volunteers who collected over 95,000 pounds of <mark>lit</mark>ter as part of OCRRA's annual **Earth** Day Cleanup program.

Over 2 million pounds of litter collected since 1994!

Received GreeningUSA's Sustaining Our Community Award for our Earth Day Litter Cleanup program and the Solid Waste Association of North America's Gold Excellence Award for our interactive education program.

Composted 6,900 tons of **food waste**, <mark>w</mark>hich is a 138% increase over the amount of waste composted in 2015.

OCRRA's Amboy Compost Site is the largest municipal food scrap recycling facility in New York State.

TODAY'S RECYCLING



TOMORROW'S

RECYCLE



Newspapers, Magazines, Catalogs and Softcover Books Keep loose, don't tie.



Papers, Mail. **Envelopes**



Cardboard, Pizza, Pasta and **Cereal Boxes** Flatten.



#1and #2 Plastic BOTTLES Empty and rinse.



Cans and Jars Empty and rinse out,



#5 Plastic Tubs Empty and rinse, no lids.

Save the world a little each day."



Want to know about an item not listed? Try our searchable database at OCRRA.org



WASTE-TO-ENERGY | COMPOSTING | RECYCLING



OCRRA Invests in WTE Facility Improvements

Amy Miller, OCRRA Engineer

The Onondaga County Waste-to-Energy (WTE) Facility has a 22-year track record of operational and environmental excellence. As the foundation of OCRRA's environmentally-sound and innovative resource recovery system, the WTE Facility annually converts over 325,000 tons of non-recyclable trash into electricity. That is enough to power the Facility itself and approximately 30,000 households, while also recovering about 9,000 tons of metal. The Facility uses advanced air pollution controls to ensure compliance with a strict air permit. Without this Facility, garbage would be hauled many miles to outof-County landfills, as was

the case before the Facility was constructed. Instead, the WTE Facility enables responsible, local management of the community's non-recyclable waste.

In 2015, OCRRA extended its ownership of the Facility's capacity, and partnership with Covanta Energy (the Facility operator) through 2035. As part of the agreement, OCRRA committed to funding \$15 million in capital improvements to the WTE Facility that would ensure its longterm reliability through at least 2035. These projects have been underway over the past two years, and we are already seeing tangible benefits from efficiency, reliability, safety and emissions perspectives.

Of particular note, significant improvements are being made to the steel components of the air emissions control section of the Facility, which will improve the overall efficiency and reliability of the Facility. As part of this project, a new type of spray-on insulation was applied in place of traditional insulation and siding. This innovative approach has led to increased worker safety and improved monitoring ability.

Other upgrades include replacement of the existing truck scales, an upgrade to a reverse osmosis system for boiler water treatment to replace the existing, outdated demineralizer treatment system, an upgrade to a dry carbon injection sys-

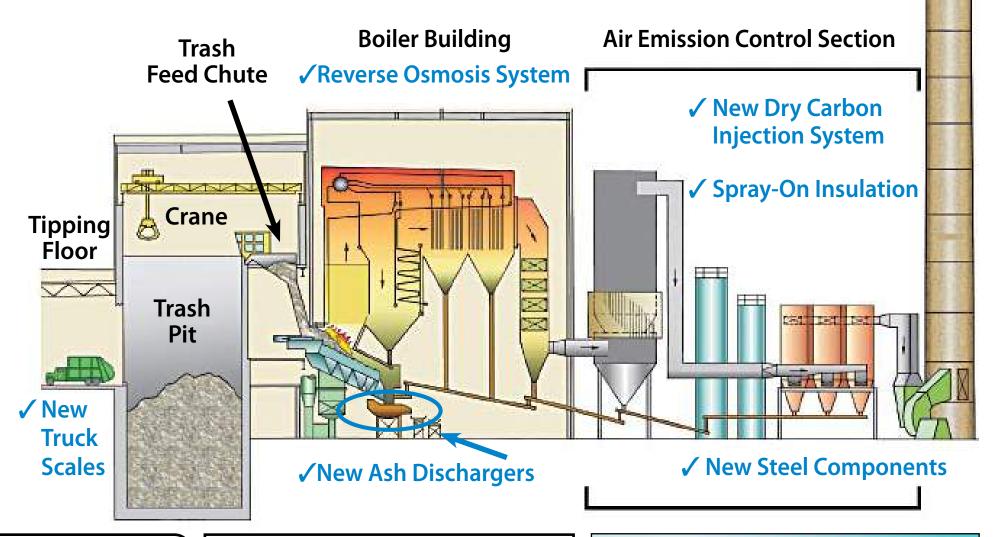
tem (from a wet injection system) for improved emissions control and efficiency, and new and improved ash dischargers for increased boiler reliability. As a result of the new dry carbon injection system, the Facility has had its lowest mercury emissions of all time, in fact the emissions were so low they were below laboratory detection limits, as indicated in the 2016 air emissions testing results (available on **OCRRA.org**).

These projects exemplify teamwork and collaboration; Covanta, OCRRA, OCRRA's WTE engineering consultant (HDR, Inc. of Syracuse), and many contractors continue to see great results from "pulling in the same direction."

OCRRA would like to extend sincere gratitude to Stan Longo, Covanta Onondaga Facility Manager, for working tirelessly on ensuring the success of these projects, while also striving for excellence in Facility operations. Stan, thanks for all you do on a daily basis to make sure that the Onondaga

County WTE Facility continues to be one of the top performing WTE facilities throughout the country. Amy Miller can be

reached at amiller@ocrra.org.



PLASTIC BAGS:

Cannot go in the blue bin recycle themat big box stores or supermarkets.

Spring 2017 *Volume 26 • No. 1*



This quarterly publication is brought to you by

OCRRA

100 Elwood Davis Road, **North Syracuse, NY 13212-4312**

KRISTEN LAWTON • Public Information Officer Printed on Recycled Paper

OCRRA's waste reduction, reuse and recycling program efforts (including this newsletter) are partially financed by a grant from the NYS Department of Environmental Conservation.

Show Your Green On St. Patty's Day

Make an appointment to properly dispose of your household toxics through OCRRA's free drop off program. (This can be done year-round, not just in March.)

Oil-based paints, automotive products, garden supplies, cleaning chemicals, fluorescent light bulbs, mercury thermometers / thermostats and more are accepted.

> **Monday – Friday, 6:30 am – 6:00 pm;** register at OCRRA.org and give the gift of "green" to future generations.

Page 7 - Spring 2017 315-453-2866



From the Executive Director's Desk...

Save the World a Little Each Day

DERETH GLANCE, Executive Director, OCRRA

Thank you for saving the world a little each day. Every tin can, milk jug, pile of junk mail and day old newspaper you place in the blue bin conserves resources. Recycling these items means they get to live another life without having to mine raw resources. Our community's commitment to sustainable solid waste is one of the many reasons to be proud to call Onondaga County home.

Onondaga County community "saves the world a little each day" by supporting and participating in a sustainable solid waste system that is reliable, environmentally sound and fiscally responsible. In Onondaga County, recycling is convenient, landfilling trash is minimized, and metal and energy resources are recovered.

events in North America local partners, such as haul-

and excels in responsible curbside recycling. Less than 5% of the items placed in the blue bin are actually trash. Good job, folks.

In the early 1980s, Onondaga County requested that the NYS Legislature create OCRRA to steward solid waste management in our community. OCRRA became operational in 1990 and for more than a quarter-century it has evolved to serve our community's More than a tag line, the needs. Every day, OCRRA composts food and yard waste, conducts awardwinning public education outreach efforts, including to all schools in Onondaga County, operates trash facilities and oversees the Waste-to-Energy Facility.

OCRRA facilitates our community's sustainable solid waste system with more than a little help from a network of pri-The Onondaga County vate and public partners. community boasts one of As a public benefit corpothe largest litter clean up ration, OCRRA insulates

ers and recycling facilities from the volatility of market forces, which ensures that the reliable and essential public service of solid waste management continues in strong and weak economic times.

Greatness must be renewed, and it is through public engagement that OCRRA is able to collaborate with the community to turn what would be "one man's trash into our County's treasure." OCRRA's dedicated Board of Directors and its staff are firstclass in their passion and professionalism for recovering resources from what we commonly call "trash." However, it is your voice that is truly essential. Get active with OCRRA on social media and join the almost 10,000 folks keeping up with OCRRA on Facebook. OCRRA.org houses a litany of tools for the home, business, classroom and more. You can schedule an appointment to drop off household toxics, find out the little each day. Together we best way to dispose of any waste, register for Earth Day and discover when the next OCRRA event or meeting is happening.

Keep saving the world a do make a difference.

Dereth Glance can be reached at dglance@ocrra.org.



OCRRA's tagline, "Save the World a Little Each Day," reminds us that everyone's small, daily actions add up to large-scale environmental conservation. Whether through recycling, composting or trash conversion to energy, we are all working together to make a healthier environment for future generations. Thanks for doing you part.

OCRRA Spotlight **Dorsey Williams**

Title: Laborer II.

Start Date: January 29, 2016.

Fun Fact: Dorsey is an avid sports fan, especially of SU (basketball / football) and the Dallas Cowboys.

What makes OCRRA great?:

"The many opportunities you have to learn all aspects of the business from start to finish, including how to operate different pieces of machinery."



Dorsey Williams stands in the Carrier Dome enjoying Syracuse University's 76-53 basketball win over Boston College on Saturday, January 14, 2017. Some 21,625 other fans joined Dorsey, a longtime season ticket holder, at this game including his dad, who sits right next to OCRRA's Accountant, Vince Latorre, in Section 319!

OCRRA Announces New Board Member Appointment

OCRRA welcomes Anthony J. Geiss, Jr. of Van Buren to its board of directors.

Anthony J. Geiss, Jr.



Geiss has over 45 years of engineering experience, most recently having served as the Deputy Director and Chief Engineer at the Onondaga County Water Authority.

Prior to that, Geiss managed the design and construction of municipal facilities with O'Brien and Gere Engineers.

Geiss also served 35 years on the Town of Van Buren Planning and Zoning Board.

Television Recycling



The Salvation Army on Erie Boulevard in Syracuse accepts working and nonworking TVs of any size for free. TVs cannot be physically broken. Call (315) 445-0520 before dropping items off.

Best Buy locations and Battery World (East Molloy Road, Syracuse) accept TVs for a fee, pending size. Call ahead for details.

PAGE 8 — SPRING 2017 CRRA 315-453-2866



Q: How do I recycle smoke detectors!

A: Smoke detectors contain a radioactive element and should not go in the trash, so thanks for asking. First, contact the manufacturer and ask about their take back programs.

If you have other household toxics that need to be properly managed besides your smoke detector, make an appointment for OCRRA's Household Hazardous Waste Program. This is a Monday – Friday, 6:30 am – 6:00 pm operation where you can drop off a host of items

(including oil-based paints, automotive supplies, garden supplies, etc.), free of charge – thanks to OCRRA and a grant from the NYS Department of Environmental Conservation. You must make a reservation in advance of dropping off your materials.



OCRRA Drop-Off Sites: Acceptable Material

ACCEPTABLE WASTE (C&D)

- Bricks, concrete and masonry (size restrictions apply.)
- · Electrical wiring
- Glass
- Metal (small quantities.)
- · Non-asbestos insulation
- **Paint cans** (must be empty and dry. Lids must be off.)
- Plumbing fixtures
- Roofing shingles
- Siding
- · Wall covering, drywall, plaster, etc.
- Wood, untreated (including pallets size restrictions apply.)

ACCEPTABLE WASTE (Trash)

- Carpeting
- Furniture
- Mattresses
- Metal (no large machinery.)
- Microwaves (surcharge applies.)
- Tires (surcharge applies. Less than ten only, no tires by the ton; off road tires are not acceptable.)
- White goods (surcharge for items with refrigerants.)
- Wood, treated (size restrictions apply.)

The acceptable materials listed here can be received at either of our Drop-Off Sites. This list is not all-inclusive. Please contact us if you have a question about a waste not listed.

UNACCEPTABLE ITEMS:

- Asbestos-contaminated material, including transite
- Electronic waste including computers and televisions
- Explosives
- Liquid wastes
- Propane tanks and compressed gas cylinders
- Radioactive materials, including smoke detectors
- Sharps and syringes
- Yardwaste



OCRRA Drop-Off Site: <u>HOURS</u>

ROCK CUT ROAD

5808 ROCK CUT ROAD, James VILLE, 13078

• RESIDENTIAL USERS:

Tuesday – Saturday: 7:00 am to 2:30 pm

LEY CREEK

5158 LEY CREEK DRIVE, LIVERPOOL, 13088

• RESIDENTIAL USERS:

Second and fourth Saturday of each month: 8:00 am to 12 pm

• COMMERCIAL AND PERMITTED USERS:

Monday - Friday: 7:00 am to 2:00 pm

Second and fourth Saturday of each month: 8:00 am to 12 pm

Both sites are closed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

OCRRA Drop-Off Site: FEES

FLAT RATE FEES (both sites):

- Cars, mini-vans, sport utility vehicles (SUVs) \$15
- Pickup trucks, vans, single-axle trailers \$30
 (Loads may be assessed an additional fee, depending on vehicle modifications or load size)

SCALE FEES (Ley Creek only):

- Trash (MSW) per ton (for business users with an OCRRA permit) \$89 / ton
- Trash (MSW) per ton (for users without an OCRRA permit) \$104 / ton
- Construction debris \$48 / ton
- Roofing material \$39 / ton
- Clean wood \$35 / ton
- Minimum scale charge \$25



Mark Your Galendar

COMPOST SEASON KICKS OFF APRIL 1

Buy a Compost Site Pass or Buy in Bulk See page 4 for details.



APRIL 21 & 22
Register at

Register at OCRRA.org by April 14.

SHRED-o-RAMA

SATURDAY, MAY 6

NBT Bank Stadium 8 am - Noon

Enter from Grant Blvd.

ELECTRONICS RECYCLING

YEAR-ROUND

At various local businesses.

See page 7 for details.

HOUSEHOLD HAZARDOUS WASTE DROP-OFF

Year-Round by Appointment

ENVIRONMENTAL PRODUCTS
& SERVICES

6:30 am – 6:00 pm *Register at OCRRA.org.*

Household Hazardous Waste Drop-Off



When: Monday - Friday, 6:30 am to 6:00 pm

Register: www.OCRRA.org or call (315)453-2866

You must have an appointment.

Latex paint, fire extinguishers, batteries and motor oil are <u>not</u> accepted. **See reverse for a list of acceptable items.**

Visit OCRRA.org for directions to the new drop-off location.

Acceptable Items:

- Automotive products such as transmission or brake fluid, engine degreaser, anti-freeze, diesel fuel, gas cans, and contaminated gasoline.
- Painting supplies, including OIL-BASED paints, stains, or finishes, paint thinner, turpentine, brush cleaner, paint stripper, and wood preservatives. *Place empty oil-based, latex or aerosol paint cans in your trash*.
- Garden supplies and pesticides.
- Cleaning supplies, such as oven cleaner, drain cleaner, lye, toilet bowl cleaner, floor and furniture polish, mothballs and products containing petroleum.
- Miscellaneous products, such as fluorescent light bulbs, pool chemicals, lighter fluid, kerosene, driveway

sealer, mercury thermometers and thermostats, nail polish remover, smoke detectors, loose asbestos that has been double bagged, and any product labeled with toxic, flammable, poisonous, or corrosive.





Overview



Wonder what OCRRA is and how we operate here in Onondaga County? This video:

- Provides an overview of the history of recycling and trash disposal in our community
- Explains how OCRRA came to be
- Outlines OCRRA's four-part system, which preserves resources and keeps our community beautiful

Download Video



Do you know the difference between trash, recycling and composting? This educational sorting game will help teach you what belongs where!

Download Game

Curriculum addressed:

- CCSS ELA RI 3.7, 4.7, 5.7
- CCSS ELA RI 3.1, 4.1, 5.1
- CCSS ELA RI 3.4, 4.4, 5.4
- NYS Science Standard 4: Living Environment

View Activities

Appendix A.11

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Effective HHW Program Registration and Surveying Pieces

2017 HHW/PHARMACEUTICAL EXIT SURVEY

(Will be collected as you exit the collection)

1.	How did you learn of this event? ☐ Newspaper or Pennysaver	☐ Friend or Family Member	☐ Other	
2.	Are you bringing materials to this e ☐ Purchased New Home		☐ Waiting For A Colle	ection
3.	Have you participated in our house	hold hazardous waste collections in	the past? □Yes	□ No
4.	How often would you like to see co ☐ Annually	llections of this type held? ☐ Every Other Year	☐ Other	
5.	Would you like to see pharmaceution	cals continue to be collected at futur	re collections? 🔲 Yes	No No
3.	This collection was funded in part be of-pocket fee (approximately \$40) for □No	oy NYS DEC. If funding was not avai or disposal?	ilable, would you be wi	lling to pay an ou ☐ Yes
7.	On a scale of 1 to 5 (5 being excell-	ent), how would you rate this collect	ion?	_

Additional Comments?

CHAUTAUQUA COUNTY HOUSEHOLD HAZARDOUS WASTE DROP-OFF DAY - FREE DISPOSAL!

CITY OF DUNKIRK
DEPARTMENT OF PUBLIC WORKS
LOCATION: LUCAS AVENUE
DUNKIRK, NY

SATURDAY, JUNE 9, 2018 9 A.M. TO 2 P.M.

TOWN OF CHAUTAUQUA
HIGHWAY GARAGE
LOCATION: 50 PATTTERSON ST.
MAYVILLE NY

SATURDAY, JULY 14, 2018 9 A.M. TO 2 P.M. CHAUTAUQUA COUNTY D.P.F.
BUILDING
LOCATION 454 NORTH WORK
FALCONER, NY

SATURDAY, SEPT 8, 2018 9 A.M. TO 2 P.M.

REGISTRATION FORM

Submit the completed form during the day of the event.

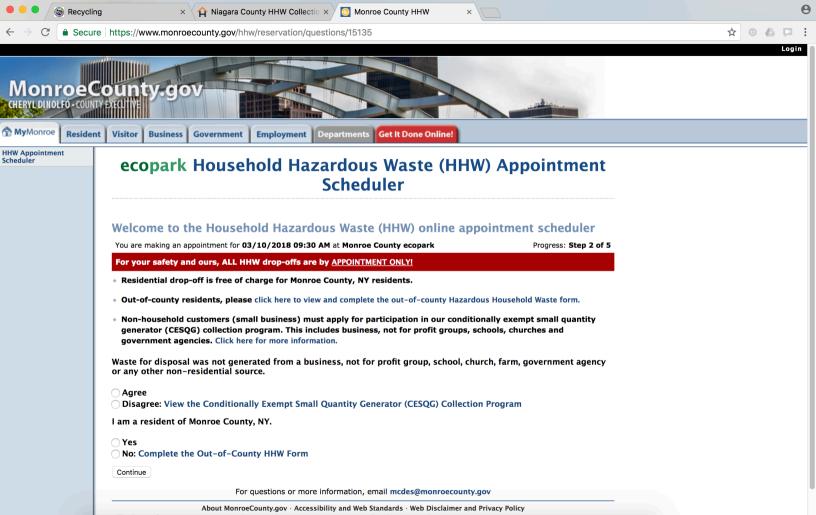
NAME:	TELEPHONE #:
ADDRESS:	
I certify that the materials, I am dropping- in any way associated with any business	off for disposal, were household generated waste and were not or commercial use or practice.
SIGNATURE:	
LIST ITEMS & AMOUNTS BELOW:	Example: 2 cans Oil Based Paints
FROM THE GARAGE	FROM THE WORKBENCH
Transmission Fluids	Varnishes
Used Antifreeze	Stains
Brake Fluid	Floor/tile Adhesive
Carburetor Cleaner	Roofing Tar
Engine Degreaser	Paint Stripper
Waxes and Polishes	Turpentine
	Paint Thinners
AROUND THE HOUSE	Sealants
Chemistry Sets	Wood Preservatives
Alkaline Batteries	
Dry Cleaning Solvents	Oil Based Paints
Drain & Toilet Cleaners	Resins & Adhesives
Nail Polish	
Fluorescent Light Bulbs	AROUND THE YARD or GARDEN
Oven Cleaners	Chemical Fertilizers
Airplane & Hobby Glues	Herbicides
Rubber Cement	Pesticides
Photography Chemicals	Pool Chemicals
Flea Powder & Spray	Ant Spray
Non-empty Aerosol Cans	Weed Killers
Furniture & Floor Polish	
Mercury Thermometers	

WE DO NOT ACCEPT LATEX PAINT AND WASTE OIL

- LATEX PAINT COULD BE DRIED UP WITH KITTY LITTER & BE DISPOSED OF WITH YOUR HOUSEHOLD GARBAGE.
- WASTE OIL COULD BE DISPOSED AT ANY FACILITY PERFORMING OIL CHANGES.

FOR MORE INFORMATION CALL 1-800-835-9362 OR 985-4785

Sponsored by Chautauqua County, New York State Department of Environmental Conservation Storer's Container Service, City of Dunkirk, Town of Sheridan, and Chautauqua County Hazmat



FIGURES

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FIGURE F.01 HHW DISPOSAL SOLUTIONS IN ERIE COUNTY MAP

2017 HHW in Erie County



⚠ ECDEP

NW HHW Event Location - ECC North

⚠ ECDEP

NEST HHW Event Location - ECC South

MUNI

Town of Colden & Town of Holland Joint HHW Collection Event

MUNI

Village of Akron & Town of Newstead Joint HHW Collection Event

⚠ ECDEP

Town of Brant, NEST and Erie County Joint HHW Collection Event

CITY

City of Buffalo HHW Event Location

CITY

City of Buffalo HHW Event Location

MUNI

Town of Tonawanda Permitted HHW Facility

Location Analysis

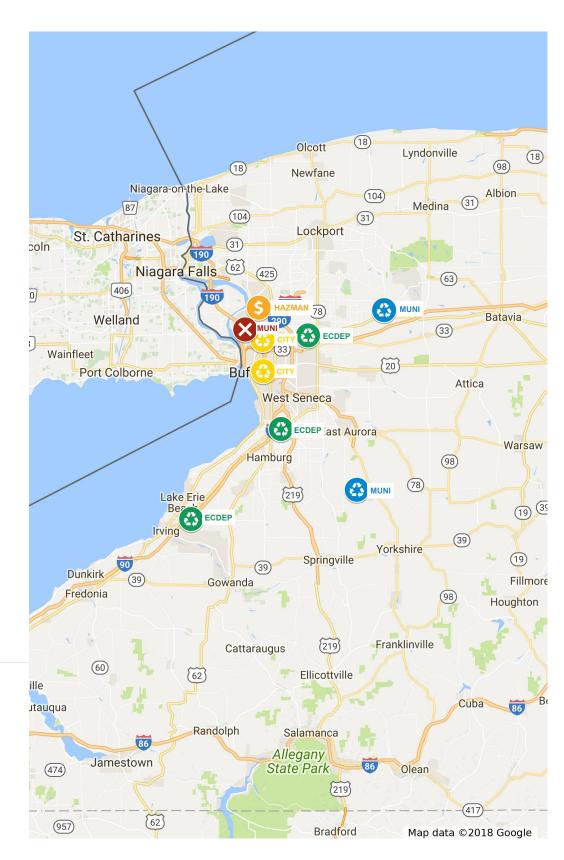
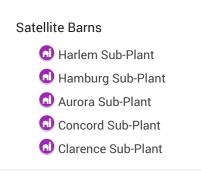


FIGURE F.02 ERIE COUNTY SATELLITE BARNS MAP



Location Analysis

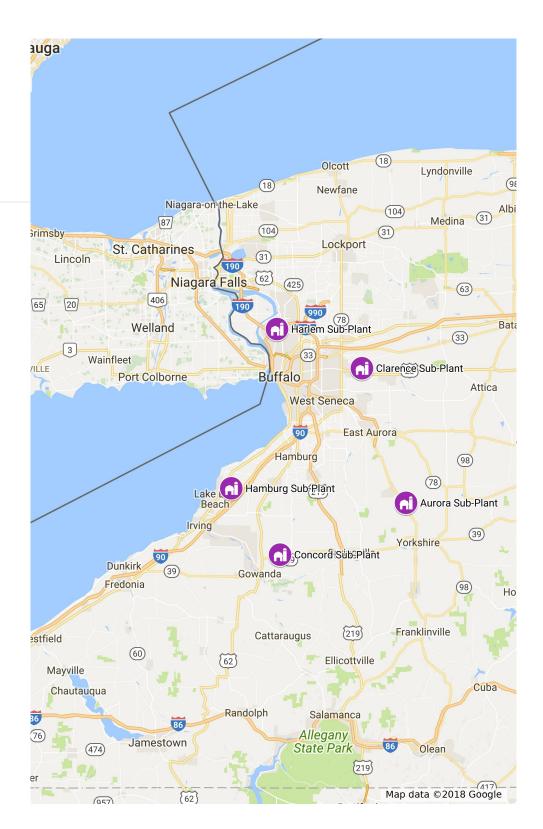
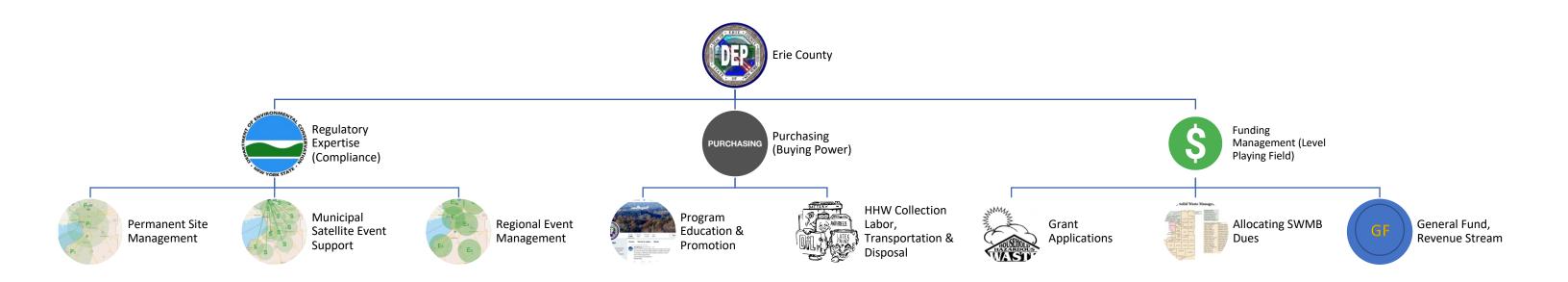


FIGURE F.03 ROLE OF ERIE COUNTY



STRATEGIC RECYCLING GOALS

 Easy solution for Homeowners and CESQG to dispose of HHW and more

FIGURE F.04 ELEMENTS & CHARACTERISTICS OF A SUCCESSFUL HHW PROGRAM



CREATIVE PARTNERSHIPS

• Collaborate with Divisions, Authorities, Municipalities & Businesses



STRATEGIC PROMOTION

- Tagline ex: "One-Stop-Drop"
- County-wide Campaign



- High Participation Rate
- Convenient
- Predictable
- Compliant



CREATIVE FUNDING

- Sustainable
- Fair

FIGURE F.05 ERIE COUNTY 2010 POPULATION DENSITY MAP

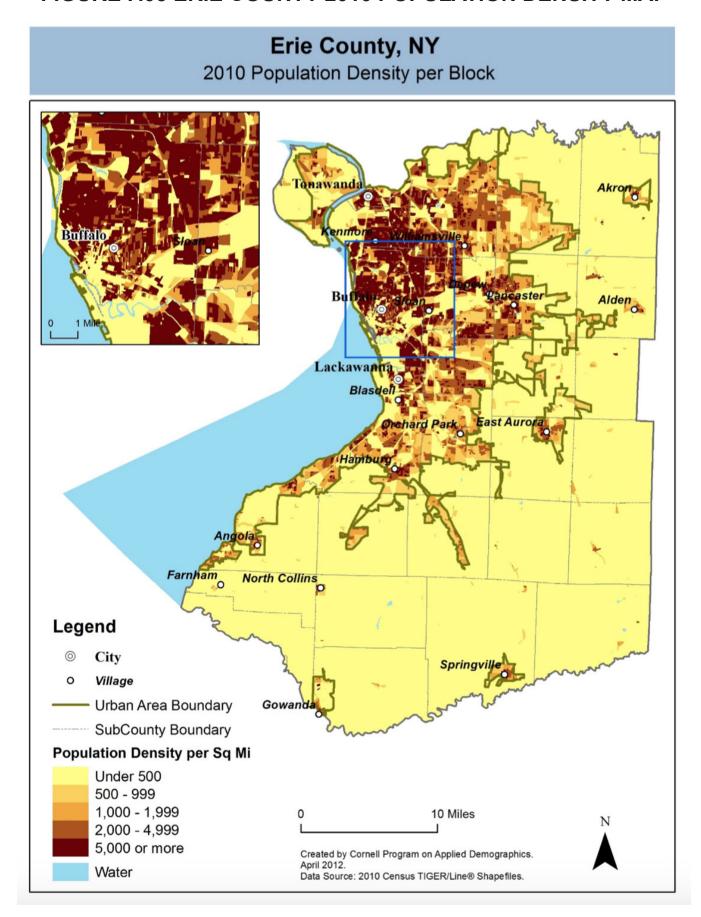
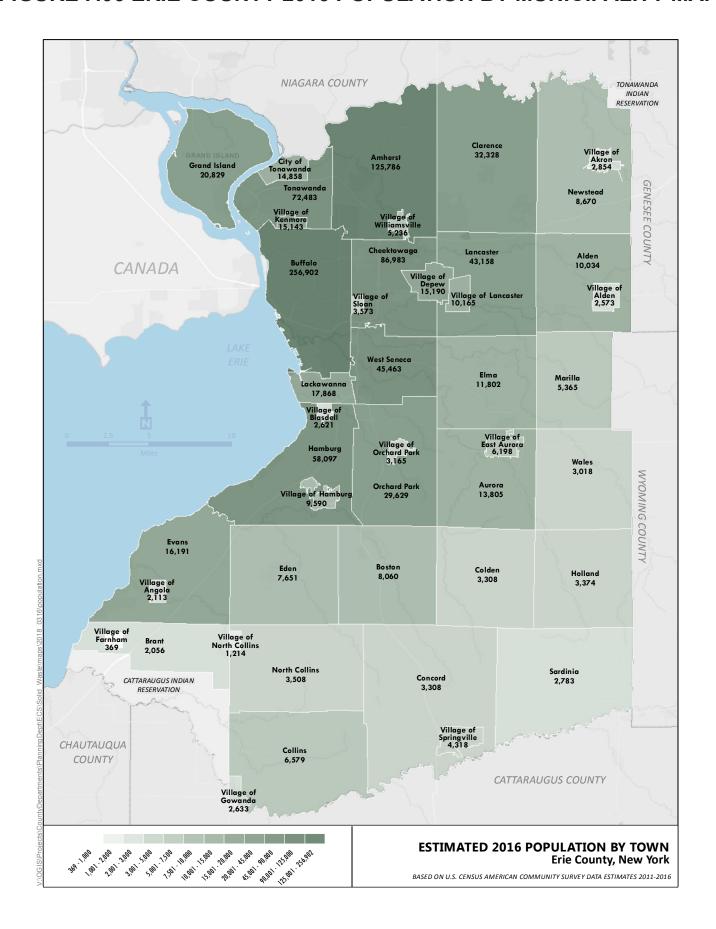


FIGURE F.06 ERIE COUNTY 2016 POPULATION BY MUNICIPALITY MAP

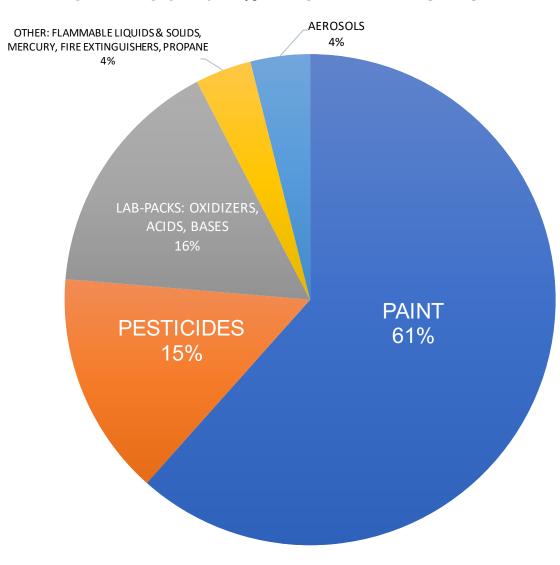


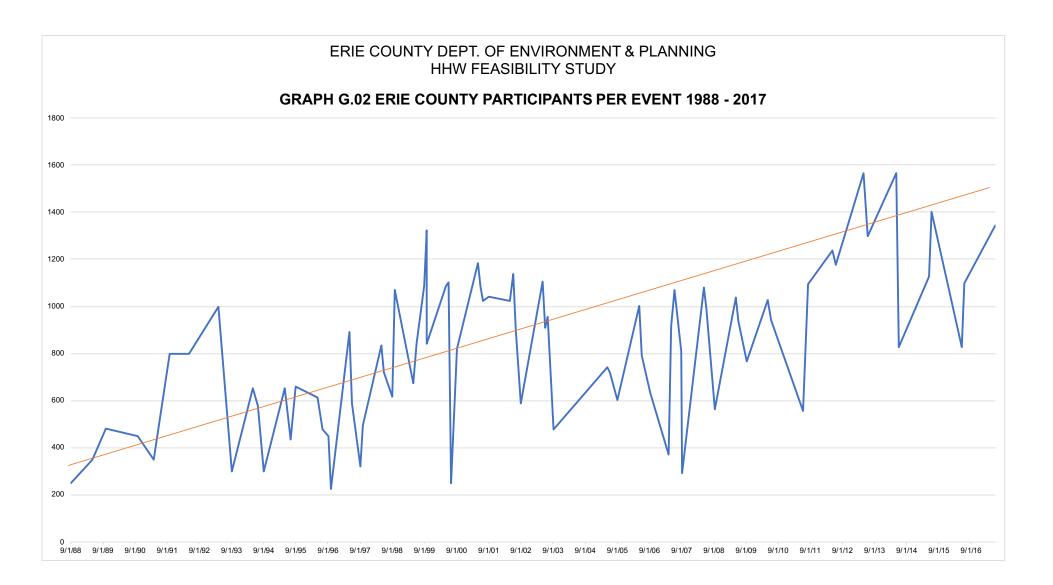
GRAPHS

Solara, Inc.

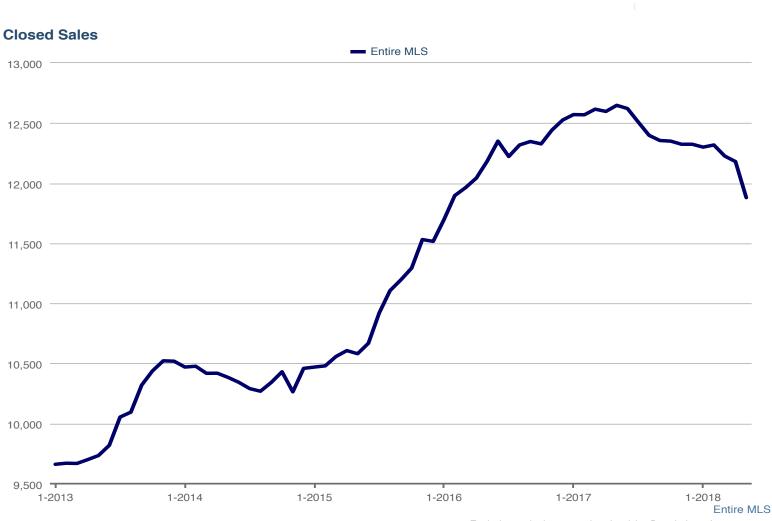
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GRAPH G.01 2017 % WEIGHT PER WASTE STREAM





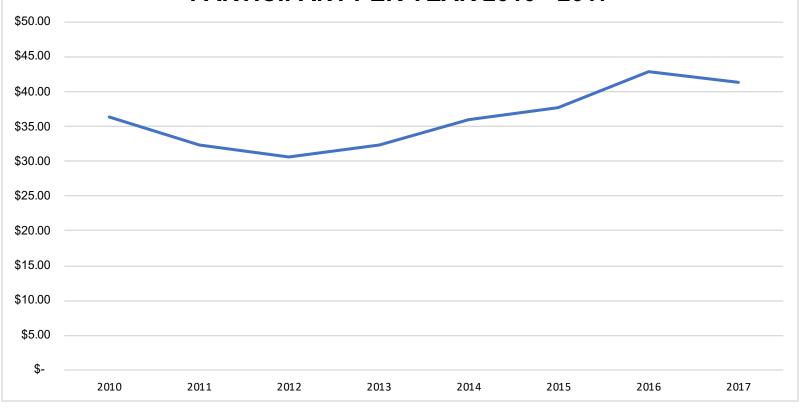
GRAPH G.03 RESIDENTIAL REAL ESTATE TRANSACTIONS IN ERIE COUNTY 2012 - 2017

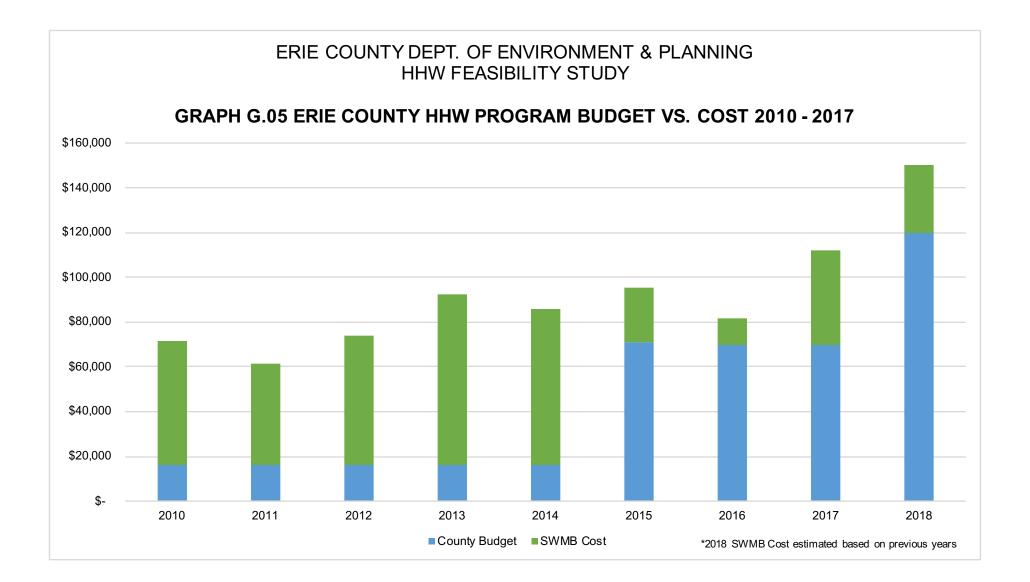


Each data point is 12 months of activity. Data is from June 4, 2018.

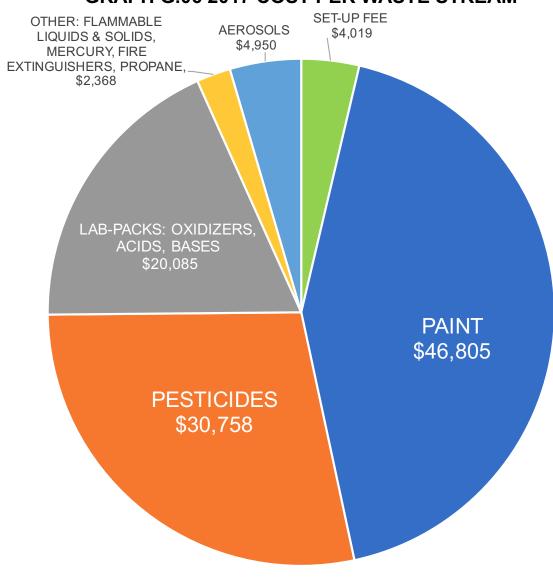
All data from Western New York Real Estate Information Services, LLC Multiple Listing Service. InfoSparks © 2018 ShowingTime.

GRAPH G.04 ERIE COUNTY AVERAGE COST PER PARTICIPANT PER YEAR 2010 - 2017



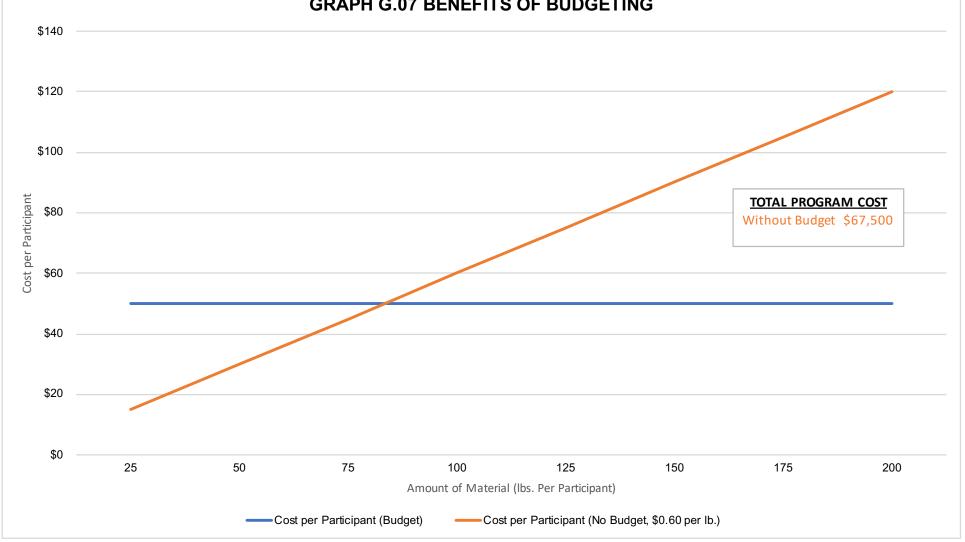


GRAPH G.06 2017 COST PER WASTE STREAM



Assuming 1,000 participants with 100 lb. per participant

GRAPH G.07 BENEFITS OF BUDGETING



TABLES

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TABLE T.01 WASTE STREAM OVERVIEW (PAGE 1 OF 2)

WASTE STREAMS	<u>(</u>	Contractor Info	& Pricing				<u>NYS</u>		Misc	<u>.</u>
Materials Currently Collected:	<u>Contractor</u>	Instructions	<u>Rate</u>	<u>Unit</u>	DEC Waste Classification	DEC HHW Grant Eligibility	Post-Event Report Category and Units	Stewardship Programs / Policies	How Material is Promoted	Final Destination
Oil-Based Paint	Care Environmental	Accept	\$275.00	CYD	Hazardous	Yes		Pending - NYS Paint Stewardship Policy	Acceptable (10 gal. limit)	TBD
Latex Paint	Care Environmental	Do Not Accept	\$275.00	CYD	Non-Hazardous	No		Pending - NYS Paint Stewardship Policy	Unacceptable	TBD
Lab Packs (acids/bases/oxidizers)	Care Environmental	Accept	\$195.00	55-gal Drum	Hazardous	Yes		N/A	Acceptable (2 gal. limit)	TBD
Pesticides	Care Environmental	Accept	\$1.05	LB	Hazardous / Universal	Yes		N/A	Acceptable (2 gal. limit)	TBD
Flammable Liquids (non-paint)	Care Environmental	Accept	\$110.00	55-gal Drum	Hazardous	Yes		N/A	Acceptable (2 gal. limit)	TBD
Flammable Solids	Care Environmental	Accept	\$0.00	5-gal	Hazardous	Yes		N/A	Acceptable (2 gal. limit)	TBD
PCB Paint	Care Environmental	Accept	\$110.00	55-gal Drum	Hazardous	Yes		N/A	Not Listed	TBD
Resins / Adhesives	Care Environmental	Accept	\$275.00	CYD	Hazardous	Yes		N/A	Not Listed	TBD
Aerosols	Care Environmental	Accept	\$275.00	CYD	Hazardous / Non Hazardous	Yes, unless empty		Pending - NYS Paint Stewardship Policy	Acceptable (10 gal. limit)	TBD
Dry Cell Batteries	Care Environmental	Do Not Accept	\$45.00	5-gal	Hazardous	No		NYS Rechargeable Battery Recycling Act	Not Listed	TBD
1# Propane Cylinders	Care Environmental	Accept	\$275.00	CYD	Hazardous / Non Hazardous	Yes, unless empty		N/A	Acceptable	TBD
Mercury-Containing Equipment	Care Environmental	Accept	\$100.00	5-gal	Universal	Yes, excluding thermostats		NYS Mercury Thermostat Collection Act	Acceptable	TBD
Fluorescent Tube Light Bulbs	Care Environmental	Do Not Accept	\$0.04	Foot	Universal	Yes		N/A	Unacceptable	TBD
Compact Fluorescent Bulbs	Care Environmental	Do Not Accept	\$0.95	Unit	Universal	Yes		N/A	Unacceptable	TBD
Fire Extinguishers	Care Environmental	Accept	\$0.95	Unit	Non-Hazardous	No		N/A	Not Listed	TBD
Waste Oil	NOCO	Accept	\$0.00	N/A	Hazardous / Non Hazardous	No		6 NYCRR: 374-2 Standards for the Management of Used Oil	Acceptable (10 gal. limit)	TBD
Antifreeze	NOCO	Accept	\$0.00	N/A	Non-Hazardous	Yes		N/A	Acceptable (10 gal. limit)	TBD
Lead-Acid Batteries	The Battery	Accept	\$0.00	N/A	Universal	No		NYS Rechargeable Battery Recycling Act	Acceptable	TBD
Alkaline Batteries	The Battery	Accept	\$0.00	N/A	Non-Hazardous	No		N/A	Unacceptable	TBD

TABLE T.01 WASTE STREAM OVERVIEW (PAGE 2 OF 2)

WASTE STREAMS	<u>(</u>	Contractor Info	& Pricing				<u>NYS</u>		Misc	<u>.</u>
Materials Currently Collected:	<u>Contractor</u>	<u>Instructions</u>	<u>Rate</u>	<u>Unit</u>	DEC Waste DEC HHW Grant Post-Event Report Classification Eligibility Category and Units			Stewardship Programs / Policies	How Material is Promoted	Final Destination
Addt'l Materials to Consider Collecting:	(in order of priority b	pased on assumed de	emand)							
E-Waste					Universal	No		The NYS Electronic Equipment Recycling and Reuse Act	Unacceptable	TBD
Pharmaceuticals					Hazardous	No		N/A	Unacceptable	TBD
CESQG Waste					Hazardous	No		N/A	Unacceptable	TBD
Mercury-Containing Thermostats					Hazardous	No		Thermostat Recycling Corporation (TRC)	Acceptable	TBD
Mattresses					Non-Hazardous	No		N/A	Not Listed	TBD
Appliances					Non-Hazardous	No		N/A	Not Listed	TBD
Clothing					Non-Hazardous	No		N/A	Not Listed	TBD
Bulky Plastic Items					Non-Hazardous	No		N/A	Not Listed	TBD
Styrofoam Packaging					Non-Hazardous	No		N/A	Not Listed	TBD
Cooking Oil					Non-Hazardous	No		N/A	Not Listed	TBD
Sharps & Syringes					Regulated Medical	No		N/A	Not Listed	TBD
Document Destruction					Non-Hazardous	No		N/A	Not Listed	TBD
Flags (U.S.)					Non-Hazardous	No		N/A	Not Listed	TBD
Plastic Bags & Wrap					Non-Hazardous	No		N/A	Not Listed	TBD
Printer Cartridges					Non-Hazardous	No		N/A	Not Listed	TBD
Scrap Metal					Non-Hazardous	No		N/A	Not Listed	TBD
Tires					Non-Hazardous	No		ECL Article 27. Title 19. Waste Tire Management and Recycling Act	Unacceptable	TBD
Paper & Cardboard					Non-Hazardous	No		N/A	Not Listed	TBD
Recyclable Glass/Metal/Plastic Containers					Non-Hazardous	No		N/A	Not Listed	TBD

TABLE T.02 CURRENT & NOTABLE HHW PROGRAM DATA OVERVIEW (PAGE 1 OF 2)

		Column #1	Column #2	Column #3	Column #4	Column #5
	Municipality	Erie County	OCRRA	Monroe County	Niagara County	Town of Colden / Town of Holland
턴	Name	Paul Kranz, PE	Andrew Radin	Steve Peletz		James DePasquale (Colden) Michael Kasprzyk (Holland)
Contact	Position	Environmental Engineer	Recycling & Waste Reduction Director	Engineer - Pure Waters	Director: Division of Environmental/Solid Waste	Town Supervisors
	Phone	(716) 858-7897	(315) 453-2866, ext. 214	(585)753-7564		James (716) 474-0579 Michael (716) 537-9443 ext. 1
	Email	Paul.Kranz@erie.gov	aradin@ocrra.org	speletz@monroecounty.gov		James: james.depasquale@townofcolden.com Michael: hollandsupr@roadrunner.com
	Material (lbs) Collected	189,630	200,000	548,298	110,073	25,855
	Material (lbs) Assumptions, if any	70 lbs. per Participant	100 lb. per Participant	N/A, Actual	N/A, Actual	N/A, Actual
	Number of Participants	2,709	2,000	6,442	1,051	281
Stats	Number of Eligible Households	382,000	150,000	275,000	99,116	65,000
gram	HHW Contractor Cost	\$111,948	97,000	\$319,442	\$72,775	\$21,961
N Pro	HHW Contractor	Care Environmental	EPS	Clean Harbors	Environmental Service Group / Hazman	Environmental Service Group / Hazman
2017 HHW	Cost per Participant (Includes Marketing \$)	\$41.32	\$64.00	\$49.59	\$69.24	\$78.15
201	% of Population Served	0.709%	1.333%	2.343%	1.060%	0.432%
	Cost of 2%	\$ 315,719	\$ 192,000	\$ 272,731	\$ 137,263	\$ 101,599
	Cost of 3%	\$ 473,578	\$ 288,000	\$ 409,096	\$ 205,894	\$ 152,398
	Cost of 5%	\$ 789,297	\$ 480,000	\$ 681,827	\$ 343,157	\$ 253,997
Bidding	Frequency	1-year Contract with (2) 1-year extensions	Every 2-3 years	Annual	1-year Contract with (3) 1-year extensions	Discretionary Purchase
Bid Pro	Metrics	Per Unit	\$48.50 per car	Per Unit	Per Unit	Event Fee + Unit Cost (per lb.)
	Mechanism	County Budget \$75,000 per Year, SWMB	Enterprise Fund - County Landfill	Enterprise Fund, \$350,000 Budgeted for T&D, Chemist, % in water sewer rate goes towards funding their operation. They don't want people putting this down storm drains into sewer / septic		Colden - Garbage Fee
Sources	Grant	NYS DEC HHW Grant	NYS DEC HHW Grant	NYS DEC Grant	NYS DEC HHW Grant	NYS DEC HHW Grant
Funding So	Sponsors	The Battery (Batteries)	N/A	10NBM (Promotion)	N/A	N/A
		20 County, 10 Other - Traffic Control, Reception, Exit, General Clean-up	N/A	from Munis & County	1-2 from County - Registration	1-3 from Host DPW
	Partnerships	N/A		Muni's Employees in Host Communities Waste Management - Facility	N/A	Bordering Town

TABLE T.02 CURRENT & NOTABLE HHW PROGRAM DATA OVERVIEW (PAGE 2 OF 2)

		Column #1	Column #2	Column #3	Column #4	Column #5
	Municipality	Erie County	OCRRA	Monroe County	Niagara County	Town of Colden / Town of Holland
Outreach	Methods	Website, Flyer	Online Ad: (Syracuse.com) Email blasts OCRRA Newsletter (Qtrly, Print in Paper & Some Weeklies) Facebook stuff, including paid posts	Website, Muni's, School Districts, County Leg., Elected Officials, Solid Waste & Environmental Educator in Schools / Interest Groups, Outreach Trailer, Cross Promo from Storm Water Dept, Radio, TV, Billboard, Recycling Magnet!	Mailers, Website, Social Media, Events, Newslette	Mailers, Posters
	Newsletter	No	Yes	Yes	Yes	
	Cost	0	\$31,000	0	0	0
	Registration	No	Yes, mandatory. Helps to control traffic & build email list.	Yes, Mandatory appointments	Yes, Mandatory pre-registration	Yes, Mandatory via hazmanusa.com
	Newsletter	No	Yes	Yes	Yes	
	Historical Participation Rates	Increasing			Increasing	
_	Post-Event	News Reports	Email blast & newsletters	Ongoing	Yes, Email to Newsletter Recipients	None
ပွဲ့	Best Practices	Little event promotion - at capacity	Pulled Bulbs, Batteries, Thermostats from Program to Max. HHW	Consistent Funding (County, State) HHW is part of many people's job description,	3-weeks prior to each event a mailer is sent throughout the cost community by a Sponsoring member of the State delegation. Also Paper Shredding, Pharmaceutical Collection	Local, smaller event.
		12/14 re: SWMB Members, Fee Structure 12/14 re: Sponsors 1/3 re: Participant Breakdown 1/31 re: Volunteers 2/1 re: Volunteers	1/19 re: Program Overview 1/26 re: Costs, Demographic Stats 2/1 re: Promo Methods 2/1 re: Digital Promotion Spending	3/6: Promo Overview	1/10 re: Progam Overview, Includes Event Data	1/31 re: Participants, Cost, Material
	Phone Interview	1/2 re: Promo, Participant Feedback, Budget	1/24 re: Program Overview		N/A	Colden - 5/21 re: Program, funding
	Data	Various Spreadsheets Event Data (Material Type, Participation, Cost)	N/A	Various Spreadsheets Inventory, Participation, Material Types	From Email Correspondence HHW Permanent Site Data 2013	N/A
Sources	Flyers / Downloads	Event Flyer Latex Paint Flyer	Newsletter	Magnet Brochure Map Infographic Elected Official Announcement	Specialty Waste Brochure Mailer	Mailer Poster Newspaper
	Website Link	http://www2.erie.gov/recycling/	http://ocrra.org/services/dispose/household-toxics	https://www.monroecounty.gov/ecopark/	www.rethinkyourwaste.com	N/A
	Website Pages / Notes	Recycling - Beyond the Curb, Refers to HHW HHW - Lists Fee-based Options	HHW Drop-off Make an Appointment	EcoPark Details HHW Appointment Scheduler Calendar	HHW FAQ Events	N/A
	Misc.	Exit Survey	2015 RFP Videos & Games - Education Program	Registration via Appointment Scheduler Program History	Event Registration via hazmanusa.com HHW Voucher	

TABLE T.03 COLLECTION METHODS MATRIX

Location(s)		Currei	nt Program	Collection I	Method #1	Collection	Method #2	Collecti	ion Method #3	Collection	Method #4
Number of Events 2 Number of Events 1 Number of Sites 1 Number of		2	Events	Regiona	l Event	Perman	nent Site	Sate	ellite Events	Vou	cher
Location(s) Locat		Anni	ual Service	Annual	Service	Annual	Service	Anr	nual Service	Annual	Service
Location(s) Comp. Ownerd rachifolic: FTC Norm, FTC Some Control (onl)		Number of Events	2	Number of Events	1	Number of Sites	1	Number of Events	20	Number of Sites	1
Day(s), Time(s) Day(s), Time(s), Tim	Row #1	Location(s)	•	Location(s)	2 North West 4 Central 1 South East	Location(s)	City	Location(s)	Municipal Selected Sites	Location(s)	Privately Operated HHW Collection Facility
Hours per veer 12 Hours per ve		Day(s), Time(s)		Day(s), Time(s)		Day(s), Time(s)	., , , , , , ,	Day(s), Time(s)		Day(s), Time(s)	Every Monday - Friday, 8am - 4pm (1) Saturday per Month, 9am - 12pm (1) Wednesday per Month, 5pm - 8pm
Participation Pa		Hours per Event	6	Hours per Event	6	Hours per Month		Hours per Event	3	Hours per Month	178
Demographics Demo		Hours per Year	12	Hours per Year	Varies	Hours per Year	180 - 240	Hours per Year	720	Hours per Year	2136
1: Social 2: Economic 2: Econo			<u> </u>			·		·		·	
YES NO YES NAMPE NAMPE NAMPE NAMPE YES NAMPE NAMPE NAMPE YES NAMPE NAMPE YES NAMPE NAMPE YES NAMPE YES NAMPE YES NAMPE YES NAMPE YES Number of Participants Namber of											
Per Very Per		YES	NO	YES	MAYBE	MAYBE	YES	MAYBE	MAYBE	MAYBE	YES
1,36 1,20	Row #2	Per Event	Per Year		Per Year	Per Month	Per Year	Per Event	Per Year	Per Month	
Average Maximum Average Maximum Average Maximum S S Wait Time (Minutes) S Wait Time (Min	1.000 112	Distance to Event (Miles)									
Wait Time (Minutes) Typical Ty		Average Maximum		Average Maximum		Average	Maximum		Maximum		Maximum
SWOT ANALYSIS SWOT ANALYSIS STRENGTHS WEAKNESSES STRENGTHS Weather Dependent. Participation Rates Unknown Experit selections. Not Applicable Not Applicable Not Applicable		Wait T	Time (Minutes)	Wait Time (Minutes)		Wait Time (Minutes)		Wait Time (Minutes)		Wait Time	(Minutes)
STRENGTHS WEAKNESSES STRENGTHS TENDERS TO MAIL TO WEATHER SEALING WE CONTROL OF THE SEALING WEAKNESSES STRENGTHS W										Typical 0	
Best bang for the buck. OPPORTUNITIES RISKS OPPORTUNITIES Add Registration System Formula EVENT STAFFING & PERMANENT SITE CAPACITY FORMULA FORMULA FORMULA Formulating Sparticipants per employee per hour Formulating Sparticipants per Event Formula Formulating Sparticipants per Service Convenient. Multiple Service Locations. Multiple Service Locations. Multiple Service Locations. Multiple Service Locations. Poportunities RISKS OPPORTUNITIES RISKS OPPORT		SWO	T ANALYSIS	SWOT AI	VALYSIS						
Best bang for the buck. Over-crowded. Not Sevice Hours. Economics of Scale Applies. Over-crowded. Not Applicable Over-crowded. Not Applicable Over-crowded. Not Applicable Over-crowded. Over-crowded. Not Applicable		STRENGTHS	WEAKNESSES	STRENGTHS	WEAKNESSES	STRENGTHS	WEAKNESSES	STRENGTHS	WEAKNESSES	STRENGTHS	WEAKNESSES
Promote all (6) Events Simultaneously. Share Cost with Participants. Add Registration System Heavy traffic = Safety Risk Long wait-times = Discourages Participation Potentially Missing Economically Driven Demographic.	Row #3	Best bang for the buck.		Mulitple Service Locations.	Weather Dependent.	Convenient.	<u>o</u>	Multiple Service Locations.		Most Service Hours.	Farthest Distance to Facility.
Add Registration System And/or Services. Share Cost with Participants. Low ECDEP Overhead, Zero Capital Investment. Potentially Missing So. Driven Demographic. Share Cost with Participants. Low ECDEP Overhead, Zero Capital Investment. Potentially Missing So. Driven Demographic. Share Cost with Participants. And/or Services. Share Cost with	1.0110	OPPORTUNITIES	RISKS	OPPORTUNITIES	RISKS	OPPORTUNITIES	RISKS	OPPORTUNITIES	RISKS	OPPORTUNITIES	RISKS
FORMULA 700 Participants per Event 20 Hours per Month Bow #4 Event: Staffing 6 participants per employee per hour 19 Unloading Staff per Event 3 Number of Staff 7 Number of Staff per Satellite Event 9 Not Applicable 9 Not App		Add Registration System	Long wait-times = Discourages			And/or Services.				Share Cost with Participants. Low ECDEP Overhead, Zero	Potentially Missing Socially Driven Demographic.
FORMULA 700 Participants per Event 20 Hours per Month Bow #4 Event: Staffing 6 participants per employee per hour 19 Unloading Staff per Event 3 Number of Staff 7 Number of Staff per Satellite Event 7 Number of Staff per Satellite Event		EVENT STAFFING & D	EDMANIENT CITE CADACITY							1	
Row #4 Event: Staffing 6 participants per employee per hour 19 Unloading Staff per Event 3 Number of Staff 7 Number of Staff per Satellite Event				700	Particinants ner Event	20	Hours ner Month	2	Hours per Month per Satellite Event	Not An	nlicable
	Dan. #4				· · ·		•		·	Not App	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Permanent Sites: Participant 3 employees = 6 participants per 30 min. Capacity a employees = 12 participants per hour Capacity a employees = 12 participants per hour	Kow #4	Permanent Sites: Participant	3 employees = 6 participants per 30 min.						·		
6 employees = 24 participants per hour Annual Participant Capacity 700 Annual Participant Capacity 7,200 Annual Participant Capacity 4,200				Annual Participant Capacity	700	Annual Participant Capacity	7,200	7,200 Annual Participant Capacity 4,200			

TABLE T.04 ERIE COUNTY 2017 EVENT DATA

2017 Totals & Averages

				Participation	
Total HHW Contractor Cost	Total Weight (lbs)	Avg. Cost per Pound	Total Number of Participants	Avg. Weight per Participant (lbs.)	Avg. Cost per Participant
\$108,985.28	199,113	\$0.55	2,709	73.5	\$40.23

Waste Stream / Item	Total Cost	% Total Cost	Total Weight (lbs.)	% Total Weight	Avg. Cost per Pound	Avg. Weight per Participant (lbs.)	Avg. Cost per Participant	
SET-UP FEE	\$4,019.48	3.69%	N/A	N/A	N/A	N/A	\$1.48	
PAINT	\$46,805.00	42.95%	56,600	28.43%	\$0.83	20.89	\$17.28	
PESTICIDES *	\$30,757.65	28.22%	13,561	6.81%	\$2.27	5.01	\$11.35	
LAB-PACKS: OXIDIZERS, ACIDS, BASES	\$20,085.00	18.43%	14,740	7.40%	\$1.36	5.44	\$7.41	
FLAMMABLE LIQUIDS	\$550.00	0.50%	1,000	0.50%	\$0.55	0.37	\$0.20	
FLAMMABLE SOLIDS	\$0.00	0.00%	30	0.02%	\$0.00	0.01	\$0.00	
AEROSOLS	\$4,950.00	4.54%	3,600	1.81%	\$1.38	1.33	\$1.83	
PROPANE	\$1,100.00	1.01%	1,200	0.60%	\$0.92	0.44	\$0.41	
FIRE EXTINGUISHERS	\$168.15	0.15%	1,050	0.53%	\$0.16	0.39	\$0.06	
MERCURY	\$550.00	0.50%	125	0.06%	\$4.40	0.05	\$0.20	
Collected by Vendors, Weights Unknown:								
WASTE OIL								
ANTIFREEZE								
BATTERIES								
BULBS								

^{*}All weights are approximate except Pesticides

TABLE T.05 MUNICIPAL HHW PROGRAM DATA OVERVIEW (PAGE 1 OF 2)

	1						
		Column #1	Column #2	Column #3	Column #4	Column #6	Column #7
	Municipality	Chautauqua County	Cattauraugus County	GLW Region Solid Waste Management Committee	Development Authority of the North Country	Steuben County	Town of Newstead / Village of Akron
act	Name	Tracy Pierce (TJ)	Linda McAndrew	Peggy Grayson	Hope VanBrocklin	Rich Bills	Justin Rainville (Hazman)
Contact	Position	Solid Waste Analyst	Waste Management Coordinator	Recycling Administrator	Recycling Specialist	Asst. Land Supervisor	Event Coordinator
	Phone	716-985-4785, ext. 203	716-938-2486	585-815-7906	315-661-3234	607-776-3191, c 607-685-1898	716-998-8073
	Email	piercet@co.chautauqua.ny.us	lbmcandrew@cattco.org	margaret.grayson@co.genesee.ny.us	hvanbrocklin@danc.org	bathlandfill@hotmail.com	jrainville@hazmanusa.com
	Material (lbs) Collected	30,000	15,968	22,979		38,000	36,472
	Material (lbs) Assumptions, if any	46 lb. per Participant	N/A	N/A, Actual		19 Tons	N/A, Actual
	Number of Participants	650	231	541	1,044	180	486
stats	Number of Eligible Households	54,000	35,000	67,000	110,400	38,000	3,400
gram (HHW Contractor Cost	\$30,350	\$17,731	\$20,778	55,000	\$24,500	\$32,119
IW Prog	HHW Contractor	Care Environmental	Clean Harbors, Inc.	EEI	Clean Harbors, Inc.	MXI	The Environmental Service Group
王	Cost per Participant (Includes Marketing Spend)	\$46.69	\$88.01	\$50.42	\$52.68	\$136.11	\$66.09
2017	% of Population Served	1.204%	0.660%	0.807%	0.946%	0.474%	14.294%
	\$ 50,428 \$ 75,642		\$ 61,609	\$ 67,565	\$ 116,322	\$ 103,444	\$ 4,494
	Cost of 3%	\$ 75,642	\$ 92,414	\$ 101,347	\$ 174,483	\$ 155,167	\$ 6,741
	Cost of 5%	\$ 126,069	\$ 154,023	\$ 168,912	\$ 290,805	\$ 258,611	\$ 11,235
Bidding	Frequency	Every 3 Years	Every 3 Years	1-year Contract with (2) 1-year extensions	Contract for 3 Years	Annual	Discretionary Purchase
Bid	Metrics	Per Unit	Per Unit	Per lb.		Mobilization Fee + Unit Cost (per lb. / gal.)	Event Fee + Unit Cost (per lb.)
	Mechanism	Enterprise Fund - County Landfill	Cattauraugus County Water Quality Council Tax Levy	County based on Population, \$72,000 per Year	Authority	Self-generated by Enterprise Fund	TBD
urces	Grant	NYS DEC HHW Grant	NYS DEC HHW Grant	NYS DEC HHW Grant	NYS DEC HHW Grant	NYS DEC HHW Grant	NYS DEC HHW Grant
Funding Sou	Sponsors		N/A	N/A		Corning, Inc. In past	N/A
	Volunteers	1-2 from County & 1-2 from Host Muni's	5 from County	N/A		4 from County	1-3 from Host DPW
	Partnerships	Potentially SUNY Fredonia, Earth Day	N/A	N/A			Town / Village
Outreach	Partnerships Potentially SUNY From Methods University professor	notices, 1 week prior press release via County	•	Postcards to those on notification list, 5 advertisements, radio ads, brochures at fairs		Newspaper, Flyers, Website, Facebook	Newspaper Ads, Website
	Newsletter		No	Yes (Old School: Notification List)			
	Cost	0	\$2,600	\$6,500	0	0	0

TABLE T.05 MUNICIPAL HHW PROGRAM DATA OVERVIEW (PAGE 2 OF 2)

		Column #1	Column #2	Column #3	Column #4	Column #6	Column #7
	Municipality	Chautauqua County	Cattauraugus County	GLW Region Solid Waste Management Committee	Development Authority of the North Country	Steuben County	Town of Newstead / Village of Akron
	Registration	No, Not Necessary	Yes, Call for Appointment	Yes, Mandatory via Phone		Yes, Mandatory via hazmanusa.com	Yes, Mandatory via hazmanusa.com
	Newsletter		No	Yes (Old School: Notification List)			
	Historical Participation Rates	Increasing (Between 390 and 650)		Increasing			
	Post-Event	News Reports	No	Exit survey - completed with recycled-plastic pen. Fill out that day or mail back.		None	None
Misc.	Best Practices	Consistent Dates (Always first Saturdays of	Accept everything Highest pre-registration rate	Registration Packet including Stations, Map, Give-away			Local, smaller event.
	Email Correspondence	2/1 re: Event Promotion	2/1 re: Material Qty.	1/29 re: Program Overview	2/8 re: Program Overview	1/25 re: Participants, Costs	1/31 re: Participants, Cost, Material
	Phone Interview	N/A	2/1: Program Overview		N/A	1/23 re: Program Overview	N/A
	Data		N/A	2017 HHW Final Report 2017 HHW Executive Summary	N/A	N/A	N/A
Sources	Flyers / Downloads	N/A	Newspaper Ad	All Available on Brochures Page: 2018 Info Sheet NYS DEC HHW Brochure Notification Form	2017 HHW Poster	IN/A	Newspaper Poster
	Website Link	http://www.co.chautauqua.ny.us/345/Unacce	http://www.cattco.org/events/2017/09/30/fi	http://www.glowsolidwaste.org/programs.ht	Link to Poster	https://www.steubencony.org/pages.asp?PID=1825	N/A
	Website Pages / Notes	Unacceptable Items - Latex Paint, Redirects to PDF of Registration Form		Brochures Page with Downloads	N/A	Lists Private Company Options	N/A
	Misc.	Registration Form Cummins - Community Collection Event Poster		Registration Packet Exit Survey		2016 RFP	

TABLE T.06 HAZMAN DROP-OFF CENTER DATA 2012 - 2017

			Avg. Weight	Α١	/g. Cost
	Number of		per		per
Year	Participants	Weight (lbs.)	Participant	Pa	rticipant
2012	778	77,005	99	\$	74.23
2013	892	90,066	101	\$	75.73
2014	1085	115,030	106	\$	79.51
2015	1145	111,982	98	\$	73.35
2016	1410	140,318	100	\$	74.64
2017	1340	121,821	91	\$	68.18

Conclusions:

Some homeowners are willing to pay Not many are willing to drive

Number of Participants

	Number of Participants										
Participant Municipality	2012	2013	2014	2015	2016	2017	Total				
Buffalo	201	201	310	269	329	232	1542				
Tonawanda	182	205	234	231	284	254	1390				
North Tonawanda	92	107	127	92	156	175	749				
Amherst	52	83	130	104	161	118	648				
Cheektowaga	42	56	76	88	93	93	448				
Niagara Falls	16	16	26	94	56	111	319				
Lockport	28	28	28	40	34	74	232				
Lancaster	15	21	26	39	34	34	169				
Wheatfield	12	19	19	29	49	40	168				
Depew	23	29	25	38	25	25	165				
Lackawanna	16	26	37	23	20	20	142				
Orchard Park	21	9	9	19	29	29	116				
West Seneca	8	11	13	9	33	25	99				
Clarence	12	17	13	13	13	13	81				
Lewiston	14	8	13	7	13	13	68				
Blasdell	4	10	8	11	13	8	54				
Sanborn	5	5	5	5	15	18	53				
Snyder	3	6	6	8	11	14	48				
Pendleton	1	4	4	6	10	16	41				
Angola	9	4	2	5	7	3	30				
Batavia	3	7	2	1	11	3	27				
Newfane	2	2	2	4	6	10	26				
Youngstown	3	3	4	4	2	6	22				
Boston	1	3	1	2	4	4	15				
Akron	1	7	3	0	1	0	12				
Colden	2	1	1	2	1	1	8				
Alden	2	1	0	1	0	1	5				
Rochester	1	2	2	0	0	0	5				
Medina	1	1	0	1	0	0	3				
Basom	1	0	0	0	0	0	1				
Beavercreek	1	0	0	0	0	0	1				
Lake View	1	0	0	0	0	0	1				
Syracuse	1	0	0	0	0	0	1				

TABLE T.07 HAZMAN EVENT DATA 2012 - 2015

			Town of News	tead & Village	of Akron				
Number of Residents	8,300								
Event Number	1	2	3	4	5	6	7	Total	Average
Year	2012	2	013	2	014		2015	iotai	Average
Month	November	May	October	June	October	May	October		
Invoiced Amount	\$13,650	\$12,500	\$12,300	\$14,105	\$10,654	\$18,753	\$ 12,720.85		
Cost per Participant	\$64.69	\$81.70	\$93.18	\$101.47	\$77.76	\$87.63	\$99.38		
Cost per Lb.	\$0.47	\$0.72	\$0.85	\$0.81	\$0.77	\$0.80	\$0.92		
Number of Participants	211	153	132	139	137	214	128	1114	159
of Community who Particpated	2.54%	1.84%	1.59%	1.67%	1.65%	2.58%	1.54%		1.92%
Total HHW Collected (Lbs.)	28,880	17,392	14,520	17,376	13,759	23,372	13,759	129,058	18,437
Avg. Lbs. per Particpant	136.9	113.7	110.0	125.0	100.4	109.2	107.5		115

Town of Brant							
Number of Residents	2,100						
Event Number			1	2		Total	Average
Year			2014	2015		Total	Average
Month			August	October			
Invoiced Amount		\$	9,125.10	\$	15,142.00		
Amount Paid by Residents		\$	116.00	\$	-		
Cost per Participant		\$	196.62	\$	159.39		
Cost per Lb.		\$	0.67	\$	1.15		
Number of Participants			47	95		142	71
% of Community who Particpated			2.24%	4.52%			3.38%
Total HHW Collected (Lbs.)			13,588	13,198		26,786	13,393
Avg. Lbs. per Particpant			289.1	138.9			214

^{*} High Average due to 3 large dump trucks of material

Town of Colden & Town of Holland							
Number of Residents	6,812						
Event Number			1		2	Total	Average
Year			2014		2015	Total	Average
Month		9	September	Se	eptember		
Invoiced Amount		\$	20,893.00	\$	22,842.90		
Amount Paid by Participants		\$	-	\$	45.00		
Cost per Participant		\$	75.70	\$	79.59		
Cost per Lb.		\$	0.65	\$	0.89		
Number of Participants			276		287	563	281.5
% of Community who Particpated*			4.05%		4.21%		4.13%
Total HHW Collected (Lbs.)			32,341		25,633	57,974	28,987
Avg. Lbs. per Particpant			117.2		89.3		103

^{*} High Percentage due to the Direct Mailers that went out two weeks prior

		Niagara County							
Number of Residents	216,469								
Event Number				1	2		3	Total	Average
Year					2015			Total	Average
Month				April	June	-	August		
Invoiced Amount			\$	30,178	\$ 17,444	\$	28,975		
Amount Paid by Participants			\$	183	\$ -	\$	36		
Cost per Participant			\$	62.60	\$ 49.70	\$	64.47		
Cost per Lb.			\$	0.55	\$ 0.44	\$	0.58		
Number of Participants				485	351		450	1286	429
% of Community who Particpated				0.22%	0.16%		0.21%		0.20%
Total HHW Collected (Lbs.)			5	54,913	39,503	5	50,301	144,717	48,239
Avg. Lbs. per Particpant*				113.2	112.5		111.8		113

		HEFT				
Number of Residents	n/a					
Event Number			1	2	Total	Average
Year				2015	Total	Average
Month			October	November		
Invoiced Amount			\$ 6,214.00	\$ 10,705.50		
Cost per Participant			\$ 621.40	\$ 142.74		
Cost per Lb.			\$ 4.14	\$ 1.46		
Number of Participants			10	75	85	43
% of Community who Particpated			n/a	n/a		
Total HHW Collected (Lbs.)			1,500	7,333	8,833	4,417
Avg. Lbs. per Particpant*			150.0	97.8		124

Also provided e-waste for community

TABLE T.08 QUANTIFICATION OF DEMOGRAPHICS

KNOWNS:	382,000 Households in Erie County
	12,000 Residential Real Estate Transactions in Erie County Each Year
	23,000 Total Real Estate Transactions in Erie County Each Year
	4% Highest HHW Program Service Rate Seen (Using Every-Door-Direct-Mailers)
ASSUMPTIONS:	100% of Residential Real Estate Transactions Involve HHW
	50% of Residential Real Estate Transactions Would Follow-Through with Proper HHW Disposal
	11,000 Commercial Real Estate Transactions in Erie County
	75% of Commercial Real Estate Transactions in Erie County are CESQG
	75% of CESQG Real Estate Transactions in Erie County Require HHW Solution
	There are two types of HHW Program Participants: Socially-Driven and Economically-Driven
	There are Socially-Driven Businesses in Erie County; however, quantities, HHW weights, and participation rate are unknown.

DEMOGRAPHICS:	Socially-Driven HHW Participants	Economically-Driven HHW Participants	
	Respond to an imposed deadline at a conveniently-located program View HHW solutions as an opportunity to recycle Are most likely to participate at an event Likely associated with warmer months (fair-weather fans)	Require a timely HHW solution View HHW disposal as a time-sensitive obligation Are most likely to participate at a permanent site Likely associated with real estate transactions	
POTENTIAL QUANTITY	15,280 Households	6,000 Households 21,	,280
HHW PARTICIPANTS:	Unknown CESQG	6,188 CESQG	

TABLE T.09 Regional Event Costs

			ANALYS	SIS DATA	
Annual Location Costs	Unit Price	Units	QTY	Annual Cost	Notes / Assumptions
Maintenance and Repairs	\$0	/Loc	1	\$0	
Labor	\$0	/hr	36	\$0	
Equipment / Supplies	\$0	/Loc	1	\$0	
HHW Contractor	\$0	/Loc	1	\$0	
			SubTotal	\$0	
Annual Event Costs					
Set-up Fee	\$1,500	/Event	1	\$1,500	
Disposal	\$0.30	/lb	59,500	\$17,850	
Transportation	\$0.15	/lb	59,500	\$8,925	
Labor	\$0.10	/lb	59,500	\$5,950	
			SubTotal	\$32,725	
Annual General / Administration					
Administrative Labor	\$55	\$/hr	1,000	\$55,000	1/2 Person - Muncipal Resources Used
Registration	\$0.75	/Par	700	\$525	
Promotion & Education	\$7	/Par	700	\$4,900	Complex, Needs to Be Well Done
			SubTotal	\$60,425	
Cost of Capital					
Capital					
Annual Capital (15 yr, 5%)				\$0	
Cost Summary					
Annual Location Costs	\$0	/Event	1	\$0	
Variable	\$32,725	/yr	1	\$32,725	
G/A	\$60,425	/yr	1	\$60,425	
Capital	\$0	/yr	1	\$0	
Total Annual Cost				\$93,150	
		Cost P	er Participant	\$133.07	< This looks high because we have only 1 event in worksheet
Cost E	xcluding MRU			\$38,150	With 6 events, cost per participant = \$67.60 including MRI
Cost I	Per Participant			\$54.50	

Costs are approximated. MRU assumptions are notated. Excludes grant funding considerations.

TABLE T.10 Permanent Site Costs

Number of Locations
1 Open 15-20 hours per week, collection & sorting labor by municipality plus
Annual Events Per Yr 1 Events / Location_Year contractor chemist as needed.

Participants 6,000 Per Event_Location

Total Participants 6,000
Generation Rate 85 lbs/Participant

			AN	IALYSIS DATA	
Annual Location Costs	Unit Price	Units	QTY	Annual Cost	Notes / Assumptions
Maintenance and Repairs	\$12,000	/Loc	1	\$12,000	
Labor	\$50	/hr	3,000	\$150,000	3 People - Muncipal Resources Utilized
Equipment / Supplies	\$10,000	/Loc	1	\$10,000	
Technology / Insurance	\$10,000	/Loc	1	\$10,000	
Chemist	\$75	/Loc	324	\$24,300	
			SubTotal	\$206,300	
Annual Event Costs					
Set-up Fee	\$0	/Event	1	\$0	
Disposal	\$0.30	/lb	510,000	\$153,000	
Transportation	\$0.10	/lb	510,000	\$51,000	
Labor	\$0.00	/lb	510,000	\$0	
			SubTotal	\$204,000	
Annual General / Administration					
Administrative Labor	\$55	\$/hr	1,000	\$55,000	1/2 Person - Muncipal Resources Utilized
Registration	\$0.75	/Par	6,000	\$4,500	
Promotion & Education	\$7	/Par	6,000	\$42,000	Year-Round, Semi-Complex
			SubTotal	\$101,500	
Cost of Capital					See table below for a breakdown of Capital Costs. There is a savings potentia
Capital	\$ 300,000	/Loc	1	\$300,000	of \$250,000 per location with utilization of County Satellite Barns or pre-
Annual Capital (15 yr, 5%)				\$28,903	permitted HHW facilities. NYS DEC and DOS grant funding available for
					facility construction.
Cost Summary					
Annual Location Costs	\$206,300	/Event	1	\$206,300	
Variable	\$204,000	/yr	1	\$204,000	
G/A	\$101,500	/yr	1	\$101,500	
Capital	\$28,903	/yr	1	\$28,903	
Total Annual Cost				\$540,703	
		Cost Per Parti	cipant	\$90.12	-
Co	ost Excluding MRU			\$335,703	
C	ost Per Participant			\$55.95	

Permanent	Site	Capital	Costs

Architecture & Design	\$ 50,000
Operating Plan and Permitting	\$ 20,000
Construction	\$ 125,000
Air & Fire Control Systems	\$ 50,000
Equipment & Supplies	\$ 20,000
Staff Training	\$ 35,000
Total	\$ 300,000

 ${\it Costs \ are \ approximated.} \ {\it MRU \ assumptions \ are \ notated.} \ {\it Excludes \ grant \ funding \ considerations.}$

TABLE T.11 Satellite Events Costs

INPUT DATA						
Number of Locations	20	Worked performed at numerous satellite events.				
Annual Events Per Yr	1 Events / Location_Year	Collection labor by municipality plus contractor chemist as				
Participants	200 Per Event_Location	needed.				
Total Participants	4,000					
Generation Rate	85 lbs/Par					

			ANALYSI	S DATA	
Annual Location Costs (Total)	Unit Price	Units	QTY	Annual Cost	Notes / Assumptions
Maintenance and Repairs	\$0	/Loc	20	\$0	
Labor	\$50	/hr	420	\$21,000	7 People - Muncipal Resources Utilized
Equipment / Supplies	\$0	/Loc	20	\$0	
Chemist	\$75	/Event	20	\$1,500	
			SubTotal	\$22,500	
Annual Event Costs					
Set-up Fee	\$1,000	/Event	20	\$20,000	
Disposal	\$0.25	/lb	340,000	\$85,000	
Transportation	\$0.05	/lb	340,000	\$17,000	Transport Material to Site - Municipal Resources Utilized
Labor	\$0.00	/lb	340,000	\$0	
			SubTotal	\$122,000	
Annual General / Administration					
Administrative Labor	\$55	\$/hr	2,000	\$110,000	1 Person - Muncipal Resources Used
Registration	\$0.75	/Par	4,000	\$3,000	·
Promotion & Education	\$7	/Par	4,000	\$28,000	Year-Round, Most Complex, Multiple Dates & Locations
			SubTotal	\$141,000	
Cost of Capital					
Capital	\$5,000	/Loc	20	\$100,000	
Annual Capital (15 yr, 5%)				\$9,634	
Cost Summary					
Annual Location Costs (Total)	\$22,500	/yr	1	\$22,500	
Variable	\$122,000	/yr	1	\$122,000	
G/A	\$141,000	/yr	1	\$141,000	
Capital	\$9,634	/yr	1	\$9,634	
Total Annual Cost				\$295,134	
		Cost F	Per Participant	\$73.78	-
Cost E	xcluding MRU	-	-	\$147,134	
Cost I	Per Participant			\$36.78	

Costs are approximated. MRU assumptions are notated. Excludes grant funding considerations.

TABLE T.12 Voucher Costs

INPUT DATA

Number of Locations 1

Annual Events Per Yr

1 Events / Location_Year
Participants

2,250 Per Event_Location

Total Participants 2,250

Generation Rate 85 lbs/Participant

			ANALYSIS D	ATA	
Annual Location Costs Unit Price		Units	QTY	Annual Cost	Notes / Assumptions
Maintenance and Repairs	\$0	/Loc	0	\$0	
Labor	\$0	/hr	0	\$0	
Equipment / Supplies	\$0	/Loc	0	\$0	
Chemist	\$0	/Loc	0	\$0	
			SubTotal	\$0	
Annual Event Costs					
Set up Fee	\$0	/Event	1	\$0	
Disposal	\$0.50	/lb	191,250	\$95,625	
Transportation	\$0.00	/lb	191,250	\$0	
Labor	\$0.00	/lb	191,250	\$0	
			SubTotal	\$95,625	
Annual General / Administration					
Administrative Labor	\$55	\$/hr	500	\$27,500	1/4 Person - Muncipal Resources Used
Registration	\$0.50	/Par	2,250	\$1,125	Discounted
Promotion & Education	\$7	\$/Par	2,250	\$15,750	Year-Round, Simple
			SubTotal	\$44,375	
Cost of Capital					
Capital	\$0	/Loc	1	\$0	
Annual Capital (15 yr, 5%)				\$0	
Cost Summary					
Annual Location Costs	\$0	/Event	1	\$0	
Variable	\$95,625	/yr	1	\$95,625	
G/A	\$44,375	/yr	1	\$44,375	
Capital	\$0	/yr	1	\$0	
Total Annual Cost				\$140,000	
		Cost Per Part	icipant	\$62.22	
Cost	Excluding MRU			\$112,500	
	t Per Participant			\$50.00	

Costs are approximated. MRU assumptions are notated. Excludes grant funding considerations.

TABLE T.13 ALTERNATIVES' ASSUMPTIONS & COSTS

Assumptions								
		Out-of-Pocket Co	st (Excluding MRU)	Includi	ng MRU			
Qty. per Collection Method	Number of Participants	Cost	Avg. Cost per Cost Participant		Avg. Cost per Participant			
1 Regional Event	700	\$38,150	\$54.50	\$93,150	\$133.07			
3 Regional Events	2,100	\$114,450	\$54.50	\$169,450	\$80.69			
4.4 Regional Events	2,800	\$167,860	\$59.95	\$222,860	\$79.59			
6 Regional Events	4,200	\$228,900	\$54.50	\$283,900	\$67.60			
8 Regional Events	5,600	\$305,200	\$54.50	\$360,200	\$64.32			
20 Regional Events	14,000	\$763,000	\$54.50	\$818,000	\$58.43			
Permanent Site	5,000	\$335,703	\$67.14	\$461,453	\$92.29			
Permanent Site	6,000	\$335,703	\$55.95	\$540,703	\$90.12			
20 Satellite Events	4,000	\$147,134	\$36.78	\$295,134	\$73.78			
1,000 Vouchers	1,000	\$50,000	\$50.00	\$140,000	\$140.00			
1,650 Vouchers	1,650	\$82,500	\$50.00	\$110,000	\$66.67			
1,800 Vouchers	1,800	\$90,000	\$50.00	\$117,500	\$65.28			
2,250 Vouchers	2,250	\$112,500	\$50.00	\$140,000	\$62.22			
3,000 Vouchers	3,000	\$150,000	\$50.00	\$177,500	\$59.17			
3,750 Vouchers	3,750	\$187,500	\$50.00	\$215,000	\$57.33			
4,000 Vouchers	4,000	\$200,000	\$50.00	\$227,500	\$56.88			

Alternative A: \$120,000 F	Including MRU			
Qty.	Collection Method	Participants	Out-of-Pocket (OP) Cost	Total Cost
3	1 Regional Event	2,100	\$114,450	\$169,450
	Totals	2,100	\$114,450	Avg. Cost per Participant
	Avg.	OP Cost per Participant	\$54.50	\$80.69

Alternative B: \$170,000	Including MRU			
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
4.4	Regional Event	3,080	\$167,860	\$222,860
	Totals	3,080	\$167,860	Avg. Cost per Participant
	Avg	OP Cost per Participant	\$54.50	\$72.36

Alternative C: \$320,000 F	Including MRU			
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
6	Regional Event	4,200	\$228,900	\$401,400
1,800	Vouchers	1,800	\$90,000	Avg. Cost per Participant
	Totals	6,000	\$318,900	\$66.90
	Avg	. OP Cost per Participant	\$53.15	

Alternative D: \$420,000 F	Including MRU			
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
8	Regional Event	5,600	\$305,200	\$500,200
2,250	Vouchers	2,250	\$112,500	Avg. Cost per Participant
	Totals	7,850	\$417,700	\$63.72
	Δνσ	OP Cost per Participant	\$53 21	_

Alternative E: 11,500 Par	Including MRU			
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
8	Regional Event	5,600	\$305,200	\$900,903
1	Permanent Site	6,000	\$335,703	Avg. Cost per Participant
	Totals	11,600	\$640,903	\$77.66
	Avg.	OP Cost per Participant	\$55.25	

ernative F: 20,000 Par	Including MRU			
Qty.	Collection Method	Participants	Out-of-Pocket Cost	Total Cost
20	Regional Event	14,000	\$763,000	\$1,358,703
1	Permanent Site	6,000	\$335,703	Avg. Cost per Participant
	Totals	20,000	\$1,098,703	\$67.94
	Δνσ	OP Cost per Participant	\$54.94	

Costs are approximated.

See corresponding Collection Method Costs Tables (T.09 - T.12) for MRU assumptions. Excludes grant funding considerations.

TABLE T.14 RESOURCE MATRIX

KEY		Not Applicable
Measuring Synergies / Collaboration		Opportunity Zone
	Х	Current Partnership, at Capacity
	Х	Partnership with Opportunity

Potential Contributions / Synergies

			Key Components of HHW Program												
			<u>ه</u>				Operations								
Public / Private	Category	Contributing Entity	Outreach	Regulations	Funding	Permitting & Reporting	Event Site	Permanent Site	Satellite Event Site	Labor	Haz. Transportation	Haz. Disposal	Misc. Solid Waste	Food & Beverage	Addt'l Recycling
Public	Agency	NYS DEC		Х	Х	Χ									
Public	Agency	NYS DOT		Х		Χ									
Public	Agency	EPA		Х		Χ									
Public	Agency	NYS Department of State			Х										
Public	Municipalities	SWMB Members	Х		Х					Χ					
Public	Municipalities	Fire Halls													
Public	Municipalities	Events													
Public	Erie County	Events													
Public	Erie County	General Fund			Х										
Public	Erie County	Satellite Barns													
Public	Erie County	Properties in Use (ex: ECCs, New Era Field)					Х								
Public	Erie County	Department of Environment & Planning (DEP)	Х			Χ				Χ				Χ	
Public	Erie County	Hazardous Materials/WMD Response Team (EC-HMRT)													
Public	Erie County	Department of Public Works (DPW)													
Public	Erie County	Water Authority													
Public	Erie County	Fire Safety													
Public	Erie County	Division of Sewer Management (DSM)													
Public	Elected Officials	State, County, Municipal	Х												
Private	Waste Contractor	Hazardous Waste Transporter								Χ	Χ	Χ			Χ
Private	Waste Contractor	Hazardous Waste Collection Site													
Private	Waste Contractor	E-Waste Recyclers (E-Waste)													
Public	Agency	Pharmaceutical Collection (Police Officers)													
Private	Waste Contractor	MSW Haulers, Facilities											Х		
Private	Local Business	Misc. Local Businesses													
N/A	Industry Groups	Associations, NPOs													
N/A	Universities, Colleges	Any / All	Χ												
N/A	N/A	Participants													

TABLE T.15 HHW PROGRAM DATA COLLECTION TEMPLATE

Date(s)	
Type of Program	
Location	
Number of Participants	
Total Weight Collected (lbs)	from Waste Stream Summary & Analysis
Total Education & Promotion Cost	
Total Waste Collection, Transportation & Disposal Cost	from Waste Stream Summary & Analysis
Total Value of Municipal Resources Utilized (MRU)	

MUNICIPAL RESOURCES UTILIZED (MRU)										
Municipal Entity	Item (Units)	Qty.	Value per Unit	Total Value		Notes				
		EDUCATION & PROMOT								
Vendor	Item (Units)	Qty.	Cost per Unit	Total Cost		Notes				
	WASTE COL	LECTION, TRANSPORTA	TION & DISPOSAL							
Contractor	Waste Stream	Final Destination	Cost per Lb.	Weight Collected (lbs)	Total Cost	Notes				

TABLE T.16 HHW PROGRAM COST SUMMARY & ANALYSIS TEMPLATE

						Total Program Value (Costs, MRU)			Not Including MRU			Including MRU		
Date	Location	Type of Program	Number of Participants	Total Weight Collected (lbs)	Average Weight per Participant	Total Education & Promotion Cost	Total Waste Collection, Transportation & Disposal Cost	Total Value of Municipal Resources Utilized (MRU)	Total Cost	Cost per Participant	Cost per Pound	Total Cost	Cost per Participant	Cost per Pound
From HHW Program Data	From HHW Program Data	From HHW Program Data	From HHW Program Data	From Waste Stream Summary & Analysis	= Total Weight / Number of Participants	From HHW Program Data	From Waste Stream Summary & Analysis	From HHW Program Data	= Total Promotional Cost + Total Contractor Costs	= Total Cost / Number of Participants	= Total Cost / Total Weight Collected	= Total Promotional Cost + Total Contractor Costs	= Total Cost / Number of Participants	= Total Cost / Total Weight Collected

TABLE T.17 HHW PROGRAM WASTE STREAM SUMMARY & ANALYSIS TEMPLATE

		Number of											
Date	Date Location Participants		EVENT / SITE TOTAL	Per Waste Stream	Waste Stream 1	Waste Stream 2	Waste Stream 3	Waste Stream 4	Waste Stream 5	Waste Stream 6	Waste Stream 7	Waste Stream 8	Waste Stream 9
									From HHW Program Data			From HHW Program Data	From HHW Program Data
							From HHW Program Data			From HHW Program Data			
From HHW	From HHW		Total Weight (Lbs.) From HHW Program Data	Total Weight (Lbs.)	From HHW Program Data								
Program	Program	From HHW	Total Cost From HHW Program Data		From HHW Program Data								
Data	Data	Program Data		Avg. Weight per Participant (Lbs.) Units Required for DEC Report			<u> </u>						
				Qty. Units per Lb.									
				Total Units for DEC Report		+					+	+	
				Contractor									
				Cost per Lb.									
			Total Weight (Lbs.)	Total Weight (Lbs.)									
			Total Cost	Total Cost									
			Total Goot	Avg. Weight per Participant (Lbs.)									
				Units Required for DEC Report									
				Qty. Units per Lb.									
				Total Units for DEC Report									
				Contractor									
				Cost per Lb.									
			Total Weight (Lbs.)	Total Weight (Lbs.)									
			Total Cost	Total Cost									
				Avg. Weight per Participant (Lbs.)									
				Units Required for DEC Report									
				Qty. Units per Lb.									
				Total Units for DEC Report									
				Contractor									
				Cost per Lb.									
			Total Weight (Lbs.)	Total Weight (Lbs.)									
			Total Cost	Total Cost			<u> </u>						
				Avg. Weight per Participant (Lbs.)			<u> </u>						
				Units Required for DEC Report Qty. Units per Lb.									
				Total Units for DEC Report		-						-	
				Contractor									
				Contractor Cost per Lb.		+					+	+	
			Total Weight (Lbs.)	Total Weight (Lbs.)									
			Total Cost	Total Cost									
			10111 0001	Avg. Weight per Participant (Lbs.)									
				Units Required for DEC Report									
	[Qty. Units per Lb.									
				Total Units for DEC Report									
				Contractor									
	[Cost per Lb.									
			Total Weight (Lbs.)	Total Weight (Lbs.)									
			Total Cost	Total Cost									
				Avg. Weight per Participant (Lbs.)									
				Units Required for DEC Report									
	[Qty. Units per Lb.									
				Total Units for DEC Report			<u> </u>						
			Avg. Cost per Lb.	Cost per Lb.									
			Total Weight (Lbs.)	Total Weight (Lbs.)									
			Total Cost	Total Cost									
	TOTALS			Avg. Weight per Participant (Lbs.)									
				Units Required for DEC Report									
				Qty. Units per Lb.									
				Total Units for DEC Report							1		