Monroe County, New York

Department of Environmental Services

Final Local Solid Waste Management Plan

July 2015







Barton & Loguidice

Monroe County, New York
Department of Environmental Services

Final Local Solid Waste Management Plan

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Glossary of Terms and Abbreviations

BUD	Beneficial Use Determination
C&D	Construction and Demolition
CESQG	Conditionally Exempt Small Quantity Generator
County	Monroe County, New York
CSD	Central School District
CRT	Cathode Ray Tube. A technology used in computer monitors and televisions.
DPW	Department of Public Works
ecopark	Waste Management of NY, LLC facility located at 10 Avion Drive in the Town of Chili. Acts as a drop off facility for difficult to manage items operated by the County and WMNY.
FEV WWTF	Frank E. Van Lare Wastewater Treatment Facility, located at Pine Grove Avenue in the City of Rochester.
HDPE	High-density polyethylene. HDPE is commonly recycled, and has the number "2" recycling symbol.
HHW	Household hazardous waste
IC&I	Industrial, Commercial, and Institutional
LEED	Leadership in Energy and Environmental Design
LSWMP	Local Solid Waste Management Plan
MCRC	Monroe County Recycling Center, located at 384 Lee Road in the City of Rochester. Also considered a Materials Recovery Facility.
MCRRF	Monroe County Resource Recovery Facility, located at 1845 Emerson Street in the City of Rochester. Acts as a solid waste transfer station and processing facility for industrial, commercial, and institutional recyclables.

Mill Seat Landfill	Currently permitted landfill and associated operations located at 303 Brew Road in the Town of Riga.
MRF	Materials Recovery Facility.
MSW	Municipal Solid Waste
NWQ WWTF	Northwest Quadrant Wastewater Treatment Facility, located at 170 Payne Beach Road in the Town of Greece.
NYCRR	New York's Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
PAYT	Pay-As-You-Throw
Planning Unit	Monroe County, New York
PET	Polyethylene terephthalate. PET is commonly recycled, and has the number "1" as its recycling symbol.
SEQRA	State Environmental Quality Review Act, codified in Article 8 of the New York State Environmental Conservation Law with implementing regulations codified at 6 NYCRR Part 617 (Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York).
Solid Waste Reuse and Recycling Law	Monroe County Solid Waste Reuse and Recycling Law, Local Law No. 3 of 1991
State	New York State
TPD	Tons per day
USEPA	United States Environmental Protection Agency
WMNY	Waste Management of New York, LLC
WTE	Waste-to-Energy
WWTF	Wastewater Treatment Facility

EXECUTIVE SUMMARY

This Executive Summary provides a chapter-by-chapter summary of Monroe County's Local Solid Waste Management Plan, which is referred to herein as "LSWMP". Other defined terms and abbreviations are provided in the Glossary that is appended to this Executive Summary. Additional information regarding the topics summarized in this document can be found in the LSWMP.

The purpose of the County's LSWMP is to identify the path to pursue for managing solid waste generated in the County during a ten (10) year planning period, in an economically and environmentally-sound manner that is consistent with the State's solid waste management policy. The initial year of this ten (10) year planning period will commence following approval of this LSWMP by the NYSDEC.

The residents, businesses, industries, and institutions in the County currently produce thousands of tons of solid waste every day. The desire to reduce waste generation, increase recovery and to decrease disposal now and in the future, creates the need for such a plan.

The purpose of the LSWMP is to:

1) serve as a countywide framework for the coordination of solid waste management;
2) establish countywide solid waste goals and objectives, including recovery and an overall waste reduction goal and a plan to monitor progress toward the goals; and
3) satisfy the State's law requiring the development of a solid waste management plan for the County.

This LSWMP provides the County with policy and program direction for the next ten (10) years. This LSWMP recognizes that local municipalities, the NYSDEC, private waste collectors, and private facility owners all play important roles in the current and future management of solid waste and recycling within the County.

The County is the solid waste Planning Unit responsible for preparation of the LSWMP. The current LSWMP is a next generation LSWMP; the original LSWMP was completed by the County in 1991 and approved by the NYSDEC. Once completed, this next generation LSWMP will be submitted for approval by the NYSDEC.

This LSWMP is an educational tool for Planning Unit members and constituents to facilitate achieving the County's economic, environmental and sustainable solid waste and recycling goals. Planning Unit members are encouraged to provide additional and corrected information to the County during the public review period and continuously share information amongst each other over the ten (10) year planning period.

CHAPTER 1 – PLANNING UNIT DESCRIPTION

Located in the northern tier of the western portion of the State, the County's 2010 U.S. Census population was 744,344 residents. By the year 2024, which is the end of the planning period, the County's population is projected to be 741,152 residents.

Travel to destinations inside and outside of the County is facilitated by an extensive network of local roads and a highway system that includes access to Interstate Routes 90, 390, 490 and 590 plus State Routes 15, 31, 33, 104 and 531.

Adjacent counties – Genesee, Livingston, Ontario, Orleans, Wayne -- are included in other solid waste planning units that are responsible for preparation of their own LSWMP.

The City of Rochester, ten (10) villages and 19 towns are situated within the County. Each of these municipalities has a different level of involvement with solid waste management and recycling practices, as described in Chapter 2.

Seasonal variations in waste generation occur due to spring clean-up activities, increased waste generation during the school year, and an increase in yard and garden waste during warmer months.

The County includes 18 central school districts that provide primary and secondary educational facilities for use by school age children. These schools are significant sources of recyclable paper, cafeteria wastes, and periodic sources of special event wastes as well as C&D debris. The 11 post-secondary education facilities within the County generate similar types of waste and recyclable materials, plus waste and recyclable materials generated from college dormitory facilities.

Other circumstances have an influence on the types and amounts of waste and recyclable materials generated within the County, which could affect LSWMP programs and goals. Libraries, hospitals, jails, special events, and visitor attractions all generate unique waste and recyclable materials. For example:

- The 29 libraries in the County's library system generate substantial amounts of used books and magazines for reuse, recycling and disposal.
- The five (5) hospitals located in the County, as well as nursing homes and other medical care facilities, generate medical wastes that require special handling and disposal. These medical facilities also generate non-medical wastes, such as cafeteria wastes, that do not require special handling.
- Jails in the County, including the County's Correctional Facility and the County Jail, generate food wastes and other materials associated with temporary housing facilities.

- Special events and visitor attractions -- including festivals, fairs, sporting events, museums, art galleries, amusement parks, zoos, and public parks – operate within the County on various schedules throughout the year. These events and facilities can generate substantial amounts of food waste materials, with the amount of such waste varying considerably based on the nature and duration of operating hours for each event or facility and the number of attendees on any given day.

While the solid waste Planning Unit continues to be the County, as it was for the original LSWMP in 1991, there have been some changes within the County that may have an impact on this LSWMP. Changes in the Planning Unit since 1991 include the following:

- There are fewer farms operating in the County today, which reduces the number of locations where agricultural waste management activities are practiced.

- Retail businesses have increased, including an increase in larger retail establishments, which likely has increased the amount of packaging waste generated.

- Post-secondary education facilities have expanded, including increased college enrollments.

- Manufacturing activity has changed, with a mixture of additions and subtractions to the manufacturing base in the Planning Unit. Each manufacturing facility will typically have a waste stream that is unique to its manufacturing process, along with other waste and recyclable materials that are commonly associated with offices and cafeterias. An increase in food processing/manufacturing facilities, for example, likely equates to more food processing residues (generally categorized as organic wastes) requiring management.

- The number of municipal wastewater treatment facilities has been reduced from a high of 40 in the 1970's to five (5), as the result of consolidation and regionalization efforts. This reduced the number of locations from which biosolids, also known as sludges, are generated. Furthermore, the management method for biosolids generated at the County's largest wastewater treatment facility – the Frank E. Van Lare Wastewater Treatment Facility -- changed in 2005, when it closed its sludge incinerator and began landfill disposing of those biosolids.

- The solid waste management and recycling programs and facilities in the County have undergone significant improvements and provide a comprehensive solid waste management system for use by residents, businesses and institutions. The key components of the County's integrated solid waste management system are described in Chapter 2.

CHAPTER 2 – EXISTING PROGRAM DESCRIPTION

The County's current solid waste management system provides a comprehensive array of facilities for use by residents, businesses and institutions. Key components of the County's solid waste management system currently consist of the four (4) solid waste management and recycling facilities listed below. These facilities are also depicted on Figure ES-1 appended to this Executive Summary.

- The Mill Seat Landfill, located at 303 Brew Road in the Town of Riga. The County opened the Mill Seat Landfill in 1993 following an approximately 20-year effort to find a suitable site and secure all environmental approvals necessary to build a new County landfill. The Mill Seat Landfill provides a local, environmentally sound, and publicly controlled disposal facility that provides a reliable and essential disposal service for the City of Rochester's waste, for biosolids from the County's WWTFs, and for other waste generated in the County requiring disposal. Following a competitive procurement process, in 2002 the County entered in to a 49-year lease agreement with WMNY. Under the terms of this lease agreement, WMNY agreed to be responsible for all annual operating expenses and all capital improvements at the Mill Seat Landfill, as well as all closure and post-closure costs. At current usage rates, the Mill Seat Landfill is expected to be able to continue to provide disposal capacity through the year 2020. A proposed southern overlay expansion of the Mill Seat Landfill is being pursued by the County as an integral component of this LSWMP, to continue to provide uninterrupted disposal capacity at the Mill Seat Landfill for at least 25-years beyond the year 2020.



- The Monroe County Recycling Center, located at 384 Lee Road in the City of Rochester, has been receiving and processing source separated recyclable materials for shipment to appropriate markets since 1992 when the County's mandatory recycling law took effect. In April of 2014, conversion of the MCRC to a single stream recycling facility was completed. The MCRC accepts an extensive list of recyclable materials, as shown in Exhibit A.



- The Monroe County Resource Recovery Facility, located at 1845 Emerson Street in the City of Rochester, opened in 1979 and currently operates as a combined solid waste transfer station and recycling facility. A sorting line at the MCRRF allows for recyclable materials to be recovered from mixed loads of waste that are delivered from industrial, commercial and institutional facilities. The recyclable materials recovered from such loads are predominantly wood skids and pallets, corrugated cardboard and paper. Waste requiring disposal is trucked in transfer trailers to the Mill Seat Landfill.



- The ecopark, located at 10 Avion Drive in the Town of Chili, has been jointly operated by the County and WMNY since September of 2011 to provide a one-stop location for County residents to drop-off difficult to manage items such as household hazardous wastes, pharmaceuticals and recyclable materials. The County's yard waste composting facility is also located at the ecopark. The ecopark is the result of an innovative public/private partnership between the County and WMNY, which owns the building that was repurposed for the ecopark. The wide-ranging list of items accepted from County residents at the ecopark is provided in Exhibit B.



There are other solid waste management and recycling facilities located in the County that are neither owned nor operated by the County.

- Town Transfer Stations -- The Towns of Clarkson and Hamlin each own a transfer station for use by their residents as a drop-off facility for solid waste and recyclable materials. The Town of Greece owns a transfer station where its residents can drop-off bulk metal items, brush, branches, trees and stumps, asphalt, concrete and clean soil.

- Privately Owned and Operated Solid Waste Management and Recycling Facilities

    - The High Acres Landfill & Recycling Center, located in the Town of Perinton, is owned and operated by WMNY. It accepts solid waste for disposal at its double composite lined landfill, including WWTF biosolids from the County, as well as recyclable materials that are accepted on-site from residents. A yard and food waste composting facility is also located at this site.

- J.C. Fibers, Inc. owns and operates a transfer station in the Town of Greece that accepts solid waste, C&D debris and recyclable materials.
- Metalico Transfer, Inc. owns and operates a transfer station in the Town of Gates that accepts C&D debris and corrugated cardboard.
- Empire Resource Recycling owns and operates three (3) recycling facilities in the City of Rochester that primarily accepts plastics for recycling.
- Silvarole Trucking Co Inc. has proposed a materials recovery and transfer facility in the Town of Henrietta. The proposed facility operations include: construction and demolition debris processing and recycling, municipal solid waste recycling and transfer and single-stream recyclables handling.
- Recyclable materials are also accepted by two (2) other private companies located in the County: Boon & Sons located in the Town of Chili and a Suburban Disposal location in the City of Rochester.
- There are 11 privately owned C&D debris processing facilities currently operating in the County. Each facility decides which types of C&D debris it will accept; some only take concrete and asphalt, for example, while another only accepts tree and brush waste.

- Town, Village and School District Yard Waste Composting Facilities – 12 towns, two (2) villages, and one (1) school district own and operate yard waste composting facilities in the County. In most cases the final compost product is made available for use by local residents or used on local municipal projects.

Currently nine (9) municipalities in the County provide curbside collection services to their residents. Six (6) of these municipalities collect solid waste and recyclable materials with municipal crews and trucks (the City of Rochester and the Villages of East Rochester, Fairport, Hilton, Scottsville, and Spencerport), and the other three (3) municipalities contract with private haulers to provide such curbside collection services (the Village of Churchville and portions of the Towns of Brighton and Wheatland). The balance of the County's residents makes their own arrangements to dispose of their solid waste and recyclable materials. Some residents hire a private hauler to collect their materials curbside while others use one of the transfer stations where solid waste and recyclable materials can be dropped off by local residents.

With regard to the curbside collection of yard waste, the City of Rochester, all ten (10) villages in the County, and 14 of the 19 towns in the County provide pick-up services for yard waste materials.

Commercial, industrial and institutional facilities in the County decide how and where their own waste and recyclables will be managed. As shown above, there are multiple disposal and recycling facilities available in the County for their use. Such facilities are not, however, required to provide the County with information regarding how much waste they generate for disposal. This significant data gap makes it impossible to provide an accurate measure of how much material is actually diverted

from disposal. Based on the best, but limited, NYSDEC data available for the year 2010, it is estimated that approximately 27.5% of the waste generated in the County was diverted from disposal via recycling and composting efforts.

CHAPTER 3 – SOLID WASTE AND RECYCLABLES QUANTITIES AND TYPES

The five (5) primary components of the County's waste stream are MSW, non-hazardous industrial waste, C&D debris, WWTF biosolids, and processed scrap metal.

- MSW consists of waste generated in homes, businesses, institutions, and the commercial portion of waste discarded by industries.
- Non-hazardous industrial waste is waste resulting from a manufacturing process and can consist of materials such as biosolids, ash, and dust.
- C&D debris is waste resulting from the construction and demolition of buildings and other structures.
- WWTF biosolids consist of the semi-solid residue remaining after liquid, such as sewage, has been treated at a WWTF.
- Processed scrap metal is generated – often in large quantities -- by commercial or industrial facilities, such as vehicle recyclers.

Comprehensive data regarding the amount of waste generated in the County is not available. There was no information available for this LSWMP, for example, with regard to the tons of processed scrap metal recycled within the County. As a result of these information gaps, the actual recycling rate within the County is likely higher than what is presented below.

Estimate of Tons Recycled and Disposed by County Residents and Commercial/Industrial/Institutional Facilities[1]				
Component of Waste Stream	**Tons Diverted to Recycling or Composting**	**Tons Disposed**	**Total Tons Recycled, Composted and Disposed**	**% Diverted to Recycling or Composting**
MSW	123,177	622,971	746,148	16.5%
Non-Hazardous Industrial Waste	Not Available	33,177	33,177	Not Available
C&D Debris (includes Alternative Daily Cover)	249,707	218,546	468,253	53%
Sludges/Biosolids	0	80,082	80,082	0.0%
Processed Scrap Metal	Not Available	Not Available.	Not Available.	Not Available
Alternative Daily Cover (including special waste, shredder fluff)	Not Applicable	29,018	Not Applicable.	Not Applicable
TOTALS	**372,884**	**983,794**	**1,356,678**	**27.5%**

[1] Information in this table is based on tonnage data reported to NYSDEC for the year 2010.

Based on NYSDEC models that projects how much of the MSW and C&D debris waste stream could potentially be diverted to recycling and composting, the overall goal of this LSWMP is to work towards more than doubling the tons of those materials diverted from disposal during the ten (10) year planning period. Waste composition studies prepared for this LSWMP confirm that there are additional materials in the waste stream that could be diverted to recycling and composting rather than disposal.

CHAPTER 4 – FUTURE PLANNING UNIT PROJECTIONS AND SOLID WASTE SYSTEM CHANGE

Future changes in the Planning Unit will focus on increasing the actual and reported diversion of materials away from disposal, through the development of program initiatives that are delineated in Chapter 6 - Solid Waste Management Program Strategies. With the assistance of the NYSDEC's waste composition and recovery projection tools, more specific waste type estimations were made for MSW and C&D debris. The following tables provide an overview of the estimated projections for the first year and last year of the planning period for both MSW and C&D materials. For MSW, the future planning projections call for an increase from 20% to 60% diversion over the ten (10) year planning period.

Projected Estimates of Tons of MSW Recycled and Disposed [2]				
Year	**Tons MSW Diverted to Recycling or Composting**	**Tons MSW Disposed**	**Total Tons of MSW Recycled, Composted and Disposed**	**% MSW Diverted to Recycling or Composting**
2010	123,177	622,971	746,148	16.5%
2016 (Projected)	146,076	547,853	693,929	20%
2025 (Projected)	444,695	215,107	659,802	60%

[2] Information in this table is based on tonnage data reported to NYSDEC for the year 2010 and projections estimated in the waste composition and recovery projection tools.

For C&D debris, the future planning projections call for an increase from 33% to 62% diversion over the ten (10) year planning period.

Projected Estimates of Tons of C&D Debris Recycled and Disposed [3]				
Year	**Tons C&D Diverted to Recycling**	**Tons C&D Disposed**	**Total Tons of C&D Recycled and Disposed**	**% C&D Diverted to Recycling**
2010	249,707	218,547	468,253	53%[4]
2016 (Projected)	154,519	313,734	468,253	33%
2025 (Projected)	289,579	178,674	468, 253	62%

[3] Information in this table is based on tonnage data reported to NYSDEC for the year 2010 and projections estimated in the waste composition and recovery projection tools.
[4] Higher diversion rate due to Midtown demolition project.

CHAPTER 5 – ALTERNATIVE TECHNOLOGY EVALUATION

The disposal of mixed loads of MSW via landfilling, mass burn WTE, and MSW composting are all technically proven and operational in the State. There is, however, a significant cost advantage for landfilling in comparison to these other two (2) technologies. While there are currently ten (10) mass burn WTE facilities operating in the State, for example, none have been permitted or built in the State in the past 20 years – in part due to the cost advantage for landfilling. Similarly, with regard to the composting of mixed loads of MSW, the only facility operating in the State is in Delaware County that was built at an approximate cost of $20 million to serve a rural population of about 47,000 (this equates to approximately only six percent (6%) of Monroe County's population).

Anaerobic digestion facilities are technically proven and operational at various locations in the State, but only for select organic components of the waste stream.

The technical and economic feasibility of other technologies for the reliable disposal of mixed loads of MSW is currently unproven. This list of unproven technologies includes pyrolysis, gasification, plasma arc gasification, mechanical/biological treatment systems, and ethanol production.

Based on this technology assessment, continued operation and future expansion of the Mill Seat Landfill will be pursued to secure an environmentally sound, reliable, locally controlled, and economically affordable facility for the disposal of non-recycled waste materials generated in the County.

As described in Chapter 2 – Existing Program Description, the County has invested in a substantial number of facilities and programs to reduce, reuse, recycle and compost materials from disposal. During this ten (10) year planning period the County will continue to evaluate and implement, to the extent appropriate and feasible, various technologies and programs to increase waste diversion. These future waste diversion program initiatives are described in Chapter 6 - Solid Waste Management Program Strategies.

CHAPTER 6 – SOLID WASTE MANAGEMENT PROGRAM STRATEGIES

The NYSDEC, in furtherance of environmental law that includes a state-wide solid waste policy, requires planning units to develop LSWMPs that provide a blueprint for the achievement of significant improvements in waste reduction, reuse, recycling, composting and other organic material recycling methods. This LSWMP includes specific program strategies that are intended to enhance the County's integrated solid waste management system, with a goal of increasing waste diversion rates during the ten (10) year planning period.

- Program Strategy #1 – Continue landfilling as the primary disposal method for non-recycled waste materials. This program strategy includes a proposed southern overlay expansion of the Mill Seat Landfill and implementation of a second landfill gas to energy project at the Mill Seat Landfill.
- Program Strategy #2 – Review and modify the County's Solid Waste Reuse and Recycling Law to enhance waste diversion practices and reporting.
- Program Strategy #3 – Increase recycling at County owned and/or operated facilities.
- Program Strategy #4 – Study and develop measures to increase the recycling of C&D debris.
- Program Strategy #5 – Promote product reuse, such as waste materials exchange programs, to increase waste diversion.

- Program Strategy #6 – Promote the expansion of yard waste diversion and composting programs, such as by organizing a coalition of local composters to develop enhancements to current programs and practices.

- Program Strategy #7 – Enhance organics diversion opportunities for residential, institutional, commercial and industrial generators of organic waste materials. Increases in the diversion of organics/food waste by residents will be promoted, for example, through the County's website, compost demonstrations, and educational literature. With regard to institutional, commercial and industrial generators of organic waste materials, existing food waste and other organics diversion programs in the County will be inventoried to identify successful programs and enhancement opportunities. The County will also investigate the feasibility of diverting food waste from County facilities.

- Program Strategy #8 – Monitor the progress and successes of animal carcass composting programs undertaken by others, such as the Cornell Waste Management Institute and NYSDOT.

- Program Strategy #9 – Continue to seek improvements to the County's public education and outreach methods to increase waste diversion and participation in reuse and recycling programs. This will include development of an education and outreach plan targeted at residents, schools, colleges and universities, and attendees of public events. This education plan will initially focus on the promotion of recycling, yard waste composting, backyard composting, C&D debris diversion, existing collection opportunities for HHW and mercury containing materials, electronic waste recycling, and proper disposal of unused pharmaceuticals.

- Program Strategy #10 – Periodically assess whether there is a need to implement a local flow control law, which would designate publicly owned facilities to be used for the management of solid waste materials generated in the County.

- Program Strategy #11 – Work with the New York Product Stewardship Council to coordinate and participate in product stewardship initiatives, which are intended to shift funding responsibility for waste diversion programs to product manufacturers.

- Program Strategy #12 – Evaluate methods for continuing to encourage the implementation of PAYT programs by local municipalities and companies that provide waste collection services.

- Program Strategy #13 – Improve the quality and amount of information compiled with regard to solid waste diversion activities in the County, with a focus on reducing the significant data gaps that currently exist with regard to private sector recycling tonnages.

- Program Strategy #14 – Develop a protocol for the County, as the solid waste Planning Unit, to review any proposed new or expanded solid waste management facility to determine if the proposed new/expanded facility is consistent with the County's LSWMP. This LSWMP consistency review protocol could apply to any potential new/expanded solid waste management or recycling facility that proposes to locate in the County or that proposes to provide services for waste or recyclable materials generated in the County.

CHAPTER 7 – IMPLEMENTATION SCHEDULE

This chapter of the LSWMP provides a year by year schedule for implementing the program strategies delineated in Chapter 6 - Solid Waste Management Program Strategies.

It is estimated that implementation of the program strategies included in this LSWMP could potentially result in MSW and C&D debris waste diversion rates in the range of 60% by the end of the ten (10) year planning period.

This ten (10) year Implementation Schedule, and the waste diversion estimates included therein, will be updated as needed every two (2) years as part of the County's LSWMP Compliance Report submittals that are required by the NYSDEC.

CHAPTER 8 – SEQRA DETERMINATION

A SEQRA review for the LWSMP was undertaken prior to the County's adoption of the Final LSWMP. All required SEQRA documents are maintained in a file at the County as well as in Appendix G of the LSWMP.

CHAPTER 9 – PUBLIC PARTICIPATION/NOTIFICATION TO NEIGHBORING JURISDICTIONS

The County held an open public comment period on the Draft LSWMP, during which, a public information meeting was held on Thursday, January 15, 2015 from 6:00 – 9:00 p.m. at Monroe Community College (MCC), Brighton Campus. Presentations were made to the Monroe County Recycling Advisory Committee, Monroe County Environmental Management Council and the Mill Seat Landfill Citizens Advisory Board. In addition, all neighboring counties were notified about the Draft LSWMP's availability, and it was posted on the County website for review - www.monroecounty.gov/des-index.php. Written comments were accepted until January 30, 2015.

CHAPTER 10 – PLANS FOR LSWMP DISTRIBUTION

Once the NYSDEC's approval is obtained and the Final LSWMP is adopted, the County will post it to its website. Neighboring counties will also be notified about the availability of the Final LSWMP.

CHAPTER 11 – RESOLUTION ADOPTING THE LSWMP

The County Legislature will be presented with a resolution to adopt the Final LSWMP subsequent to the NYSDEC's determination that it is approvable. A copy of the adoption resolution will be included in an appendix of the Final LSWMP.

Northwest Quadrant Wastewater Treatment Facility
Permitted Flow: 22 million gallons/day



Frank E. Van Lare Wastewater Treatment Facility
Permitted Flow: 135 million gallons/day



Monroe County Recycling Center
Approved Design Capacity: 350 tons/day



Monroe County Resource Recovery Facility
Approved Design Capacity: 1,945 tons/day



Mill Seat Landfill Powerplant II *(future)*



ecopark
Yard Waste Composting: Registered to accept no more than 10,000 cubic yards/year
Approved Design Capacity: 1,450 tons/day



Mill Seat Landfill
Approved Disposal Capacity: 1,945 tons/day



Mill Seat Landfill Powerplant I
Electricity Produced: 6.4 MW



Kendall
Hamlin
Murray
Clarkson
Parma
Greece
Webster
Ontario
Irondequoit
Clarendon
Sweden
Ogden
Rochester
Penfield
Walworth
Gates
Brighton
East Rochester
Riga
Chili
Byron
Bergen
Pittsford
Perinton
Macedon
Henrietta
Wheatland
Rush
Mendon
Victor
Farmington
Le Roy
Caledonia
Pavilion
Avon
West Bloomfield
East Bloomfield
York
Lima
Covington
Geneseo
Livonia
Richmond
Bristol

I 490
I 390
I 590

2 1 0 2 Miles

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Barton & Loguidice, D.P.C.
Engineers • Environmental Scientists • Planners • Landscape Architects

MONROE COUNTY
SOLID WASTE MANAGEMENT PLAN

Monroe County — November 2014

Figure ES-1

Project No. 1066.016

EXHIBIT A

RECYCLABLE MATERIALS ACCEPTED AT THE MONROE COUNTY RECYCLING CENTER (MCRC)

- Glass bottles, jugs and jars (food and beverage only)
- Metal cans – food, drink and aerosol (no paints or pesticides)
- Gable top cartons and drink or soup boxes
- Clean metal kitchen cookware and foil ware, including:
    - Pots, pans, trays, tins, foil, lids and caps, etc.
- Defaced license plates
- Clean plastic materials, including:
    - #'s 1 through 7 Containers
    - Lids and caps
    - Buckets
    - Plant containers
    - Cups
    - Clamshell or blister packaging
    - Compact Disc cases
    - Laundry baskets
    - Broken recycling bins, etc. (no plastic bags, Styrofoam or prescription bottles)
- All clean paper materials, including:
    - Newspapers, magazines and catalogs
    - Corrugated cardboard
    - Phone directories and all books
    - Paper boxes including cereal, cracker, soda, tissue, shoe, gift, toy, etc.
    - Pizza boxes and paper egg cartons
    - Junk mail
    - Home office paper, files, school papers
    - All envelopes
    - Gift wrap
    - Shredded paper (in brown paper bags)
    - Other clean paper except for soiled paper, soiled paper towels, wet paper

EXHIBIT B

MATERIALS ACCEPTED FOR ENVIRONMENTALLY SOUND DISPOSAL OR RECYCLING AT THE ecopark

- All of the recyclable materials listed in Exhibit A
- Non-Freon containing appliances
- Appliances
- Tires and tire rims
- Wheel weights
- Button, cell phone, and rechargeable batteries
- Cadmium containing products, such as jewelry
- Cell phones
- Electronic waste including computers, computer components, televisions, monitors, and most other electronic devices
- Cooking oil and grease
- Electronic storage devices such as CDs, DVDs, zip discs, floppy discs, VHS and cassette tapes, and USB memory keys
- U.S. flags
- Lead fishing weights
- Fluorescent lights (CFLs and tubes)
- Ballasts
- High intensity discharge light bulbs
- Thermometers and thermostats
- Aluminum scrap such as siding, gutters and lawn furniture
- Fire extinguishers
- Propane tanks
- Bulky plastic items such as large toys and lawn furniture
- Empty prescription bottles
- Shopping bags and product wrap
- Styrofoam
- Paper for shredding service
- Syringes and sharps
- Textiles such as clothing, sheets, blankets, and hats
- Wire coat hangers
- Household hazardous waste
- Pharmaceuticals

Chapter 1 - Planning Unit Description

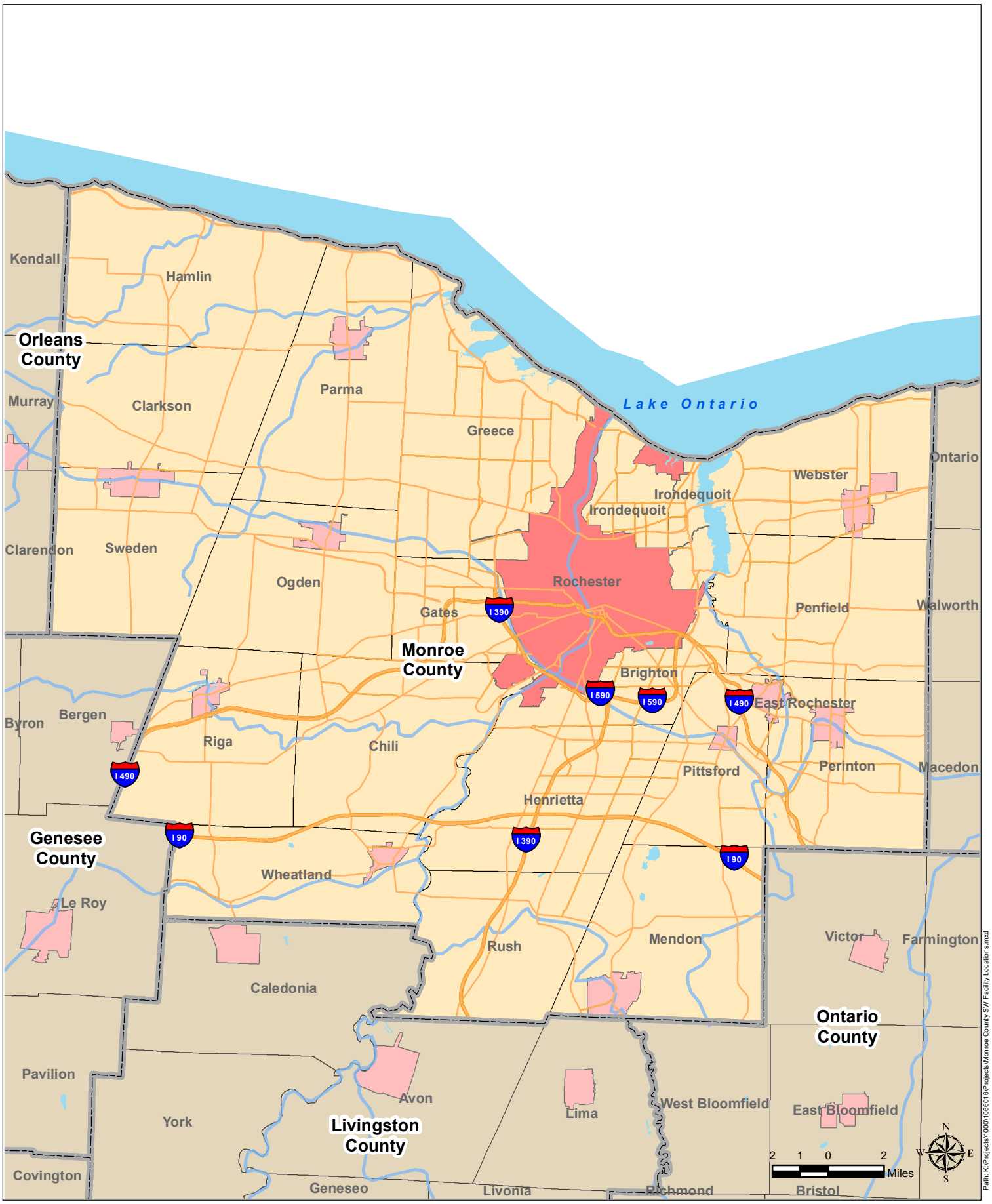
1.1 Size, Location, Population

1.1.1 Physical Setting

The County is in the northern tier of western New York State, east of the City of Buffalo and west of the City of Syracuse. The northern county line is also the State line. The County is north of the Finger Lakes. The County is part of the Rochester, NY Metropolitan Area. As shown on Figure 1-1, the County is bordered by Wayne County to the east; Ontario and Livingston Counties to the south; and Genesee and Orleans Counties to the west. The County has a land area of 657.2 square miles with a population density of 1,132.6 per square mile (sq mi)[1].

The New York State Thruway (I-90) traverses the southern portions of the County connecting the area with the City of Syracuse to the east and the City of Buffalo to the west. The County is serviced by the following interstates within the County borders: Interstate 390, Interstate 490, and Interstate 590. Major highways include Route 15, which connects the Rochester, NY Metropolitan Area to Livingston County to the south; Route 31 traverses the County west to east connecting the western and eastern parts of the County; Routes 33 and 531 connect the western part of the County to Genesee County to the west; Route 104 traverses the northern part of the County connecting the area to Orleans County to the west and Wayne County to the east; and Interstate 390 connects the northern parts of the County to Rochester, NY Metropolitan area.

[1] U.S. Census Bureau, State and County QuickFacts for Monroe County, New York. Accessed October 15,2014.



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MUNICIPALITIES IN MONROE COUNTY

Monroe County

December 2014

Figure 1-1

Project No. 1066.016

1.1.2 Neighboring Planning Units

Table 1-1 lists the neighboring planning units along with possible opportunities for inter-jurisdictional programs or issues that may impact implementation of the County's LSWMP and achievement of its goals. Further evaluation of these opportunities or potential impacts will be discussed in Chapter 6, and tasks will be included in the Implementation Schedule.

Table 1- 1 – Potential Impacts or Opportunities with Neighbors That Could Affect LSWMP Implementations

Neighboring Planning Unit	Existing or Potential Inter-Jurisdiction Considerations/Impacts	Effects of Opportunities or Impacts to Implement the LSWMP
Wayne County	The Western Finger Lakes Solid Waste Management Authority originally formed in 1985 as a vehicle for Ontario, Wayne, Seneca and Yates counties to solve their regional solid waste management and disposal issues. Ontario and Seneca Counties withdrew from the Authority in 1988. In 2010, the Wayne County Board of Supervisors passed an ordinance making recycling collection the responsibility of the private trash haulers. In 2012, the Western Finger Lakes Solid Waste Management Authority ceased operations and proceeded with dissolving the Authority.	No known impacts on implementing the LSWMP.
Ontario County	No flow control. Recycling program available to residents and businesses. Most transfer stations in Ontario County send their recyclables to Casella Recycling. Casella Recycling is operated under a 25 year operation and management lease agreement that was initiated with the County in 2003. The facility is able to process up to 80,000 tons per year of recyclables through a single stream zero sort process. Ontario County also owns the Ontario County Landfill with an approved design capacity of 2,999 tons of MSW per day (excludes BUD material), which is operated by Casella Waste Services under a 25 year operation and management lease agreement with Ontario County.	Potentially receives recyclables from the County, which could decrease potential recycling revenue to the County.

Neighboring Planning Unit	Existing or Potential Inter-Jurisdiction Considerations/Impacts	Effects of Opportunities or Impacts to Implement the LSWMP
GLOW (Genesee, Livingston, Wyoming)	Located in the heart of Western New York, the GLOW Region Solid Waste Management Committee was formed in 1987 by the counties of Genesee, Livingston, Orleans and Wyoming through an Intermunicipal Cooperation Agreement. The purpose of this partnership was, and continues to be, to develop strategies for the management of solid waste in the region. The agreement was renewed by the counties every two (2) years through 2003, at which time Orleans County ended its participation in the organization. Current programs include: Household Hazardous Waste Collections, Mat-Ex: Western/Central New York Materials Exchange, Backyard Composting, School and Community Presentations, and Technical Assistance.	No known impacts on implementing the LSWMP.
Orleans County	Orleans County ended its affiliation with GLOW in 2003. Long-term disposal capacity is available at nearby, out of county facilities. Recycling is mandatory in Orleans County. No formal solid waste management planning activities are in place.	No known impacts on implementing the LSWMP.

1.1.3 Population and Number of Households in the Local Planning Unit[2]

According to the U.S. Census data for 2010, the County's population is approximately 744,344, and is distributed over one (1) city, ten (10) villages, and 19 towns, with 300,422 households. The County's population increased from 735,343 in 2000 to 744,344 persons in 2010, an increase of 9,001 persons. The County is anticipated to become less populated through the next ten (10) years, according to Cornell University's Program of Applied Demographics; the projections estimate the population of the County to be 741,152 residents.

[2] U.S. Census Bureau. 2010 Census Redistricting Data (PL 94-171). Released March 24, 2011. Data Compiled by Empire State Development and Monroe County Department of Planning and Development.

1.2 Planning Unit Members

1.2.1 Planning Unit Membership and Impacts on Implementing LSWMP

Table 1-2 includes a list of the Planning Unit members as well as conditions that pose a significant impact on implementing the LSWMP and achievement of the LSWMP goals. Currently, the members are not involved in preparing or implementing the LSWMP. The members could play a significant role in the gathering of information and numbers of materials collected and recycled within the towns, at various businesses, schools, and other recycling facilities. The significant impacts are discussed further in Section 1.4 of this chapter.

Table 1-2 - Planning Unit Membership

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
City			
Rochester	5,885 person/sq mi. urban*	Data collection, network with schools and education outreach program. The County and City of Rochester Inter-Municipal Agreement in place.	City of Rochester provides collection services to residents for waste and recycling program—also provides some commercial recycling options. Most commercial entities subscribe to a private hauler. Mandatory recycling. Wheeled waste containers and blue bins available. A recyclables collection pilot program is underway to determine if wheeled carts for recyclables would be beneficial.
Towns			
Brighton	2,375 person/sq mi. suburban	Data collection, network with schools and education outreach program.	A private hauler maintains a contract with the Town to provide some residents with a waste and recycling collection program. Other residents are able to select their hauler through a subscription. Toters (large recycling bins on wheels) available, senior citizen discounts, yard waste and bulk pickup available. Most commercial entities subscribe to a private hauler. Christmas tree recycling program available to residents.

[3] According to NYSDEC's Waste Composition and Recovery Projection tool, the following are used to define population densities:
Rural – less than 325 people/square mile
Suburban – between 325 and 5,000 people per square mile
Urban – greater than 5,000 people per square mile

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
Clarkson	203 person/sq mi. rural	MCRC customer; data collection, network with schools and education outreach program.	Transfer station available to residents for waste and recyclables drop-off. Must obtain a permit from the Town to utilize. Accepts household garbage, recyclables, bulk items, electronics, yard waste, brush (some items require a fee to be paid). Private haulers are also available to subscribe directly with residents and commercial entities for waste and recycling program. Christmas tree recycling program available to residents. More information is available in Appendix A.
Chili	724 person/ sq mi. suburban	Data collection, network with schools and education outreach programs.	Home to the County's "ecopark". "ecopark" recycling center available year round to all residents of the County.
Gates	1,868 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Residents and commercial entities subscribe for waste and recycling collection with the private sector. Christmas tree recycling program available to residents.
Greece	2,022 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and commercial entities for waste and recycling program. Transfer station available to residents for drop off of materials. Yard waste collection program is available, which includes a give back program. Christmas tree recycling program available to residents. More information is available in Appendix A.
Hamlin	208 person/sq mi. rural	Data collection, network with schools and education outreach program.	Transfer station available to residents and businesses to drop off waste and recyclables. Private haulers are available to subscribe directly with residents for waste and recycling program. Participates in the County's west side towns HHW collection event. More information is available in Appendix A. Christmas tree recycling program available to residents.
Henrietta	1,205 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Christmas tree recycling program available to residents.
Irondequoit	3,446 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Christmas tree recycling program available to residents.

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
Mendon	232 person/sq mi. rural	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Christmas tree recycling program available to residents.
Ogden	544 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Yard waste and bulky refuse collection. Refuse exceeding that which fits in a 5'x5'x3' container is required to be handled by the resident within seven (7) days of generation. Christmas tree recycling program available to residents.
Parma	372 person/sq mi. rural	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Christmas tree recycling program available to residents.
Penfield	974 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Residents may use recycling facilities in two (2) neighboring communities (ALPCO in Macedon, NY and High Acres Landfill & Recycling Center in Perinton, NY). Christmas tree recycling program available to residents. Free seasonal mulch available to residents.
Perinton	1,359 person/sq mi. suburban	Data collection, network with schools and education outreach program. Host community to High Acres Landfill & Recycling Center.	Host community of WMNY's High Acres Landfill & Recycling Center. As part of the High Acres Landfill & Recycling Center Host Community Agreement with the Town of Perinton, WMNY provides free curbside recyclables collection to residents. Residents may use recycling facilities in two (2) neighboring communities (ALPCO in Macedon, NY and High Acres Landfill & Recycling Center in Perinton, NY). Limited yard waste, tree debris, tire, stone/concrete, steel posts/pipes are collected on a weekly basis by the DPW. Private haulers subscribe directly with residents and businesses for waste removal. Christmas tree pickup through DPW in Perinton. Electronics can be dropped off at the DPW year round through a partnership with Regional Computer Recycling and Recovery.

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
Pittsford	1,269 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Town provides early spring cleanup to collect leaves, brush, yard debris, branches. The Town also collects loose or bagged brush and branches throughout the year. Christmas tree recycling program available to residents. Through the Town's tub grinder operation at the DPW garage, 100% of all yard debris collected is recycled.
Riga	160 person/sq mi. rural	Data collection, network with schools and education outreach program. Host community to Mill Seat Landfill.	Host community of the County's Mill Seat Landfill operated by WMNY. As part of the Landfill's Host Community Agreement with the Town of Riga, curbside trash and recycling collection is available at no charge to residents. Christmas tree recycling program available to residents.
Rush	115 person/sq mi. rural	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Christmas tree recycling program available to residents.
Sweden	421 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers subscribe directly with residents and businesses for waste and recycling program. Town of Sweden Recycling Center available to residents who purchase a permit ($50).
Webster	1,272 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Private haulers must be subscribed directly with residents (licensed haulers). Brush and branch pickup available. Blue bins available via private hauler. Christmas tree recycling program available to residents.
Wheatland	157 person/sq mi. rural	Data collection, network with schools and education outreach program.	Private haulers may be subscribed directly by residents or businesses. Christmas tree recycling program available to residents.

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
Villages			
Brockport	3,871 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Property owners responsible for subscribing with a hauler for weekly trash removal. Brush only pickup, dump truck (special arrangement), leaves (certain months annually), no spring clean-up. Town of Sweden Recycling Center available to residents who purchase a permit ($50). Christmas tree recycling program available to residents.
Churchville	1,700 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Utilizes WMNY as service provider as part of Mill Seat Landfill Host Community Agreement with Town of Riga. Senior citizen discounts, vacation credits, specialized item removal (tires, mattresses, bulk items etc). Dumpsters available for residents to rent, appliance/furniture items can be picked up (must call village office), recycling blue bins can be picked up or dropped off at residential homes. Christmas tree recycling program available to residents.
East Rochester	4,973 person/sq mi. suburban	MCRC and MCRRF customer; data collection, network with schools and education outreach program.	DPW provides collection for trash and recyclables to residents. DPW also offers commercial corrugated cardboard pick-up to businesses that contact them to make arrangements. 'Blue bin' must be maintained by resident and can be purchased for $7.00 from the Village. Electronics may be brought to the DPW garage. Brush and yard debris is picked up by the DPW on a weekly basis. Christmas tree recycling program available to residents.
Fairport	3,369 person/sq mi. suburban	Data collection, network with schools and education outreach program.	WMNY provides recyclables collection to village residents while the Village provides waste collection. Businesses may subscribe directly with private haulers. Christmas tree recycling program available to residents.

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
Hilton	3,307 person/sq mi. suburban	MCRC and MCRRF customer; data collection, network with schools and education outreach program.	Municipal solid waste and recycling collection is available to residents. Recycling Program: 95 gal wheeled carts available at $58 each, dumpster rental, clothing/textile recycling through three (3) approved agencies, more than three (3) containers constitutes a service charge, Metal/appliances picked up on Friday, a multitude of materials can be recycled (i.e. fluorescent light bulbs, paints, yard waste, tires, aerosols, plastics, glass etc.). Businesses may subscribe directly with private haulers. Christmas tree recycling program available to residents.
Honeoye Falls	1,052 person/sq mi. suburban	Data collection, network with schools and education outreach program.	Residents and businesses may subscribe directly with private haulers. Brush, grass and weed program. Christmas tree recycling program available to residents.
Pittsford	2,014 person/sq mi. suburban	MCRC and MCRRF customer; data collection, network with schools and education outreach program.	Garbage is picked up by private collectors. Property owners are responsible for arranging for regular collection from their premises and for providing sufficient receptacles. Special arrangements must be made through a private hauler regarding collection of used tires or additional household items other than trash (such as fencing, bedding, rugs, appliances, etc.). Beginning in late October, Highway Dept. crews collect loose leaves every two (2) weeks. Christmas tree recycling program available to residents.
Scottsville	1,849 person/sq mi. suburban	MCRC and MCRRF customer; data collection, network with schools and education outreach program.	DPW handles the collection of residential and commercial recycling and refuse. Seasonal collection of brush and yard debris. Encourage composting and eco-friendly practices. Christmas tree recycling program available to residents.
Spencerport	2,693 person/sq mi. suburban	MCRC and MCRRF customer; data collection, network with schools and education outreach program.	DPW or privately subscribed haulers may pick up residential recycling and refuse. Bulk and electronic recycling programs. Christmas tree recycling program available to residents. Businesses may subscribe directly with private haulers.
Webster	2,452 person/sq mi. suburban	MCRC and MCRRF customer; data collection, network with schools and education outreach program.	DPW or privately subscribed haulers may pick up residents recycling and refuse. Businesses may subscribe directly with private haulers. Composting material available to all residents. Bulky item pickup provided (must be less than 42” in any dimension or 60 lbs.), items exceeding

Municipal Member	Population Density - Character[3]	Role in LSWMP Implementation	Unique Conditions or Issues
			requirements for bulky pickup are removed via the Village DPW office through their own contractor. Christmas tree recycling program available to residents.

1.3 Seasonal Variations and Unique Circumstances

There are several seasonal variations which occur within the County which could affect implementation of the LSWMP and achieving its goals.

- Spring is a large cleanup time and influx of brush, downed trees, lawn debris, and scrap metal from residences.
- Summer brings the end of the school year, and brings with it cleanout wastes from lockers, equipment left behind, and wastes from any remodels or construction projects at schools and colleges.
- There are also many large events held within the County during the spring and summer, including the Rochester International Jazz Festival, Lilac Festival, Corn Hill Arts Festival, East End Festivals, and the County Fair.
- Summer also brings an increase of yard wastes and garden wastes, which could be available for composting.
- Fall brings the return of students to school and college. With this brings new electronics, books, etc. and a larger amount of food waste. All school and college wastes are managed by private haulers. The County requests generation and recovery data from these entities on an annual basis.
- There are public libraries within the County, which could offer book and magazine recycling options.
- There are a number of large manufacturers, small manufacturers, businesses, nursing homes, jails and other institutional homes which manage their own waste and recyclables. Recycling programs and data collection will be discussed in Chapter 6 - Solid Waste Management Program Strategies. Tasks will be included in Chapter 7 – Implementation Schedule to evaluate and implement new or improved recycling programs, including packaging and organics recovery, and to collect data.

The impacts and effects of these wastes are discussed in Section 1.4.

1.4 Impacts of Facilities or Events in the Planning Unit

1.4.1 Schools, Colleges and Universities

Table 1-3 lists the primary/secondary schools in the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Table 1- 3 - Impacts of Primary/Secondary Schools Within The Planning Unit[a]

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Monroe County Central School Districts			
Monroe County School Districts	Summer cleanout/ construction. Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes, frequently rebid annually. Coordination needed with custodial staff. Most districts switched from washable rigid plastic food trays to expanded polystyrene. Locker/dorm content, equipment left behind. Need for recycling plan to be implemented.	Students are either engaged or do not understand the need for recycling or waste diversion. Low content of plastics and glass, high contents of paper and food waste.	Lack of data available. Further evaluation needed.
East Irondequoit CSD	Same as above.	Same as above.	Same as above.
Penfield CSD	Same as above.	Same as above.	Same as above.
Fairport CSD	Same as above.	Same as above.	Same as above.
Brockport CSD	Same as above.	Same as above.	Same as above.
Rush-Henrietta CSD	Same as above.	Same as above.	Same as above.
Spencerport CSD	Same as above.	Same as above.	Same as above.
West Irondequoit CSD	Same as above.	Same as above.	Same as above.
Gates-Chili CSD	Same as above.	Same as above.	Same as above.
Greece CSD	Same as above.	Same as above.	Same as above.
Webster CSD	Same as above.	Same as above.	Same as above.
Brighton CSD	Same as above.	Same as above.	Same as above.
Wheatland-Chili CSD	Same as above.	Same as above.	Same as above.
East Rochester CSD	Same as above.	Same as above.	Same as

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
			above.
Honeoye Falls-Lima CSD	Same as above.	Same as above.	Same as above.
Hilton CSD	Same as above.	Same as above.	Same as above.
Churchville-Chili CSD	Same as above.	Same as above.	Same as above.
Pittsford CSD	Same as above.	Same as above.	Same as above.
Rochester City School District (RCSD)			
	Summer cleanout/ construction. Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes, frequently rebid annually. Coordination needed with custodial staff. Most school districts switched from washable rigid plastic food trays to expanded polystyrene. Locker/dorm content, equipment left behind. Need for recycling plan to be implemented.	Students are either engaged or do not understand the need for recycling or waste diversion. Low content of plastics and glass, high contents of paper and food waste.	Lack of data available. Further evaluation needed.
Martin B. Anderson School No. 1	Same as above.	Same as above.	Same as above.
Clara Barton School No. 2	Same as above.	Same as above.	Same as above.
Nathaniel Rochester Community School No. 3	Same as above.	Same as above.	Same as above.
George Mather Forbes School No. 4	Same as above.	Same as above.	Same as above.
John Williams School No. 5	Same as above.	Same as above.	Same as above.
Virgil I. Grissom School No. 7	Same as above.	Same as above.	Same as above.
Roberto Clemente School No. 8	Same as above.	Same as above.	Same as above.
Dr. Martin Luther King, Jr. School No. 9	Same as above.	Same as above.	Same as above.
Dr. Walter Cooper Academy School No. 10	Same as above.	Same as above.	Same as above.
James P.B. Duffy School No. 12	Same as above.	Same as above.	Same as above.
The Children's School of Rochester No. 15	Same as above.	Same as above.	Same as above.
John Walton Spencer School No. 16	Same as above.	Same as above.	Same as above.
Enrico Fermi School	Same as above.	Same as above.	Same as

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
No. 17			above.
Dr. Charles T. Lunsford School No.19	Same as above.	Same as above.	Same as above.
Henry Lomb School No. 20	Same as above.	Same as above.	Same as above.
Abraham Lincoln School No. 22	Same as above.	Same as above.	Same as above.
Francis Parker School No. 23	Same as above.	Same as above.	Same as above.
Nathaniel Hawthorne School No. 25	Same as above.	Same as above.	Same as above.
Henry Hudson School No. 28	Same as above.	Same as above.	Same as above.
Adlai E. Stevenson School No. 29	Same as above.	Same as above.	Same as above.
John James Audobon School No. 33	Same as above.	Same as above.	Same as above.
Dr. Louis A. Cerulli School No. 34	Same as above.	Same as above.	Same as above.
Pinnacle School No. 35	Same as above.	Same as above.	Same as above.
Henry W. Longfellow School No. 36	Same as above.	Same as above.	Same as above.
Andrew J. Townson School No. 39	Same as above.	Same as above.	Same as above.
Kodak Park School No. 41	Same as above.	Same as above.	Same as above.
Abelard Reynolds School No. 42	Same as above.	Same as above.	Same as above.
Theodore Roosevelt School No. 43	Same as above.	Same as above.	Same as above.
Lincoln Park School No. 44	Same as above.	Same as above.	Same as above.
Mary McLeod Bethune School No. 45	Same as above.	Same as above.	Same as above.
Charles Carroll School No. 46	Same as above.	Same as above.	Same as above.
Helen Barrett Montgomery School No. 50	Same as above.	Same as above.	Same as above.
Frank Fowler Dow School No. 52	Same as above.	Same as above.	Same as above.
Montessori Academy School No. 53	Same as above.	Same as above.	Same as above.
The Flower City School No. 54	Same as above.	Same as above.	Same as above.
Early Childhood School of Rochester	Same as above.	Same as above.	Same as above.

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
No. 57			
World of Inquiry School No. 58	Same as above.	Same as above.	Same as above.
Joseph C. Wilson Foundation Academy	Same as above.	Same as above.	Same as above.
Charlotte High School	Same as above.	Same as above.	Same as above.
East High School	Same as above.	Same as above.	Same as above.
Integrated Arts & Technology High School	Same as above.	Same as above.	Same as above.
James Monroe High School	Same as above.	Same as above.	Same as above.
Joseph C. Wilson High School Commencement Academy	Same as above.	Same as above.	Same as above.
Leadership Academy for Young Men	Same as above.	Same as above.	Same as above.
Northeast College High School	Same as above.	Same as above.	Same as above.
Northwest College High School	Same as above.	Same as above.	Same as above.
Robert Brown High School of Construction & Design	Same as above.	Same as above.	Same as above.
Rochester Early College International High School	Same as above.	Same as above.	Same as above.
Rochester STEM High School	Same as above.	Same as above.	Same as above.
School of the Arts	Same as above.	Same as above.	Same as above.
School Without Walls Commencement Academy	Same as above.	Same as above.	Same as above.
Vanguard Collegiate High School	Same as above.	Same as above.	Same as above.
Rochester International Academy	Same as above.	Same as above.	Same as above.

(a) Information and data in table to be revised as more details become available during the planning period.
(b) Private and Parochial Schools, some of the Charter Schools, and BOCES 1 & 2 are not accounted for in the table.

Table 1-4 lists the higher education institutes in the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Table 1- 4 - Impacts of Higher Education Institutions Within The Planning Unit[a]

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
University of Rochester	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes. Low flow toilets, wind power supplies energy to residence halls, water saver bathroom fixtures, on-off scheduling, energy competition (dorm residents compete to minimize energy and water usage), occupancy sensors.	Influx of food wastes. Paper, books and electronics recycling.	Waste Minimization Committee, solid waste tracking, solid waste recycling estimates available.
Colgate Rochester Divinity School	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.
Monroe Community College Applied Technology Center	Seasonal food wastes from cafeterias. Wastes from events held at the schools. City of Rochester provides collection of solid waste and recyclables in accordance with the Inter-Municipal Agreement.	Metal waste from machine shop, oils and hazardous chemicals from auto shop.	Lack of data available. Further evaluation needed.
Roberts Wesleyan College	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Rochester Institute of Technology	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of waste, single stream recycling, battery drop off (all except alkaline), bottle return, cell phone, ink, toner cartridge, printers, copiers, fax machine recycling. SEAL (Student Environmental Action League) for electronic waste recycling, furniture redistribution through RIT Surplus Property Program. RecycleMania (10 week nationwide competition between colleges to promote waste reduction and recycling activities to their campus communities).	Influx of food waste, paper, books, electronic recycling.	Waste audits conducted yearly by students.
Monroe Community College Main Campus	Seasonal food wastes from cafeterias. Wastes from events held at the schools. 18,000 students. City of Rochester provides collection of solid waste and recyclables in accordance with the Inter-Municipal Agreement.	Influx of food waste (grease from frying/cooking), paper, books, electronic recycling.	Recycling policy.
Monroe Community College Damon City Campus	Seasonal food wastes from cafeterias. Wastes from events held at the schools. City of Rochester provides collection of solid waste and recyclables in accordance with the Inter-Municipal Agreement.	Influx of food waste (grease from frying/cooking), paper, books, electronic recycling.	Recycling policy.
St. John Fisher College	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
State University College at Brockport	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes. Trays eliminated from dining hall, refillable mugs, advanced recycling efforts, use of environmentally friendly cleaning products. Green is Gold initiative, STARS survey, sustainability task force.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed
Nazareth College of Rochester	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.
Empire State College	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.
Bryant & Stratton College	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes. All students are commuters.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.
Medaille College School of Adult and Graduate Education	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes. All students are commuters.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.
Rochester Academy of Medicine	Seasonal food wastes from cafeterias. Wastes from events held at the schools. Private hauling of school wastes.	Influx of food wastes. Paper, books and electronics recycling.	Lack of data available. Further evaluation needed.

(a) Information and data in table to be revised as more details become available during the planning period.

Schools within the County are required to provide solid waste and recycling services in accordance with the Solid Waste Reuse and Recycling Law. All the schools within the Planning Unit fluctuate as to the quantity and types of wastes they are generating. This needs to be investigated as to what recycling programs are being utilized, and what might be available to better reduce these fluctuations. Typically, these schools subscribe with private haulers to manage wastes and recyclables. Given that private haulers manage these materials, the types and quantities are not reported individually. These situations need to be studied to remedy the non-reporting of wastes/recycling, and the possibility of

recycling organics, and improving the reporting of data to the Planning Unit will be discussed in Chapter 6 - Solid Waste Management Program Strategies. Tasks will be included in Chapter 7 - Implementation Schedule to evaluate and implement new or improved recycling programs, including organics recovery, and to collect data.

1.4.2 Libraries

The County has an integrated library system of approximately 33 libraries throughout the County. Table 1-5 lists the libraries in the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Table 1- 5 - Impacts of Libraries Within The Planning Unit[a]

Source of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Monroe County Library System[b]	Member of Monroe County Library System, which connects public libraries in the County. Periodic cleanouts. Private hauling of all library wastes.	Large amounts of books and magazines. Data unavailable.	Opportunity for Monroe County Library System to coordinate a recycling management program among libraries. Further evaluation needed.

(a) Information and data in table to be revised as more details become available during the planning period.

(b) Arnett Branch, Brighton Memorial Library, Brockport-Seymour Library, Central Library, Charlotte Branch, Chili Public Library, East Rochester Public Library, Fairport Public Library, Gates Public Library, Greece Public Library, Greece - Barnard Crossing Branch, Hamlin Public Library, Henrietta Public Library, Highland Branch, Irondequoit Public Library - Evans Branch, Irondequoit Public Library - McGraw Branch, Lincoln Branch, Lyell Branch, Maplewood Library, Mendon Public Library, Monroe Branch, Newman Riga Library, Ogden Farmers' Library, Parma Public Library, Penfield Public Library, Phillis Wheatley Branch, Pittsford Community Library, Rush Public Library, Scottsville Free Library, Scottsville-Mumford Branch, Sully Branch, Webster Public Library, Winton Branch.

Libraries within the County are required to provide solid waste and recycling services in accordance with the Solid Waste Reuse and Recycling Law. There is the possibility of capturing more wastes from these locations that is not being reported to the Planning Unit to date, such as corrugated cardboard boxes, out-dated materials, and wastes from any events held at the facilities. Possible recycling programs and data collection will be discussed in Chapter 6 - Solid Waste Management Program Strategies. Tasks will be included in Chapter 7 - Implementation Schedule to evaluate and implement new or improved recycling programs, and to collect data.

1.4.3 Hospitals and Jails

Table 1-6 lists the hospitals in the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Other facilities with similar impacts may include nursing homes and medical institutions.

Table 1- 6 - Impacts of Hospitals Within The Planning Unit[a]

Source of Wastes	Facility Type/Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Strong Memorial Hospital	Periodic cleanouts. Food wastes. Medical waste. No data available.	Unknown regular waste. Potential for high quantity of medical waste.	Needs further evaluation related to existing disposal and recycling activities. Need data. Possible compost of food wastes.
Unity Hospital	Same as above.	Same as above.	Same as above.
Highland Hospital	Same as above.	Same as above.	Same as above.
Strong West	Same as above.	Same as above.	Same as above.
Rochester General Hospital	Same as above.	Same as above.	Same as above.
Monroe Community Hospital	City of Rochester provides collection of solid waste and recyclables in accordance with the Inter-Municipal Agreement.	Same as above.	Possible compost of food wastes.

(a) Information and data in table to be revised as more details become available during the planning period.

Table 1-7 lists the jails in the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Table 1- 7 - Impacts of Jails Within The Planning Unit[a]

Source of Wastes	Facility Type/Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Monroe County Correctional Facility	A sentencing facility in suburban Brighton, that houses 475 sentenced inmates. Food wastes.	Unknown. Needs further evaluation.	Needs further evaluation related to existing disposal and recycling activities. Need data. Possible compost of food wastes.
Monroe County Jail	Houses approximately 1,000 inmates in downtown Rochester. Food wastes.	Unknown. Needs further evaluation.	Same as above.
Children's Detention Center at 400 Rush Scottsville Road	City of Rochester provides collection of solid waste and recyclables in accordance with the Inter-Municipal Agreement.	Unknown. Needs further evaluation.	Same as above.

(a) Information and data in table to be revised as more details become available during the planning period.

Hospitals and jails within the County are required to provide solid waste and recycling services in accordance with the Solid Waste Reuse and Recycling Law. Data needs to be collected as to what types of wastes they have and where they are disposing of said wastes. It also needs to be determined if they are able to compost any of their wastes such as food wastes. Possible recycling programs and data collection will be discussed further in Chapter 6 – Solid Waste Management Program Strategies.

1.4.4 Special Events within the Planning Unit

Table 1-8 lists the special events, which could include art and cultural events, sporting events, recreational events in the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Table 1- 8 - Impacts of Public Activities/Special Events Within The Planning Unit[a]

Sources of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Lilac Festival (and most events held in the County Parks i.e.: Movies in the Parks, Concerts in the Parks, etc.)	Many vendors with packaging/food waste and recycling of drink bottles. Public container recycling bins provided as well as vendor corrugated cardboard—managed by the County staff.	Quantities of some wastes generated at this event and some of what is recycled is unknown.	Possibility of composting organics. Recycling bins provided by the City of Rochester for sponsored events. Data needed.
Park Avenue Festival	Many vendors with packaging/food waste and recycling of drink containers. Solid waste services privately contracted with trash receptacles along the route. Public event recyclers provided and staffed by the County.	Some vendor corrugated cardboard captured for recycling. Deposit containers effectively scavenged from trash receptacles and route residences.	Possibility of composting organics. Data needed.
Rochester International Jazz Festival	Many vendors with packaging/food waste and recycling of drink containers. Public container recycling bins provided as well as vendor corrugated cardboard.	Quantities of some wastes generated at this event and some of what is recycled is unknown.	There are wastes that could be captured from this event. Possibility of organics composting and recycling of packaging. Data needed.
High Falls Film Festival	Same as above.	Same as above.	Same as above.
Corn Hill Arts Festival	Same as above.	Same as above.	Same as above.

Sources of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Monroe County Fair	Several vendors with packaging/food waste and recycling of drink containers.	Vendor corrugated cardboard captured and recycling bins provided by Monroe County Parks Department staff.	Same as above.
Buffalo Bills Training Camp	Same as above.	Vendor corrugated cardboard is captured for recycling and the County provides the camp with 30+ ClearStream drink container recyclers. Recycling activities conducted by camp and St. John Fisher College staff.	Same as above.
Rochester Convention Center (The Home and Garden Show)	Many vendors with packaging/food waste and recycling of drink containers.	Quantities of some wastes generated at this facility and some of what is recycled is unknown. Public container recycling bins provided as well as vendor corrugated cardboard.	There are wastes that could be captured from this facility. Possibility of organics composting and recycling of packaging. Data needed.
Strong Museum of Play	Cafeteria with packaging/food waste and recycling of drink bottles.	Quantities of wastes generated at this facility and what is recycled is unknown.	There are wastes that could be captured. Possibility of composting organics and recycling of packaging. Potential for educational display related to recycling and/or organic management. Data needed.
George Eastman House	None noted.	Quantities of wastes generated at this facility and what is recycled is unknown.	Possibility of recycling of packaging. Potential for educational display related to recycling and/or organic management. Data needed.
Memorial Art Gallery	Restaurant on-site with potential food wastes.	Quantities of wastes generated at this facility and what is recycled is unknown.	Possibility of composting organics and recycling of packaging. Potential for educational display related to recycling and/or organic management. Data needed.
Rochester Museum and Science Center	Cafeteria with packaging/food waste and recycling of drink bottles.	Quantities of wastes generated at this facility and what is recycled is unknown.	There are many wastes that could be captured from these places. Possibility of composting organics and recycling of packaging. Potential for educational display related to recycling and/or organic management. Data needed.

Sources of Wastes	Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Geva Theatre	Cafe on-site with potential food/packaging wastes.	Quantities of wastes generated at this facility and what is recycled is unknown.	Possibility of composting organics and recycling of packaging. Data needed.
Frontier Field (Rochester Red Wings)	Many food vendors with packaging/food waste and recycling of drink bottles. Recycling activities conducted by facility staff.	Vendor corrugated cardboard is captured for recycling and the County provided 10+ bottle-shaped drink container recyclers.	There are wastes that could be captured from events at this facility. Possibility of composting organics and recycling of packaging. Data needed.
Blue Cross/Blue Shield Arena (Rochester Amerks, Rochester Knighthawks, Rochester Razor Sharks)	Many vendors with packaging/food waste and recycling of drink containers.	Quantities of some wastes generated at this facility and some of what is recycled is unknown. Public container recycling bins provided as well as vendor corrugated cardboard.	There are wastes that could be captured from events at this facility. Possibility of organics composting and recycling of packaging. Data needed.
Sahlen Stadium (Rochester Rhinos, Rochester Rattlers, WNY Flash)	Same as above.	Same as above.	Same as above.
Greentopia	Many food vendors with packaging/food waste and recycling of drink bottles.	92% of waste is recycled/composted. Food packaging reduction program. Unknown total amounts generated.	Data needed.

(a) Information and data in table to be revised as more details become available during the planning period.

Events held within the County are required to provide solid waste and recycling services in accordance with the Solid Waste Reuse and Recycling Law; however, quantities of waste generated and recycled are not always available. The County has benefited by receiving grants from New York State Association for Reduction, Reuse and Recycling (50 ClearStream recyclers) and National Recycling Coalition (20 Coke Bottle-type recyclers), to provide recycling receptacles and education at public events (Frontier Field - the local baseball/event stadium, Lilac Festival, County Parks events, Buffalo Bills Training Camp, Rochester's Clean Sweep program and other certain private/public festivals/events including: cancer walks, Chase Corporate Challenge, Park Avenue Festival, etc.). The County has found a variety of successes and learning experiences conducting Public Event Recycling depending on specific event, staffing level, contamination, recycling container loss, weather and myriad factors inherent with these events. Possible recycling programs and data collection will be discussed in Chapter 6 - Solid Waste Management Program Strategies. Tasks will be included in Chapter 7 - Implementation Schedule to evaluate and implement new or improved recycling programs, including packaging and organics recovery, and to collect data.

1.4.5 Parks, Zoo and Recreational Areas

Table 1-9 lists the parks, zoos, or recreational areas located within the Planning Unit, along with conditions and impacts that affect implementation of the LSWMP and achievement of its goals.

Table 1- 9 - Impacts of Recreational Areas Within The Planning Unit[a]

Source of Wastes	Facility Type/Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Monroe County Parks[b]	Carry In/Carry Out Policy. Those Parks that do maintain waste receptacles have the potential to offer composting and recycling opportunities. Ontario Beach Park has recycling receptacles.	Thousands of users per year with limited one-on-one educational opportunity. Possibility of composting organics and recycling of packaging or providing education materials at waste and recycling receptacles.	There are wastes that could be captured from these locations. Data needed.
Seneca Park Zoo	Food vendors with packaging/food waste and recycling of drink bottles.	Vendor corrugated cardboard is captured for recycling and recycling containers for drink bottles/cans located throughout as well as receptacles for additional items (small e-waste, fluorescent lights, rechargeable batteries, etc.). Go-Green Recycle Rallies held several times annually. Food packaging reduction.	There are wastes that could be captured. Possibility of composting organics. Potential for educational display related to recycling and/or organic management. Composting of large quantities of animal waste is underway. Data needed.
Seabreeze Amusement Park	Food vendors with packaging/food waste and recycling of drink bottles.	Quantities of wastes generated at this facility and what is recycled is unknown.	There are wastes that could be captured from these places. Possibility of composting organics and recycling of packaging. Potential for educational display related to recycling and/or organic management. Data needed.

Source of Wastes	Facility Type/Unique Situation or Circumstances	Impacts on Quantity/Quality	Impacts On LSWMP
Braddock Bay Park	Carry In/Carry Out Policy that involves no management of waste and recyclables by the parks department. Those Parks that do maintain waste receptacles have the potential to offer composting and recycling opportunities.	Thousands of users per year with limited one-on-one educational opportunity. Possibility of composting organics and recycling of packaging or providing education materials at waste and recycling receptacles.	There are wastes that could be captured from this facility. Data needed.
Hamlin Beach State Park	Same as above.	Same as above.	Same as above.

(a) Information and data in table to be revised as more details become available during the planning period.
(b) Lucien Morin Wetlands Park, Northampton Park, Durand Eastman Park, Genesee Valley Park, Greece Canal Park, Seneca Park, Oatka Creek Park, Devil's Cove Park, Highland Park, Abraham Lincoln Park, Churchville Park, Irondequoit Bay Park West, Webster Park, Lehigh Valley Trail Linear Park, Irondequoit State Marine Park, Black Creek Park, Mendon Ponds Park, Ontario Beach Park, Powder Mills Park, Ellison Park, Tryon Park West, Tryon Park

The above referenced facilities are required to provide solid waste and recycling services in accordance with the Solid Waste Reuse and Recycling Law; however, quantities of waste generated and recycled are not always available. Data needs to be collected as to what types of wastes they have and where they are disposing of said wastes. It also needs to be determined if they are able to provide recycling receptacles at each facility. The County Parks Department holds/hosts annual park clean-up events (i.e., Pick Up The Parks and Coastal Clean-up) where awareness, education and stewardship are highlighted. Possible recycling programs and data collection will be discussed further in Chapter 6 – Solid Waste Management Program Strategies.

1.5 Planning Unit Changes

The membership of the Planning Unit has not changed since its inception in 1988. The same towns, villages, and one (1) city still remain a part of this Planning Unit. It is not anticipated that there will be any changes of municipalities within the Planning Unit over the next planning period.

There have been a few changes in schools and colleges being introduced and closed in the Planning Unit. There has also been a reduction in the number of operating farms within the Planning Unit[4]. There has been some commercial growth, as well as some commercial businesses have left the Planning Unit, resulting in a difference in the types of waste received. The impacts of schools and colleges and commercial establishments and related LSWMP tasks are addressed in Section 1.4.

Retail businesses have increased within the Planning Unit. There are now many larger retail businesses located in the County. This increases the amount of

[4] US Department of Agriculture National Agricultural Statistics Service - Census of Agriculture. Monroe County, NY. 2012.

packaging wastes generated as well as organics, or food waste in the case of more grocery stores. It is presently assumed that the large majority of these retail businesses recycle their own corrugated cardboard. The County requests waste and recycling generation quantities from some of these businesses on an annual basis. The impacts of retail businesses and related LSWMP tasks are addressed in Section 1.4.

Table 1-10 summarizes the changes to the Planning Unit since the last LSWMP and the impacts to be considered for this LSWMP.

Table 1- 10 - Impacts of Planning Unit Changes on LSWMP

Planning Unit Changes	Quantitative and Qualitative Impacts	Impacts on LSWMP
Large Retail businesses	More packaging materials.	More recycling data needs to be collected.
Expansion of Colleges and Universities	With the increase in campus sizes and the number of students, more waste is generated that can ultimately be recycled.	Recycling data needs to be collected.
More sustainable programs	Less wastes from generators.	Increased focus on waste diversion and reduction.
More Food Manufacturers	More Food Wastes, More biosolids.	Challenging wastes to be handled in the landfill, possibility of organics to be composted.
Regionalization of WWTFs	At one point during the 1970's there were over 40 WWTFs within the County. Following consolidation and regionalization of these WWTFs, five (5) of the 40 plants remain active. In 2005, the sewage sludge incinerator located at the FEV WWTF was closed in favor of landfill disposal of the material. In addition, WWTF biosolids is generated at the Northwest Quadrant WWTF, which requires landfill disposal.	The need to continue to provide a reliable, environmentally sound, cost-effective disposal site on County-owned property for 100,000 tons of County generated WWTF biosolids.

There have been quite a few changes in the manufacturing businesses in the Planning Unit since the original LSWMP. Several businesses have left the area, and some have started up or expanded. They are very diverse in the type of manufacturing that is occurring. There is a need to investigate the types, amounts, and recycling that is currently ongoing at these businesses, as well as a reporting of data system that needs to be developed and implemented to allow the Planning Unit to utilize the LSWMP in an efficient manner and to keep it up to date.

Chapter 2 - Existing Program Description

2.1 Current Solid Waste Management System

The County's current solid waste management system is comprised of a variety of municipal and private programs and services that support the State solid waste management priorities. There are currently four (4) MRFs, two (2) MSW landfills, eight (8) MSW transfer stations (including the ecopark, which also handles recyclables), one (1) land clearing debris landfill, and six (6) C&D debris waste processing facilities registered with, regulated, or permitted by the NYSDEC and located within the County. Of these facilities, the County owns and leases the operation of:

- one (1) transfer station (MCRRF),
- one (1) residential MRF (MCRC), and
- one (1) landfill (Mill Seat Landfill).

The MCRRF is operated under an agreement with Cascades Recovery U.S., Inc. The MCRC is operated under an agreement with WMNY. The Mill Seat Landfill is operated by WMNY under a long term lease agreement with the County. WMNY and the County have an agreement for the operation of the ecopark, a one-stop-drop-off recycling facility, where the County has use of WMNY's building for their permanent HHW collection program. Table 2-1 further explains the details of these agreements as well as other agreements in place related to these facilities.

Table 2-1 County Agreements

Agreement	Summary of Benefits	Contract Term
Cascades Recovery U.S., Inc. is contracted to operate and maintain the MCRRF on behalf of the County. Historically, the County issues an Request for Proposals every ten (10) years for the operation of the facility for a five (5) year contract, with the option for a subsequent five (5) year contract renewal. The sales of the materials from this facility are also the responsibility of the contracted operator.	The County will collect all revenues for solid waste delivered to the MCRRF Transfer Station by the City of Rochester. In turn, the County will pay Cascades a per ton fee and agree that Cascades will retain all revenue generated from the sale of recovered materials. Cascades will provide the County with a royalty payment for all recyclable materials shipped from the MCRRF to end markets.	November 1, 2008 – October 31, 2013 (plus a 5-year extension granted thru October 31, 2018)
Agreement between the County and WMNY for the operation and maintenance of the MCRC and program.	WMNY agreed to provide the capital investment and equipment upgrades from a dual to a single stream process system and manage the facility and program. The County will remain the owner of the MCRC and receive a Host Fee to support the County's comprehensive recycling program.	January 1, 2013 – December 31, 2022

Agreement	Summary of Benefits	Contract Term
The County agrees to lease Mill Seat Landfill's currently permitted landfill and support facilities to WMNY. WMNY agrees to operate and maintain the permitted landfill and support facilities. WMNY will participate and pay for any proposed future expansion.	WMNY agreed to make an initial payment to the County at the beginning of the lease term with additional annual payments. WMNY agreed to be responsible for all annual operating expenses, all capital improvements, and closure/post-closure costs.	January 14, 2002-closure of Mill Seat Landfill
Amended and Restated Host Community Agreement between Town of Riga and the County for the continuation of benefits.	The Town will receive a revenue sharing royalty, a Renewable Energy Benefit, and waste collection and recyclable services shall continue to be provided at no cost. The parties agreed to cooperate with the necessary permits, approvals and actions necessary for the expansion of the Mill Seat Landfill.	January 1, 2011-closure of the Mill Seat Landfill
Amended and Restated Host Community Agreement with Town of Bergen, Village of Bergen, Byron-Bergen Central School District and Bergen Fire Department, Inc. for the continuation of benefits.	The County agreed to pay an initial payment to the Town of Bergen and revenue sharing for each ton of solid waste accepted for disposal to the Town. The Fire Department also received an initial payment. Upon receipt of the Mill Seat Landfill expansion permits, the County agreed to provide the Town and the Fire Department with similar payments. The parties agreed to cooperate with the necessary permits, approvals and actions necessary for the expansion of the Mill Seat Landfill.	December 13, 2011-closure of Mill Seat Landfill
Agreement between the County and WMNY to develop and operate a Landfill Gas to Energy Facility at the Mill Seat Landfill.	The County will receive market rates if they choose to market the energy and additional revenue in the form of "Green Energy" payments.	May 9, 2006-closure of Mill Seat Landfill
ecopark – License Agreement between the County and WMNY.	WMNY maintains the transfer station permit and any building upgrades needed. The County has the right to use the building for the operations of its HHW, leaf composting, and pharmaceutical collections. WMNY collects recyclable materials from the facility.	Began in 2011, year to year agreement
Agreement between the County and City of Rochester regarding Solid Waste Disposal and Recyclable Materials.	The County agrees to charge the City the lowest price for the transfer, haul and disposal of waste delivered to a County owned solid waste facility. Solid waste fees per ton are stated in the agreement. The City agrees to send its solid waste and recyclable materials to a County owned Solid Waste Management Facility.	July 1, 2008-December 31, 2018

With the exception of the City of Rochester and five (5) villages, residential and commercial solid waste and recyclables produced within the County are handled by private collection companies. These private collectors dispose of waste by hauling material directly to one (1) of the two (2) landfills located within the County,

transferring waste to a private or public transfer station, or hauling waste to a transfer station or landfill located outside of the County. Some residential and commercial waste is collected by municipal forces or through a municipality-wide subscription with a private hauler. These materials are typically disposed of in the same manner. Small portions of County residents also have access to a residential transfer station for waste management. The City of Rochester conducts their own collection within the city limits where the waste is currently transported to the MCRRF transfer station and hauled to the Mill Seat Landfill under an intermunicipal agreement between the County and the City of Rochester. Additionally, other towns or villages that either have municipality-wide disposal subscriptions with private collectors or those that manage their own hauling fleet, rely on in-County disposal at the Mill Seat Landfill. According to NYSDEC records, of the MSW and C&D debris that was generated in the County in 2009, 88% of the MSW disposed and 57% of the C&D debris disposed was disposed at the Mill Seat Landfill or the High Acres Landfill & Recycling Center.

2.2 Solid Waste Management Facilities and Recovery Efforts

The facilities and programs that service the County are described in the sections below.

2.2.1 Landfill Facilities

At the time the original LSWMP was being prepared, the County was undertaking the process of permitting and construction of a new state of the art landfill to address the long-term need for waste disposal capacity within the County. The County had identified the Mill Seat Landfill site, located in the Town of Riga, for development.

In 1993, Stage I of the Mill Seat Landfill was completed at the permitted landfill site, with Stage II constructed the following year. Many of the ancillary landfill facilities were also constructed during this time including: leachate conveyance and storage systems, stormwater retention ponds, a maintenance facility, and truck weigh scales. Through a competitive Request for Proposals process, WMNY began operation of the landfill in 2002, under a 49-year lease agreement with the County.

WMNY has continued to construct the landfill in phases, since it began operating the landfill, by constructing Stage IIIB in 2004, Stage IIIB1 in 2006, and Stage IVA in 2008. Stage IV, the southwest corner of the footprint was also constructed in three (3) phases beginning in 2008. The final phase of Stage IV began construction in 2013. The existing active permitted footprint encompasses approximately 98.6 acres of lined area.

Based on the current 6 NYCRR Part 360 permit, the Mill Seat Landfill has an approved design capacity of 1,945 tons of MSW per day, which is not inclusive of approved BUD materials. As of the end of 2013, the remaining constructed disposal capacity is estimated to be approximately 4,700,000 cubic

yards. The remaining permitted airspace is projected to provide approximately seven (7) years of site life from the end of 2013 based on historical waste acceptance rates and in-place waste densities. Under a separate review and approval process, the County is currently seeking a 6 NYCRR Part 360, Solid Waste Management permit modification from the NYSDEC to construct and operate a landfill expansion and support features, including stormwater management ponds and access roadways.

Including the Mill Seat Landfill there are two (2) solid waste landfills located within the County that are available to County residents and businesses to handle their disposal needs. These landfills are summarized below in Table 2-2.

Table 2-2 – MSW Landfills Within Monroe County

Solid Waste Facility	Facility Address	Permitted Capacity Remaining (cubic yards)	Permit Expiration Date	Operating Status
Mill Seat Landfill	303 Brew Road Riga, New York	4,700,000	7/31/2021	Public/ Private Partnership
High Acres Landfill & Recycling Center	425 Perinton Parkway Fairport, New York	~54,000,000	7/8/2023	Private

Source: NYSDEC Annual Facility Reports (2013); High Acres LF Permit to Construct and Operate Effective 7/9/13

In addition to the MSW landfills referenced above in Table 2-2, one (1) land clearing debris landfill exists within the County at 444 Browncroft Boulevard in the Town of Brighton. This facility is owned and operated by the Town of Brighton as an active land clearing debris landfill that handles yard debris and C&D material from Town of Brighton projects.

Disposal Options Available Outside of Monroe County

Other landfills within the State are available for the disposal of MSW generated in the County although the Mill Seat Landfill and High Acres Landfill & Recycling Center could handle all waste generated within the County, if necessary. Each of these landfills accepted waste that was generated in the County in 2012. Other landfills also exist throughout the State; however, they may have disposal restrictions or are located outside a reasonable service area to accept waste generated in the County. Although no WTE facilities are located within the County, a small percentage of the County's MSW is sent to Covanta Energy's WTE facility located in Niagara Falls, NY where it is delivered, unloaded, processed, combusted, and made into energy.

Table 2-3 – Western New York Disposal Facilities Servicing Monroe County

Facility	Facility Address	Permitted Capacity Remaining (cubic yards)	Out of County	Permit Expiration Date	Operating Status
Covanta Niagara, L.P.	100 Energy Blvd. @ 56th Street Niagara Falls, NY	801,600* tons/year (design capacity)	X	3/31/2015	Private
Ontario County Landfill	3555 County Road 49, Stanley, NY	3,373,843 cubic yards	X	1/20/2025	Municipally owned; Operated by Casella; No Flow Control; Expansion Permit application under review by NYSDEC.
Seneca Meadows Landfill	1786 Salcman Road Waterloo, New York	30,893,000 cubic yards	X	10/10/2017	Private; Largest Landfill in NYS
Modern Landfill	4746 Model City Road Model City, New York	25,600,000[5] cubic yards	X	4/8/2012	Private
Hyland MSW	6653 Herdman Road Angelica, New York	9,410,600 cubic yards	X	5/1/2015	Private
Allied/BFI Niagara Falls	5600 Niagara Falls Blvd. Niagara Falls, NY	6,400,000 cubic yards	X	11/30/2015	Private

Source: NYSDEC Annual Facility Reports (2012)
**Based on a heating value of the solid waste of 4,940 BTU/pound. The maximum annual solid waste throughput shall be 821,250 tons of solid waste.*

2.2.2 Transfer Stations

The MCRRF is a combined solid waste and recyclables transfer station used for residential, industrial, commercial, and institutional waste materials transfer. Solid waste is delivered to the facility by waste collection vehicles, where it is loaded into transfer trailers and hauled to the Mill Seat Landfill for disposal.

Besides the MCRRF, there are several other transfer stations in the County operated privately or by a municipality, which are presented in the following Table 2-4. The addition of newly constructed or newly operational transfer stations in the County is not necessary to meet the goals and objectives of the County's LSWMP based on the known capacity, which greatly exceeds the amount generated.

[5] DEC Annual Facility Report (2011)

Table 2-4 - Registered Transfer Stations in Monroe County

Transfer Station Name	Owner/ Operator	Facility Address	Disposal/Handling Destination	Approximate Tons Per Day Accepted, if known	Infrastructure Components
Monroe County Resource Recovery Facility	Monroe County/ Cascades Recovery U.S., Inc.	1845 Emerson Street, Rochester	Mill Seat Landfill (MSW and other waste materials); Various Markets determined by Operator (recyclables)	1,945 tons per day	Accepts MSW and recyclables from municipal haulers or private haulers. Accepts tires as well. Residents are not permitted to drop off materials at this facility.
Rochester Transfer Station (ecopark)	WMNY/ Monroe County	10 Avion Drive Town of Chili	Not operational for MSW transfer. Recyclables are transported to various outlets including: MCRC, Document Destruction, Metalico, Salvation Army or Goodwill, Thermal Foams, Sunnking Electronics.	1,450 tons per day	Not operational for receipt of MSW. Currently operated by the County as the ecopark, which accepts difficult-to-manage recyclables, household hazardous waste materials, pharmaceutical waste, electronic and other materials. Open to County residents. CESQG have the ability to utilize this facility for a fee.
J.C. Fibers, Inc.	J.C. Fibers, Inc.	1779 Mt. Read Blvd., Town of Greece	Ontario County Landfill, Hyland Landfill, Hakes Landfill	1,600 tons per day	Accepts MSW, C&D debris, and recyclables from private haulers. In 2014, J.C. Fibers received materials from the following haulers: Boon & Sons of North Chili; Feher Disposal of Geneva; Lilac Disposal of Webster; Suburban Disposal of Spencerport; and Youngblood Disposal of Rochester.
Clarkson (T) Rural Transfer	Town of Clarkson	3078 Redman Road, Brockport (Town of Clarkson)	Mill Seat Landfill (waste materials), MCRC (recyclables), Metalico (bulk metal), Town of Clarkson (brush, yard waste)	Unknown	Clarkson residents only with a Transfer Station Permit. Accepts residential MSW, recyclables, bulk items (wood, furniture, metal), tires, refrigerators/freezers, propane tanks, air conditioners/dehumidifiers, brush & tree cuttings, Christmas trees, lawn clippings, stone & concrete, used motor oil, electronics, metal, glass. Maintains an

Transfer Station Name	Owner/ Operator	Facility Address	Disposal/Handling Destination	Approximate Tons Per Day Accepted, if known	Infrastructure Components
					"Exchange Emporium" for residents to leave household items that may be of value to other residents.
Hamlin (T) Transfer	Town of Hamlin	4180 Brick Schoolhouse Road, Hamlin	WMNY (MSW, fiber), Suburban Disposal (MSW, fiber), MCRRF (tires), Ben Weitsman & Son (metal), Zoladz Construction (brush, yard debris), Sunnking Electronics (electronics), Interstate Batteries (batteries)	Unknown	Accepts residential MSW, recyclables, tires, electronics, brush, branches, trees & stumps, batteries.
Greece (T) Transfer	Town of Greece	635 Flynn Road, Rochester	Ben Weitsman & Son (metal); aggregate, concrete, soil, wood chips (used by Town)	Unknown	Accepts brush, branches, trees & stumps, asphalt, bulk metal, concrete, clean soil.
Sweden (T) Rural Transfer (aka Town of Sweden Recycling Center)	Town of Sweden	40 White Road, Brockport	Permanently closed January 1, 2012.		
Metalico Transfer, Inc.	Metalico, Inc.	150 Lee Road, Gates	Mill Seat Landfill (C&D debris), JC Fibers or MCRC (corrugated cardboard)	Temporarily Closed	Accepts C&D debris, corrugated cardboard.
Silvarole (proposed)	Neil Silvarole	Silvarole Drive South of Crane Road, Henrietta	Unknown	950 tons per day	Accepted material comprised of household, commercial and institutional waste. The proposed facility operations include: construction and demolition debris processing and recycling, municipal solid waste recycling and transfer and single-stream recyclables handling.

Source: NYSDEC Annual Facility Reports (2012)

In accordance with the County's Solid Waste Reuse and Recycling Law, recyclable material collection services must be included with solid waste collection. The solid waste collection practice for residents within each municipality is outlined in Table 2-5 below.

Table 2-5 - Municipal Waste Collection Practices in Monroe County

Municipality	Residential Waste Collection*			Residential Drop Off?	Bulky Waste Collection
	Municipal	Private	Contract		
Town					
Brighton		x	x		
Chili		x			
Clarkson		x		Yes	M - 2x/Year
Gates		x			
Greece		x			
Hamlin		x		Yes	
Henrietta		x			P - By Appointment
Irondequoit		x			
Mendon		x			
Ogden		x			P - By Appointment
Parma		x			
Penfield		x			
Perinton		x			
Pittsford		x			
Riga		x			P - By Appointment
Rush		x		Brush Only	
Sweden		x			
Webster		x			
Wheatland		x	x**		M - Annual Event
City					
Rochester	x				M - Weekly
Village					
Brockport		x		Metal Goods	M - Bi-weekly (A-O)
Churchville			x		C - By Appointment
East Rochester	x			By Appt.	M - Bi-Monthly
Fairport	x				M - Weekly
Hilton	x				M - By Appointment
Honeoye Falls		x			P - By Appointment
Pittsford		x			
Scottsville	x				M - By Appointment
Spencerport	x				M - 5x/Year
Webster		x			

* Municipal (M) - Provided by municipality, Private (P) - Provided by private hauler, Contract (C) - Provided by private hauler under municipal contract.

** Some districts within the Town of Wheatland are included in a municipal waste collection contract.

2.2.3 Existing Efforts to Recover Recyclables

Recycling has been mandatory in the County for residents and businesses/institutions since 1992 when the Solid Waste Reuse and Recycling Law (provided in Appendix B) was enacted by the County Legislature.

The law states, in general, that residents must source separate their recyclables from solid waste. The regulations require the following food, drink and household product containers to be recycled: steel, aluminum, glass bottles, jugs and jars, plastics (#s 1 and 2). The MCRC also accepts paper containers (gable-top cartons/drink boxes), empty steel aerosol cans (no pesticides or spray paint), plastics (#s 3-7), defaced license plates and pots/pans/foil ware from haulers for recycling/recovery. All appropriate containers must be rinsed and caps/lids attached prior to being placed in the bin (labels are acceptable). Only the items listed above are accepted for recycling. According to regulations, residents must also recycle newspapers, magazines and corrugated cardboard. Additional paper materials may be recycled. The MCRC accepts all clean paper from haulers for recycling. Large appliances are also required to be recycled. This is usually done by the waste hauler.

Apartment landlords (centrally-served) must provide their tenants with recycling educational material and centrally-located recycling containers.

In 1991, the Monroe County Recycling Advisory Committee was formed to assist and advise the County in the implementation of the Solid Waste Reuse and Recycling Law. The Recycling Advisory Committee is made up of 15 representatives, appointed by and representing the County Executive, Legislature, and several organizations and community groups. Recycling Advisory Committee members meet monthly from September until June and delve into many recycling-related topics of interest, including the County's conversion to single stream recycling, electronic, textile and plastic bag recycling, composting and recycling at colleges and universities. The Recycling Advisory Committee summarizes their activities each year in a report that is presented to and reviewed by the County Legislature's Environment and Public Works Committee.

The County has ownership of two (2) separate recyclables collection facilities located adjacent to one another in the City of Rochester, which are summarized in Table 2-6.

Table 2-6 – Monroe County-Owned Recyclables Handling and Recovery Facilities

Facility Name	Owner/Operator	Facility Address	Acceptable Materials/ Other Comments
Monroe County Recycling Center	Monroe County/WMNY	384 Lee Road, Rochester	Accepts recyclables from municipal haulers or private haulers. City of Rochester is required by contract to deliver recyclables to this facility. Residents are not permitted to drop off materials at this facility.
Monroe County Resource Recovery Facility	Monroe County/Cascades Recovery U.S., Inc.	1845 Emerson Street, Rochester	Accepts MSW and recyclables from municipal haulers or private haulers. Accepts tires as well. Residents are not permitted to drop off materials at this facility.

Source: NYSDEC Annual Facility Reports (2012)

Monroe County Recycling Center (MCRC)

The MCRC was opened in 1992 to accept curbside residential recyclables. Recyclables delivered to the facility are sorted, processed and baled for transport to end market users. The operation of this facility has been performed by a private contractor solicited through a Request for Proposals issued by the County every ten (10) years. While the County does typically receive some revenue per ton for the materials (a set amount determined within the contract), the marketing of the materials (and thus the associated risk/reward) is the responsibility of the contracted operator.

Throughout the planning period, the County has remained diligent in assessing potential recycling streams that could be added to the County program to increase recycling rates and revenues. Over the 20-year period, the County has added many materials to its recycling program such as gable top containers, certain aerosol cans, mixed paper, telephone directories and all books, aseptic containers, and pizza boxes (all clean paper). The ability to consult with the private recycling facility operator has helped the County to do this responsibly, by using their expertise in the field to determine when economical, reliable and sustainable outlets for these materials are available.

According to the NYSDEC, paper materials make up 33% of the waste stream in the State. Clean, recyclable paper makes up 12% of this waste stream, while corrugated cardboard and newspaper make up another 14%, with the remaining seven percent (7%) composed of non-recyclable paper products. In response to this availability of large quantities of recyclable materials, the County has continuously increased the types of paper products accepted for recycling. Currently, the County will accept and recycle every type of clean

recyclable paper product including flat and corrugated cardboard, office paper, newspaper, and telephone books. This program gives the County the potential to collect and recycle 26% of the MSW stream according to the NYSDEC data.

Another important waste stream the County has addressed for recycling is plastics. According to the estimated recoverable MSW generated, as shown in Table 3-3 plastics account for approximately 14% of the MSW stream in the County. Of these plastics, approximately two percent (2%) are #1 and #2 containers, two-tenths percent (0.2%) are #3 through #7 containers, and six percent (6%) is plastic film. The remainders are durable plastics (deck chairs, storage bins, etc.) and plastic packaging. The recycling of plastic film, composed predominately of plastic grocery bags and product wrap, has been undertaken by local grocery stores and retailers. #1 and #2 containers have proven to be the most easily recycled with the most post-consumer markets for the recovered material. The MCRC has historically accepted only plastics #1 and #2 (since the beginning of the curbside recycling program in 1992). During that period, MCRC contract operators have continually explored avenues to sustainably divert the relatively small amount (by weight) of plastics #s 3-7 from the solid waste stream. Although local spot-markets would occasionally become available, no sustainable North American markets were found that would recycle/recover the quantity and quality of post-consumer #s 3-7 plastics that would be generated by County residents/businesses. Some inconsistent markets in developing nations (primarily Asian) were explored and rejected due to a lack of sustainable and quality end-products and limited environmental and human health regulations/compliance. In 2011, the MCRC's contract-operator, Cascades Recovery, explored options for expansion of plastic materials accepted at the MCRC to include #s 3-7 plastics. Adding #s 3-7 plastics was ultimately successful and became effective June 1, 2011. With the inception of the ecopark (discussed further below), durable plastics (deck chairs, storage bins, etc.) are now accepted at that facility for proper recycling.

Additionally, the recycling/recovery program expansion includes certain metals that were previously not accepted. These include durable metal pots and pans (and their lids), baking pans/sheets—these items are generally steel, stainless steel and/or aluminum. Also included in this metals expansion are: aluminum foil, non-durable foil ware (pie plates, tins, trays, etc.).

The County's recycling program has been robust, but in an attempt to increase the quantity of what was already being received at the MCRC, the County initiated a recycling campaign throughout the County in 2011 through public service announcements, bus wraps and flyers. The campaign focused on getting more clean paper, plastics and pots and pans and reminding residents of the types and conditions of materials accepted.

Conversion of MCRC to Single-Stream Recycling

Single-stream recycling is a system that allows mixing all paper fibers and commingled containers together in one (1) container. In a single-stream

recycling system, the materials are commingled and no longer separated by the residents at the curb and hauled to the recycling facility in separate compartments in the collection vehicle. Both the collection and the processing systems must be designed to handle this fully commingled mixture of recyclables.

The single-stream philosophy of recycling has firmly taken hold in many areas of the country where weather conditions and port access eased operational concerns. Hundreds of North American and European cities annually shift to single stream recycling. A 2005 R.W. Beck survey stated that 11% of the U.S. population with curbside recycling service was single-stream. By 2007, that number had increased to 50% according to the American Forest and Paper Association.

The advantages of a single-stream system are associated with slightly higher recycling rates and reduced collection costs. The disadvantages of the system are associated with initial capital costs for upgrading of the materials recovery facilities, higher sorting and processing costs, higher residual rates (i.e., non-processable material sent to the landfill), and higher contamination of recyclable paper, making the recovered material less marketable.

The County and the City of Rochester supported the transition to single stream recycling due to the potential benefits associated with it, such as convenience to residents, an increase in incoming recyclables, the potential for greenhouse gas reductions and fuel savings by reducing the number of truck trips needed for curbside collection. Consequently, the County decided to evaluate the opportunity to upgrade the MCRC system to process single-stream recyclables. The County solicited proposals for the operation and maintenance of the MCRC through the issuance of a draft Request for Proposals issued on December 20, 2011 pursuant to the provisions of New York General Municipal Law (NY GML) Part 120-w. WMNY ultimately was awarded the contract to operate and maintain the MCRC. Under the new agreement, WMNY and the County added new processing equipment to facilitate single stream recycling processing by January 1, 2015. The MCRC's "single stream" retrofit was completed April 4, 2014. The County and WMNY have initiated a single stream recycling education campaign, which will be further discussed as part of Program Strategy #9 in Chapter 6 – Solid Waste Management Strategies.

Monroe County Resource Recovery Facility (MCRRF)

The MCRRF, located adjacent to the MCRC, is a combined solid waste and recyclables transfer station used for residential, industrial, commercial, and institutional waste materials transfer. While the majority of the recyclable material handled at the facility arrives as source-separated loads of IC&I recyclables, observations found appreciable quantities of recoverable materials within the IC&I waste stream which were easily recoverable due to the relatively clean nature of the loads (i.e., not mixed with putrescible waste). In order to capitalize on the available revenue from these recoverable and recyclable materials, which

are typically produced in large quantities, the County decided to implement some basic load sorting and recycling operations within the MCRRF.

The County utilized the existing MCRRF structure (which, at the time was being used only as a solid waste transfer station) to implement an IC&I recycling operation. Incoming loads are either delivered as loads of recyclables by the customer or identified as having recyclable content during unloading on the tipping floor. These loads are pushed aside for sorting, where recoverable and recyclable materials (predominantly wood skids and pallets, corrugated cardboard, and paper) and removed from the waste stream for diversion.

The County obtained grants through the Empire State Development Corporation for upgrades to the MCRRF recycling equipment. The upgraded sort line has allowed the County to expand its recovery efforts for recycling of IC&I materials. Any loads of "dirty" recyclables that came into the facility typically had to be discarded as solid waste, as the facility did not have efficient means for sorting the waste from the recyclables. The upgraded sort line has allowed the sorting of recyclable materials from these loads and the diversion of them to the recycling stream. The equipment has also been used for other tasks such as debagging leaves for the yard waste composting facilities, and performing waste composition studies to assist companies, agencies, and the County to determine their solid waste management needs and improvement strategies.

Residential Sector Recycling Facilities and Efforts

As discussed above in Section 2.2.2, with the exception of the City of Rochester and the villages listed in Table 2-5, residential and commercial solid waste and recyclables produced within the County are handled by private collection companies. Some residential waste is collected by municipal forces or through a municipality-wide subscription with a private collector. In accordance with the County's Solid Waste Reuse and Recycling Law, recyclable material collection services for residents must be included with solid waste collection.

Prior to 2011, the County received inquiries from residents and customers regarding the availability of outlets for environmentally-friendly methods of diverting a wide variety of solid waste from landfills. In order to best address the community's growing need for this type of unique resource, the County and WMNY collaborated in the fall of 2010 to create the ecopark.



Instead of erecting a new structure, the County and WMNY identified an under-utilized solid waste and recyclables transfer station owned by WMNY and repurposed the existing building located at 10 Avion Drive in the Town of Chili (a site that already houses a composting operation operated by the County). The public/private partnership between the County and WMNY and the sharing of

ideas and funding between the two (2) entities delivered an environmentally-friendly solution to waste diversion with minimal impact to local taxpayers.

The ecopark opened its doors to the public on September 21, 2011 as a one-stop-drop off recycling facility where residents can bring their difficult-to-manage items including: electronics, appliances, paper and corrugated cardboard, printer cartridges, propane tanks, bulky plastic items, cooking oil/grease, fluorescent lights, sharps and syringes, clothing and scrap metal. Collections include HHW and pharmaceuticals.

No other facility in the nation has the ability to simultaneously accept HHW, pharmaceuticals and recyclables. The ecopark serves as an enhancement of the County's award-winning HHW Program that has decades of proven environmental leadership.

The following materials are collected during collections events at the ecopark and ultimately recycled/recovered:

- Corrugated cardboard
- Paper
- Scrap metal
- Bulk plastic
- Whole Tires
- White goods
- Commingled recyclables
- Non Freon-Containing Appliances
- Tire Rims
- Wheel Weights
- Button Batteries
- Cell Phone Batteries
- Rechargeable Batteries
- Cadmium-Containing Products (Jewelry, Etc.)
- Cell Phones
- Computer Components (Cables, Keyboards, Etc.)
- Computers (Desktop & Laptop)
- Most Other Electronics
- Televisions & Monitors
- Cooking Oil/Grease
- CDs, DVDs, Zip Discs, Floppy Discs, VHS and Cassette Tapes, Etc.
- USB Memory Keys
- Flags (U.S.)
- Glass Bottles (Non-Deposit), Jugs and Jars
- Fishing Weights
- Ballasts
- Fluorescent Lights (CFLs and Tubes)
- High Intensity Discharge, HIDs
- Thermometers
- Thermostats
- Aluminum Food/Drink Containers, Foil, Pots, Etc.
- Aluminum Pop Tabs (Ronald McDonald House Charities)
- Metal Scrap (Siding, Gutters, Lawn Furniture, Etc.)

- Fire Extinguishers
- Propane Tanks
- All Clean Paper
- Shredded Paper/Paper Shredding Services
- #1 to #7 plastics
- Bulky Plastic Items (Large Toys, Lawn Furniture, Etc.)
- Empty Prescription Bottles
- Shopping Bags and Product Wrap
- Styrofoam Packing
- Inkjet Cartridges, Laser/Toner Drums
- Syringes/Sharps
- Clothing, Sheets, Blankets, Hats, Etc. (Goodwill of the Finger Lakes)
- Wire Coat Hangers
- Milk Cartons and Aseptic Drink Boxes
- Antifreeze
- Oil and latex paint
- Pesticides
- Mercury containing devices
- Fluorescent bulbs
- Pharmaceutical Waste

Through the development of the ecopark, the items listed above are collected and the potential environmental impact related to these items has been reduced.

Quantities collected at the ecopark are not reported in the diversion numbers summarized in Chapter 3 – Solid Waste and Recyclables Quantities and Types given that the data reviewed in that Chapter is from 2010, prior to the ecopark being open. However, the following quantities shown in Table 2-7 were collected and properly managed at the ecopark during 2012 (unless otherwise noted):

Table 2-7 – Quantities of Materials Accepted at the ecopark in 2012

Material	Quantity
Antifreeze	1,100 gallons
Hazardous paint	14,140 gallons
Solid Pesticides	29,789 pounds
Liquid Pesticides	1,920 gallons
Mercury Containing Devices	1,250 pounds
Fluorescent Bulbs	9,540 pounds
Other HHW Solids	79,865 pounds
Other HHW Liquids	13,629 gallons
Miscellaneous Solid Waste	62,500 pounds
Pharmaceutical Waste	3,203 pounds
Document Destruction	29,353 pounds (data from 2013)
Electronics	440,090 pounds (data from 2013)
Cardboard/Paper	117.64 tons
Scrap Metal	49.67 tons (data from 2013)
Bulk Plastic	11.91 tons (data from 2013)
Textiles	5,750 pounds (data from 2013)
Tires	678 (data from 2013)
CFC Containing Devices	707 units (data from 2013)
Commingled Recyclables	33.66 tons (data from 2013)

Private Recycling Facilities

In addition to the MCRC and MCRRF, there is one (1) other permitted recyclables handling and recovery facility operated privately in the County, which is the J.C. Fibers Rochester, Inc. located at 1801 Mt. Read Blvd. in the Town of Greece previously detailed in Table 2-4. Other private facilities that handle recyclables generated within the County include:

- Empire Resource Recycling
- High Acres Landfill & Recycling Center
- Metalico Transfer, Inc.
- Boon & Sons Inc.
- Silvarole Materials Recovery and Transfer Facility (proposed)
- Suburban Disposal
- Genesee Scrap & Tin Baling Co. (Genesee County)
- Casella Recycling (Ontario County)
- ALPCO Recycling, Inc. (Wayne County)

Commercial Sector Recycling Facilities and Efforts

Shopping centers, hospitals, and office buildings are establishments that generate large volumes of commercial waste. These establishments may subscribe directly with a recycling operation to collect and manage their recyclables or they may utilize transfer stations.

According to the County's Solid Waste Reuse and Recycling Law, businesses, institutions and industries must recycle corrugated cardboard and

high-grade (office) paper. All clean paper, however, may voluntarily be recycled. Businesses, institutions and industries that have cafeteria-type services and all restaurants must recycle the required containers (steel, aluminum, glass bottles, jugs & jars, plastics #1 and #2) used in food preparation activities. Containers used by students/staff/customers (milk cartons, soda bottles, soup cans, etc.) are not required to be separated for recycling. All appropriate containers that are separated for recycling must be rinsed and caps/lids attached prior to recycling (labels left on).

Since there is limited reporting participation from these commercial entities, quantities and types of waste disposed or recovered in the County has not been made consistently available to the County. Program Strategy #13 in Chapter 6 – Solid Waste Management Program Strategies is intended to address the issue of the lack of data being reported by the various commercial entities. Additionally, Program Strategy #9 (Public Outreach and Education) will include the commercial recycling sector. The evaluations are to assess the effectiveness and/or needs of these facilities and programs and the County's activities related to them, to determine what improvements, partnerships, or other alternatives should be evaluated for implementation and what the resulting future recovery goals could be.

C&D Sector Processing Facilities and Efforts

Historically, C&D waste was collected in the County and sent to nearby C&D waste landfills. The C&D landfills are no longer accepting waste, therefore most C&D waste generated within the County is sent to the Mill Seat Landfill or High Acres Landfill & Recycling Center.

There are currently no front- or back-end separation requirements or regulations for C&D waste (other than for LEED projects). While there are many materials in the C&D waste stream that have potential reuse/recycling options, low landfill tipping fees can make the diversion of these materials into desirable components cost-prohibitive. As commodity markets and quantities allow, contractors, residents and construction demolition companies separate materials (such as metals, masonry, asphalt, etc.) for profitable reuse and recycling. The County's own construction bid boilerplate permits the selected contractor ownership of C&D debris—the cost-effective separation of which allows for lower bid proposals. LEED projects have more stringent contractor separation reporting requirements.

As with most post-consumer items, methods of C&D debris sorting usually happen at the source or a separation facility. Either option takes financial or operational resources that may not justify the end-product. Over the last four (4) years, the City of Rochester has contracted for the demolition of several hundred buildings and its Project Green program outlines the potential demolition of over 2,500 more during the next 20 years. The City of Rochester has negotiated a reduced tipping fee for the demolition materials with the County at the Mill Seat Landfill. This relationship could enable the County to work with the City of Rochester to separate and divert portions of the demolition material.

Program Strategy #4 in Chapter 6 – Solid Waste Management Program Strategies looks at evaluating the need of these facilities and programs in the County to determine what partnerships, or other alternatives should be evaluated for implementation and what the resulting future recovery goals could be. There are C&D debris processing facilities operated privately in the County, which are presented in Table 2-8. The marketplace has not driven the need for an increase in these facilities throughout the County. In downstate communities, C&D debris processing facilities have been found to be more economical than areas of upstate New York.

Table 2-8 – C&D Processing Facilities in Monroe County

Facility Name	Owner/Operator	Facility Address	Acceptable Materials/Destination/ Other Comments
Dolomite Products Company, Inc. Gates Quarry, Recycle Plant	Dolomite Products Company, Inc.	1085 Buffalo Road, Gates	Accepts concrete and asphalt, which is processed at this site.
Dolomite Products Company, Inc. Penfield Recycle Plant	Dolomite Products Company, Inc.	746 Whalen Road, Penfield	Accepts concrete and asphalt, which is processed at this site.
LL Huff Co. Inc. C&D Processing Facility	LL Huff Co. Inc.	121 Pinehill Road, Spencerport (Town of Ogden)	Road base for landfills manufactured using materials from other processing facilities (Lorric).
Lorric C&D Processing Facility	Lorric Development Corp of NY	68 Pinehill Road, Spencerport (Town of Parma)	Accepts mixed fill, wood chips, brush/branches/trees/ stumps. Mixed fill sent to LL Huff for manufacturing of products. Woody debris is used for compost.
Metalico Transfer, Inc.	Metalico, Inc.	150 Lee Road, Gates	Accepts C&D debris with the majority being bulk metal.
Terry Tree Service, Inc.	D&T Rents, Inc.	225 Ballantyne Road, Town of Chili	Accepts brush/branches/ trees/stumps, wood chips. Materials provided to various landscapers (i.e., The Garden Factory).
Iroquois Rock Products – Brockport Quarry	Callanan Industries Inc./Dolomite	5251 Sweden Walker Road, Brockport (Town of Sweden)	Accepts asphalt. No further information was available.
Hanson Aggregates New York LLC – Honeoye Falls	Hanson Aggregates New York LLC	2049 Honeoye Falls No. 6 Rd, Honeoye Falls, Town of Rush	Applied for C&D processing registration in 2012 in response to growing customer demand for recycled aggregate products.
Buffalo Roads Holdings LLC	Gina Dondrea	837 Buffalo Road, Gates	Accepts mixed fill. No further information was available.
Villager Recycling Center	Villager Construction, Inc.	Silvarole Drive, Henrietta	Accepts aggregate & concrete, asphalt, brick, concrete, mixed fill, soil (red clay), stone, granite. Materials reused/recycled.
Villager Recycling Center	Villager Construction, Inc.	244 Lake Avenue, Rochester	Accepts aggregate & concrete, asphalt, brick, concrete, mixed fill, soil (red clay), stone, granite. Materials reused/recycled.

Source: NYSDEC Annual Facility Reports (2012)

Institutional Recycling Efforts

The University of Rochester, Monroe Community College, Rochester Institute of Technology, local school districts, prisons, nursing homes, hospitals, and senior living complexes tend to produce large quantities of paper wastes and food wastes. Section 1.4 in Chapter 1 - Planning Unit Description provided an overview of several of these institutions and additional information is detailed below in the organics waste diversion section. These institutions manage their own waste and recyclables. The County remains in contact with these institutions to understand the management methods at each. On an annual basis, the County surveys certain institutions for information related to the types and quantities of materials diverted from the waste stream. The response rate could be improved. Since there is limited reporting participation for these institutional entities, quantities and types of waste disposed or recovered in the County has not been made consistently available to the County for all institutional facilities. Program Strategy #13 in Chapter 6 – Solid Waste Management Program Strategies is intended to address the issue of the lack of data being reported by these various entities. Program Strategy #9 (Public Outreach and Education) will include the institutional recycling sector and how best to increase recycling efforts. The evaluations are to assess the effectiveness and/or needs of these facilities and programs and the County's activities related to them. This will determine what improvements, partnerships, or other alternatives should be evaluated for implementation and the resulting future recovery goals.

Public Sector Recycling Efforts

Municipal recycling efforts in the Planning Unit revolve almost entirely around the County's program. Program Strategy #3 in Chapter 6 – Solid Waste Management Program Strategies focuses on increasing recycling at public facilities, such as public schools, municipal spaces, and special events. Such locations and events were discussed in Section 1.4. Additionally, Program Strategies #9 and #13 will assist with the data gathering, public outreach, and educational components. It will be important to understand the current recycling efforts within the public sector before determining the appropriate plan of action and goals. Therefore, Program Strategy #13 will be an integral part with gathering the necessary data to assess the current recycling programs at the public sector level. Once the existing recycling efforts are determined, a plan of action to reach out to public sector employees and community members will be developed through Program Strategy #3 to ultimately increase recycling efforts.

Industrial Facility Recycling Efforts

The health care and social assistance industry sector is the largest employer within the County. This has been a recent change in the employment profile within the County. Prior to the downsizing of large manufacturing facilities, the manufacturing industry sector was the largest employer within the County. Today other IC&I businesses predominate large manufacturers as employers. As discussed in Chapter 6 – Solid Waste Management Program Strategies, Program Strategy #13 will be pursued to gather more data in the way of surveys

to industrial facilities within the County, which in turn will be tied to Program Strategy #9 associated with the public outreach and education at the industrial facility level.

The evaluations are to assess the effectiveness and/or needs of these facilities and programs and the County's activities related to them. This will determine what improvements, partnerships, or other alternatives should be evaluated for implementation and the resulting future recovery goals.

Public Space / Events Recycling Efforts

The County has made efforts, with the help of grants from New York State Association for Reduction, Reuse and Recycling (50 ClearStream recyclers) and National Recycling Coalition (20 Coke Bottle-type recyclers), to provide recycling receptacles and education at public events (Frontier Field - the local baseball/event stadium, Lilac Festival, County Parks events, Buffalo Bills Training Camp, Rochester's Clean Sweep program and other certain private/public festivals/events including: cancer walks, Chase Corporate Challenge, Park Avenue Festival, etc.). This has been done to increase public awareness of recycling and provide enhanced recycling/disposal options for the public.

As with many government-started initiatives, the private sector has started to take on public event recycling. The increasing number of local redemption centers and the addition of the $0.05 deposit on water bottles have added to the waste diversion issue. Community groups have taken ownership of their local festivals and instituted programs to collect more recyclable materials at public events.

The County will continue to examine ways to enhance public event recycling by studying the possibility of making it a requirement in a festival's permit to operate. The County will continue to provide public event recycling at its core events and encourage and support the now-increasing efforts of others.

Processed Scrap Metal Recycling

According to research conducted by the USEPA, recycling scrap metals can be quite beneficial to the environment. Using recycled scrap metal in place of virgin iron ore can yield[6]:

- 75% savings in energy
- 90% savings in raw materials used
- 86% reduction in air pollution
- 40% reduction in water use
- 76% reduction in water pollution
- 97% reduction in mining wastes

[6] http://www.norstar.com.au/Recycling/Processing/Benefits.aspx

Currently, the ecopark accepts scrap metal for recycling and the MCRRF conducts some tip floor diversion of scrap metal. The private sector has taken an active role with scrap metal recycling because of the economic benefits that are obtained. Through strategies discussed in Chapter 6 – Solid Waste Management Program Strategies, a more effective method for gathering qualitative and quantitative information on processed scrap metal is proposed through Program Strategy #13. Once an understanding of how scrap metal is processed or managed in the County, the next step would be to implement an educational program (Program Strategy #9) to disseminate information regarding the benefits of scrap recycling and the opportunities available for processing scrap metal.

Public Education Efforts to Promote Recycling

Shortly after completion of the original LSWMP, the County partnered with the local Cornell Cooperative Extension and a private public relations firm to design and establish a public education program regarding solid waste management in the County. The arrangement assisted with large scale advertisement of the Solid Waste Reuse and Recycling Law that was put into effect pursuant to the LSWMP and the development of the widely used County slogan "Don't trash our future. Recycle." The partnership resulted in mixed success throughout the following years and, in 1997, the County determined that it was capable of handling the public education program internally.



Since that time, the County has undertaken an active role in public reduction, reuse and recycling education. The County employs one (1) or two (2) people dedicated to recycling, solid waste management, and general environmental education throughout the County. Through focus group studies, the County determined that education efforts are most effective with children, specifically those of primary school age.

For this reason, the County has focused its efforts predominately on presentations to elementary school classes. The County's resultant "Chet the Cheetah" outreach program won the *2000 Governor's Waste Reduction and Recycling Program Achievement of Excellence Award.* The County has designed a "green" calendar, which evolved from a recycling education tool to an overall "green" educational publication touting the "green" efforts taking place throughout the County's services and facilities. These calendars were provided to all third or fourth grade classrooms, along with environmental curricula.

The County uses mass media advertising, as budgeting allows, to provide updates on the County's solid waste management system as well as general public reminders. These have advertised many County programs including the HHW collection program, pharmaceutical collections, e-waste management, and materials accepted at the County's recycling facilities. The County regularly presents at local public events and festivals to promote recycling education. Over the term of the original LSWMP, the County received grant funding through the NYSDEC to help cover the cost of funding a recycling educator for seven (7)

years, which substantially increased the education efforts that the County was able to undertake. The County continues to apply for similar grants in an effort to supplement its education program.

County personnel also give presentations to classrooms and clubs such as local pre-school, elementary, middle, and high schools, college and public environmental clubs, Boy Scouts, and Girl Scouts. In addition, tours of the MCRC and MCRRF are conducted for similar groups upon request. County staff annually conducted, or participated in, over 100 individual environmental education events (tours, open houses, school/scout presentations, festivals, etc.) with over 10,000 constituents in attendance—for those events where a count was possible.

Concurrently with the opening of the ecopark, the County implemented a countywide recycling education campaign to promote the ecopark and the collection of the acceptable recyclable materials both curbside and at the ecopark. Specifically, unique items, such as children's plastic sand boxes or plastic lawn furniture, can be accepted at the ecopark free of charge. At certain times, these types of materials were sent to the landfill for disposal because the MCRC equipment could not handle oversized recyclable materials. The County, with the help of its contractor, Cascades Recovery, expanded the current recycling program to accept a more comprehensive list of recyclables that were not historically accepted at the curb.

Public education plays a critical role in changing behavior and driving participation in the County's sustainability initiatives. The ecopark facility was developed with the sole purpose of serving the household material management needs of the County's taxpayers. It was incumbent that the services of this one-stop-drop off facility were properly communicated to the public to increase diversion and bring value to residents, through media outreach and word of mouth.



In addition to media outreach, printing collateral materials for countywide distribution and convening public meetings, the County developed an interactive and innovative website (http://www.monroecounty.gov/ecopark) to assist residents in the use of the facility. This website enables users to be kept informed of items accepted at the ecopark, provides facility hours of operation, instructs patrons of special packaging and unloading requirements, discloses fees associated with drop-off items, enables residents to schedule appointments for HHW drop-off, and most importantly, delivers alternate management options for

materials through a tool called the ecopark "Prospector." The ecopark "Prospector" is meant to provide alternative recycling options to the community that may be more convenient to the individual resident, and even outlets for material not handled in the County's program. The focus is not just about utilizing the ecopark itself but to educate community members about the importance and availability of diversion options available.

While implementing its single stream recycling program, the County was interested in learning more about the recycling attitudes and behaviors of the County's households in order to understand the breadth and depth of recycling that occurs today. As the County's contractor, WMNY retained BRX Global Research Services, Inc. to develop, implement and analyze a survey of households within the County. The survey was administered between January 21, 2014 and January 29, 2014. A total of 801 surveys were completed. The sample was similar to the County population on age and geographic distribution; however, the results were statistically weighted so as to be statistically representative. The respondents profile was as follows:

- 26% of the respondents were renters.
- 64% of the respondents were female.
- 27% of the respondents were residents of the City of Rochester while the remaining 73% were residents of the towns or villages outside of the City.
- 48% of the respondents had lived at their current address for more than 10 years.
- 35% of respondents were single while 58% were married or living as married.
- Approximately 15% of respondents had not continued their schooling after high school.

The survey's intent was to gather information so that the County and WMNY, as well as other haulers would have a sense of how to increase resident's likelihood to recycle more. Overall, the majority (95%) of the respondents indicated that they recycle in some fashion. They also indicated that they would recycle more if they had a better understanding of what is recyclable with the second most popular response being if they had a larger recycling container. Top responses regarding what prevents the non-recyclers' households from recycling included:

- Don't have a recycling container
- No room to store recyclables
- I don't believe the items are really recycled after being collected
- I don't want to carry recycled materials to the curb/recycling location
- Unsure of what materials to recycle

When asked how residents learn about recycling, the top responses were: friends, family, neighbors, coworkers, etc., my garbage hauler, broadcast media such as television and radio, local municipality, newspapers, the County website, and flyers. The information from the survey is intended to help the County and

WMNY tailor their future educational outreach programs. A presentation shared with private and municipal haulers that summarizes the results of the survey is included in Appendix F of this LSWMP.

Organic Wastes Diversion

Interest in organic waste diversion has increased over the last few years, particularly because it has the potential to divert a significant portion of the waste stream away from landfills, thereby achieving potential cost savings through reduced landfilling costs. The composting process can be applied to yard waste, food waste, MSW, WWTF biosolids, non-hazardous industrial sludge, or some combination of these materials.

There are several local examples of food waste diversion programs being piloted. The Rochester Institute of Technology has started a pre-consumer food waste separation program in its food service facilities. Currently, the material is picked up by a local farmer as animal feed. The University of Rochester's dining services section and sustainability group have instituted pre- and post-consumer food waste diversion efforts with over 33 tons of food waste being sent to Freshwise Farms (Penfield, NY) during the 2008-2009 school year for composting. In addition, starting in 2011, this food waste is transported to High Acres Landfill & Recycling Center organic composting facility and composted and reused for landscaping needs at the High Acres Nature Area.

The County was home to Epiphergy, a private start-up company focusing on managing an under-utilized resource, organic waste, and turning it into a resource. Epiphergy indicated on its website that their organic waste bioprocessing facilities could produce from 5,000 to 5,000,000 gallons of advanced biofuels per year. They worked with other partners within the County including Community Composting, Foodlink, and Rochester Greenovation, to divert organic wastes from landfills.

Program Strategies #6, #7, #8, and #13 in Chapter 6 – Solid Waste Management Program Strategies are included in the Implementation Schedule for evaluating and implementing recovery of these organics, including collecting data and information regarding organics generation and management in the County, and investigating existing partnership opportunities such as supplying food waste and scraps to an existing anaerobic digestion or other composting facilities.

Yard Waste

A yard waste survey was conducted by the County in 2009 to determine the availability of yard waste management services to County residents. As indicated by the results of this survey, included in Table 2-9 below, many municipalities offer some level of yard waste management services to their residents. In addition, many municipalities take their leaves to farmers where they are dispersed on the farmer's fields to assist in the growing process.

In the State, uncontaminated yard waste can be composted at three (3) types of facilities recognized and/or regulated by the NYSDEC: exempt (< 3,000 cubic yards); registered (> 3,000 but < 10,000 cubic yards); and, permitted (> 10,000 cubic yards). A majority of County municipalities have exempt yard waste composting facilities and some offer curbside collection services to their residents.

Table 2-9 - Yard Waste Management Services by Municipality

Municipality	Collection Method	Management Facility
Town		
Brighton	Mun. Pick-Up at the curb. Containers, barrels or cans acceptable, no vacuum. Frequency to be further evaluated.	Permitted Compost Facility*
Chili	Mun. Pick-Up with loader. Frequency to be further evaluated.	Registered County Compost Facility (Avion Drive)/ Exempt Compost Facility (Town DPW)*
Clarkson	Mun. Pick-Up. Pick up biodegradable bags only, no loose leaves or plastic bags. Frequency to be further evaluated.	Exempt Compost Facility* Sold to Niagara Generation (Ni-Gen) in Niagara Falls, NY for use in their biomass power plant
Gates	Mun. Pick-Up with vacuum/Res. Drop Off. Frequency to be further evaluated.	Exempt Compost Facility*
Greece	Mun. Pick-Up/Res. Drop Off. Starting in October through December on a 2-week rotation. 5 drop off sites are available.	Permitted Compost Facility*
Hamlin	Mun. Pick-Up during Halloween week/Res. Drop Off remainder of year.	Exempt Compost Facility* Sold to Ni-Gen in Niagara Falls, NY for use in their biomass power plant
Henrietta	None	None
Irondequoit	Res. Drop Off at Camp Eastman from Oct. 13 to Dec. 22. Private Collection.	Exempt Compost Facility/Registered Compost Facility *
Mendon	None	None
Ogden	Mun. Pick-Up. Leaves added to brush/mulch pile at town garage.	Exempt Compost Facility*
Parma	Res. Drop Off at town garage.	Exempt Compost Facility*
Penfield	None	None
Perinton	Mun. Pick-Up using vacuum. Residents can use barrels or containers at curb. No bags.	Registered Compost Facility (High Acres Landfill & Recycling Center)*
Pittsford	Mun. Pick-Up using vacuum and loaders/Res. Drop Off at Highway Dept.	Exempt Compost Facility*
Riga	None	None
Rush	Res. Drop Off at Stonybrook Road site available to residents year round. Each spring the Highway Dept. is responsible for the pick-up of brush and drop-off at the transfer station.	Exempt Compost Facility*
Sweden	Mun. Pick-Up with vacuum trucks from 2nd week in October until Thanksgiving.	Give Away Material

Municipality	Collection Method	Management Facility
Town		
Webster	Mun. Pick-Up with vacuum trucks, taken to Town compost facility.	Exempt Compost Facility*
Wheatland	Mun. Pick-Up with vacuum truck in Mumford and Rolling Acres.	Exempt Compost Facility*
City		
Rochester	Mun. Pick-Up with vacuum or loader from mid-Oct.-Thanksgiving.	County Compost Facilities (Colfax Street)/Registered Facilities*
Village		
Brockport	Mun. Pick-Up from 10/1 to 12/1. Use vacuum. No plastic bags.	Give Away Material
Churchville	Mun. Pick-Up with vacuum/Res. Drop Off at Highway Garage.	Exempt Compost Facility*
East Rochester	Mun. Pick-Up with vacuum. Take bags, clear or biodegradable on collection days.	Exempt Compost Facility*
Fairport	Mun. Pick-Up starting from the 2nd week in October through village once. Vacuum with box on collection days.	Registered Compost Facility (High Acres Landfill & Recycling Center)*
Hilton	Mun. Pick-Up with blower and truck from Oct. to 1st week in Dec. No bags or containers. No drop off site.	Registered Compost Facility (Greece)*
Honeoye Falls	Mun. Pick-Up from 2nd week in October until Thanksgiving.	Exempt Compost Facility*
Pittsford	Mun. Pick-Up from mid-October until snow fall. Vacuum and payload.	Exempt Compost Facility*
Scottsville	Mun. Pick-Up with 2 vacuums from Oct. to Dec.	Exempt Compost Facility*
Spencerport	Mun. Pick-Up with 2 leaf vacuums from mid-Oct. until 12/1.	Exempt Compost Facility*
Webster	Mun. Pick-Up with 2 vacuums from mid-Oct. until first snow.	Permitted Compost Facility*

**See Table 2-10 below for details related to each facility.*

The County is responsible for managing the yard waste (brush, wood waste, and primarily leaves) collected by the City of Rochester under the terms of a solid waste inter-municipal agreement between the County and the City of Rochester (in place through 2018), and had operated exempt facilities throughout the Rochester area to provide such services to the City. The City of Rochester has an active residential (loose) leaf collection program in November of each year. The City of Rochester collects the yard waste and transports it to their satellite sites throughout the city or directly to the County's sites where it is processed and screened. The finished product is returned to the city for distribution. In addition the City of Rochester offers a drop-off location for loose leaves at their facility at Ferrano Street, near Colfax Street. Loose leaves are composted, screened and made available to the public through a Materials Give Back program.

In 2008, the County pursued the design and construction of a registered composting facility located on Avion Drive in the Town of Chili. The facility has been operating very successfully, and has helped to ease the burden of handling the large volumes of leaves from the City of Rochester. The finished compost product is utilized by the County and City of Rochester and offered to nearby municipalities, residents and ecopark customers when quantities allow. The County plans to pursue additional facilities modeled after Avion Drive to centralize the composting operations and eliminate some exempt facilities. The County has investigated a number of available properties around the County for future development.

In addition, to siting additional facilities for composting, the County anticipates sharing its current and future composting equipment, such as a recently procured windrow turner and a tub grinder, among the yard waste sites once they have been developed. By sharing equipment, more municipalities are able to contribute to yard waste composting initiatives. More details related to the initiative to increase the number of composting facilities will be provided in Program Strategies #6 and #7 in Chapter 6 – Solid Waste Management Program Strategies.

Composting facilities located within the County are provided below in Table 2-10.

Table 2-10 – Composting Facilities in Monroe County

Facility Name	Owner/Operator	Facility Address	Exempt/ Registered/ Permitted	Approximate Quantity of Materials Received and Processed	Compost Process and End Use
Webster (V)	Village of Webster	613 Webster Rd. (WWTF)	Permitted	128 dry tons/year (Biosolids) plus >10,000 cubic yards of yard waste	Forced aerated static piles. Taken to sewage treatment plant mulch pile. Giveback to residents in Spring. Will deliver to residents for a fee.
Brighton (T)	Town of Brighton	2300 Elmwood Avenue, Brighton	Permitted	30,100 cubic yards/year	Piled in windrows. Used for municipal projects.
Greece (T)	Town of Greece	647 Long Pond Road, Greece	Permitted	20,300 cubic yards/year	Piled in windrows. Giveback to residents in Spring.
Monroe County Yard Waste Composting Facility – Avion Drive	Monroe County	6 Avion Drive, Chili	Registered	> 3,000 but < 10,000 cubic yards/year	Given to residents, used in municipal projects.
Monroe County Yard Waste Composting Facility – Brew Road	Monroe County	Brew Road, Riga	Registered	> 3,000 but < 10,000 cubic yards/year	Facility is on hold.
High Acres Landfill & Recycling Center	WMNY	425 Perinton Parkway, Perinton	Registered	> 3,000 but < 10,000 cubic yards/year	Piled in windrows. Used in municipal projects, and used for landscaping, trail building, mixed with topsoil or organic material and used for revegetative purposes, bulking up mud in landfill, soil amendments. Accepts food waste.
Town of Chili DPW Parking Lot	Town of Chili	3235 Chili Avenue	Exempt	< 3,000 cubic yards/year	Giveback to residents or farmers.
Clarkson Highway Garage	Town of Clarkson	3623 Lake Road	Exempt	< 3,000 cubic yards/year	Sell to Niagara Generation (Ni-Gen) in Niagara Falls, NY for use in their biomass power plant . Whatever is left is available to residents.

Facility Name	Owner/Operator	Facility Address	Exempt/ Registered/ Permitted	Approximate Quantity of Materials Received and Processed	Compost Process and End Use
Town of Gates	Town of Gates	475 Trabold Road	Exempt	< 3,000 cubic yards/year	Giveback to residents.
Town of Hamlin Highway Garage	Town of Hamlin	91 Railroad Avenue, Hilton	Exempt	< 3,000 cubic yards/year	Grind brush and sell to Niagara Generation (Ni-Gen) in Niagara Falls, NY for use in their biomass power plant.
Camp Eastman	Town of Irondequoit	1558 Lakeshore	Exempt	< 3,000 cubic yards/year	Giveback to residents.
Ogden Highway Department	Town of Ogden	2432 S. Union St., Spencerport	Exempt	< 3,000 cubic yards/year	Giveback to residents.
Parma Highway Department	Town of Parma	51 Henry Street, Village of Hilton	Exempt	< 3,000 cubic yards/year	Used for Town projects.
Pittsford Highway Department	Town of Pittsford	60 Golf Avenue	Exempt	< 3,000 cubic yards/year	Leaf and wood mulch generated by the Town is free to residents who visit the East Street storage site.
Stonybrook Road Transfer Station	Town of Rush	Stonybrook Road	Exempt	< 3,000 cubic yards/year	Giveback to residents.
Wheatland Compost Facility	Town of Wheatland	1421 Scottsville-Mumford Road	Exempt	< 3,000 cubic yards/year	Used for Town projects. Some giveback to residents.
West Irondequoit Central School District	Irondequoit School District	154 Pinegrove Avenue, Rochester	Exempt	< 3,000 cubic yards/year	Feedstock includes leaves, grass, brush and branches, food scraps and paper products. Use Earth Bin. Compost is used on-site.
Honeoye Falls DPW	Village of Honeoye Falls	100 Ulrich Lane	Exempt	< 3,000 cubic yards/year	Giveback to residents.

Source: NYSDEC List of Part 360 Permitted Composting Facilities (http://www.dec.ny.gov/chemical/55447.html)
Cornell Waste Management Institute NYS Compost Facilities Map (http://compost.css.cornell.edu/maps.html#251)

Wood Waste Management

In an effort to reduce wood waste from the waste stream disposed of at the Mill Seat Landfill, the County and Cascades Recovery have implemented a wood waste recovery system at the MCRRF. Frequently, wood shipping and storage skids are included within the industrial waste delivered to the MCRRF. These wooden skids are removed from the tipping area after dumping and recovered for sale and reuse or, if too damaged, transferred to the City of Rochester's wood chipping operation along with other miscellaneous wood recovered at the MCRRF. The wood chips from the chipping operation are then used at the Mill Seat Landfill as an alternate daily cover material and landscaping activities. In addition, some chips are used for City of Rochester landscaping projects.

While the County does not perform wood waste management for residents countywide, it recognizes the need for a wood waste management outlet within the County, particularly after the Christmas holiday, when residents in urban and suburban areas are disposing of their Christmas trees. The County helps to ensure that County residents know what management options are available for their discarded Christmas trees. Every winter, the County Executive issues a countywide press release, which lists municipal and private Christmas tree chipping programs throughout the County (see Appendix A for a copy of the 2013-2014 list). The residents can also use this information year-round to locate local wood management options. Additionally, Cascades Recovery separates all accessible Christmas trees from the waste piles on the transfer station tipping floor for chipping.

The City of Rochester's Colfax/Ferrano Street site also accepts wood debris from C&D projects or other sources. The wood debris is chipped at this facility and offered to other municipalities, residents or businesses as part of their Materials Give Back program.

The County owns a Morbark 1300 Tub Grinder, which it uses to process yard waste and scrap wood for a number of municipal operations as part of an inter-municipal shared equipment program and an exchange of services with WMNY's High Acres Landfill & Recycling Center. Wood waste can be ground to different sizes based on the needs of the end users. Wood waste for the landfills is processed with 5" screens while wood for the local municipalities is ground with 3" screens and sometimes double ground to provide a finer mulch. In exchange for grinding High Acres Landfill & Recycling Center wood, a rotary trommel is provided to the County to screen the litter and debris out of its composted leaves and yard waste.

It is anticipated that with the invasion of the Emerald Ash Borer that the demand of the County's tub grinder will increase significantly as Ash trees begin to die off and the need to manage the waste wood increases.

Food Scraps/Food Processing Waste/Food Banks

There is one (1) known registered compost facility for food waste located within the County. This facility, High Acres Landfill & Recycling Center, is able to collect up to 1,000 cubic yards per year. In 2013, this facility collected approximately 222 tons of food waste from two (2) area universities. Additionally, a small company, Community Composting, is available to residents as a paid service for collection of food scraps and in return the company provides compost delivered to the participant's door. According to Community Composting's website (accessed on July 10, 2015), their members have diverted 176,137 pounds of food waste from the landfill (timeframe unknown). Food wastes are composted at Vermi-Green in Palmyra, Wayne County.



Food waste collection programs are not currently monitored by the County. However, through implementation tasks discussed in Chapter 6 – Solid Waste Management Program Strategies, a method for gathering this information is proposed through Program Strategy #13. Once an understanding of how food waste is processed or managed in the County, then the next step would be to implement an educational program (Program Strategy #9) to disseminate information regarding the benefits of food waste collection or composting programs.

WWTF Biosolids Handling

Four (4) of the nine (9) municipal WWTFs included in the original LSWMP have closed. The Gates-Chili-Ogden, Churchville, Scottsville and Spencerport (NWQ dry-flow) facilities were closed, and replaced with pump stations that convey the sewage to the FEV WWTF, which is operated by the County.

In 2005, the biosolids incinerator located at the FEV WWTF was closed in favor of landfill disposal of the material. A biosolids off-load facility was constructed at FEV WWTF in 2005 and enabled the County to achieve two (2) goals: eliminate emission-producing incineration of the biosolids and ease biosolids transfer to the landfills. The facility has four (4) live bottom bins to hold dewatered biosolids, two (2) drive-thru loading bays, and an automated weighing and loading system to fill the trailers. Each trailer holds about 32 wet tons of biosolids with about 50 trailer loads going to landfills each week. A state-of-the-art odor control system is an integral part of this facility. A similar, but smaller off-load facility was constructed at the County's NWQ WWTF in 2000 to pilot the program. An average of 100,000 wet tons of WWTF biosolids are transported to the Mill Seat Landfill, the High Acres Landfill & Recycling Center, and Chaffee (CID) Landfill from County operated or owned facilities.

A benefit of disposing of the biosolids in landfills in lieu of incineration is that it has the effect of enhancing gas production and waste decomposition within the landfills. The moisture (biosolids are typically up to 70% water) and microbiology provided by the biosolids aids in the decomposition of the MSW located within the landfill, increasing landfill gas production, and decreasing the in-place volume of the garbage, thereby increasing airspace. The additional gas generated is collected by the gas collection systems at each site to help operate the landfill gas-to-energy facilities.

Most of the biosolids from the remaining WWTFs in the County are transported to County-located landfills. The incinerators at the FEV and NWQ WWTFs have been permanently shut-down. A summary of the current municipally operational WWTFs in the County and their biosolids management practices is included in Table 2-11 below.

Table 2-11 – Municipal Wastewater Treatment Facilities in Monroe County

Facility	Operator	Sludge Management
FEV WWTF	Monroe County	Mill Seat Landfill & High Acres Landfill & Recycling Center
NWQ WWTF	Monroe County	Mill Seat Landfill & High Acres Landfill & Recycling Center
Town of Webster WWTF	Town of Webster	Ontario County Landfill
Village of Webster WWTF	Village of Webster	Ontario County Landfill
Honeoye Falls WWTF	Village of Honeoye Falls	Transferred to FEV WWTF

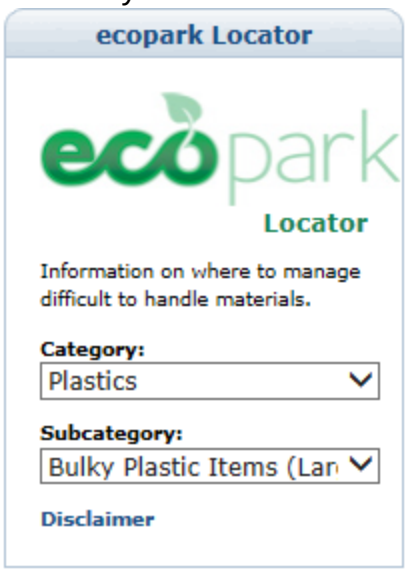
2.3 Status of Existing Recovery Efforts

As demonstrated in the previous section, the County's residents and commercial, industrial and institutional waste generators have several outlets to divert their waste from disposal to reduction, reuse and recycling. However, unlike solid waste data that is reported to the NYSDEC annually, a complete set of waste diversion data is not readily available since much of it is not required to be reported by private entities to any agency (except for those facilities that must submit recycling reports to NYSDEC). At this time, the majority of the residential and light commercial recyclables data has been reported by the recycling centers and is summarized in Table 3-2 in Chapter 3 – Solid Waste and Recyclables Quantities and Types. Private businesses within the County are not currently required to report the destinations of their recyclables. As referenced in Table 3-2 in Chapter 3 – Solid Waste and Recyclables Quantities and Types, based on 1.3 million tons of waste generated within the County in 2010, 983,794 tons were disposed in landfills and 372,884 tons of materials were diverted either by composting or recycling. The County's current waste diversion rate, based on best available data, is estimated at

27.5%. The County's MSW diversion rate is estimated at 16.5% with the exclusion of contaminated soil, WWTFs biosolids, C&D debris, processed scrap metal, and industrial waste.

Since there is limited participation in the reporting requirements in the Solid Waste Reuse and Recycling Law for these entities, quantities and types of waste disposed or recovered in the County has not been made readily available to the County. Program Strategy #13 (Recycling Surveys and Reporting) in Chapter 6 – Solid Waste Management Program Strategies is intended to address the issue of the lack of data being reported by these various entities. Program Strategy #9 (Public Outreach and Education) will include the various recycling sectors and how best to increase recycling efforts. The evaluations are to assess the effectiveness and/or needs of these facilities and programs and the County's activities related to them, to determine what improvements, partnerships, or other alternatives should be evaluated for implementation and what the resulting future recovery goals could be.

2.4 Markets Discussion



The original LSWMP called for the County to market recyclable materials itself. However, due to the high fluctuation experienced in market prices for these materials, the County determined that it was best to place this responsibility with the contracted operator. WMNY operates the MRF and Cascades Recovery operates the MCRRF, so the County relies on them to determine the end markets for recyclable materials. The County relies on the market expertise and bulk sales capability of the contracted operators to be able to consistently and responsibly recycle these materials, even in fluctuating market conditions. The County maintains communication with both WMNY and Cascades Recovery to understand the available end markets for recyclables materials, and will continue to do so during this planning period. In addition, the County developed an interactive and innovative "Prospector" that monitors available markets and alternative recycling options. This tool has the capability of identifying outlets for material not handled in the County's program as well as staying abreast of the markets that the contracted operators utilize.

Chapter 3 - Solid Waste and Recyclables Quantities and Types

3.1 Waste Types

The County's solid waste stream has five (5) primary components: MSW, non-hazardous industrial waste, C&D debris, WWTF biosolids, and processed scrap metal (e.g., scrap vehicles) waste.

For the purposes of this plan, MSW consists of waste generated in homes, businesses, institutions, and the commercial portion of waste discarded by industries. The residential component includes, but is not limited to, newspapers and magazines, glass, metal, plastic containers, food waste, household goods including bulky items like furniture and appliances, textiles, and yard trimmings. The commercial waste stream tends to contain higher percentages of office paper, corrugated cardboard, and scrap metals. Commercial waste is the non-hazardous waste generated by businesses such as restaurants, retail stores, schools and hospitals, professional office, and manufacturing facilities.

As a regulatory requirement, each solid waste management facility is required to submit annual reports to the NYSDEC. These annual reports provide information with regard to the quantities of materials managed and often identify the geographic locations where the waste materials were generated. The data from the NYSDEC annual reports is readily available and generally reliable. It can also be assumed that the materials collected and processed at the MCRC and other similar recycling facilities in the County are being separated from the household, business, institutional and commercial wastes classified as MSW, and are considered to be another component of that waste stream. Due to the fact that these types of recyclables handling facilities must also compile annual reports to the NYSDEC, this data is also relatively easy to gather. Yard waste is a component of the MSW waste stream that is difficult to quantify. Implementation of a plan to collect data and estimate MSW by material type, including estimating residential yard waste generation and recovery is further discussed in Chapter 6 – Solid Waste Management Program Strategies (Program Strategy #13).

Non-hazardous industrial waste is typically generated by manufacturing facilities as a result of an industrial process and is made up of materials such as biosolids, ash, and dust. According to annual reports submitted to NYSDEC, some portion of these materials are disposed of in local landfills; however, the homogeneous nature and large quantity of these wastes typically available can also make them useful as feedstocks for other processes or for disposal in monofill landfills. Therefore, only partial data for the generation of these materials within the County is currently available. Implementation of a plan to collect data and estimate MSW by material type, including estimating industrial waste generation and recovery, considering these circumstances is further discussed in Chapter 6 – Solid Waste Management Program Strategies (Program Strategy #13).

C&D debris is generated by the residential, commercial, industrial, and institutional sectors and typically consists of wood, masonry, soil, land clearing debris, plumbing fixtures and other construction related items. Many of the area landfills report C&D debris as a separate disposal stream, and therefore, the quantity disposed of from the County residents is easy to determine. However, many of these materials can be

recycled and reused (e.g., clean fill material, mulch, or recycled aggregate). Data from these types of operations and uses has been difficult to obtain. Implementation of a plan to collect data and estimate MSW by material type, including estimating C&D debris generation and recovery, considering these circumstances is further discussed in Chapter 6 – Solid Waste Management Program Strategies (Program Strategy #13).

WWTF biosolids is generated by a variety of facilities within the County. Much of this material is landfilled and the data is readily available from the annual reports to NYSDEC.

Processed scrap metals are typically generated by commercial or industrial sectors, but in potentially large quantities which makes it worth monitoring. Data from these types of operations and uses is difficult to obtain. Implementation of a plan to collect data and estimate MSW by material type, including estimating scrap metals generation and recovery, considering these circumstances is further discussed in Chapter 6 – Solid Waste Management Program Strategies (Program Strategy #13).

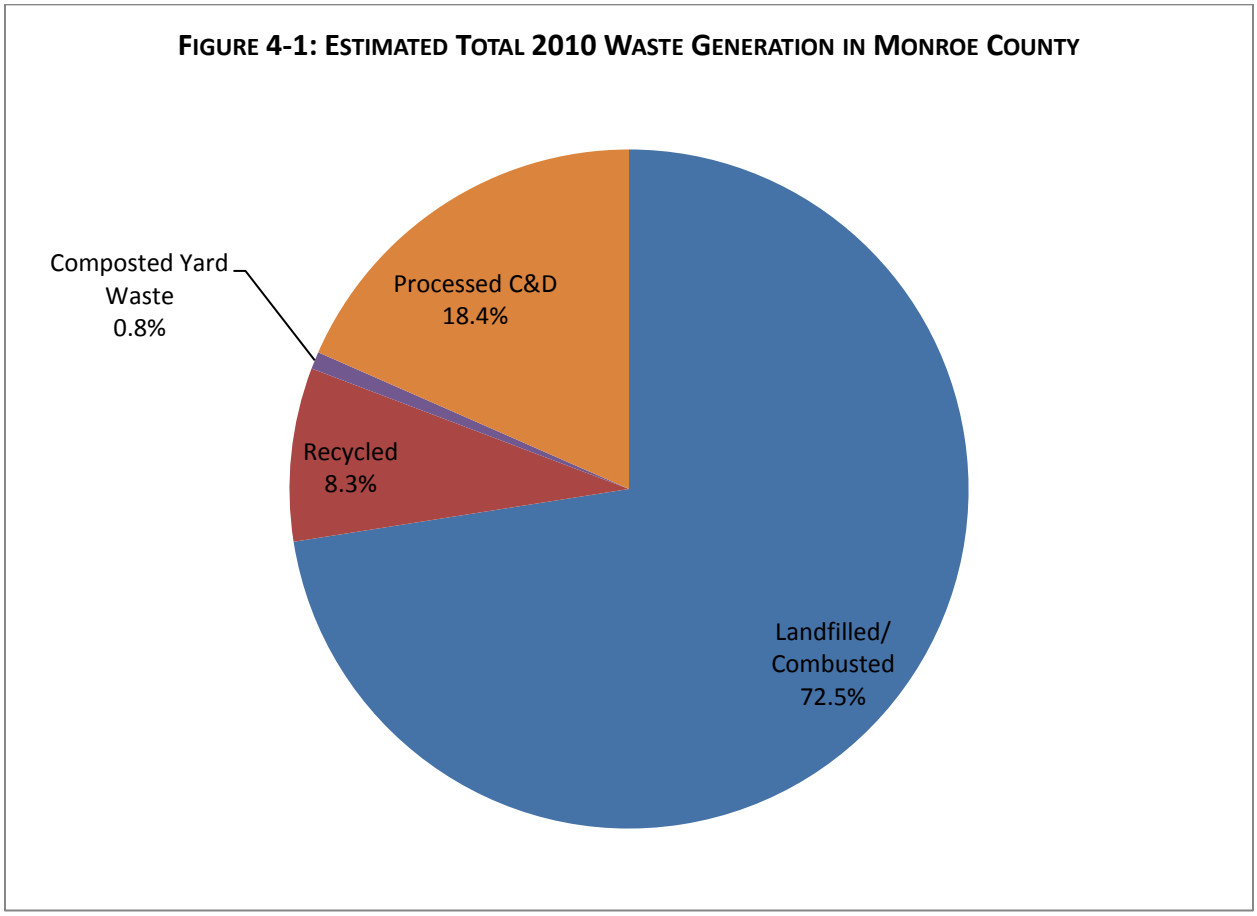
3.2 Generation and Recovery Estimates

3.2.1 Estimation of Total Waste Generation in Monroe County[7]

In 2010, based on annual reports submitted to NYSDEC, the County's residents and businesses generated approximately 1.3 million tons of waste based on available data. Figure 3-1 shows the overall method of management for the waste. The fraction for each waste management sector was determined by analyzing annual tonnage reports for those facilities that reported accepting waste from the County. Based on the information available, the majority of the waste is landfilled (983,794 tons or 72.5%) while the remainder is processed at a C&D facility (249,707 tons or 18.4%), recycled (112,036 tons or 8.3%), or composted (11,141 tons or 0.8%).

[7] Monroe County Waste/Material Flow from 2010 Facility Annual Reports, provided by D. Vitale 12.16.13 and 7.7.15

Figure 3-1 - Estimated Waste Management Methods in Monroe County in 2010



Source: NYSDEC, Facility Annual Reports, 2010; and NYSDEC provided data

Five (5) municipal WWTFs, were reported to be present in the County in the NYSDEC's Biosolids Management of New York State Report dated 2011. Since that time, one (1) WWTF has been closed in the Village of Scottsville. Table 3-1 shows the remaining active facilities and the method of biosolids management utilized.

Table 3- 1 - Municipal Biosolids Generation and Management Summary

Treatment Plant	Treatment Method	Dewatering Device	Dry Tons/Year	Use/Disposal Method	Location
FEV WWTF	None	Centrifuge	22,497	Landfill	Mill Seat Landfill or High Acres Landfill & Recycling Center.
Honeoye Falls WWTF	Anaerobic Digestion	None	27	Landfill	Sent to FEV WWTF.
NWQ WWTF	None	Centrifuge	4,403	Landfill	Mill Seat Landfill or High Acres Landfill & Recycling Center.
Town of Webster WWTF	Anaerobic Digestion	Centrifuge	729	Landfill	High Acres Landfill & Recycling Center in 2010.
Total			**27,736**		
Total Biosolids Composted On-site			**0**		
Total Biosolids Landfilled			**27,736**		
Total Municipal Bisolids Generated			**27,736**		

Source: NYSDEC, Biosolids Management in New York State, 2011
Note: Following the issuance of the above referenced report, biosolids from the Town of Webster WWTF are no longer disposed at High Acres Landfill & Recycling Center.

Table 3-2 provides further detail on the types and quantities of waste managed through each method. A complete breakdown of waste generated as a whole for the County is not available due to the lack of comprehensive data available at this time. Tasks are included in Chapter 7 - Implementation Schedule to investigate the implementation of a survey and reporting program as well as any other programs that might be useful and necessary to collect generation and recovery data in this format. Table 3-2 provides a waste generation baseline, which will be expanded as data becomes more readily available and can be incorporated into future waste generation analysis. In 2010, waste generated within the County was disposed at the Mill Seat Landfill, the High Acres Landfill & Recycling Center, Seneca Meadows Landfill, and Ontario County Landfill.

Table 3-2 - Estimation of Total 2010 Waste Tonnage By Facility Generated in Monroe County

	Amount (Tons)	Percentage	% of Total Generation
Landfilled [1]			
MSW	622,971	63.3	45.9
Construction and Demolition Debris	218,546	22.2	16.1
Sewage Sludge/Biosolids	80,082	8.1	5.9
Industrial	33,177	3.4	2.4
Beneficial Use Determination Material (shredder fluff and special waste suitable for alternative daily cover)	29,018	2.9	2.1
Total	**983,794**	**100.0**	**72.5**
Diverted			
Composted Sewage Sludge/Biosolids[3]	0	0.0	0.0
Composted Yard Waste[4]	11,141	3.0	0.8
Recovered/Composted Food Scraps[5]	0.0	0.0	0.0
Recycled[6]	112,036	30.0	8.3
Processed Construction & Demolition Material	249,707	67.0	18.4
Total	**372,884**	**100.0**	**27.5**
Total Waste Generation	**1,356,678**		

1. The NYSDEC 2010 Facility Annual Reports provided the tonnages landfilled at the various landfills.
2. For this analysis, C&D Debris includes: 11,103 tons of asbestos, 121,512 tons of construction & demolition debris, 6,696 tons of petroleum contaminated soil, and 79,235 tons C&D Debris Alternative Daily Cover for a total of 218,546 tons of C&D debris landfilled
3. The NYSDEC report, *Biosolids Management in New York State, 2011* provided the most recent data for WWTFs.
4. Quantity based on self reported volume composted at Greece Transfer Station and High Acres Landfill Yard Waste Composting Facility.
5. None reported in 2010.
6. The NYSDEC 2010 Recyclables Handling and Recovery Facility Reports provided the tonnages recycled at the various recovery facilities.

   The following recovery facilities received materials from the County:
   MCRC, MCRRF,JC Fibers Inc., Rochester Recycling, LLC, Metalico, EPS, Blasdell Transfer Station, Center Point Transfer Station, American Recyclers Transfer Station, Shanks, Clearwater Environmental Transfer Station, Liberty Tire Services.

3.3 Estimation of Potential MSW Recovery

As previously discussed, an incomplete set of disposal and recovery data is available for the County to compile and review. With the assistance of the NYSDEC's waste composition and recovery projection tool, the following section provides the County with an estimated MSW waste composition for future planning purposes. The complete tables are provided in Appendix C. MSW composition includes residential, commercial and institutional waste generators. For the purposes of this analysis, the following have been excluded from the MSW composition estimates: separately managed C&D debris, several organics streams (biosolids, septage, agricultural materials), industrial waste, medical and biohazardous materials, and scrap metal managed outside of the MSW management structures. The quantities of containers (aluminum, glass and PET) collected as part of the Recoverable Container Act are typically not reported to databases that are available to individual counties. With the NYSDEC's assistance, the table below provides some assumptions as to the quantity of containers recovered as part of the Recoverable Container Act in 2010.[8]

The following table provides an estimate based on the total tons of MSW generated in Table 3-3 within the County that could be recovered or diverted from a waste disposal location if additional programs were in place.

[8] According to 2010 Recoverable Container Act data from the DEC, 59% of deposit containers are recovered. Of the containers, 80% of Aluminum containers are deposits, 50% of glass containers are deposits, and 45% of PET containers are deposits.

Table 3-3 - Estimated MSW Recoverable Materials in Monroe County

Material	Estimated MSW Tons Generated (2010)	% of Total	Estimate of Actual MSW Tons Diverted (2010)	% Diverted (2010)
Newspaper	**28,639**	3.84%	**27,869**	**97.31%**
Corrugated Cardboard	**74,262**	9.95%	**28,976**	**39.02%**
Other Recyclable Paper				
Paperboard	**17,003**	2.28%	**2,737**	**16.10%**
Office Paper	**19,722**	2.64%	**8,836**	**44.80%**
Junk Mail	**15,638**	2.10%	**651**	**4.16%**
Other Commercial Printing	**15,916**	2.13%	**8,944**	**56.20%**
Magazines	**7,130**	0.96%	**466**	**6.54%**
Books	**3,260**	0.44%	**15**	**0.45%**
Bags	**2,818**	0.38%	**7**	**0.27%**
Phone Books	**2,137**	0.29%	**13**	**0.59%**
Poly-Coated	**1,618**	0.22%	**99**	**6.12%**
Other Recyclable Paper (Total)	**85,241**	11.42%	**21,768**	**25.54%**
Other Compostable Paper	**48,750**	6.53%	**0**	**0.00%**
Total Paper	**236,893**	31.75%	**78,613**	**33.19%**
Ferrous/Aluminum Containers				
Ferrous Containers	**7,671**	1.03%	**585**	**7.62%**
Aluminum Containers	**3,484**	0.47%	**2,314**	**66.41%**
Ferrous/Aluminum Containers (Total)	**11,155**	1.49%	**2,898**	**25.98%**
Other Ferrous Metals	**36,022**	4.83%	**238**	**0.66%**
Other Non-Ferrous Metals				
Other aluminum	**1,833**	0.25%	**25**	**1.35%**
Automotive batteries	**3,487**	0.47%	**3,475**	**99.66%**
Other non-aluminum	**2,515**	0.34%	**0**	**0.00%**
Other Non-Ferrous Metals (Total)	**7,835**	1.05%	**3,500**	**44.67%**
Total Metals	**55,011**	7.37%	**6,636**	**12.06%**

Material	Estimated MSW Tons Generated (2010)	% of Total	Estimate of Actual MSW Tons Diverted (2010)	% Diverted (2010)
PET Containers	**6,950**	0.93%	**3,596**	**51.74%**
HDPE Containers	**6,171**	0.83%	**1,979**	**32.06%**
Other Plastic (3-7) Containers	**1,476**	0.20%	**1,070**	**72.47%**
Film Plastic	**42,450**	5.69%	**9**	**0.02%**
Other Plastic				
Durables	**23,409**	3.14%	**1,324**	**5.66%**
Non-Durables	**12,941**	1.73%	**0**	**0.00%**
Packaging	**9,533**	1.28%	**0**	**0.00%**
Other Plastic (Total)	**45,883**	6.15%	**1,324**	**2.89%**
Total Plastics	**102,932**	13.80%	**7,977**	**7.75%**
Glass Containers	**29,242**	3.92%	**16,517**	**56.48%**
Other Glass	**2,733**	0.37%	**0**	**0.00%**
Total Glass	**31,975**	4.29%	**16,517**	**51.66%**
Food Scraps	**119,270**	15.98%	**0**	**0.00%**
Yard Trimmings	**58,232**	7.80%	**11,141**	**19.13%**
Total Organics	**177,502**	23.79%	**11,141**	**6.28%**
Clothing Footwear, Towels, Sheets	**28,481**	3.82%	0	0.00%
Carpet	**11,073**	1.48%	0	0.00%
Total Textiles	**39,554**	5.30%	0	0.00%
Total Wood	25,182	3.37%	387	1.54%
C&D Materials	**28,086**	3.76%	**0**	**0.00%**
Other Durables	**12,025**	1.61%	**0**	**0.00%**
Diapers	**12,659**	1.70%	**0**	**0.00%**
Electronics	**11,431**	1.53%	**61**	**0.53%**
Tires	**9,417**	1.26%	**3,650**	**38.76%**
HHW	**2,321**	0.31%	**0**	**0.00%**
Fines	**1,160**	0.16%	**0**	**0.00%**
Total Miscellaneous	**77,099**	10.33%	**3,711**	**4.81%**
Total	**746,148**	**100.00%**	**123,177**	**16.51%**

Source: NYSDEC MSW Combined Composition Analysis and Projections, 2010 NYSDEC Facility Annual Reports.
Note: MSW Tons Generated excludes separately managed C&D debris, several organics streams (biosolids, septage, agricultural materials), industrial waste, medical and biohazardous materials, and scrap metal managed outside of the MSW management structures.

Based on the quantities of diverted materials that were reported to the NYSDEC or estimated, the County diverted approximately 123,177 tons of material (16.5%) in 2010. The table above indicates that 746,148[9] tons of MSW materials are available for diversion from residential, commercial and institutional generators. Not all the categories are populated for the 2010 actual recovery quantities due to the fact that not all categories are accounted for individually. Several materials identified above are collected and recovered at the recycling centers or other similar facilities in the County. However, there are no mechanisms for gathering data for the individual materials at this time. Therefore, a program strategy (Program Strategy #13) has been added to evaluate and implement data collection efforts. Chapters 2 – Existing Program Description and Chapter 6 – Solid Waste Management Program Strategies describe the existing systems for recovering these materials as well as possible future program strategies during this planning period to increase the County's diversion rate.

3.4 Estimation of Potential C&D Debris Recovery

C&D debris can be assessed separately from MSW or industrial wastes. By utilizing the NYSDEC's C&D composition and recovery projection tool, the following section provides the County with an estimated C&D debris composition for future planning purposes. The complete tables are included in Appendix C. According to NYSDEC, their analysis and the waste composition and recovery projection tool considers the variations in the C&D waste stream resulting from the construction, remodeling, repair and demolition of utilities, structures and roads and includes land clearing debris from both the building and infrastructure sectors. Variations within the building sector from new construction, renovation and demolition activities are considered from both the residential and non-residential generating sectors.

Based on the data reported in the NYSDEC annual reports, Table 3-4 below provides an overview of the tons of C&D debris that could be recovered or diverted from a waste disposal location if economically feasible programs were in place.

[9] Excludes processed C&D, asbestos, industrial waste, sewage sludge, contaminated soil, BUD materials previously reported in Table 3-2.

Table 3-4: Estimated C&D Debris Recoverable in Monroe County

Material	Estimate of C & D Tons Generated per NYSDEC Model (2010)	% of Total	Tons Diverted per 2010 Data Obtained	
			Tons Diverted	% Diverted
Concrete/Asphalt/Rock/Brick	**165,724**	35.39%	**203,311**	**122.68%**
Wood	**69,289**	14.80%	**26,456**	**38.18%**
Roofing	**23,078**	4.93%	**6,922**	**29.99%**
Drywall	**11,885**	2.54%	**0**	**0.00%**
Soil/Gravel	**127,436**	27.22%	**12,458**	**9.78%**
Metal	**27,678**	5.91%	**560**	**2.02%**
Plastic	**1,857**	0.40%	**0**	**0.00%**
Corrugated/Paper	**9,362**	2.00%	**0**	**0.00%**
Other	**31,944**	6.82%	**0**	**0.00%**
Total	**468,253**	**100%**	**249,707**	**53%**

Source: 2010 NYSDEC Facility Annual Reports and Appendix C.
Note: C&D Tons Generated includes processed C&D debris, contaminated soil, asbestos, C&D debris used for alternative daily cover, and wood debris.

Based on the quantities of diverted materials that were reported to the NYSDEC or estimated, the County diverted approximately 249,707 tons of C&D debris (53%) in 2010. The table above indicates that 468,253 tons of C&D debris could potentially be available for diversion from residential and non-residential construction, renovation or demolition projects. A task has been added to the Chapter 7 – Implementation Schedule to evaluate and implement data collection efforts. Chapter 2 – Existing Program Description and Chapter 6 - Solid Waste Management Program Strategies describe the existing systems for recovering these materials as well as possible future programs during this planning period to increase the County's diversion rate.

3.5 Summary of Waste Composition Study

In an effort to better determine the effectiveness of the current solid waste management system within the County, and thus the program strategies to be implemented during the new planning period, the County initiated a waste composition study in 2010. The waste composition study was performed by Stantec Consulting Services Inc. and was composed of two (2) separate studies; a residential waste study, and an institutional, commercial, and industrial waste study. Each report is included in Appendix D. Comments on these reports, provided by the NYSDEC, will be considered moving forward during the planning period. These studies are primarily a tool to assist with the County's analysis of the waste disposal stream. The reports include the design, methodology, and results of the study.

3.5.1 Residential Waste Composition Study

The residential waste composition study was designed to analyze the waste types and quantities in the residential waste stream set out at the curb for disposal. The study did not include the quantities of materials placed in curbside recycling containers or white goods or other large bulky items. When establishing the protocol for the residential waste composition study, the County identified three (3) major areas that it wished to focus on in order to best utilize the results of the study. These included recyclables, organic waste (yard waste and food waste separately), and C&D debris. This focus was to gauge the effectiveness of current recycling programs and yard waste composting facilities, to assess the need for a C&D debris recycling facility in the County, and to determine the quantities of other organic materials found in the disposal waste stream. Another area of interest included the assessment of the need to add additional recycling streams or recycling education programs due to large quantities of specific items found in the waste disposal stream (rigid plastics, cell phones, pharmaceuticals, textiles, plastic film/bags).

Figure 3-2 below shows a general breakdown of the residential waste composition ultimately disposed within the County based on the waste composition study. It should be noted that the category labeled “Total Other” includes materials that were identified and sorted, but not received in large quantities. These include pharmaceuticals, HHW, E-waste, appliances, C&D debris, light bulbs, and batteries. “Unsortable” wastes consist of materials that could not physically or safely be sorted from the waste stream, and include medical waste, diapers, pet waste, sanitary products, small yard waste and soil.

Figure 3-2 – Excerpt from Attached Residential Waste Composition Study

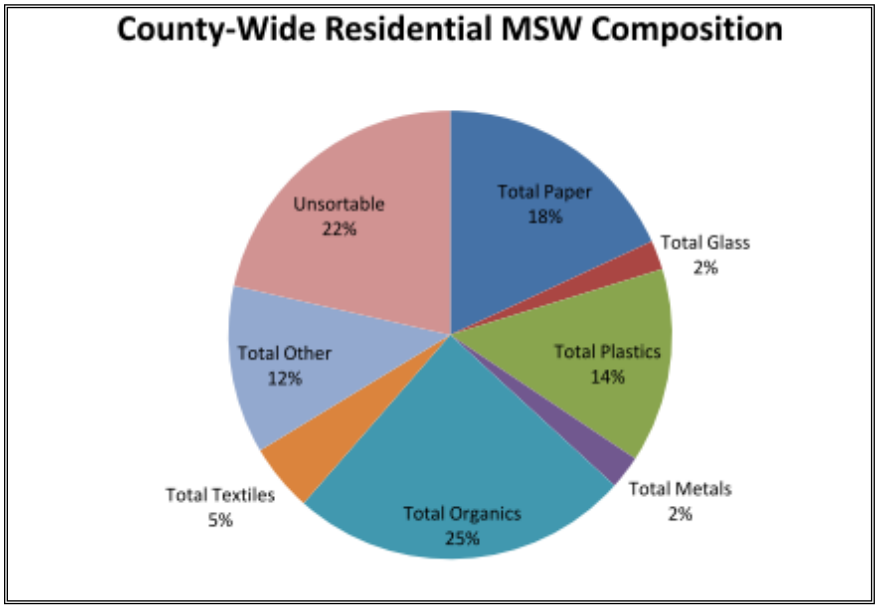


Figure from Residential Municipal Solid Waste Composition Study, by Stantec Consulting Services Inc. Figure illustrates the composition of the residential MSW ultimately disposed from residents in the County. It should be noted that the majority of the total organics (25%) is made up of yard waste (19%) as opposed to food waste (6%).

An important conclusion that can be drawn, generally, from the County's Residential Waste Study is that more than half of the disposed waste stream can be reduced if existing recycling/reuse programs were utilized universally by residents. Specifically, if the existing paper, yard waste, plastic bag/product wrap and textile recycling programs were used to their fullest extent, the residential waste stream could be reduced up to 41%. Another conclusion taken from this summary is that the County-operated recycling programs may be better used than the "alternative" recycling programs. This is most likely due to the convenience of the County recycling program (many are offered curbside) and the more intensive public education programs utilized by the County to promote their recycling options.

Based on the results of the residential disposed waste composition study (percentage of the waste stream and existing programs), areas of focus for recovery and recycling within the County are recyclable paper, yard waste, plastic bags/film/product wrap, and textiles. Portions of the disposed waste stream for which new recovery and recycling programs should be assessed include C&D debris, rigid plastics, non-recyclable paper, and food waste. Goals to help reduce the amount of recyclable material in the disposed waste stream will be outlined in Chapter 6 - Solid Waste Management Program Strategies.

3.5.2 Institutional, Commercial, and Industrial Waste Composition Study

The IC&I waste composition study utilized a desktop approach, given the wide-variety and types of facilities present within the County and the difficulty in obtaining representative samples of the waste stream as a whole. The study

utilized County data on the types of facilities operating within the County and typical waste generation rates for each type of facility, as reported in a cross-section of previous studies to determine approximate quantities of various waste types produced within the IC&I waste stream. The IC&I study is included in Appendix D.

Chapter 4 - Future Planning Unit Projections and Solid Waste System Change

Previous sections of this report discussed the quantities of waste generated, disposed and diverted from the waste stream. This section will present the projected MSW diversion rates as well as the projected C&D debris diversion rates for the duration of the planning period. Recycling rate projections were increased over the course of the planning period. These future waste generation projections are depicted in the tables provided in Appendix C. A brief overview of these tables are shown below for both MSW and C&D debris.

Projected Estimates of Tons of MSW Recycled and Disposed [2]

Year	Tons MSW Diverted to Recycling or Composting	Tons MSW Disposed	Total Tons of MSW Recycled, Composted and Disposed	% MSW Diverted to Recycling or Composting
2010	123,177	622,971	746,148	16.5%
2016 (Projected)	146,076	547,853	693,929	20%
2025 (Projected)	444,695	215,107	659,802	60%

[2] Information in this table is based on tonnage data reported to NYSDEC for the year 2010 and projections estimated in the waste composition and recovery projection tools.

Projected Estimates of Tons of C&D Debris Recycled and Disposed [3]

Year	Tons C&D Diverted to Recycling	Tons C&D Disposed	Total Tons of C&D Recycled and Disposed	% C&D Diverted to Recycling
2010	249,707	218,547	468,253	53%[4]
2016 (Projected)	154,519	313,734	468,253	33%
2025 (Projected)	289,579	178,674	468, 253	62%

[3] Information in this table is based on tonnage data reported to NYSDEC for the year 2010 and projections estimated in the waste composition and recovery projection tools.
[4] Higher diversion rate due to Midtown demolition project.

As previously indicated, the data reported in this LSMWP was based on the best available data at the time. Future tasks in the Chapter 7 - Implementation Schedule include improving data gathering methods and reporting to improve upon the County's data. With the help of improved data, the County will have a clearer picture of the programs that should be evaluated and implemented.

4.1 Anticipated Changes to the Local Planning Unit

The Planning Unit anticipates making changes as opportunities arise through the evaluations of the program strategies identified in Chapter 6 – Solid Waste Management Program Strategies.

4.2 Anticipated Changes to the Waste Stream

Over the course of the previous planning period, changes to local trends in the waste stream have occurred in the County. Consumers have moved towards a throw-away society where one-time use products are preferred for convenience as opposed to environmental concerns. Household items, such as thermostats, electronics, batteries, contain harmful chemicals such as mercury, Freon, and heavy metals. Consumer product packaging has changed with less glass being used in many manufacturing processes and thinner plastic materials. Both proper disposal and diversion are key aspects of solid waste management today. Education is an integral component to changing the solid waste management practices nationally, as well as locally.

It is anticipated that with the changes to the Planning Unit will include more opportunities for waste diversion to residents, which should in turn increase the County's waste diversion percentage. Chapter 6 – Solid Waste Management Program Strategies will describe the various programs that will be made available to County residents and how these tasks and goals will be implemented.

Chapter 5 – Alternative Technology Evaluation

The objective of the alternatives technology evaluation is to provide an overall summary of the alternatives available to the County related to waste management and recycling technologies. A required element of a LSWMP is to review alternative technologies available to the County. Consequently, NYSDEC has generated a reference document, known as "Generic Technology Assessment for Solid Waste Management" that may be utilized for completing the evaluation of available treatment or disposal technologies available outside of the Planning Unit. Section 5.1 below provides a general overview of the different disposal technologies that are available to the solid waste disposal markets, which the County will continue to monitor their successes and challenges throughout the planning period. Section 5.2 briefly discusses the different recovery options that the County has examined during the planning period to determine if their recyclables recovery efforts should be modified. The technologies summarized below will be evaluated for feasibility and cost effectiveness on an individual basis depending on staff and resource availability.

5.1 General Overview of Disposal Technology Options Available

Landfilling

The County has used landfilling as its method of solid waste disposal since at least 1975. A landfill, known as the Northeast Quadrant Solid Waste Facility (also referred to as Gloria Drive in the Town of Penfield), was developed in 1975 as a short-term solid waste management solution. This landfill opened in June 1975 and duly closed in 1980. After closure of this landfill and prior to the Mill Seat Landfill being opened in 1993, the County relied on privately owned and operated landfills outside of the County. The selection of the Mill Seat Landfill was a multi-year greenfield site development process that involved many municipalities, organizations, individual members of the public, and other agencies. This planning and decision making process began in 1970 and continued until the late 1980s when the location of the Mill Seat Landfill was ultimately selected for development and use as the County's long-term solid waste management facility. Following completion of this 23 year greenfield site development process -- from initial planning and site evaluation/selection activities through the extensive SEQRA and permitting processes that led to final facility design, public bidding and facility construction -- the Mill Seat Landfill opened and began operations in 1993. Operation of the Mill Seat Landfill was assigned to WMNY in January 2002, under a minimum 20-year lease agreement with the County.

As discussed in Chapter 6 – Solid Waste Management Program Strategies under Program Strategy #1, the practice of landfilling wastes generated in the County has been, and will remain, a reliable, environmentally-sound means of disposal. In order to provide continued environmentally-sound management for waste and WWTF biosolids for the County during the next ten (10) years – and in consideration of the existing environmental infrastructure, monitoring network, long-term monitoring obligations, and long-term operations/lease agreement at that site – future expansion of the Mill Seat Landfill is considered to be consistent with the

goals and objectives of this LSWMP. The County will continue to study and assess improvements to existing disposal methods and new disposal methods through emerging technologies.

Dirty MRF

A dirty MRF accepts a mixed solid waste stream and then proceeds to separate out designated recyclable materials through a combination of manual and mechanical sorting. The County invested in piloting this cutting edge technology in the 1980s at the current MCRRF location; however, the program was ultimately unsuccessful. While the processes at such facilities have advanced with time and technology, the County has chosen to make significant investment in the MCRC.

Waste-to-Energy (Combustion/Incineration)

A WTE facility is a solid waste management facility that combusts wastes to generate steam or electricity and reduce the volume of MSW requiring disposal by 80-90%. Newer technology allows higher efficiency heat recovery from the combustors, increasing energy production potential.

Although the total volume of MSW requiring disposal is reduced, a secondary disposal method such as landfilling would be required for the ash. If the County initiated the permitting, construction and operation of their own WTE facility within the County, high construction and operations and maintenance costs as well as uncertainty in energy sales revenues, would result in higher disposal costs per ton than landfilling in the County. For example, a 600 ton per day WTE facility capital cost could be in the range of $160 million with an average per ton cost of $92 per ton. This would not be economically feasible for the County.

The original LSWMP suggested that the County evaluate and pursue, if feasible, a WTE facility for solid waste reduction. Due to the construction of the Mill Seat Landfill and the continued operation and expansion of the High Acres Landfill & Recycling Center, adequate airspace has been available for solid waste disposal without reduction through incineration. Tipping fees for solid waste have remained relatively low, while local public perception of WTE facilities has not been favorable. For these reasons, the County has not pursued this path further.

There are currently ten (10) active WTE facilities in the State; however, none have been permitted or constructed in the State in the past 20 years.

Pyrolysis/Gasification

Pyrolysis systems use a vessel which is heated to temperatures of 750°F to 1,650°F, in the absence or near absence of free oxygen. The temperature, pressure, reaction rates, and internal heat transfer rates are used to control pyrolytic reactions in order to produce specific synthetic gas (syngas) products. These syngas products are composed primarily of hydrogen, carbon monoxide, carbon dioxide, and methane. The syngas can be utilized in boilers, gas turbines, or internal combustion engines to generate electricity, or alternatively can be used in

the production of chemicals. Some of the volatile components of MSW form tar and oil, and can be removed for reuse as a fuel. The balance of the organic materials that are not volatile, or liquid that is left as a char material, can be further processed or used for its adsorption properties (activated carbon). Inorganic materials form a bottom ash that requires disposal, although it is reported that some pyrolysis ash can be used for manufacturing brick materials. Under typical operations, the ash is landfilled.

Gasification is a similar process to pyrolysis, but requires the partial oxidation of a feedstock to generate syngas. Oxygen must be provided for the reaction, but at a quantity less than is required for complete combustion. The primary syngas products are hydrogen and carbon monoxide with smaller quantities of methane produced at lower temperatures. Similar to pyrolysis, the syngas product may be used for heating, electricity generation, fuel, fertilizers or chemical products, or in fuel cells. Byproduct residues such as slag and ash are produced and require disposal in a landfill.

Pyrolysis and gasification have too short a history for proper analysis of economic feasibility. There are currently only about 100 mixed MSW gasification plants in the world, mostly in Japan, with a successful history of continual operation. The capital cost of developing this technology is estimated to be 10% higher than conventional WTE plants, based on a short history of pyrolysis/gasification development, a lack of established pyrolysis or gasification plants, and the greater complexity of the technology. According to a recent USEPA study of pyrolysis and gasification technologies, the cost to process mixed MSW is approximately $90 per ton which is significantly higher than landfill operational costs in the State. There are no current full scale operational systems in the State for MSW treatment. One (1) plant for the pyrolysis of plastics, located in Niagara Falls, New York, is commercially operational and one gasification plant has been commissioned in Montgomery, New York using only portions of the MSW stream.

Mixed Municipal Solid Waste Aerobic Composting

Mixed MSW composting is typically an aerobic composting process that breaks down all organic portions of the waste into compost material. Waste is typically collected at the facility as a mixed stream. The process requires intense pre- and post-processing, treatment and sorting to remove inert materials such as plastic or glass, which diminish the quality of compost products. Some MSW composting facilities also accept biosolids. Wastes are typically loaded into a rotating bioreactor drum for two (2) to four (4) days. Screening processes are used to separate unacceptable wastes, which are landfilled as process residue, from the raw compost which is stored in a maturation area for approximately one (1) month to allow biological decomposition to occur.

At the time that the original LSWMP for the County was being written, the use of unlined local landfill sites was being phased out and the County was exporting its waste to out of county landfills. The County was faced with the task of permitting and construction of a new lined landfill facility to meet the County's long-term MSW

disposal needs and help control waste disposal costs within the County. In an effort to ensure that the newly constructed landfill facility could serve the County to its greatest potential, the County pursued various waste reduction technologies including source reduction, reuse, recycling, waste incineration, and solid waste composting.

With the emerging public perception of solid waste composting as a new and promising technology and the community's negative image of waste incineration, the County decided to pursue solid waste composting within the framework of its original LSWMP. A Request for Proposals was issued by the County, pursuing a waste development contractor to construct and operate a solid waste composting facility and the County received proposals. Upon further review of the technology and proposals, the County determined that the composting technology was still too new, unproven, and reliable end use markets were not present to warrant such a financial risk to the County. At that time, plans for composting of mixed MSW were therefore abandoned.

Facilities such as this do not have a well-established track record in the United States. There are currently 13 mixed MSW composting facilities in operation in the United States, including one (1) in Delaware County, New York. Typical issues associated with the reliable and cost effective operation of such facilities include quality of compost, retail/wholesale outlet for compost generated, disposal location for bypass material, and odors.

Delaware County operates a mixed MSW composting facility, which has been successful as it relates to its needs. Its facility met the need of extending the life of its current landfill facility due to declining capacity and difficulty in siting a new landfill. This facility allowed the landfill to be operational for another 50 years. The cost of this facility was approximately $20 million, which includes a rather complex odor control component. The facility became operational in 2007, and serves a rural population of about 47,000 people (this equates to approximately six percent (6%) of the Monroe County's population). This facility handles approximately 100 tons per day of waste. The mixed MSW composting facility is one (1) part of Delaware County's integrated solid waste management system.

While the County has continued to informally evaluate the possibility of pursuing MSW composting over the past 20 years, time has shown that this technology is still relatively expensive and reliable end use markets have still not been identified. This, combined with two (2) operating lined landfills located within the County and the relatively low solid waste tipping fees throughout the State, has led the County to discontinue pursuing this technology at this time.

Plasma Arc Gasification

Plasma arc gasification is a waste treatment technology that uses electrical energy and the high temperatures created by an electrical arc gasifier. This arc breaks down waste primarily into elemental gas and solid waste (slag), in a device called a plasma converter. The process has been touted as a net generator of

electricity, although this will depend upon the composition of input wastes. It will also reduce the volume of waste requiring land disposal.

There are currently ten (10) plasma arc gasification facilities in operation in Japan and Taiwan, but only one (1) that operates on a large scale (all others are < 50 TPD) and uses mixed MSW as its only feedstock. A small MSW facility (93 TPD) is in operation in Canada. In the United States, St. Lucie County in Florida obtained a permit to construct a large scale MSW plasma arc gasification facility, but due to vendor and funding issues the project was never implemented.

To date, this technology has not been proven to be economically feasible within the United States for MSW management.

Mechanical/Biological Treatment

Mechanical-biological treatment systems are similar to mixed MSW composting systems in that intense sorting is required as the first step in the waste treatment process. This is considered the mechanical phase of the treatment, where recyclable and non-organic materials are removed from the waste stream, prior to the biological treatment. The biological treatment phase involves bio-drying of the remaining organic materials for production of refuse derived fuel. Refuse derived fuel can be used in place of fossil fuel products, such as a replacement for coal in electricity production. There are currently over 70 active mechanical-biological treatment systems in operation across Europe, with a majority of these facilities operating as pilot scale projects although exact numbers are not available.

To date, this technology has not been proven to be economically feasible within the United States for MSW management.

Anaerobic Digestion

Anaerobic digestion is a biological process by which microorganisms digest organic material in the absence of oxygen, producing a solid byproduct (digestate) and a gas (biogas). In the past, anaerobic digestion has been used extensively to stabilize sewage sludge/biosolids, but is more recently under consideration as a method to process the organic fraction of MSW. In anaerobic digestion, biodegradable material is converted by a series of bacterial groups into methane and carbon dioxide. In a primary step called hydrolysis, a first bacterial group breaks down large organic molecules into small units like sugars. In the acidification process, another group of bacteria converts the resulting smaller molecules into volatile fatty acids, mainly acetate, but also hydrogen and carbon dioxide. A third group of bacteria, the methane producers or methanogens, produce a medium-Btu biogas consisting of 50-70% methane, as well as carbon dioxide. This biogas can be collected and used for a variety of purposes including electricity production or converted to high BTU natural gas. Anaerobic digestion facilities are utilized extensively for the treatment of agricultural, wastewater sludge and organic wastes such as food wastes. Mixed MSW anaerobic digestion facilities are more common in foreign countries. There are currently over 200 MSW anaerobic digestion facilities

operating across Europe. Many of these facilities are smaller scale projects, designed to provide treatment of wastes for small towns and villages. There are two (2) such facilities in operation in Canada, both in the Toronto, Ontario area.

Specific to the United States, few mixed MSW facilities exist, as the technology has not proven economically feasible. A USEPA study estimates that waste processing costs using anaerobic digestion are close to $115 per ton of MSW, which is even higher than pyrolysis/gasification. At this time, only two (2) commercially operational MSW anaerobic digestion facilities exist, both in Ohio. Several more facilities exist but run off only a portion of the MSW waste stream, such as source separated organics, food manufacturing industry waste, or a mixed agricultural/food waste. Many are still in a demonstration phase and are not fully operational. In the State, there are many anaerobic digesters operating in the wastewater and agricultural markets, with some anaerobic facilities being converted into mixed organic waste facilities. Two (2) anaerobic digesters have been permitted in Region 9 by quasar energy group. These systems will manage regional biomass residuals (organic waste) to produce electricity that would be sold to the power grid. Under the regional biomass residual model, there is still the need to manage other portions of the waste stream that cannot be recycled. These wastes are typically landfilled. In addition, digestate and liquids from the anaerobic digester process must also be managed. These wastes may be recycled or landfilled depending on their constituents.

The quasar energy group has shown interest in permitting a facility within the County. It is proposed that the facility would produce one (1) Megawatt from anaerobically digested biomass (i.e., organic waste, biosolids, agricultural waste, food waste). The County intends to monitor the developments of this project as it may impact this LSWMP.

Ethanol Production

Ethanol production from a mixed MSW stream requires an intensive sorting process as the first processing step. All recyclable and inert materials must be removed to produce an organic waste stream for ethanol production. This material is then chopped, fluffed, and fed into a hydrolysis reactor. The effluent of this reactor is mostly a sugar solution, which is prepared for fermentation. This solution is detoxified and introduced to a fermenter, in which microorganisms convert the sugar to ethanol and carbon dioxide. Next, the solution is introduced into an energy-intensive process that combines distillation and dehydration to bring the ethanol concentration up to fuel grade (99%) ethanol. A solid residue of unfermented solids and microbial biomass is recovered through the anaerobic digestion process. Its marketability as a compost material depends on the purity of feedstock as well as its visual quality. Solid residues can be burned or gasified if alternative methods of reuse are not feasible. Various pilot scale facilities are operating in the United States and Europe. Many have reverted to more homogeneous feedstocks such as wastewater treatment sludge and food processing wastes because obtaining the homogeneous input stream from mixed MSW has proven difficult.

The County was home to Epiphergy, a private start-up company focusing on managing an under-utilized resource, organic waste, and turning it into a resource. Epiphergy indicated on its website that their organic waste bioprocessing facilities could produce from 5,000 to 5,000,000 gallons of advanced biofuels per year. They worked with other partners within the County, such as Community Composting, Foodlink, and Rochester Greenovation, to divert organic wastes from landfills. Epiphergy has since closed.

Technology Assessment Conclusions

Based on the technologies discussed above, the expansion of the Mill Seat Landfill appears to be viable; however, a separate environmental review process now will examine the environmental benefits and impacts associated with this option. Should any of the other technologies discussed above be implemented, it is imperative that long term waste commitments would be required to undertake a full scale program within the County. The County does not propose evaluating the feasibility of these other alternative waste disposal options during the ten (10) year planning period; however, the County does acknowledge that they are available and should advances in the above technologies occur, the County will reassess these opportunities during the next planning period.

5.2 Alternative Programs for Recyclables, Organics, Waste Reduction and Reuse

The County has been aggressive throughout the planning period in identifying recycling and waste management methods, special waste stream collections, and overall system improvements with environmental, public service, and/or financial benefits to the residents of the County that are beyond the scope of the original LSWMP. When it has been economically feasible, the County has taken the lead in implementing many of these programs. In some cases, the County has continued to fund and staff these operations, while others have been taken over or supplemented by Town/Village government or the private sector. Some examples of these additional measures and why the programs were selected by the County were previously described in Chapter 2 – Existing Program Description.

Similar to alternative waste technologies, there are various programs, legislation, or technology options for a community's waste reduction program. Below are a few of those options that are available.

- Expansion of Recycling Program

  In many communities, mandatory recyclables lists are outdated and do not align with the current recycling markets. In recent years communities are reviewing these lists. For the County, this will be evaluated as part of Program Strategy #2 (Solid Waste Reuse and Recycling Law Revision).

- Conversion to Single Stream Processing

  Single-stream recycling is a system that collects all paper fibers and commingled containers together in one collection truck. In a single-stream recycling system, the materials are commingled and no longer separated by the residents at the curb and hauled to the recycling facility in separate compartments in the collection vehicle. In single-stream, both the collection and the processing systems must be designed to handle this fully commingled mixture of recyclables.

  The single-stream philosophy of recycling has firmly taken hold in many areas of the country where weather conditions and port access eased operational concerns. Hundreds of North American and European cities annually shift to single stream recycling. A 2005 R.W. Beck survey stated that 11 percent of the U.S. population with curbside recycling service was single-stream. By 2007, that number had increased to 50 percent according to the American Forest and Paper Association.

  The advantages of a single-stream system are associated with slightly higher recycling rates and reduced collection costs. The disadvantages of the system are associated with initial capital costs for upgrading of the materials recovery facilities, higher sorting and processing costs, higher residual rates (i.e., non-processable material sent to the landfill), and higher contamination of recyclable paper, making the recovered material less marketable.

  The County underwent this conversion in 2014 and was operational in 2015 as previously discussed in Section 2.2.3 – Existing Efforts to Recover Recyclables.

- Management of HHW[10]

  Many common household products contain hazardous substances. These products become HHW once the consumer no longer has any use for them. Many communities have established programs to manage HHW. The impetus for starting a HHW program can come from the grassroots level, from local or state government agencies, from community groups, or from industry. The number of HHW collections in the United States has grown dramatically over the last decade. Since 1980, when the first HHW collection was held, more than 3,000 collection programs have been documented in all 50 states.

  Although programs vary across the country, most include both educational and collection components. Communities usually begin a HHW program by holding a single-day drop-off HHW collection. Organizing a collection event is an important first step in reducing and managing risks associated with HHW.

[10] U.S. EPA Solid Waste and Emergency Response Household Hazardous Waste Management – A Manual for One-Day Community Collection Programs. August 1993

Some communities hold annual or semiannual collections, while others have established permanent HHW collection programs with a dedicated facility (open at least once each month) to provide households with year-round access to information and repositories for HHW. In addition, communities have initiated pilot programs for curbside pick-up by appointment, neighborhood curbside collection programs, and drop-off programs for specific types of HHW.

The efforts of communities across the country provide a wealth of experience for other communities beginning HHW management programs. As the number of these programs continues to grow, public awareness about HHW will also grow, and the environmental problems associated with improper storage and disposal of HHW are likely to decrease.

The County provides residents with a way to safely recycle or dispose of this HHW free-of-charge.

- Education & Outreach

  Public outreach and education regarding waste diversion programs and responsible disposal of special wastes has been identified as a key component of solid waste management programs in New York State. Raising the awareness of reduce, reuse and recycle has been a goal of the NYSDEC since the first Earth Day in 1970. To reach audiences, numerous programs and events have been organized. The NYSDEC's Recycling Outreach and Education program is available to other communities to help them spread the word. Without education none of the recovery programs or technologies will be successful. For the County, this will be evaluated as part of Program Strategy #9 (Public Outreach & Education Program).

- C&D Debris Recovery

  There are currently no front- or back-end separation requirements/regulations for C&D waste (other than for LEED projects). While there are many materials in the C&D waste stream that have potential reuse/recycling options, low tipping fees at area landfills can make the division of these materials into desirable components cost-prohibitive. However, as commodity markets and quantities allow, contractors, residents and construction demolition companies separate materials (such as metals, masonry, asphalt, etc.) for profitable reuse and recycling. As with most post-consumer items, methods of C&D debris sorting usually happen at the source or at a separation facility. Either option takes financial or operational resources that may or may not justify the end-product. For the County, this will be evaluated as part of Program Strategy #4 (Construction and Demolition Debris Recycling).

- E-Waste Recycling[11]

  New York State consumers may now recycle electronic waste, such as computers, computer peripherals, televisions, small scale servers, and small electronic equipment, etc., in an environmentally responsible manner. The New York State Electronic Equipment Recycling and Reuse Act, requires manufacturers to provide free and convenient recycling of electronic waste to most consumers in the state. Consumers eligible for free and convenient recycling include individuals, for-profit businesses, corporations with less than 50 full time employees, not-for-profit corporations with less than 75 full time employees, not-for-profit corporations designated under section 501(c)(3) of the internal revenue code, schools, or governmental entities located in the state. For-profit businesses with 50 or more full time employees and not-for-profit corporations with 75 or more full time employees may be charged.

- Donatable Clothing Collection

  The New York State Association for Reduction, Reuse, and Recycling (NYSAR3), in collaboration with the Council for Textile Recycling (CTR) and the Secondary Materials and Recycled Textiles Association (SMART), has recently launched a statewide textile recovery campaign, with the goal to spur local action from all New York State residents to divert their unwanted textiles from the waste stream through recycling. The NYSDEC has determined that approximately 1.4 billion pounds of clothing and textiles are disposed of in the state annually. Given the enormous social, economic, and environmental benefits that textile recovery has the potential to create, the campaign aims to educate New Yorkers about the reuse/recyclability of the various textiles they dispose of and give them the tools they need to find the most convenient drop-off locations nearest them.

- Pharmaceutical Collection

  To reduce potential sources of environmental contamination and enhance public safety, the County organizes pharmaceutical waste collections to provide residents with a safe and proper way to dispose of their unused or unwanted medications. This service is free-of-charge to the County residents.

  The County's collection program has been made possible by the following organizations:

  - Monroe County Department of Environmental Services
  - Monroe County Sheriff's Office
  - New York State Police
  - New York State Department of Health
  - New York State Department of Environmental Conservation

[11] http://www.dec.ny.gov/chemical/65583.html

- Covanta Niagara
- Monroe County Water Authority
- Center for Environmental Information

Pharmaceuticals include, but are not limited to, prescription and over-the-counter medications, veterinary medications and nutritional supplements. Throwing medications in the trash is discouraged. It can lead to accidental swallowing by children or pets or could lead to misuse and or abuse. When disposed of in the trash, these chemicals can contaminate the leachate from the landfill.

- Composting of Organic Waste (yard waste, food waste, biosolids)[12]

  Composting of organic materials from the solid waste stream not only provides a valuable benefit to nutrient deficient soils, but also reduces the amount of waste that ends up in landfills or incinerators. Other benefits of composting organic matter include the increase in beneficial soil organisms such as worms and centipedes, suppression of certain plant diseases, the reduced need for fertilizers and pesticides, prevention of soil erosion and nutrient run-off, and assistance in land reclamation projects.

  In the State, thousands of tons of organic waste materials are composted each year. These include treated sewage sludge, otherwise known as biosolids from WWTFs; food waste residuals from industrial food processing facilities; food waste from recovery programs at hospitals, colleges, office buildings, and prisons; paper sludge; yard waste and other organic waste materials.

  Currently, there are 64 facilities permitted for composting in New York State. Of these, 26 compost biosolids, 34 compost yard wastes, and four (4) compost food and other mixed wastes.

  Material resulting from the composting of biosolids and yard waste is used primarily as an organic soil conditioner and partial fertilizer. It is applied to agricultural lands, recreational areas such as parks and golf courses, mined lands, highway medians, cemeteries, home lawns and gardens. For the County, this will be evaluated as part of Program Strategy #6 (Yard Waste Composting Efforts) and Program Strategy #7 (Organic Diversion Programs).

These programs are anticipated to continue through the next planning period and are further discussed in Chapter 6 – Solid Waste Management Program Strategies. Should programs be expanded in the future, the County is well equipped with adequate infrastructure to accommodate additional programs.

[12] http://www.dec.ny.gov/chemical/8798.html

The following programs were also initiated since the original LSWMP:

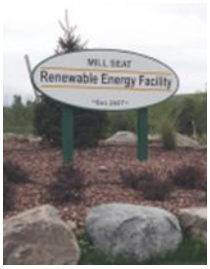
Landfill Gas Collection and Destruction

WMNY has installed an active landfill gas collection system at the Mill Seat Landfill and High Acres Landfill & Recycling Center. A large portion of each landfill is equipped with vertical and/or horizontal landfill gas collectors. These gas collectors are connected to a vacuum system which actively pulls gas from the landfill, preventing it from entering the atmosphere. This system then conveys captured landfill gas (predominately methane and carbon dioxide), which is a greenhouse gas, to a central location for destruction or utilization as a fuel for electricity generation.

Landfill Gas Utilization Projects

In conjunction with the active landfill gas collection systems described above, landfill gas-to-energy facilities have been developed at each landfill.

At the Mill Seat Landfill, the County developed a landfill gas-to-energy facility, constructed and operated by WMNY. The original facility, equipped with six (6) 800 kilowatt Caterpillar 3516 generator engines was completed in 2007. The facility was expanded in 2008 to add an additional two (2) 800 kilowatt Caterpillar 3516 generator engines. This brought the total energy production potential of the facility from 4.8 to 6.4 Megawatts.



The 6.4 Megawatts of energy produced by these engines is enough to replace more than 120,000 barrels of oil and generate electricity for almost 6,000 homes annually. According to the USEPA's Landfill Gas-to-Energy Benefits Calculator, the energy produced from a 6.4 Megawatt landfill gas-to-energy facility would result in annual greenhouse gas reductions and offsets equivalent to the following benefits:

- Removing emissions equivalent of 52,062 passenger vehicles;
- Planting 58,057 acres of pine forest; and,
- Offsetting the use of 1,422 railcars of coal.

Additionally, the USEPA estimates that a 6.4 Megawatt facility would consume 7,665 tons of methane gas annually, while saving 32,405 tons of carbon dioxide from being released into the atmosphere.

WMNY has developed a landfill gas-to-energy facility at the High Acres Landfill & Recycling Center that is capable of producing 9.6 Megawatt of electricity. This is enough electricity to power 9,000 homes and replace 180,000 barrels of oil annually.

WMNY also has a landfill gas-to-energy facility at the closed Monroe Livingston Landfill, which maintains three (3) engines that have the capability of producing 3.2 Megawatts of electricity. However, given the age of the facility two (2) engines are currently being utilized.

Combined, the landfills within the County are capable of producing approximately 19 Megawatts of green electricity.

Landfill Leachate Disposal and Municipal Sewer

Leachate generated by the Mill Seat Landfill is disposed of at the FEV WWTF for treatment. In an effort to reduce the financial and environmental costs of hauling leachate in tanker trucks, the County made the decision to install a sewer line from the Mill Seat Landfill into the County sewer system infrastructure. Part of the sewer installation project included constructing a sanitary sewer pump station and incorporating the Village of Churchville into the County sewer system. This construction project helped eliminate the emissions associated with thousands of leachate tanker truck trips annually. It also allowed for the decommissioning of the village's WWTF. This eliminated a point source of pollution to Black Creek.

High Acres Landfill & Recycling Center's leachate is also disposed of at the FEV WWTF via the Town of Perinton's sewer system and then into the County's sewer system.

Chapter 6 – Solid Waste Management Program Strategies

The purpose of the County's LSWMP is to identify the path to pursue for managing solid waste generated in the County during a ten (10) year planning period, in an economically and environmentally-sound manner that is consistent with the State's solid waste management policy. The initial year of this ten (10) year planning period will commence following approval of this LSWMP by the NYSDEC.

The residents, businesses, industries, and institutions in the County currently produce thousands of tons of solid waste every day. The desire to reduce waste generation, increase recovery and to decrease disposal now and in the future, creates the need for such a plan.

The purpose of the LSWMP is to:

1) serve as a countywide framework for the coordination of solid waste management;
2) establish countywide solid waste goals and objectives, including recovery and an overall waste reduction goal and a plan to monitor progress toward the goals; and
3) satisfy the State's law requiring the development of a local solid waste management plan for the County.

This LSWMP provides the County with policy and program direction for the next ten (10) years. This LSWMP recognizes that local municipalities, the NYSDEC, private waste collectors, and private facility owners all play important roles in the current and future management of solid waste and recycling within the County.

The Solid Waste Management Act of 1988 established a State solid waste management policy. The policy defines the following solid waste management priorities in the State and the County has acted upon them:

- First, to reduce the amount of solid waste generated.

  The County has successfully implemented a robust educational program to encourage and promote waste reduction.
- Second, to reuse material for the purpose for which it was originally intended or to recycle material that cannot be reused.

  The County offers numerous facilities (MCRC, MCRRF sorting line, ecopark, and leaf composting) that have put this priority into action.
- Third, to recover, in an environmentally acceptable manner, energy from solid waste that cannot be economically and technically reused or recycled.

  The County owns a landfill gas-to-energy facility that generates electricity for almost 6,000 homes annually. Due to the moisture and organic content of the

FEV WWTF biosolids that are disposed at the Mill Seat Landfill, methane production is enhanced, which in turn enhances the green energy production at the landfill gas-to-energy facility.

- Fourth, to dispose of solid waste that is not being reused, recycled or from which energy is not being recovered, by land burial or other methods approved by the NYSDEC (from New York State Environmental Conservation Law (ECL) 27-0106.1).

  To complete the solid waste management priorities defined by the State, the County provides the Mill Seat Landfill for the disposal of all non-recyclable or recoverable waste.

In accordance with the NYSDEC, this LSWMP considers and addresses all components of the solid waste hierarchy. The solid waste management hierarchy ranks methods of handling solid waste from most preferred methods of reduction, reuse, and recycling, in that order, to least preferred methods of energy recovery, incineration and landfilling.

The NYSDEC issued a statewide solid waste management plan called *Beyond Waste: A Sustainable Materials Management Strategy for New York* (December 2010). It defines broad statewide objectives for waste reduction, reuse and recycling, waste-to-energy, landfilling, and special issues.

The quantitative goal of *Beyond Waste* is to reduce the amount of waste New Yorkers dispose by preventing waste generation and increasing reuse, recycling, composting and other organic material recycling methods. Currently, New Yorkers throw away 4.1 pounds of MSW per person per day, or 0.75 tons per person per year, on average. *Beyond Waste* seeks a progressive reduction in the amount of MSW destined for disposal to reach the goal of reducing disposal to 0.6 pounds per person, per day, by 2030. Achieving this goal will require the engagement of manufacturers through product and packaging stewardship, the development of additional reuse and recycling infrastructure, and a strong partnership with other states and the USEPA.

The qualitative goals of *Beyond Waste* are to:

- Minimize Waste Generation
- Maximize Reuse
- Maximize Recycling
- Maximize Composting and Organics Recycling
- Advance Product and Packaging Stewardship
- Create Green Jobs
- Maximize the Energy Value of Materials Management
- Minimize the Climate Impacts of Materials Management

- Reemphasize the Importance of Comprehensive Local Materials Management Planning
- Minimize the Need for Export of Residual Waste
- Engage all New Yorkers—government, business, industry and the public—in Sustainable Materials Management
- Strive for Full Public Participation, Fairness and Environmental Justice
- Prioritize Investment in Reduction, Reuse, Recycling and Composting Over Disposal
- Maximize Efficiency in Infrastructure Development
- Foster Technological Innovation
- Continue to Ensure that Solid Waste Management Facilities are Sited Designed and Operated

Based on the data gathered and discussed in the preceding Chapters, the County has identified program strategies to work toward that are consistent with the State solid waste management policy, as set forth in *Beyond Waste*. The strategies set forth below were identified with the goal of further enhancing the reuse and recycling of materials generated in the County and reduce the quantity of materials requiring disposal at a landfill. Each strategy and corresponding goal will be evaluated for feasibility and cost effectiveness on an individual basis according to the Chapter 7 – Implementation Schedule.

The County can address and report any changes to their solid waste planning efforts that take place over the ten (10) year LSWMP planning period to the NYSDEC as part of the LSWMP compliance reports that the County is required to prepare and submit to the NYSDEC every two (2) years. An example outline of a compliance report is included in Appendix E. A ten (10) year planning period would represent the most cost effective utilization of limited State and County resources, with no deleterious effects on the County's ability to plan for and implement environmentally- sound solid waste management and recycling programs.

6.1 Selection of an Integrated Solid Waste Management System

While many waste management options/goals will be outlined in the program strategies below, including increased recycling and yard waste composting efforts and the implementation of organic waste composting pilot programs, some portion of the waste stream will remain in need of disposal. The practice of landfilling of these wastes has been, and will remain, a reliable, environmentally-sound means of disposal within the County. Based on the current 6 NYCRR Part 360 permit, the Mill Seat Landfill has an approved design capacity of 1,945 tons of MSW per day, which is not inclusive of materials approved as BUD materials. As of the end of 2013, the remaining constructed site capacity is estimated to be approximately 4,700,000 cubic yards. The remaining permitted airspace is projected to provide approximately seven (7) years of site life from the end of 2013 based on historical waste acceptance rates and in-place waste densities. This means the landfill would be

filled to its currently permitted disposal capacity a little over half-way through the proposed planning period. As outlined in the original LSWMP and in this LSWMP, the County's priorities for solid waste management are reduction, reuse, recycling and environmentally-sound disposal of remaining materials by maximizing the use and effectiveness of existing facilities within the County.

Program Strategy #1 – Continue Landfilling as Primary Disposal for all Non-Recyclable/Recoverable Waste

In order to provide continued environmentally-sound management for waste and WWTF biosolids for the County during the next ten (10) years – and in consideration of the existing environmental infrastructure, monitoring network, long-term monitoring obligations, and long-term operations/lease agreement at that site – future expansion of the Mill Seat Landfill is considered to be consistent with the goals and objectives of this LSWMP so long as it is technically feasible and cost effective.

The SEQRA process, which involves environmental review, planning, and preliminary design is currently underway for a landfill expansion project at the Mill Seat Landfill. The purpose of the landfill expansion is to extend the life of the Mill Seat Landfill in order to provide long-term, cost effective waste disposal capacity to the residents of the County and other regional communities. The landfill expansion will secure additional disposal capacity in the County beyond the current useful life of the Mill Seat Landfill. This will ensure that locally controlled, environmentally-sound, and reliable disposal capacity will be provided without interruption for at least an additional 33 years. Extending the use of the Mill Seat Landfill will provide a long-term source of revenue to the local economy and protect against the unreliability of transporting waste to other locations. Although the Mill Seat Landfill is not the only waste disposal facility in the County, it is the only publicly-controlled landfill in the County. Closing the Mill Seat Landfill once all airspace is consumed could subject residents to increased waste disposal prices due to associated transportation costs, the liability of transporting solid wastes to a private landfill or even out-of-county, and risking the potential for private landfills or out-of-county landfills to have a reduction in their airspace, which could prohibit the County from utilizing those facilities. The City of Rochester and surrounding areas are a large population center requiring a large waste disposal capacity. The High Acres Landfill & Recycling Center, although also located within the County, is not a publicly-owned and controlled solid waste

Program Strategy #1: Annually monitor available landfill capacity and pursue expansion options as necessary to maintain long-term disposal capacity as long as technically feasible and cost-effective. Continue to assess existing and new disposal methods. Implement an additional landfill gas to energy project at the Mill Seat Landfill within the next three (3) years. Monitor gas generation potential at the landfill annually to determine the need for additional gas utilization projects.

management facility. While prominent foci of the County's LSWMP are overall waste reduction and local recycling/reuse and composting programs, the region will still require a local, dependable facility for the disposal of all non-recyclable and non-hazardous waste. The Mill Seat landfill expansion will extend the life of the current footprint and provide economic and environmental security to the surrounding area in the form of preserving existing jobs, affordable waste disposal, maintenance of a local economy income, and built-in environmental safeguards.

Out-of-county wastes are permitted to be received for disposal at the in-County landfills. The Mill Seat Landfill does not accept wastes from the five (5) boroughs of New York City or outside of the State. The acceptance of out-of-County waste is hereby incorporated into the County's LSWMP.

In addition, the County is committed to provide for the environmentally-sound disposal of the County's biosolids from the County's FEV WWTF and the County's NWQ WWTF. These WWTFs are critical components of the County's environmental infrastructure, as is the Mill Seat Landfill. Together, they provide environmentally-sound and reliable wastewater disposal services to hundreds of thousands of sewer users in the community. An added environmental benefit of fulfilling the need for biosolids disposal is it facilitated the original and on-going elimination of the emissions-generating incineration process. This also has a secondary benefit of enhancing methane production at the Mill Seat Landfill, and subsequently enhancing green energy production at the landfill gas-to-energy facility, due to the added moisture and organics content of the biosolids.

As indicated in Chapter 7 – Implementation Schedule, the County will continue to study and assess improvements to existing disposal methods and new disposal methods through emerging technologies.

Program Strategy #2 – Solid Waste Reuse and Recycling Law Revision

The County has begun to identify areas in which its existing Solid Waste Reuse and Recycling Law could be strengthened in order to more adequately ensure that waste is disposed of or recycled. During the planning period, the County intends to conduct an internal review, as well as consult with outside sources, in order to ensure its Solid Waste Reuse and Recycling Law is up-to-date. Specific items that the County intends to address include, but are not limited to:

- Recycling at multiple-resident dwellings
- Recycling at hotels and motels
- Update list of mandatory recyclables
- Commercial recycling
- Review and revise definitions
- Review/Revise source separation and collection requirements for haulers, residential (individually and centrally-served), IC&I, C&D, and drop-off center users

Program Strategy #2:

Review and modify the local Solid Waste Reuse and Recycling Law

- Revise recordkeeping and reporting requirements for haulers, industry and recycling facilities
- Revise language on authorized recycling facilities
- Revise exemptions language
- Review enforcement options
- Recycling at public and private events

These items, among others, will be considered during the review process and acted upon as the County deems prudent.

Chapter 7 – Implementation Schedule provides a strategy to revise and implement the Solid Waste Reuse and Recycling Law.

6.2 Program Strategies to Increase Recyclables Recovery

Throughout the past 20 years, the County has identified waste streams that have come to light as candidates for additional recycling programs. This can be either through a sudden increase in volume of certain materials (phone books and electronic waste), developing markets or the realization of the need to handle wastes in special ways (pharmaceutical waste). A few examples of such programs were previously discussed in Chapter 2 – Existing Program Description.

As the planning period proceeds, the County will remain diligent in identifying additional waste streams for recycling or special handling in order to develop programs to cost-effectively meet the needs of its residents. The following sections provide an overview of potential programs the County will undertake during this planning period.

Program Strategy #3 – Increase Recycling at County Facilities

The County is committed to further promote recycling at County owned facilities. The County will act as a model to other municipalities within the County to increase recycling by its staff. The County realizes in order to increase recycling county-wide, staff must assist in achieving this goal. Through the development of an internal sub-committee, the County staff will prepare a plan to increase recycling at County owned and/or operated facilities. Later in the planning period, the sub-committee will review expanding this goal to public events, schools, institutions, etc.

Program Strategy #3:

Increase recyclables recovery at County owned and/or operated facilities.

Chapter 7 – Implementation Schedule provides an outline of the resources and subtasks necessary to increase recycling at County owned facilities.

Program Strategy #4 – Construction & Demolition Debris Recycling

Within this planning period, the County will study the potential advancement of several internal and public initiatives to assist with the sustainable diversion of appropriate C&D material.

With the availability of more advanced sorting and processing equipment, as well as the increase in public awareness of the importance of "green" construction and deconstruction, the County has identified a C&D recycling program as a possible future phase service at the "ecopark."

One method the County will explore as a means to reduce back-end processing costs at such a facility would be to encourage the separating of portions of the C&D waste stream at the source. Certain wood and masonry materials can be recycled fairly easily if properly separated from other materials. In order to reduce costs to the County for this potential program, the County can evaluate the feasibility of offering financial incentives to encourage generators to separate their own waste instead of separating commingled C&D material at a recycling facility. The management of separated waste loads could then be offered at a lower rate than commingled material in order to encourage source separation.

Program Strategy #4:
Study potential for various internal and public C&D sustainable diversion initiatives including:

County and City of Rochester construction/deconstruction projects, incentivize source separation, local C&D waste characterization, education and outreach.

The County will work with the City of Rochester to encourage, where appropriate, the deconstruction of buildings slated for demolition in order to maintain, or further decrease, already reduced tipping fees for this C&D material at the Mill Seat Landfill.

The County will study its own project bid boilerplate language for clarification opportunities to further promote sustainable diversion of certain C&D materials.

The County will query local hauling, home-improvement and construction companies as to their roll-off dumpster policies and whether education is conducted/available regarding the source separation of County program recyclables from C&D waste. The potential necessity of conducting a characterization of the waste stream of various phases of local construction and demolition activities to determine the optimal time-points for sustainable diversion activities will be studied.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this task.

Program Strategy #5 – Product Reuse Collection and Distribution Programs

Product reuse is one of the most efficient forms of recycling. The County proposes to expand the ecopark Prospector on the County's website to include reuse centers that are available to County residents. These may include: Salvation Army, Goodwill, Habitat for Humanity ReStore, Savers, and Rochester Greenovation.



A materials exchange program is an alternative product reuse outlet. Materials exchanges facilitate the exchange of materials or wastes from one party, which has no use for that material, to another party that views the materials as a valuable commodity. These programs foster waste reduction efforts through the reuse of materials. This eliminates the need to process these materials for recovery or disposal. These programs are not regulated by the NYSDEC.

Rochester Greenovation is one of the newer centers to come online. Rochester Greenovation's mission is to strengthen local communities through environmentally conscious initiatives, waste diversion, and education. Their facility features a retail market, class space, an art gallery, studios and a community stage, all located on East Main Street in Rochester.

Program Strategy #5:

Promote product reuse to increase waste diversion.

Given that there are quite a few reuse centers established in the County, the County will continue to encourage and promote these types of reuse centers through the County's educational program as discussed later in Program Strategy #9. Through economic development, the County would be supportive of a private or public entity developing a similar program within the County.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this strategy.

6.3 Program Strategies to Increase Organics Recovery

Interest in organic waste diversion has increased over the last few years, particularly because it has the potential to divert a significant portion of the waste stream away from landfills. The composting process can be applied to yard waste, food waste, MSW, WWTF biosolids, non-hazardous industrial sludge, compostable paper products, or some combination of these materials.

Program Strategy #6 – Support Yard Waste Management Efforts

Uncontaminated yard waste is prohibited from the Mill Seat Landfill and High Acres Landfill & Recycling Center, which are the primary means of residential MSW disposal within the County. Unfortunately, once yard waste has been combined with MSW by residents for disposal, it is considered contaminated and is accepted at the landfill facilities. The County encourages, as the primary step in the hierarchy of yard waste management, residents and businesses to implement "grasscycling" (leaving grass clippings on the lawn for natural decomposition/fertilization) and/or backyard composting for yard waste reuse/recycling. Secondarily, many municipalities and some private landscaping companies offer varying levels of yard waste collection/drop-off and compost services that are available to constituents. Table 2-9, in Chapter 2 – Existing Program Description, outlines the municipalities throughout the County that already provide yard waste management services to their own residents. During the planning period, it will be evaluated whether these programs need to be better promoted or enhanced so that residents and businesses utilize the various services available. The County will support existing educational partners, such as, Soil and Water Conservation District and Cornell Cooperative Extension, as well as potential new partners to bolster yard waste composting education in the County.

Program Strategy #6:

Organize a yard waste coalition of municipalities, institutions, haulers and private sector landscaping companies to study yard waste management practices (operational and educational) within the County in order to create/enhance efficiencies in diverting this material from landfills to the maximum extent practicable. Study extending leaf composting services to the municipalities surrounding each County-owned composting facility in an effort to streamline the composting process and make it more cost-effective for all.

A goal of this LSWMP will be to organize a yard waste coalition of municipalities, institutions, haulers and private sector landscaping companies to study yard waste management practices (operational and educational) within the County in order to create/enhance efficiencies in diverting this material from landfills to the maximum extent practicable. Options available from all the stakeholders will be identified and explored to give the public access to the most appropriate level of service required or desired.

In the interim, the County will study extending leaf composting services to the municipalities surrounding each County-owned composting facility in an effort to streamline the composting process and make it more cost-effective. This could make the most economic use of the site development and expensive mechanical equipment required for facility operation. At the beginning of the planning process for each new facility, the County would approach nearby municipalities regarding shared composting services. As part of this effort to encourage the development of local yard waste composting facilities, the County could offer the shared use of its specialized compost processing equipment (windrow turner) to reduce the capital and operating costs of such a facility to each municipality. This could also reduce the environmental impacts of relying on larger, centralized facilities that require

multiple trips with transfer trailers to bring leaves from throughout the County to central locations.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this strategy.

Program Strategy #7 – Organics Diversion Programs

As defined in the NYSDEC's *Beyond Waste*, organic residuals are of plant or animal origin and are a common byproduct of human life. Outside of yard waste handled at the yard waste composting facilities within the County, organic wastes such as pre and post-consumer IC&I and household food waste (including fats, oils and grease), and certain non-recyclable paper (paper towels, facial tissue) are handled through disposal at County-located landfills through in-sink "garbage disposal" units, small-scale backyard composting efforts, or the limited IC&I food waste diversion projects. The destination of these materials within the County-located landfills is anaerobic decomposition to produce landfill gas, which contributes to the green energy projects at the landfills. Within the municipal wastewater treatment system, these materials undergo mechanical and biological breakdown resulting in increased system costs and water use. Backyard composting provides a useable product without transportation costs/emissions or clogged sewer laterals. IC&I organics diversion methods can include animal feed, commercial composting, rendering and biofuel facilities.

Program Strategy #7- Residential:

Enhance promotion of residential options for organics/food waste diversion (through the County's website, yard waste coalition members, literature, demonstrations, HHW program, etc.).

One focus of the waste composition study provided in Appendix D was to identify the amount of organic wastes in the disposed waste stream to evaluate the quantities of these potentially recoverable materials in the waste stream. The NYSDEC estimates that yard waste, food scraps and non-recyclable papers make up about 30% of the State's MSW. According to the estimates derived from the NYSDEC's waste composition tool, food scraps comprise approximately 16% of the MSW stream in the County. The organic waste stream can be looked at as many different sub-streams but, for the basis of this report, is broken down into residential and IC&I.

One of the largest challenges faced in collection and treatment of organic waste is collecting an uncontaminated waste stream in an efficient and economic manner. Especially in the case of organics digestion projects, any contamination of the feedstock (waste stream) could result in unsuccessful breakdown of the materials, or a contaminated end product that must be treated as solid waste. Also, organic wastes tend to be heavy with high water content, which can make them difficult to collect and transport in an efficient manner. These wastes also have high odor potential and attract vectors, making storage considerations more complicated.

They often must be collected more frequently than mixed waste, particularly in public settings increasing fuel use and emissions.

6.3.1 Residential



The results of the residential waste composition study that was performed within the County were used to analyze the need for, and the feasibility of, a dedicated residential organic waste management program in addition to those already offered within the County. The results of the study revealed that, while an appreciable level of organic materials are still present in the discarded waste stream; many of these materials already have an alternative management outlet.

Paper products, which are considered an organic material, made up the largest percentage of the recoverable waste stream at 18%. A large portion of these materials are recyclable through the County's present recycling program; however, they would need to be clean and dry. Only 6.7% of the disposed organic waste was made up of non-recyclable paper. The largest percentage of the "organic" materials in the waste stream, as defined by the waste composition study, was grass clippings, leaves, and plant waste at 17%. These materials, along with the woody debris also found in the waste stream (1.5%), can be handled by the various yard waste composting facilities located throughout the County, listed in Table 2-10, or through public education efforts for backyard composting and "grasscycling" (as discussed in Chapter 2 – Existing Program Description). The smallest portion of the organics found in the residential waste stream was found to be food waste at less than 6.24%. This quantity is quite a bit lower than the 16% estimated by the NYSDEC, which may have been related to food scraps left in containers when completing the study. Given a waste generation rate of 3.6 lbs/person/week and an average household size of 2.47 people (based on US Census Bureau 2009 estimates), this represents less than four (4) pounds of food waste per household, per week. The home compostable and fats/oil/grease portions of the residential food waste stream would comprise a significant portion of that percentage. Given the relatively small portion of the waste stream (6.24%) that the home compostable materials represent, a full scale management effort by the County has not been warranted to date. However, due to the discrepancy between the quantity identified during the waste composition study (6.24%) and the NYSDEC's estimate (16%) further analysis may be warranted, which is further discussed in Chapter 7 – Implementation Schedule. In an effort to streamline the composting process and make it more cost effective, the County will encourage the development of local organic composting initiatives similar to Community Composting to address the management of both home and non-home compostable materials.

While composting of organic/food waste can be an effective method of low technology recycling, which can reduce the stream of landfilled waste; large-scale collection of these materials on a household basis can prove difficult, expensive and environmentally unsound.

Another option the County has used for encouraging the removal of organic wastes from the waste stream is promoting backyard composting programs, through which residents are provided education regarding the methods of proper backyard composting. The County will continue and increase its efforts to educate its residents in backyard composting methods (including yard waste, vegetable-based food waste and appropriate paper materials not accepted for recycling), and focusing on emphasizing the environmental, financial, and aesthetic benefits of residents producing high quality compost in their own backyards. This would be accomplished through the continued distribution of information on effective composting through pamphlets, advertising, demonstrations, and/or the County website. To accomplish this, the County, as part of its yard waste diversion coalition/study, will work to incorporate proper residential public education and participation measures as a subset of the larger yard waste diversion program. Residents will be encouraged to use the County's existing ecopark program to divert fats/oil/grease from local landfills and the wastewater treatment system. While the percentage of these residential organic wastes, appropriate for diversion through underutilized existing means, may be difficult to quantify (especially those entering the wastewater treatment system), the County expects that additional diversion can be accomplished by enhancing the education, awareness and participation of its residential populace.

6.3.2 IC&I

Industrial producers of organic wastes, such as food processing plants, identify their own means of management of waste materials outside of the landfill. These materials are well-separated and consistent by nature, which allows for more outlets for organic waste management such as animal feed and land application. The cost of disposal of these materials at the landfill drives the need to find alternate management methods.

With ten (10) colleges and universities, approximately 175 K-12 school buildings, seven (7) hospitals, and a number of other institutions, grocery stores and restaurants located within the County—all of which having the potential of producing substantial quantities of organic food waste—food waste is certainly a component of the waste stream being deposited in the County-located landfills.

The collection of material on a smaller scale, with efficient means of providing education regarding separation of wastes to the generators would provide the best-case scenario for a successful program. According to the waste composition study provided in Appendix E, approximately 15% of the IC&I solid waste stream is estimated to be food waste. During this planning period, the County will investigate the economic, environmental and operational feasibility of an internal program to divert food waste from County facilities (Monroe Community Hospital, Monroe Community College, Monroe County jails, Greater Rochester International Airport). The County will also investigate a possible role in assisting other private-sector entities with the potential implementation of composting programs for IC&I organic wastes.

To accomplish this, the County will examine the outcomes of the above mentioned local pilot programs and study additional options (like those described in the USEPA's *Best Management Practices for Incorporating Food Residuals into Existing Yard Waste Composting Operations*). Existing leaf composting facilities within the County could provide some potential opportunity for the addition of certain food wastes if the inherent challenges of such a program can be overcome. Prior and existing pilot programs can be assessed to help with this determination.

Program Strategy #7-IC&I:

Investigate the economic, environmental and operational feasibility of an internal program to divert food waste from County facilities (Monroe Community Hospital, Monroe Community College, the County jails, Greater Rochester International Airport) by examining results of existing local pilot programs; investigate role in assisting private–sector entities with IC&I composting; and, study possible participation in organic waste pilot program with local institution(s)/college(s).

The County will also study the possibility of participation in a pilot program for the collection and digestion or composting (treatment) of organic waste at one (1) or more of the local institutions and/or colleges. Ideally, the treatment would take place on location at the site of collection, which would help to mitigate collection issues. A benefit of demonstrating a pilot program at a college or university would be the presence of students and faculty who are typically highly aware and interested in "green" projects and sustainability. The program would likely receive a high level of support and participation, and possibly some volunteer efforts for its operation. The goal of the pilot program, if successful, would be to demonstrate to similar institutions the benefits and viability of on-site food waste composting programs.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this task.

Program Strategy #8 – Monitor Management of Animal Mortalities

According to the Cornell Waste Management Institute, over 25,000 dead deer carcasses are managed annually by the NYSDOT. Disposal options are limited and appropriate disposal is expensive. Current NYSDOT practices include subscribing with service providers to pick up and dispose of the animals, dragging animals further off the road or placing them in pits and depressions off side roads. These methods are becoming less acceptable as rural areas become more populated and there is increased concern for environmental quality.

Program Strategy #8:

Monitor success of CWMI and NYSDOT research methods for the management and composting of animal carcasses.

The County currently does not have a compost management plan for road kill, slaughter waste or other non-farm related animal mortalities. Cornell Waste Management Institute has worked with the NYSDOT to research methods of management and composting of this type of material. The method of static pile carcass composting has shown some benefits. This type of management method needs additional research before the County would be in a position to consider instituting a County operated animal carcass composting program. The County supports the efforts that Cornell Waste Management Institute and NYSDOT have made towards alternative methods of disposal for the dead carcasses, and will continue to monitor the progress being made.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

6.4 Public Education Elements

As described previously in Chapter 3 – Solid Waste and Recyclables Quantities and Types, the County operates a comprehensive recycling program that is consistent with the best run programs throughout the State, and intends to constantly monitor emerging recycling outlets that become available in order to add to the items included in its program. The County has also been diligent in its recycling education efforts as much as possible over the past planning period, to much success.

Program Strategy #9 – Public Outreach and Education

During this planning period, the County will evaluate its education methods and its Solid Waste Reuse and Recycling Law as outlined above in Program Strategy #2. The County will evaluate the feasibility of adding more compliance tools within its Solid Waste Reuse and Recycling Law and adding recycling compliance oversight at transfer stations and landfills. By increasing diligence in monitoring the waste delivered by waste haulers, the County can encourage the waste haulers to increase their attentiveness in monitoring the waste they collect and their education efforts toward their customers.

The results of the waste composition study and the residential recycling survey that were discussed in Chapter 3 – Solid Waste and Recyclables Quantities and Types will be used by the County to determine where its education efforts are most needed in order to increase program participation rates and to increase the quantity and quality of recyclables being accepted at the MCRC.

Program Strategy #9:

Use public education/outreach methods (including the County website and local media), transfer station observations and waste characterization studies to work with private/public hauling/recovery entities to encourage the recycling of specific (curbside and non-curbside) waste streams, to increase recycling/recovery program participation rates and to decrease readily recyclable material in the waste stream to the maximum extent practicable.

The County will continue to focus on recycling education through the Web, press events, municipal/hauler newsletters, public events, media buys (when possible), classroom visits, social media, facility tours—specifically in the areas where it can team with local companies and not-for-profit agencies to encourage the recycling of specific waste streams. For example, the quantity of textiles present in the waste stream during the residential waste composition study was noticeable, considering that there are many not- and for-profit outlets throughout the County where these materials can be diverted. The County also has a unique opportunity through its Recycling Advisory Committee to spread the word about the County's recycling program.

The County will work with external agencies/committees, such as the Recycling Advisory Committee and/or Cornell Cooperative Extension, to better educate the public about the outlets that are available. Other similar waste streams include electronics waste and plastic film/bags/product wrap. The County can work with private providers of recycling services for these products to educate the public about free or low-cost recycling programs that are available. The County will expand its presence on the Web to make it easier for constituents, businesses, haulers, etc. to access correct information.

Another potential task that could be implemented with the help of the Recycling Advisory Committee would be to generate an Ombudsmen type program where dedicated individuals could volunteer their time to developing and implementing an educational program focused on waste diversion.

Development of a public outreach and education plan will be progressed through this planning period to include the educational components of the County's comprehensive recycling plan as well as other components discussed throughout Chapter 3 – Solid Waste and Recyclables Quantities and Types and above.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this task.

6.5 Infrastructure Needs

The County currently has the infrastructure that is needed to divert waste. However, the following programs will assist in diverting waste, which will lessen the strain put on the current infrastructure. This will benefit the solid waste management system in place as the County will not need to add to its current infrastructure during the planning period.

Program Strategy #10 – Local Flow Control Law for Use if Needed

Legal uncertainty with respect to the power of municipal governments to direct the flow of waste to publicly-owned solid waste management facilities has been reduced as a result of a United States Supreme Court decision involving the Oneida-Herkimer Solid Waste Authority. Consequently, many counties have contemplated updating and implementing their local laws to designate facilities to be utilized for the management of solid waste generated within their counties.

In its plan, *Beyond Waste*, the NYSDEC discourages planning units from relying too heavily on disposal facilities outside of their planning unit. It stresses that planning for disposal, based on estimated generation rates, within each planning unit allows each planning unit to maintain sufficient waste management infrastructure to handle wastes in the most environmentally and fiscally responsible manner, and to ensure adequate capacity for disposal over its planning period. The County's expansion of the Mill Seat Landfill provides that adequate capacity over the ten (10) year planning period. The NYSDEC identifies flow control as a tool to be used by planning units to enforce this principle. Furthermore, *Beyond Waste* states that "Flow control can be an important financial and planning tool to ensure delivery of sufficient solid waste to satisfy debt payments for capital intensive facilities and to generate revenue that can support waste reduction and recycling initiatives. It also ensures that materials are directed to a facility that the municipality determines is safe and appropriate for handling its waste."

Program Strategy #10:
Assess the need to consider implementation of flow control within the County as deemed necessary throughout the planning period. The implementation of flow control, as necessary, is considered consistent with this LSWMP.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

Program Strategy #11 – Product Stewardship Framework

Product Stewardship is based on the concept that producers selling a product should be responsible for designing, managing, and financing a stewardship program that addresses the lifecycle impacts of their products, including end-of-life management. It is a nationwide undertaking to encourage government, at the State level, to implement product stewardship legislation based on the same framework principles in order to maintain a consistent starting point for nationwide implementation of a product stewardship policy. The New York Product Stewardship Council is working to implement the principles of product stewardship in the State. Key legislation that the New York Product Stewardship Council has been involved in includes: mercury thermostat legislation, electronics legislation, and rechargeable battery legislation.

Program Strategy #11:

Shift government funded waste diversion to one that relies on Product Stewardship.

The County intends to work together with the New York Product Stewardship Council to coordinate and participate in product stewardship initiatives locally especially related to the statewide issue of recycling CRTs that the County is dealing with locally. It is the intent of the County to adopt these product stewardship framework principles through a resolution.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to support this initiative.

Program Strategy #12 – Pay-As-You Throw Program

In areas where PAYT is an option for waste collection, residents are charged a fee for municipal solid waste collection based on the amount of waste they dispose of. According to the USEPA, this concept creates a direct economic incentive to recycle more and to generate less waste. PAYT programs allow residents to treat waste collection as a utility and pay only for the service they actually use. Most communities that use a PAYT program operate municipal hauling and charge their residents a fee per bag or per can of waste. In a small number of communities, residents are billed based on the weight of their trash. All of these variations on the PAYT programs allow residents to pay less for waste management if they recycle more and throw away less waste.

Program Strategy #12:

Evaluate the feasibility of PAYT programs during review/update of the local Solid Waste Reuse and Recycling Law and regulations.

NYSDEC's *Beyond Waste* plan promotes the implementation of PAYT systems as a method for encouraging waste reduction and increasing recycling. Since the County does not collect residential waste, a PAYT program would need to be implemented through other local municipalities, haulers and transfer stations. In an effort to determine the presence of PAYT-type systems within the County, and the willingness of private haulers to participate in such a program, the County conducted a survey (2010) of the waste hauling companies that operate within the

County. The results of the survey indicate that PAYT programs are available from the larger private haulers in the County, but are generally not well used by their customers. There was a mixed response from haulers regarding interest in expanding such programs. Many have stated that their overhead costs which include collection vehicles, containers, and employee wages represent such a high percentage of their overall service (as opposed to disposal costs), that they are not able to offer their customers much reduction in cost for smaller quantities of waste.

It is evident from the results of the survey that additional PAYT systems would not be implemented willingly by waste haulers because there are not financial incentives to do so. During the planning period, the County will evaluate methods for continuing to encourage the implementation of PAYT options from local private haulers and municipalities.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

Program Strategy #13 – Improving Solid Waste and Recycling Data Compilation

The County has a recycling program, with many materials being mandatory to recycle. While the County offers recycling options, the Annual Solid Waste and Recyclables Inventory produced by the County consistently reports recycling percentages below the County's recycling goals set forth in the original LSWMP. It is the County's belief that this is due to the fact that reported recycling numbers are based solely on the materials that are handled through the County's solid waste management system. While most solid waste is required to be reported through the NYSDEC facility reporting system, and therefore is completely accounted for, the same requirement does not apply to recyclable materials. Therefore, large recyclables producers such as big box stores, and even private recyclables collection companies, may ship recyclable products directly to the end user for a profit, bypassing the County recycling facilities. As a result, these materials are not being accounted for in the County's recycling reports.

Program Strategy #13:

To obtain a more complete data set to assist with the implementation of the program strategies.

WMNY, as the operator of the MCRC, is planning to conduct a composition survey of the materials currently being accepted at the MCRC. This survey should address the NYSDEC concerns of not including the recyclables or bulk metal components of the waste stream in the 2010 studies. This information should be beneficial as it relates to residue percentages as well as if there are opportunities for other materials that may be marketable.

To further understand the County's waste stream, the County intends to undertake several recycling data surveys over the course of the planning period, which would be distributed to various generators in the County in order to compile a more complete set of recycling data. These surveys will be used to help assess what materials could be available for use in new programs such as organics

composting and C&D material recycling. The survey would most likely be conducted in stages, with the largest waste producers being contacted first. The groups of generators could include: (1) retail businesses (groceries, restaurants, stores); (2) industries; (3) schools and institutions; (4) libraries, jails and nursing homes; (5) the public sector and special events. Survey recipients would be asked for data such as: recyclable material (metals, plastic, and paper) produced per year, organic material produced per year, C&D material produced per year, and current disposal/recycling methods. Intermediate facilities such as confidential paper shredding services may also be contacted to determine how much material they receive from within the County. This information would then be compiled to help the County more accurately determine the actual recycling rate within the County, which recycling efforts are most effective, and which new recycling methods would be most prudent for the County to pursue.

In addition to generator data, solid waste management facility data will be collected as well. For every facility/program that manages MSW, WWTF biosolids, C&D debris, processed scrap metal, and/or industrial waste generated in the County, requested information could include information regarding:

- capacity/expected life,
- service areas, and
- operating status.

For Planning Unit owned facilities/programs information could include:

- infrastructure/components,
- age,
- operating dates,
- size,
- regulatory status,
- partnerships/opportunities,
- contracts,
- improvements or changes, and
- resources/needs/ costs.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this task.

6.6 Role of the Private Sector

Program Strategy #14 – Generate a LSWMP Consistency Review Protocol

The County has a well-developed, comprehensive solid waste management system, where a majority of the County reuse, recycling, disposal, and WWTF biosolids management needs are provided within the limits of the County. Aside from the system enhancements outlined herein, additional waste management facilities are believed not necessary to meet the County solid waste management needs during this ten (10) year planning period.

Program Strategy #14:

Generate a LSWMP Consistency Review Protocol.

In an effort to seek consistency with this comprehensive LSWMP, during this ten (10) year planning period, the County will develop a protocol to be used for the review of any proposals for new or expanded solid waste management and recycling facilities that are intended to either be located within the County or provide service to waste or recyclable materials generated in the County. The protocol may include but not necessarily be limited to the following components:

- Communications with NYSDEC regarding permit applications or registrations for proposed facilities.
- Public participation measures.
- Information submittals for review and consideration by the County.
- Procedures and criteria for the County to use when making and filing consistency determinations, including an appeals process relative to such consistency determinations.
- Enforcement measures.

Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to implement this task.

Chapter 7 – Implementation Schedule

While some of the program enhancements outlined above are already in the planning stages, some will require a higher level of feasibility analysis, funding, and planning before implementation. The preliminary Implementation Schedule for the proposed plan is outlined in the table on the follow page. As pursuit of implementing these proposed enhancements continues, and further information is gathered regarding the feasibility of implementing these programs, this schedule will be updated as needed via the biennial LSWMP Compliance Reports, which are planned to be issued by the County every two (2) years per NYSDEC requirements.

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
1.) Continue Landfilling as Primary Disposal for all Non-Recyclable/ Recoverable Waste	Receive landfill expansion permit, which will provide disposal capacity through the remainder of this planning period.	Review alternative waste disposal technologies and explore feasibility of implementation, provided resources are available.		Review alternative waste disposal technologies and explore feasibility of implementation, provided resources are available.		Review alternative waste disposal technologies and explore feasibility of implementation, provided resources are available.		Review alternative waste disposal technologies and explore feasibility of implementation, provided resources are available.		Review alternative waste disposal technologies and explore feasibility of implementation, provided resources are available.
	Implement an additional landfill gas to energy project at the Mill Seat Landfill.			Monitor gas generation potential at the landfill annually to determine the need for additional gas utilization projects.						
	Annually monitor available landfill capacity and pursue expansion options as necessary to maintain long-term disposal capacity as long as technically feasible and cost-effective. Continue to assess existing and new disposal methods.									
2) Local Solid Waste Reuse and Recycling Law Revision	Conduct internal review of Local Solid Waste Reuse and Recycling Law. Specifically address updating the list of mandatory recyclables, commercial recycling, public event recycling, definitions, reporting requirements for haulers and generators, and review of enforcement options. Incorporate mechanism for data gathering as it relates to implementing Program Strategy #13.		Coordinate with the Legislature to update the Local Solid Waste Reuse and Recycling Law.		Monitor and gather data related to modification of Local Solid Waste Reuse and Recycling Law. If deemed appropriate, enforce law as it relates to hauler and generator reporting when implementing Program Strategy #13. In addition, general enforcement of the law will be assessed during this timeframe.			Revisit Updated Local Solid Waste Reuse and Recycling Law to determine if aspects of the law are in line with the implementation of the program strategies and if any changes are necessary.		Update tasks for new 10 year planning period depending on progress.

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
3) Increase Recycling at County-Owned Facilities		Follow up with NYSDEC regarding the pre-application submitted for the grant to cover 50% of the salary for a recycling coordinator. Define a waste diversion goal for County-owned facilities.	Prepare a plan to increase recycling rates at County-owned facilities. Evaluate current recycling procedures at County-owned facilities.	Preliminarily quantify recycling diversion rates at facilities. Encourage "Green Teams" within County offices to support additional recycling opportunities at county facilities.	Draft a model resolution that can be used by municipalities within the County to encourage a similar program for increasing recycling efforts on the local level.	Initiate internal recycling campaign. Coordinate with other municipalities to share ideas to promote recycling. Implement a recycling campaign through signage, email notifications, contests, etc.		Review expanding the recycling campaign to include public events, schools, instititutions, etc.		Update tasks for new 10 year planning period depending on progress.
4) Increase Construction and Demolition Debris Recycling		Study potential for various internal and public C&D sustainable diversion initiatives: County and City of Rochester construction/deconstruction projects. Gather data related to C&D generation and diversion from Program Strategy #12 (data gathering).			Estabilish a C&D waste diversion and recycling goal. Initially focus on County or City of Rochester funded projects.	Identify other municipalities with C&D recycling programs, and determine if the programs could be adapted to the County's needs.	If determined to be feasible, the County could prepare a plan that lays out how the program would be structured including: implementation, incentives, education, tracking, documentation, etc.	Monitor and assess opportunities for meeting or increasing the goal.	Monitor and assess opportunities for meeting or increasing the goal.	Determine next step for C&D debris recycling.
	Promote and encourage the separation of portions of the waste stream at the source. Open communication with groups working with construction and demolition debris materials. Possible groups could include: America Institute of Architects (AIA) - Rochester Chapter, Rochester Home Builders Association (RHBA), Better Contractors Bureau (BCB), commercial property developers, area C&D processsors.									

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
5) Product Reuse Collection and Distribution Programs	Inventory existing product reuse programs.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange. Include an item on the waste generator surveys related to materials that may be useful to others and whether the business would be interested or willing to exchange those materials.	Disseminate information to those interested in Product Reuse based on results of the survey.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange. Include an item on the waste generator surveys related to materials that may be useful to others and whether the business would be interested or willing to exchange those materials.	Provide avenues for businesses to communicate related to possible exchange of materials versus the alternative of disposing of them.	Assess the feasibility of providing a materials exchange program for County residents.	Disseminate information. If sufficient funds and resources are available, the County's educational program could include educating businesses about material exchange opportunities.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange. Include an item on the waste generator surveys related to materials that may be useful to others and whether the business would be interested or willing to exchange those materials.	Provide avenues for businesses to communicate related to possible exchange of materials versus the alternative of disposing of them.	Provide avenues for businesses to communicate related to possible exchange of materials versus the alternative of disposing of them.
	Support existing product reuse operations and encourage additional product reuse facilities through economic development.									

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
6) Support Yard Waste Composting Efforts	Organize a yard waste coalition of municipalities, institutions, haulers and private sector landscaping companies.	Direct yard waste coalition to inventory existing yard waste and organics management programs (public and private) and study current yard waste management practices (operation and educational) within the County.		Study extending leaf composting services to the municipalities surrounding each County-owned composting facility in an effort to streamline the composting process and make it more cost-effective for all. Use input from local municipalities and other counties with similar programs to determine type of program that would be feasible.		Initiate a pilot program to extend leaf composting services. Yard waste coalition would develop and implement this pilot program. Set diversion goals as a method of tracking the success of the program.	Evaluate the successes and challenges to the pilot program.	Determine if the program should be extended further or modified.	Update and modify the Plan to reflect successes and challenges.	Update tasks for new 10 year planning period depending on progress.
	Encourage and promote private compost operations through economic development. Maintain communication with municipalities and educational partners related to existing or ongoing yard waste composting education programs.									
	Promote existing yard waste compost programs that are available to the County residents.									

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
7) Organic Diversion Programs	Inventory existing organics management programs (public and private) within the County. Determine which programs require support or have successes to share. Approach organics management programs requiring support or expansion and provide necessary opportunities or access to successful programs. Encourage local programs to share their successes with others.	Determine level of involvement required from the County or continue as a source to share information among generators. Promote successful organics management programs via the County's website and other educational outreach venues. Continue to be advised of organics management programs within the County and provide any additional future support as deemed necessary.								
	Review locations on county-owned land for potential food waste composting faciltities.	Study the economic, environmental and operational feasibility of an internal program to divert food waste from County facilities (Monroe Community Hospital, Monroe Community College, Monroe County jails, Greater Rochester International Airport, etc.) by examining results of existing local pilot programs. Register a facility on county-owned land to have the ability to accept the food waste as part of a pilot program in cooperation with at least one (1) of the County facilities identified during the study.			Monitor progress of food waste composting pilot program.	As part of the Biennial Compliance reporting, estimate the composition of food waste in the waste stream and compare it to the 2010 Waste Composition Study.	Assess if an additional County facility could be added to the food waste composting program.		Update and modify the Plan to reflect successes and challenges. Update tasks for new 10 year planning period depending on progress.	

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
8) Monitor Management of Animal Mortalities	Monitor progress of CWMI and NYSDOT regarding animal mortality and composting.	Report in the Biennial Compliance report any new developments in animal carcass composting activities.	Monitor progress of CWMI and NYSDOT regarding animal mortality and composting.	Report in the Biennial Compliance report any new developments in animal carcass composting activities.	Monitor progress of CWMI and NYSDOT regarding animal mortality and composting.	Report in the Biennial Compliance report any new developments in animal carcass composting activities.	Monitor progress of CWMI and NYSDOT regarding animal mortality and composting.	Report in the Biennial Compliance report any new developments in animal carcass composting activities.	Monitor progress of CWMI and NYSDOT regarding animal mortality and composting.	Report in the Biennial Compliance report any new developments in animal carcass composting activities.

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
9) Public Outreach and Education Program	Follow up with NYSDEC regarding the pre-application submitted for the grant to cover 50% of the salary for a recycling coordinator.	Draft a preliminary education plan regarding waste diversion and responsible waste disposal with key stakeholder input. Focus initial plan on recycling, yard waste composting, backyard composting, C&D debris diversion, existing collection opportunities for HHW, mercury containing materials, e-waste management, and pharmaceuticals. The plan should expect the initial audience to include: residents, local public schools as well as colleges and universities, and attendees at public events. Partner with local environmental institute, organization, college, or university to assist with the completion of the public outreach and education plan. If deemed appropriate, also use volunteer staff to expedite the preparation of this plan.			Reach out to neighborhood watches, community centers, and faith communities to extend the reach of the education plan. Utilize these groups to communicate and educate County residents on recycling and waste diversion.	Expand the education plan to include other groups, such as, municipalities, libraries, jails, institutions, and nursing homes. Add details related to product reuse and organics management to the education plan that would be most beneficial for these additional audience members.		Expand the education plan to include other groups, such as, commercial retail stores and industries. Add details related to product stewardship or extended producer responsibility, waste prevention, waste diversions, and organics management to the education plan that would be most beneficial for commercial and industry audiences.		Update tasks for new 10 year planning period depending on progress.
	Use public education/outreach methods (including the County website, local media outlets, recycling trailer, bus wraps, water billing inserts, 3rd-4th grade recycling calendars, recycling mascot, facility tours, virtual tours), transfer station observations, residential recycling survey results, and waste characterization studies to work with private/public hauling/recovery entities to encourage the recycling of specific (curbside and non-curbside) waste streams to increase recycling/recovery program participation rates and to decrease readily recyclable material in the waste stream to the maximum extent practicable. Utilize existing educational materials (flyers, magnets, PSAs, etc.) and continue to share with the public through various avenues (public events, schools, water bills, etc.). Prepare educational materials in multiple languages.									

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
10) Local Flow Control Law for Use if Needed		Assess the need to consider implementation of flow control within the County as deemed necessary.		Assess the need to consider implementation of flow control within the County as deemed necessary.		Assess the need to consider implementation of flow control within the County as deemed necessary.		Assess the need to consider implementation of flow control within the County as deemed necessary.		Update tasks for new 10 year planning period depending on progress.
11) Product Stewardship Framework	Reach out to the New York Product Stewardship Council to learn more about Product Stewardship and Extended Producer Responsibility (EPR).	Educate County staff and County Legislature of benefits to supporting the Product Stewardship Initiative.	Review other NY communities that have passed a Product Stewardship resolution showing their support. Determine if passing a similar resolution in the County would be beneficial.	Work with the NY Product Stewardship Council to draft a resolution that would fit the needs of the County.	If supported by the Legislature, pass a Product Stewardship resolution.	Support the NY Product Stewardship Council and remain educated on product stewardship initiatives.				Update tasks for new 10 year planning period depending on progress.

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
12) Monitor PAYT Programs		Monitor PAYT interest and availability through biennial surveys.	Evaluate the need to promote PAYT programs to customers.	Continue to monitor through biennial surveys regarding the possibility of implementing mandatory PAYT options from haulers.	Evaluate the need to promote PAYT programs to customers.	If warranted, work with local haulers and transfer stations to promote PAYT programs to customers.	Conduct PAYT survey to local haulers, transfer station operators, and possibly residents to determine successes and challenges of a PAYT program.		Evaluate the need to promote PAYT programs to customers.	Update tasks for new 10 year planning period depending on progress.

Monroe County - Implementation Schedule

Program Strategy		Year									
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
		1	2	3	4	5	6	7	8	9	10
13) Improving Solid Waste & Recycling Data Compilation			Follow up with NYSDEC regarding the pre-application submitted for the grant to cover 50% of the salary for a recycling coordinator. Prepare a survey template for distribution to waste generators.	Prepare and distribute surveys to retail businesses (groceries, restaurants, stores).	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks. Follow up with interested generators to improve their waste diversion programs.	Prepare and distribute surveys to industries.	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks. Follow up with interested generators to improve their waste diversion programs.	Prepare and distribute surveys to schools and institutions.	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks. Follow up with interested generators to improve their waste diversion programs.	Prepare and distribute surveys to libraries, jails, nursing homes, and the public sector (municipalities).	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks. Follow up with interested generators to improve their waste diversion programs.
			Partner with organizations such as the Pollution Prevention Institute at Rochester Institute of Technology or other educational institutions to generate surveys, gather data, and tabulate the results.								
			Incorporate Program Strategy #13 components into Program Strategy #2.	Incorporate aspects of the revised Local Solid Waste Reuse and Recycling Law into the data gathering requirements.		Monitor successes and challenges of solid waste and recycling data compilation for future review of the Local Solid Waste Reuse and Recycling Law in Program Strategy #2.					
			Prepare a survey template for distribution to facilities or haulers that manage MSW, biosolids, C&D, processed scrap metal, and industrial waste.	Prepare and distribute surveys.	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks.	Prepare and distribute surveys.	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks.	Prepare and distribute surveys.	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks.	Prepare and distribute surveys.	Tabulate and interpret data from surveys. Utilize to implement other tasks or modify tasks.

Monroe County - Implementation Schedule

Program Strategy	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	1	2	3	4	5	6	7	8	9	10
14) Generate a LSWMP Consistency Review Protocol			Prepare a draft LSWMP Consistency Review Protocol with input from stakeholders.	Finalize LSWMP Consistency Review Protocol.	Gather feedback on Final LSWMP Consistency Review Protocol from stakeholders.	Implement the LSWMP Consistency Review Protocol by distributing to the necessary parties, such as NYSDEC and municipalities.	Promote Review Protocol and adjust it as necessary.			Update tasks for new 10 year planning period depending on progress.
Optimal MSW Recycling Diversion Goals	20%	24%	28%	31%	35%	39%	43%	48%	52%	60%
Optimal C&D Diversion Goals	33%	50%	50%	52%	57%	58%	58%	60%	62%	62%

Notes:

1. The above implementation schedule includes tasks and subtasks. Details related to required resources to achieve the projected results can be found in each implementation task description in Chapter 6 - Solid Waste Management Program Strategies. The bulk of the tasks are expected to be undertaken in the earlier years of the planning period, and more detail will be added through compliance reports for all impending tasks as the planning period progresses.

2. It should be understood that these recycling diversion projections are intended for use as a planning tool only and as such are not a commitment of achievement by the County. As programs progress and new information becomes available, these projections are expected to evolve and require revision over time. Accordingly, to remain a valuable planning tool, it is expected these optimal rate projections will be updated or revised in each biennial compliance report along with the implementation schedule, as necessary.

Chapter 8 – SEQRA Determination

A SEQRA review for the LSWMP was undertaken prior to the adoption of the final plan. All required SEQRA documents are on file at the County as well as in Appendix G of this plan.

Chapter 9 – Public Participation/Notification to Neighboring Jurisdictions

The County held an open public comment period on the Draft LSWMP, during which, a public information meeting was held on Thursday, January 15, 2015 from 6:00 – 9:00 p.m. at Monroe Community College (MCC), Brighton Campus. Presentations were made to the Monroe County Recycling Advisory Committee, Monroe County Environmental Management Council and the Mill Seat Landfill Citizens Advisory Board. In addition, all neighboring counties were notified about the Draft LSWMP's availability, and it was posted on the County website for review - www.monroecounty.gov/des-index.php. Written comments were accepted until January 30, 2015. Comments received during the public comment period have been categorized by topic and are included in Appendix H of this Plan. In addition, responses or references to locations where responses can be found in this Plan follow each categorized comment.

Chapter 10 – Plans for LSWMP Distribution

Each neighboring County will be notified in writing of the completion of the plan and its availability. The County will post the Final LSWMP on the County website and hard copies will be provided upon request.

Chapter 11 – Resolution Adopting the LSWMP

The County Legislature will enact a resolution adopting the Final LSWMP upon its completion. A copy of the resolution will be included in Appendix I in the Final LSWMP.

Appendix A

Planning Unit Members Information

News From

Maggie Brooks

Monroe County Executive

For Immediate Release
September 7, 2011

BROOKS LAUNCHES INNOVATIVE ECOPARK WEBSITE

User-friendly website provides residents with essential recycling information

Expanding upon Monroe County's commitment to protecting the local environment, Monroe County Executive **Maggie Brooks** today announced the official launch of the Ecopark website, the latest project in parallel development with the County's Ecopark. The Ecopark is a one-of-a-kind facility scheduled to be fully operational on September 21, 2011, and will be a one-stop-drop for difficult to dispose of recyclables.

"The Ecopark website serves as a valuable resource that answers residents' most important recycling questions," said **Brooks**. *"This unique website is the direct result of the strong partnership between Waste Management of New York and the County's very own Department of Environmental Services, and further enhances our efforts in sustaining our local environment for future generations."*

The Ecopark website, which can be accessed at www.monroecounty.gov/ecopark, contains many convenient links containing information about recycling, reuse and the proper disposal of unwanted residential waste. The "Ecopark Prospector", a useful navigation tool found on the right-hand side of the homepage, offers alternative local vendor options if the Ecopark is unable to accept certain household items.

Hours of operation for regular collections and dates for special collections can be found at www.monroecounty.gov/des-eco-hours. Special collections will allow for the disposal of household hazardous waste, appliances containing refrigerant, tires and pharmaceuticals. Household hazardous waste disposal still requires an appointment.

No other facility in the nation has the ability to simultaneously accept household hazardous waste, pharmaceuticals and recyclables. The Ecopark will be located adjacent to the Greater Rochester Airport at 10 Avion Drive in Chili, and will serve as an enhancement of the award-winning household hazardous waste program that has decades of proven environmental stewardship.

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Media Inquiries, contact:
Department of Communications at 753-1080

ecopark

Household Hazardous Waste (HHW) is accepted at the ecopark by appointment about twice-per-month from Monroe County households ONLY. To schedule, call (585) 753-7600 (Option #3) or go online (at www.monroecounty.gov/hhw).

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

- Oil-based & Latex Paint (for 1/3-gallon or less of latex paint, see below instructions)
- Wood Stain & Preservatives
- Automotive Fluids (antifreeze, brake, power steering and transmission fluids)
- Pesticides & Fertilizers
- Flammables (gasoline, thinners, solvents, etc.)
- Cleaners (soaps, waxes, drain cleaners, etc.)
- Driveway Sealer
- Pool & Photo Chemicals
- Mercury (thermometers, thermostats)

HHW Not Accepted:

- 1/3 gallon or less of Latex Paint (discard lid, add kitty litter, stir, let dry, place in trash)
- Cans with Dried Paint (remove lid and place in trash)
- Used Motor Oil (contact service station or retailer)
- Everyday Alkaline Batteries (place in trash)
- Glazing/Spackle/Joint Compound (place in trash)
- Industrial-use Products (call 753-7600 Opt. 3)
- Ammunition, Flares, Gunpowder, Explosives (Call 911)
- Asbestos (Yellow Pages – 'Asbestos Abatement')
- 55-Gallon Drums

Got Pills?



***Don't Flush!* Bring your unwanted or expired prescription or over-the-counter medications to the ecopark during Special Collections for FREE and proper disposal. Visit www.monroecounty.gov/hhw for schedule or call (585) 753-7600 (Option #3).**

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

Monroe County Water Authority

ecopark

10 AVION DRIVE
14624

The ecopark is a public/private partnership between Monroe County and Waste Management of NY to provide county residents with a central "one-stop drop-off" to manage certain difficult-to-handle material.

The ecopark website (www.monroecounty.gov/ecopark) contains a user-friendly 'Prospector' search tool to help residents find management facilities that may be closer to home and more convenient.

HOURS OF OPERATION

Drop-off for Monroe County Households Only

REGULAR COLLECTIONS (NO FEE)

Wed.-Sat., 7:30 a.m. to 1 p.m. (Closed Holidays)

- Electronic Waste
- Appliances (without CFC/Freon)
- Compost Give-Back (Seasonal)
- Paper & Cardboard
- Document Destruction
- Recyclable Glass/Metal/Plastic Containers
- Printer Cartridges
- Clean Styrofoam Packing
- Propane Tanks – 1#&20#
- Bulky Plastic Items
- Cooking Oil/Grease
- Fluorescent Lights
- Sharps & Syringes
- Sneakers
- Clothing (Donation)
- Scrap Metal
- Empty Rx Bottles
- Flags (U.S.)

SPECIAL COLLECTIONS

The following will be accepted on select dates/times—usually twice-per-month. Visit www.monroecounty.gov/ecopark for schedule.

- **Household Hazardous Waste (HHW)–Appointment Required** (No Fee—see reverse for details)
- **Pharmaceutical & Medication Disposal** (No Fee)
- **Regular Collection Items** – Listed Above (No Fee)
- **Recycling Fee Items** – Passenger Vehicle Tires ($3 each), and Appliances Containing CFC/Freon ($15 each). Waste Management only accepts credit/debit cards for payment.

Visit www.monroecounty.gov/ecopark or call (585) 753-7600 (Option #3) for more information.

Printed on Recycled Paper



Got Pills?

***Don't Flush!* Bring your unwanted or expired prescription or over-the-counter medications to the ecopark during Special Collections for FREE and proper disposal.**

ecopark

10 AVION DRIVE

MAGGIE BROOKS
COUNTY EXECUTIVE

WM
WASTE MANAGEMENT


Got Pills?
Don't Flush!
Call 585-753-7600
(option #3) or go to
monroecounty.gov/hhw
for details on
FREE safe, secure disposal.

If it is not possible to attend a Monroe County pharmaceutical collection, follow these steps to dispose of drugs in the trash:

- Treat medications (liquids and pills) by adding water and then salt, ashes, dirt, cat litter, coffee grounds or another undesirable substance to avoid accidental or intentional misuse. Do not conceal discarded drugs in food to prevent consumption by scavengers.
- Hide all medications in an outer container, such as sealable bag, box or plastic tub, to prevent discovery and removal from the trash. Seal the container with strong tape.
- Dispose of drugs as close to your trash collection day as possible to avoid misuse and/or misdirection.

Note: Be careful in handling medications. Some drugs can cause harm if handled by people other than those to whom they were prescribed. Also, avoid crushing pills as some medications can be harmful in powder form.

Medications self-administered by injection with a needle or "sharp" may be disposed of in the trash. If such medications include an attached needle, they should be placed in a puncture proof container, sealed with tape and labeled as "sharps." However, it is *strongly recommended* that medications with attached needles be disposed of at hospital-based household sharps collection programs. All hospitals in New York state (except for federal facilities) are required to collect sharps from households.

www.dontflushyourdrugs.net

Funding provided by the NYS Pollution Prevention Institute through a grant from the NYS Department of Environmental Conservation. Any opinions, findings, conclusions or recommendations expressed are those of the author(s) and do not necessarily reflect the views of the Department of Environmental Conservation.

ecopark

10 AVION DRIVE



Got Pills?

Don't Flush!

Protect human and environmental health by bringing your unwanted or expired medications (including pet medications) to the ecopark during Special Collections for FREE and proper disposal. Special Collections are held about two times per month and require the presence of law enforcement.

For a list of Special Collection dates, directions to the ecopark and other local satellite collections that may be nearer to you, call 585-753-7600 (Option #3) or go to: www.monroecounty.gov/hhw.

This program is open to Monroe County households only. Businesses, pharmacies, doctors, veterinarians, clinics are guided by NYS Department of Health regulations.

Printed on Recycled Paper

MAGGIE BROOKS
COUNTY EXECUTIVE

ecopark

WASTE MANAGEMENT

Special Collections

Items accepted several days per month from Monroe County households.

For a *Special Collection* schedule and directions to the facility, visit www.monroecounty.gov/ecopark or call (585) 753-7600 - Option #3.

- **Pharmaceutical & Medication Disposal** (No Fee)
- **Household Hazardous Waste (HHW)–Appointment Required** (No Fee)
- **Regular Collection Items –** Listed Below (No Fee)
- **Items Recycled for a Fee** – Passenger Vehicle Tires ($3 each), and Appliances Containing CFC/Freon ($15 each). Only credit/debit cards accepted for payment.

ADDITIONAL ECOPARK HOURS AND SERVICES!

Regular Collections (No Fee)

Hours: Wed. - Sat., 7:30 a.m. to 1 p.m. (Closed Holidays)

- Electronic Waste
- Appliances (without CFC/Freon)
- Compost Give-Back (Seasonal)
- Paper & Cardboard
- Document Destruction
- Recyclable Glass/Metal/Plastic Containers
- Printer Cartridges
- Clean, White Styrofoam Packing
- Propane Tanks – 1# & 20#
- Bulky Plastic Items
- Cooking Oil/Grease
- Fluorescent Lights
- Sharps & Syringes
- Sneakers
- Clothing
- Scrap Metal
- Empty Prescription Bottles



60 Seconds



30 Seconds



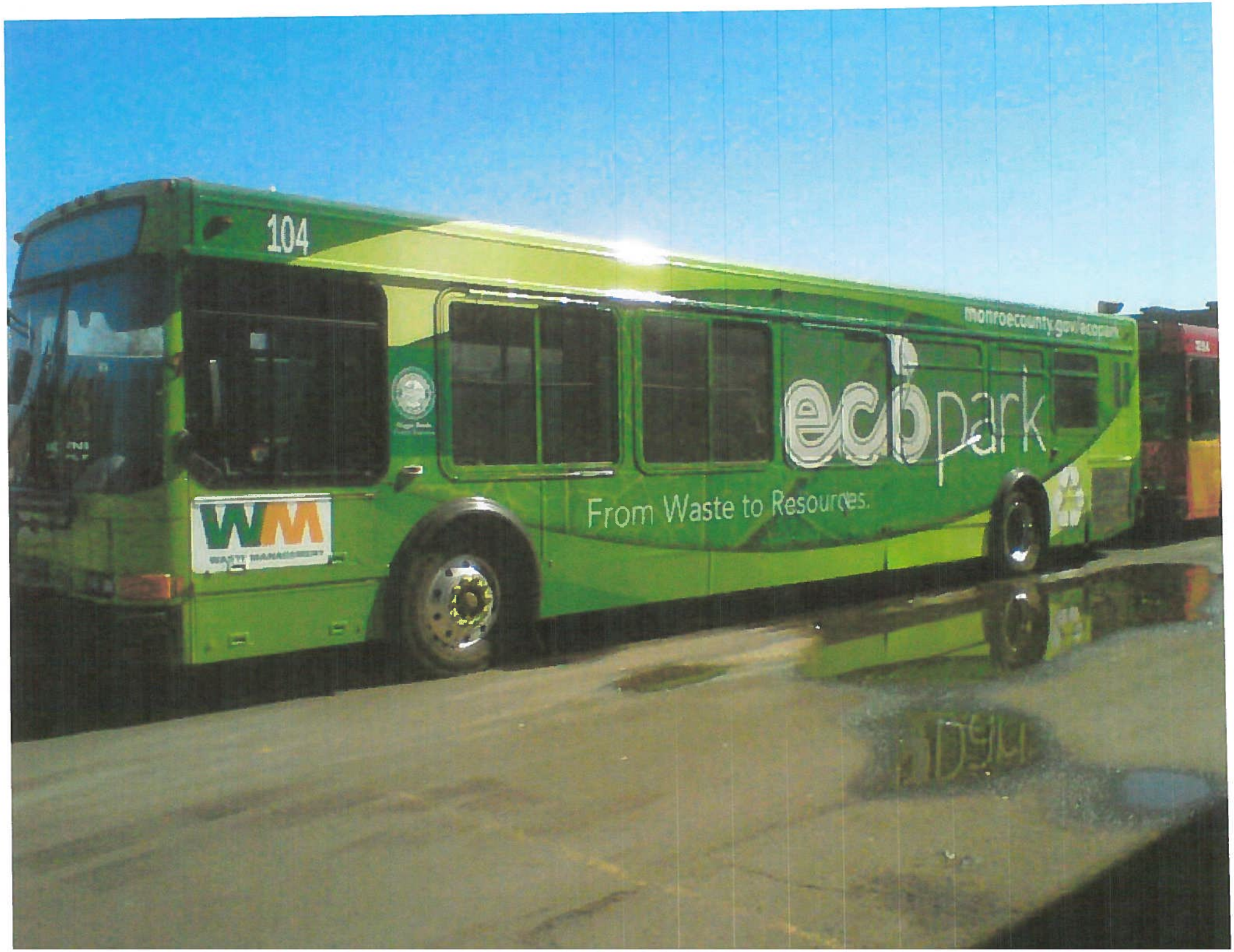
15 Seconds

ecopark

PUBLIC SERVICE ANNOUNCEMENT

10 AVION DRIVE
ROCHESTER, NEW YORK 14624
www.monroecounty.gov/ecopark

(585) 753-7600
Option #3


104
monroecounty.gov/ecopark
ecopark
From Waste to Resources.
WM

Car Safety Seat Recycling

A recycling collection event for unwanted or outdated infant and child car safety seats is being held at Monroe County's **eco**park on June 2nd. Cascades Recovery U.S. will recycle the plastic and metal parts, keeping them out of our landfills.

This special event is sponsored by Monroe County and the Child Care Council, with special thanks to Cascades Recovery U.S. and Waste Management.

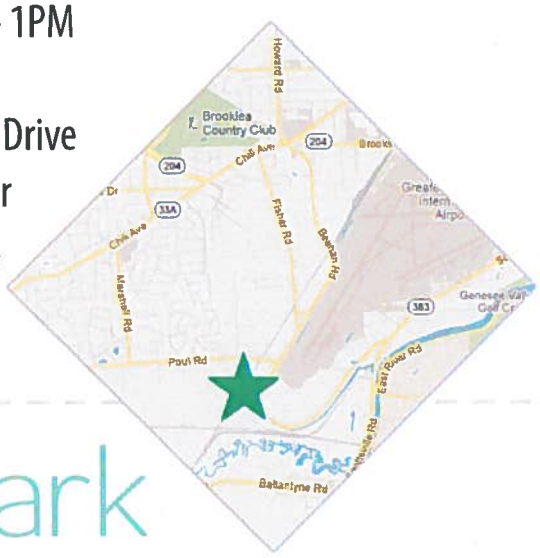
CAR SAFETY SEAT RECYCLING EVENT DETAILS

DATE: Saturday June 2, 2012

TIME: 7:30AM - 1PM

LOCATION: **eco**park
10 Avion Drive
Rochester

For questions about the event, please call (585) 753-7526.



ecopark

The **eco**park is an innovative partnership between Monroe County and Waste Management of NY that provides county residents with a "one-stop drop-off" to dispose of or recycle certain items.

For more information about the **eco**park, please visit
http://www.monroecounty.gov/ecopark

Maggie Brooks
County Executive

Child Care Council
Your premier resource.

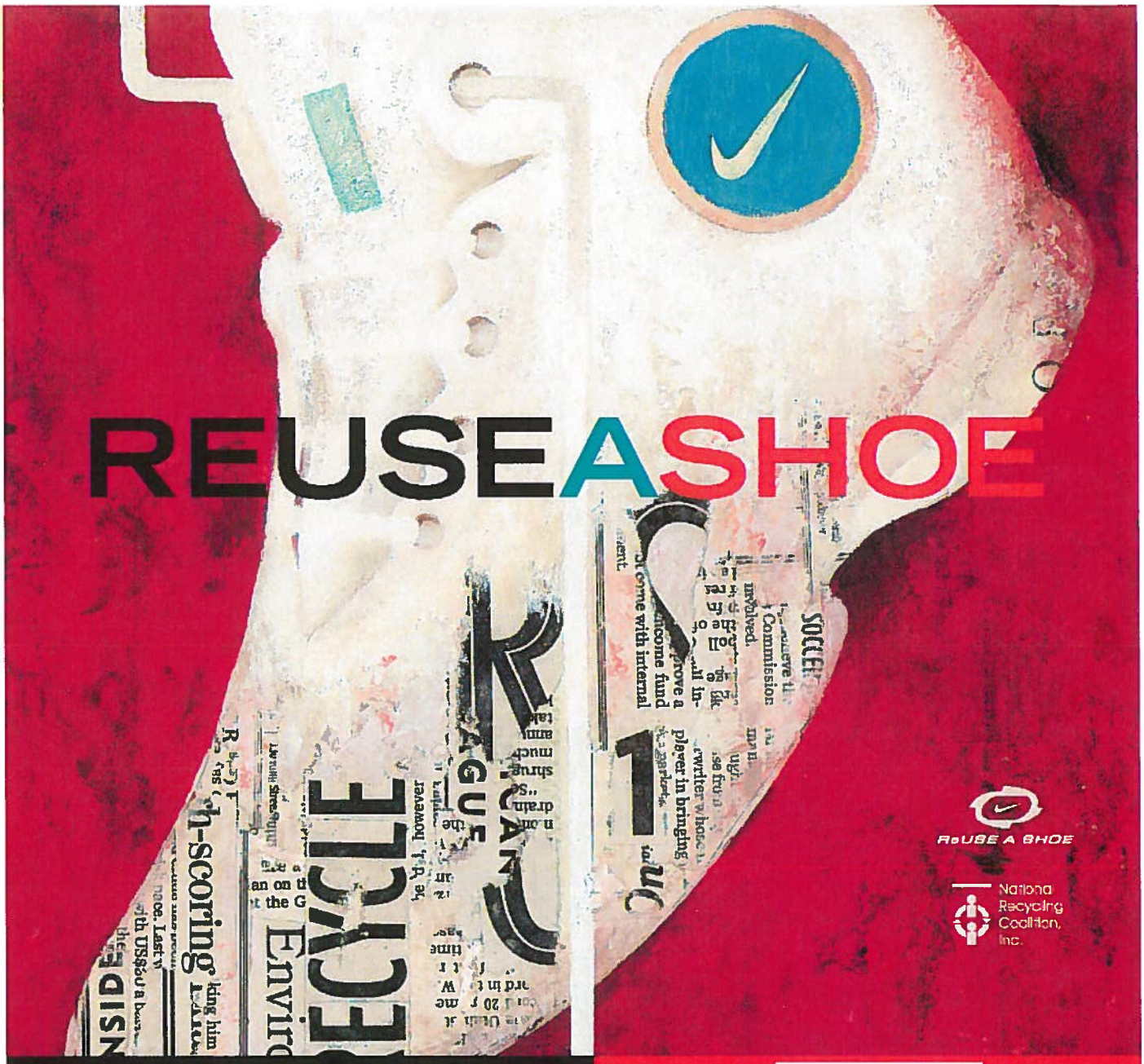
WM
WASTE MANAGEMENT

Recovery ...PLUS
Cascades Recovery, US

DIRECTIONS FOR RECYCLING

1. Remove and discard fabric and soft foam.
2. Remove and discard harness webbing
3. and mixed plastic/metal components.
4. Bring plastic, metal and hard foam components to be recycled.





Get your old shoes back in the game.

Want to reward your worn-out sneaks for a job well done? Then recycle them with the Nike Reuse-A-Shoe program. They'll get ground up and used to make brand new athletic surfaces like soccer fields, basketball courts, and running tracks. So clean out your closet, your locker, and your gym bag and bring us your worn-out athletic shoes (any brand without metal). Not only is it good for the environment, it's a great way to get your old shoes back into action.

Maggie Brooks
County Executive

Monroe County Department of Environmental Services

Program Questions? Call:

(585) 760-7526

It's Our Earth... Don't Bag It!

Did you know?

Eight percent of garbage going to local landfills is plastic bags/product wrap!
Please help by recycling other clean/dry plastics with your bags *at the store*...
Please DO NOT place bags/product wrap in your curbside recycling bin!

Recycle the following CLEAN & DRY plastics with your grocery bags at the store:

BAGS (any #2 and #4) from:
- Groceries/Retail
- Newspapers
- Cereal/cracker box liners
- Dry cleaning
- Bread
- Produce (no prewashed salad mix bags)
- Zip-type
- Stretch/ shrink wrap

PRODUCT WRAP from:
- Drink cases
- Snack cases
- Toilet paper
- Napkins
- Paper towels
- Furniture
- Diapers
- Electronics
- And more!

DO NOT INCLUDE:

For more details: www.plasticbagrecycling.org

Quick Facts:

- **Plastic bags are made from non-renewable petroleum and natural gas**
- **An equivalent of 12 million barrels of petroleum is needed to make 100 billion bags**
- **Americans *throw away* 100 billion bags each year**
- **Less than one percent of plastic bags are recycled**
- **NYS Plastic Bag Reduction Act: most retailers that provide plastic bags to customers must take them back**
- **Recycled bags/wrapping can be made into useful products such as fencing, decking, building and construction materials and .... new bags!**

Maggie Brooks
County Executive
www.MonroeCounty.gov

Recycling is only one of the 3 Rs of PLASTIC BAGS

Reduce... Purchase reusable bags—one less bag can make a difference! If you're buying one or two items, don't ask for a bag.

Reuse...
- as a lunch bag
- to line your wastebaskets
- to pick up pet waste
- to store dirty or wet clothes when traveling

Don't trash our future.

Recycle.

The Paper Caper

The Paper Caper began in 1995 as a pilot program to increase paper recycling options for 30,000 Monroe County households. The program has now been expanded to all county households, which means almost any kind of clean paper can be recycled.

Examples of Clean Paper

As Always:

- ***Newspapers, magazines, catalogs, etc.***
- ***Corrugated Cardboard*** *(flattened and cut into pieces no larger than 2 x 4 feet)*
- ***Phone Directories*** *(now taken at any time of the year)*

Now Accepting:

- ***Paper Boxes*** *- cereal, cracker, soda, tissue, shoe, gift, toy, etc. (discard plastic liners and flatten)*
- ***Pizza Boxes*** *(discard all contents and flatten)*
- ***Junk Mail, Advertisements and Brochures***
- ***Home Office Paper, Files, School Papers etc.*** *(place shredded paper in clear plastic bags only)*
- ***All Envelopes*** *(window envelopes too!)*
- ***Paperback and Hardcover Books***
- ***Gift Wrap***
- ***and more!!***

Caution!

To Prevent Identity Theft: Tear or shred your bills and financial statements before recycling.

Reduce Junk Mail

Reduce the amount of junk mail you receive by calling the following toll-free number: 888-567-8688

Maggie Brooks
County Executive

Questions? Call your waste hauler or 753-7600 • TTY 753-7605.
Visit us on the web at: monroecounty.gov 05-08

30% Post-Consumer Recycled Paper

CURBSIDE RECYCLING

Place the following items in your recycling box (paper on bottom, containers on top):

Clean Paper Materials

Paper Caper Expands! See reverse for details.



Newspapers & Inserts



Magazines & Catalogs



Junk Mail & Office Paper

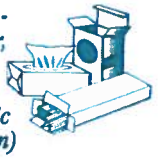
Cardboard & Clean Empty Pizza Boxes - *flatten, pieces no larger than 2 x 4 feet*





Phone Directories & All Books

Paper Boxes - *cereal, cracker, pasta, tissue, shoe, gift, etc. (discard plastic liner and flatten)*



Don't trash our future.™
Recycle.

If Desired: *use a paper bag to keep paper materials separated from the containers listed below.* ***Do not*** *put recyclables in plastic grocery bags!*

Clean Containers

All containers must be emptied, rinsed with caps discarded. Labels are acceptable:



Aerosol Cans
No paints or Pesticides



Metal Cans
Lids are accepted

Drink Boxes
Straw removed



Glass Bottles & Jars
Green, brown and clear only.



Plastic Bottles & Jars
1 and 2 only





"Gable-top" Cartons

Program sponsored in part by New York State Department of Environmental Conservation and Metro Waste Paper Recovery U.S., Inc.

What is Mercury and How Can It Affect You?

Mercury is a naturally-occurring metal that can be found in gaseous, liquid or solid forms. In its gaseous state, mercury is colorless and odorless. Mercury, which is toxic to both humans and animals, can be found in a variety of household products. When used properly, mercury containing products pose little threat to your family.

If a household product containing mercury breaks, mercury can be inhaled, ingested or absorbed through the skin. Chronic exposure to small amounts of mercury can cause negative health effects including damage to the central nervous system, kidneys and lungs. The developing nervous systems of unborn babies and young children are especially susceptible to mercury's effects.

To alleviate the chance of a mercury spill, consider replacing mercury-containing products with non-mercury alternatives like programmable thermostats, alcohol-based thermometers and water-based barometers.

Mercury Spill?

Household mercury spills should be cleaned up immediately to minimize exposure.

- *Remove children and pets from the area*
- *Avoid walking through the spill area*
- *Close off heating/cooling vents*
- *Open windows to ventilate*
- *Immediately contact one of the agencies below for step-by-step clean-up instructions*

Monroe County Department of Public Health
(585) 753-5075

NYS Department of Public Health
(800) 458-1158, Ext. 2-7810
or visit
www.health.state.ny.us (Keyword: mercury spill)

Printed on Recycled Paper

Maggie Brooks
County Executive

Vist us on the web at:
www.monroecounty.gov

Household Products Containing Mercury

Monroe County Provides FREE & SAFE Disposal of Unwanted HOUSEHOLD Mercury-Containing Products



Elemental Mercury



Thermostats



Thermometers



Fluorescent Tubes



Button Batteries



Compact Fluorescent Lights

Acceptable Items

- Fluorescent Lights & HID Lamps
- Thermometers
- Thermostats
- Barometers
- Button Batteries
- Liquid Mercury (Elemental)
- Old Chemistry Sets & Games
- Mercury Spill Debris

Mercury and mercury-containing products can be dropped off at any Household Hazardous Waste (HHW) collection. To ensure safety and better serve customers, items are accepted by APPOINTMENT ONLY. To schedule an appointment, contact the Monroe County Department of Environmental Services at: (585) 753-7600, (option #3), 8 a.m.- 4 p.m., M-F, or online at (www.monroecounty.gov/hhw)

HHW collections are open to Monroe County residents with non-industrial, household mercury-containing products. For business waste disposal please contact (585) 753-7553.

Healthy Lawn Care

Step 4 - November 1 through November 30

- After top growth has stopped and before the ground freezes, you can apply a **quick-release, low phosphorus fertilizer.**
- To reduce snow mold, lower mower height to 2" for your final mow.
- Keep storm sewers free of leaves and debris.

Household Hazardous Waste (HHW)

Unwanted fertilizers and pesticides (HHW) can become environmental hazards when disposed of improperly. Monroe County provides its residents with a way to safely recycle or dispose of these and other materials free-of-charge. For details, visit www.monroecounty.gov under Environmental Services. To schedule an appointment call (585) 760-7600 (option 3), 8:30 a.m. - 4:00 p.m.

Composting

Composting is nature's way of breaking down plant materials. To "recycle" your vegetable and fruit scraps, leaves and grass, you need:

- an out-of-the-way area
- 2-3 parts brown material (leaves, twigs, straw)
- 1 part green material (grass, dead plants, vegetable scraps)
- water the pile until as moist as a wrung-out sponge
- mix the pile every 2 to 3 weeks

Do not add meats, fat, salad dressing, or pet waste. An "active" pile produces good compost within a year.

For more information call the Monroe County Cornell Cooperative Extension Garden helpline at (585) 473-5335, or visit www.thewec.org

Maggie Brooks
County Executive

Program sponsored by Monroe County, the Monroe County Cornell Cooperative Extension and the Water Education Collaborative.
Visit us on the web at: www.monroecounty.gov

30% Post-Consumer Recycled Paper

HEALTHY LAWN CARE



Great Lawns/Great Lakes

You can make a difference!

Healthy Lawn Care in Four Easy Steps:

Step 1 - May 1 through Memorial Day

- **Your Mower** - Have your mower blades sharpened. Adjust blade height to 3" all summer, your lawn will be less susceptible to drought, weeds and insects.
- **Grasscycle** - leave your grass clippings on your lawn, they are a valuable source of nitrogen and can reduce your fertilizer use by a third. **Follow the 1/3 rule:** cut no more than 1/3 of the grass blade each time you mow (if your mower is set at 3", mow again before the grass grows to 4.5").
- **Complete soil Nutrient Analysis Test** every 3-5 years (before you fertilize.) These kits are available at the Monroe County Cornell Cooperative Extension - (585) 461-1000.
- You can apply a **slow release, low phosphorus fertilizer** - always follow product labels.

Step 2 - Summer Months

No fertilization is necessary - your lawn may become dormant (straw color) in dry, hot weather.

Step 3 - Around Labor Day

- If you choose to fertilize just once a year, now is the best time. Apply a **slow-release, low phosphorus fertilizer.**
- Conduct a grub test by peeling back one square foot of turf. If you find fewer than 10 grubs in that square, you do *not* have a problem. If a problem is seen, treat the areas now while grubs are actively feeding. If treating an area greater than 100 square feet with pesticides, be sure to properly notify your neighbors of the application.
- If you have a serious weed problem or must reseed, attend to it now.

HHW - What Can You Bring?

Acceptable:

- Latex Paints (more than 1/3 gallon only) and all Oil-Based Paints
- Wood Preservatives and Stains
- Automotive Fluids (antifreeze, brake, power steering and transmission fluids)
- Pesticides and Fertilizers
- Flammable Products (gasoline, kerosene, thinners, strippers, solvents, glues, etc.)
- Household Cleaners (soaps, waxes, drain cleaners, etc.)
- Driveway Sealer
- Propane Tanks (1 and 20 pound tanks only)
- Pool and Photo Chemicals
- Rechargeable (Ni-Cad) and Button Batteries
- Mercury (thermometers and light bulbs)
- Syringes and Sharps (safely packaged)
- Cooking Oil and Cooking Grease

Limits: 30 gallons of liquid and 75 pounds of solid household hazardous waste per appointment. NO 55 gallon drums will be accepted.

Not Acceptable:

- 1/3 gallon or less of Latex Paint (discard lid, add kitty litter, let dry, place can in trash)
- Cans with Dried Paint (remove lid and place in trash)
- Used Motor Oil and Lead Acid Batteries (contact service station or retailer)
- Empty Containers (place in trash or recycle)
- Smoke Detectors (place in trash or contact manufacturer)
- Everyday Alkaline Batteries (place in trash)
- Glazing/Spackle and Joint Compound (place in trash)
- Asbestos (see Yellow Pages under "Asbestos Abatement")
- **Products intended for industrial use**

Explosives, Ammunition, Flares, Black & Smokeless Powder, Shock-Sensitive Materials (i.e. picric acid, crystallized ethers) - Call 911.

Program sponsored by Monroe County, the New York State Department of Environmental Conservation and the Eastman Kodak Company.

Visit us on the web at: monroecounty.gov

Maggie Brooks
County Executive

30% Post-Consumer Recycled Paper

05-08

HOUSEHOLD HAZARDOUS WASTE



Free & Safe Disposal of Unwanted HOUSEHOLD Chemicals by Appointment

What is Household Hazardous Waste?

Most household paint and chemicals are safe when used and stored properly. When disposed of improperly, household waste can become an environmental hazard. Monroe County's Department of Environmental Services provides residents with a way to safely recycle or dispose of this household hazardous waste (HHW) **free-of-charge.**

Who Can Participate - and How?

The free portion of this program is open ONLY to Monroe County residents with non-industrial household chemicals (see reverse for product lists and quantity limits).

To **ensure safety** and better serve customers, items are accepted by appointment only. Call 753-7600 (option 3), 8:30 a.m. - 4 p.m., Monday - Friday for an appointment. Be ready to describe your items and the quantity of each.

After an appointment is made, you will be mailed directions to the HHW facility and instructions for the safe packaging and transportation of your items.

Under a separate **fee-based** program, businesses, out-of-the-county residents and Monroe County households that have somehow acquired **industrial-use** products may also call the above number for disposal information.

Please share unneeded products with others or donate to charity.

Electronics Recycling

Where Can You Dispose of/Recycle Electronics in a Secure and Environmentally-Safe Way?

There are several companies in the Monroe County area that will accept computers/TV's from residents for a fee (usually about $15-30). **For details about these programs call:**

- ***Rochester Computer Recycling and Recovery***
  395 Central Avenue
  Rochester, NY 14605
  (585) 546-6620
- ***Maven Technologies***
  1144 Lexington Avenue
  Rochester, NY 14606
  (585) 458-2460
- ***Sunnking, Inc.***
  4 Owens Road
  Brockport, NY 14420
  (585) 637-8365

Manufacturer Electronic Take-Back Programs

Most computer manufacturers offer recycling options for electronic equipment. For a partial listing of these companies, visit the Monroe County web site monroecounty.gov under Environmental Services.

Household Hazardous Waste (HHW) Program

Rechargeable batteries (from laptop computers, cell phones, electronic components, etc.) contain metals like cadmium and mercury. To dispose of these environmental hazards free-of-charge, Monroe County residents can make an appointment at the HHW facility by calling 753-7600 (option #3).

Maggie Brooks
County Executive

Questions? Call your waste hauler or the Department of Environmental Services at 753-7600
Visit us on the web at: monroecounty.gov

30% Post-Consumer Recycled Paper

05-08

ELECTRONICS RECYCLING



What You Should Know - So Someone Doesn't Know Too Much About You!

By placing unwanted home computers at the curb for disposal, you offer identity thieves an opportunity to learn a lot about you. Your account numbers, passwords and social security number may be left behind to dishonest people. When your computer is taken to be recycled, however, your hard drive is reformatted and all of your personal information permanently erased.

What You Should Know About Electronics Disposal and the Environment.

- Most computer monitors and televisions contain about five pounds of lead. Computers also contain other elements that, if improperly disposed of, can be environmental hazards (including metals and rechargeable batteries). Tips for proper disposal can be found on the back of this card.

CURBSIDE RECYCLING PAPER

ALL CLEAN PAPER MATERIALS



Newspapers and Inserts



Junk Mail & Home Office Paper

Cardboard & Clean, Empty Pizza Boxes
(Flatten, pieces no larger than 2 x 4 feet)





Magazines & Catalogs



Phone Directories & All Books

Paper Boxes
Cereal, Cracker, Pasta, Tissue, Shoe, Gift, etc. (Flatten box and recycle plastic liner at store with grocery bags)



Other examples:

- Files, School Papers, etc. (shredded paper in paper bags only)
- All Envelopes (window envelopes too!)
- Gift Wrap
- **and More!**

Reduce Unwanted Mail
Reduce the amount of unwanted mail you receive by calling the following toll-free number:
888-567-8688

Caution!
To help prevent identity theft—tear or shred your bills and financial statements before recycling.

HOW TO PREPARE YOUR BIN(S)...

1. Place only accepted materials in your recycling bins(s).
2. DO NOT put any items in plastic bags!
3. If high winds or soaking rains are forecast, delay recycling by one week.
4. Put the bin(s) at your curb before 6:30 a.m. on your regular collection day.
5. County residents may bring curbside recyclables (and many other items) to the Monroe County ecopark – see **www.monroecounty.gov/ecopark** for details.

Replacement recycling bins can be obtained from your waste collector—contact your collector for availability and details on your specific curbside collection program.

CURBSIDE RECYCLING CONTAINERS (PLUS)

OTHER CLEAN MATERIALS

All items must be emptied and rinsed.
Labels are acceptable. No cords or wires!

Glass Bottles, Jugs and Jars
(Food and Beverage Only)





"Gable-Top" Cartons & Drink or Soup Boxes

Metal Cans - Food, Drink and Aerosol
(No Paints or Pesticides)



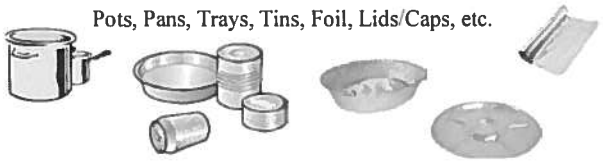
License Plates
Defaced



Don't trash our future. Recycle.

Don't trash our future. Recycle.

Clean Metal
Kitchen Cookware & Foilware
Pots, Pans, Trays, Tins, Foil, Lids/Caps, etc.



Clean Plastic Materials
#s 1-7 Containers, Lids/Caps, Buckets, Plant Containers, Cups, Clamshell or Blister Packaging, CD Cases, Laundry Baskets, Broken Recycling Bins, etc.
NO Plastic Bags, Styrofoam or Prescription Bottles!



Maggie Brooks
County Executive

Questions? Visit us at: www.monroecounty.gov (under Environmental Services or call 753-7600). City of Rochester residents call 311.



QUICK LINKS

DES Home

Geographic Information Systems (GIS)

Engineering

Facilities Management

Environmental Education

Fleet Maintenance

Pure Waters

Stormwater Quality

Household Hazardous Waste

Small Business Waste

Industrial Waste

Sewer Collection

Basement Sewage Information

Wastewater Treatment Facilities

Environmental Lab

Stormwater Coalition

Solid Waste

ecopark

Mill Seat Landfill

Residential Recycling

Business Recycling

Environmental Recycling

Electronics Recycling

Textile Recycling

Recycling Programs

Pharmaceutical Waste Disposal

Residential Recycling/Recovery

Recycling/Recovery Program Expands - Single-Stream Accepted

For over 20 years, Monroe County residents have enjoyed a progressive, convenient and continually expanding curbside recycling program. As is its charge from the county, Waste Management, Inc., the Monroe County Recycling Center's (MCRC) contract operator, examines the waste stream for sustainable recovery opportunities. In 2004, the MCRC began accepting all clean paper--allowing county residents to make a clear and affirmative impact on our local environment. In 2010, the MCRC began accepting plastic containers numbered one through seven for recycling/recovery along with aluminum foil, foilware and household metal pots and pans. Now, the MCRC has started to accept single-stream materials from its recycling collector customers. Single stream means that paper materials no longer need to be separated from commingled materials--they can all be mixed together. **Click here** for a listing of items accepted by the MCRC.

Some recycling collectors are not customers of the MCRC. Customers should contact their hauler to confirm what is accepted and how recycling bins should be prepared.

Go Green Video



Select Language

Powered by
Google Translate

The MCRC "Blue Box" Recycling/Recovery Program

The following commingled and paper materials should be placed in your recycling box and taken to the curb before 6:30 a.m. on your regular trash collection day. **If high winds are forecast on your collection day, please delay recycling.** White goods (major appliances) are also required to be recycled by Monroe County law--contact your waste collector for details.

Commingled Materials

Only the materials listed below are accepted for recycling/recovery. **All containers should be clean**. Please **do not separate the types of containers using plastic grocery bags**—they should all be mixed together. Labels are accepted.

- **Metal Food and Beverage Cans**: lids are accepted.
- **License Plates:** defaced
- **Metal Pots, Pans and Aluminum Foilware**
- **EMPTY Aerosol Cans**: with caps. **NO pesticides or spray paints.**
- **Plastic Containers and Items (#s 1 through 7)**: recycle caps, spray pumps and lids. **Examples of plastic items not accepted by MCRC:** styrofoam*, empty prescription bottles*, pesticide containers, bulky items* and bags or filmy product wrapping. *The ecopark will accept certain of these items. **Click here** for details.
- **Glass Food and Beverage Bottles, Jugs and Jars**: recycle lids and caps. No drinking glasses, window glass, pyrex, light bulbs, etc.
- **Gable Top (Milk and Juice) Cartons and Drink/Soup Boxes**: remove and throw away plastic straws; recycle caps.

Paper Materials

Paper items may be kept together by using a brown paper bag (**do not** use plastic bags). Almost any kind of **clean** paper product can be placed in the recycling bin (NO soiled papers, paper toweling or wet paper).

Some examples:

- **Newspapers, Magazines, Catalogs, etc.**
- **Corrugated Cardboard**: flattened, 2x4 feet maximum—if you have a large stack of flattened boxes, it should be tied together with string or twine.
- **Phone Directories and all Books**
- **Paper Boxes—cereal, cracker, soda, tissue, shoe, gift, toy, etc.**: flatten box and recycle any plastic liners at grocery store with other plastic bags.
- **Pizza Boxes & Paper Egg Cartons**: discard all contents and flatten.
- **Junk Mail, Advertisements and Brochures**
- **Home Office Paper, Files, School Papers, etc.**: shredded paper in brown paper bags only.
- **All Envelopes**: window envelopes too!
- **Gift Wrap**
- **and More!**

Plastic Bags/Wrap - What and Where Can You Recycle?

Plastic bags and product wrap are not accepted for recycling by the MCRC's recycling collectors. New York **law** requires that major retailers that offer plastic bags for purchases take them back for recycling. Many other kinds of plastic bags/wrap

should also be included. A recent county residential waste characterization study found that **eight percent** of household garbage was made up of plastic bags or wrap--much of which could be recycled. Please **click here** for a listing of what can and cannot be returned to the store for recycling. If you would like a downloadable guide to plastic bag and product wrapping recycling, **click here**. The Monroe County **ecopark** also accepts certain clean, dry plastic bags and product wrapping. **Click here** for details.

Help Prevent Windblown Litter

Participants in the curbside recycling program can help reduce windblown litter in the community by delaying recycling bin set-out by one week if high winds are forecast on collection day. Although the Monroe County does not endorse any particular product or service, there are items available for purchase that can help prevent items from being blown out of bins on recycling days. Click on the below links for further details.

- **Rnet Rochester** - Recycling Bin Net Cover
- **EcoCaps Niagara** - Recycling Bin Cloth Cover
- **R. U. Cover'D** - Waterproof Vinyl Recycling Bin Cover

Reduce Junk Mail

Reduce the amount of junk mail you receive by calling the following toll-free number: 1-888-567-8688.

New or Replacement Recycling Bins

In order to obtain a new or replacement recycling bin, homeowners must call their garbage collector. City of Rochester residents should call 585 428-5990.

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QUICK LINKS

ecopark Home

Hours of Operation

Acceptable Items

Regular Collections

Special Collections

Other Items

HHW Scheduler

FAQs

Contact Information

ecopark News

Waste Management

DES Home

Geographic Information Systems (GIS)

Engineering

Facilities Management

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Stormwater Quality

Household Hazardous Waste

Small Business Waste

Industrial Waste

Sewer Collection

Basement Sewage Information

Wastewater Treatment Facilities

Environmental Lab

Stormwater Coalition

Solid Waste

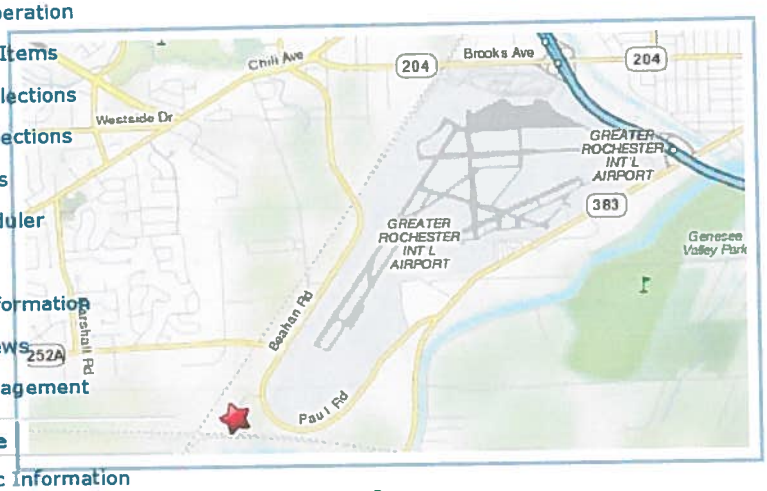
ecopark

Mill Seat Landfill

Residential Recycling

Business Recycling

ecopark



ecopark

10 Avion Drive
Rochester, New York, 14624

The ecopark will be closed Thursday--Saturday, 27-29 November.

Click for **Door-to-Door Directions**

Click to **Make an On-Line Household Hazardous Waste Appointment**

The **ecopark** is an innovative partnership between Monroe County and Waste Management of NY that provides county residents with a "one-stop drop-off" to dispose of or recycle certain items. The **ecopark** is a residential drop-off facility (no businesses* - see below) and, except for household hazardous waste (HHW) materials, residents are responsible for unloading their own vehicle.



ecopark Video

ecopark Prospector

ecopark Prospector

Information on where to manage difficult to handle materials.

Category:

Disclaimer

ecopark Partner

WASTE MANAGEMENT

Environmental Recycling
Electronics Recycling
Textile Recycling
Recycling Programs
Pharmaceutical Waste Disposal

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The **ecopark** has two categories of drop-off services (click on each category for full details):

- **Regular Collections** - Open weekly (Wed. - Sat., 7:30 a.m. to 1 p.m.) to accept items like: ewaste, scrap metal, clothing (for donation), curbside recyclables, bulky plastics, etc.
- **Special Collections** - Open several times monthly to accept all Regular Collection items AND HHW **(appointment required only for HHW)**, unwanted medications, refrigerant-containing appliances ($15 fee each) and passenger vehicle tires ($3 fee each), cathode ray tube TVs/monitors ($10 fee each).

Regular Collection hours can be found on **ecopark Hours of Operation**. Special Collection dates and times can be found by clicking on the **Special Collections Calendar and HHW Appointment Scheduler**. **Schedule an online appointment via the above link or by calling 753-7600 Option #3 (M-F, 8 a.m. to 4 p.m. - except holidays) ONLY if you want to drop-off materials listed under Household Hazardous Waste.** Unwanted medications, passenger vehicle tires ($3 per tire), refrigerant-containing appliances ($15 each) and cathode ray tube TVs/monitors ($10 each) can only be dropped-off during Special Collections, but no appointment is required. **Fees are only payable via credit/debit card and are collected by Waste Management (tires and refrigerant-containing appliances) and**

Sunnking (cathode ray tube TVs/monitors).

The list of new services does not stop there. We have created the **ecopark** "Prospector." See it on the right of this page. It is a searching tool to help you find local businesses and services that can help you recycle or dispose of things responsibly. After choosing an item in the **ecopark** Prospector you will be given disposal and/or recycling options. Whether you choose to use the **ecopark** itself or any of the listed convenient vendors, you will be helping the environment by keeping these materials from our community's waters and landfills. We are very fortunate to have many companies locally that will take your difficult to handle items and provide proper disposal, recycling or reuse.

*The facility does not accept material from businesses, not-for-profits, governments, churches, home-offices, institutions, etc. These entities should contact their waste hauler for recycling/disposal options. Certain qualified small businesses may manage their chemical wastes through the county's Conditionally Exempt Small Quantity Generator Program--**click here** for details.

Disclaimer: Monroe County has attempted to provide accurate information on this website. The individual companies listed on this website have supplied Monroe County with the contact and services information provided on this website. If any of this information has changed and needs to be updated, please send Monroe County an email to **mcdes@monroecounty.gov** describing the issue. The individual companies listed on this website are independent of Monroe County. Monroe County has no control or recourse regarding the actions of these individual companies. Monroe County does not recommend nor endorse any individual company's products or services listed on this website.

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Pharmaceutical Waste Disposal

Business Recycling Guide

Introduction

In 1992, Monroe County passed a recycling law that requires all residents, businesses, industries and institutions to recycle. Everyone has a role to play in recycling. We want to help businesses understand the law and how it affects employers and employees. The following provides information necessary for business managers to set up a recycling collection system that works for everyone involved—management, employees, custodial staff and the recycling collector. If you have additional questions or need further information, please contact 585 753-7526.

What to Recycle

Paper -- Businesses, institutions (schools/colleges) and industries *must recycle* corrugated cardboard and high-grade (office) paper--**all clean paper**, however, may voluntarily be recycled. Unless other specific arrangements are made with a waste hauler, all paper can be mixed together in the recycling container--**there is no need to separate paper by type** (exception-shredded paper should be in clear plastic bags).

Containers -- Businesses, institutions and industries that have cafeteria-type services and all restaurants *must* recycle the following containers used in food preparation-type activities: steel, aluminum, glass food and beverage bottles, jugs and jars and plastics (#s 1 and 2). Paper containers (gable-top cartons/drink boxes), empty steel aerosol cans (no pesticides or spray paint), plastics (#s 3-7) and pots/pans/foilware *may also be recycled.* All appropriate containers must be rinsed and caps/lids removed prior to recycling (labels OK). Containers used by students/staff (milk cartons, soda bottles, soup cans, etc.) are not required to be separated for recycling. Again, all appropriate containers that **are** separated for recycling must be rinsed and caps/lids removed prior to recycling. These containers should be mixed together in the recycling container--**there is no need to separate containers by type**.

For information on how certain qualified small businesses can dispose of/recycle hazardous waste, **click here**.

It is illegal for businesses, institutions and industries to dispose of ewaste (computers, TVs, printer cartridges, etc.) in the regular trash. Please **click here** for ewaste recycling options.

Business Recycling Guide - Responsibilities

Business Manager

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- **Set up the collection system.**
  You should work with your collector to set up a system that will work best for you, your employees, and your collector. Setting up a system may take some time so call your collector as soon as possible to begin the planning process. If you rent office space, and refuse/recycling service is provided by the complex, contact your property manager to make sure your recycling needs are covered.
- **Educate employees and staff.**
  Let your employees and staff know what they will be expected to do and encourage them to get involved in planning your recycling program. Their input is important in creating a convenient and efficient program. Remember, your employees are the ones who will make the program work.
- **Monitor the system.**
  It will take time to work the bugs out of any new system. Keep in contact with your employees and your collector to make sure everything is running smoothly. If recyclables are going in with the regular trash, or if the recyclable loads are contaminated with non-recyclable materials, your cost for recycling and waste disposal will likely increase.

Recycling Collector

- **Provide recycling equipment.**
  In most cases, your recycling collector will provide the major equipment needed to recycle under the system that you work out. You will probably need to provide your own collection bins inside the office/facility.
- **Pick up recyclables.**
  Your collector is required to provide recycling as a part of its solid waste services. Recyclables will be picked up by your collector only if they are prepared properly. If containers have non-recyclables in them, they won't be picked up, or there may be an additional charge.

Employees

- **Abide the law.**
  The Recycling Law requires everyone to recycle at work and home. The success of the program ultimately rests upon the participation of your employees. Make sure they know that they have to recycle and how to do it. Periodic reminders will help keep interest and participation levels high –and contamination levels low.

County

- **Education.**
  The county provides a number of educational and promotional materials to business managers, professional associations, and recycling collectors. County staff is available to work with business managers and collectors to develop new educational materials addressing issues that may arise in implementing and maintaining your recycling program. Call 585 753-7646 to receive information.
- **Process and market recyclables.**
  Many of the materials that are collected for recycling will go to the

County's Recycling Center on Lee Road in Rochester for processing and marketing. The county maintains long-term marketing arrangements to ensure that all recyclable materials are in fact recycled.

Designing a Collection System

When designing your collection system, there are several factors that should be considered:

1. **Building**
   The system you choose depends largely on the layout/size of your business. You have a choice of using one or more of the following collection systems:
   - materials are collected from each office/food service work area;
   - employees empty desktop containers into large containers on each floor;
   - employees deliver recyclables to containers within each individual building; or,
   - employees deliver recyclables to outdoor containers serving more than one building. If you rent space in a complex, some of these components may already be provided by your property manager.
2. **Containers**
   Many types and sizes of containers are available for the collection and storage of recyclables. Work with your collector to determine which containers best fit your needs. Key considerations include available storage space, quantities of recyclable materials generated, and accessibility and compatibility with your collector's equipment.
3. **Cost**
   Setting up a recycling system may require some investment. It is important to work with your collector to find the most effective, cost-efficient system for your building(s). A properly managed recycling program will more than pay for itself by reducing garbage costs.
4. **Accessibility**
   Collection areas should be accessible to those people who will use them, including those with special needs. Inside, place collections bins close to points of paper generation. Outside, you may want to limit access to all containers to avoid illegal dumping and contamination problems.
5. **Weather**
   Store recyclables in a place that is safe from rain, wind, and snow.
6. **Odors/Insects**
   Dirty recyclable food and beverage containers may emit odors or attract insects. That's why it's important to rinse out containers for recycling. Keep this in mind when selecting a collection/storage location.
7. **Custodial Services**
   If you contract for custodial or janitorial services, you may need to modify your agreement to include the management of recyclables.

Quality Control

Communication
Communication is the key to success in any project—and it will certainly be the

key to business recycling. As a business manager, it is important for you to communicate with your employees, staff and collector on a regular basis. Let them know of your commitment to recycling—commitment from the top will encourage participation.

Your employees and maintenance and custodial staff need to know that they are required to recycle and how they will be able to do so. If a problem arises, your collector needs to know so that it can be quickly resolved.

Educational Materials
Education materials—brochures, handouts—will help you communicate your system to your employees. The County can provide general materials on the Recycling Law and instructions on how to prepare materials for recycling. It is also important for you to educate your employees about your specific collection system through flyers, workshops or orientation sessions.

Monitor Your System
It is in your best interest to monitor your system for effectiveness and cleanliness. If your collector takes a load of recyclables that are not clean, the materials will be rejected and landfilled. This will result in additional costs to your hauler and these costs will be passed on to you. What is a clean load? A clean load means that all the material placed in the container for your collector to pick up are acceptable recyclable materials. Monitoring of the system will help you control your costs.

Feedback
Seek input from your employees. Feedback from those who use the system will let you know how the system is working and where it can be improved. Give your employees feedback as well. They will want to know that their efforts are successful and appreciated.

Enforcement
Recycling is required by law. Most employees will recycle out of a sense of responsibility and a concern for the environment. Some may not. There are several things you can do to ensure participation:

- Talk to your employees. Communication is the best means of increasing participation. Some employees may help identify ways to increase participation and quality control. Peer pressure is a valuable tool in ensuring participation.
- Put a recycling section in your training manual for new employees explaining the Recycling Law and how your recycling program works.
- Work with the employees who are enthusiastic about recycling. Establish team leaders who will take on the responsibility of reminding other workers in their department or in their building to recycle. Remember to recognize your team leaders for their efforts. These employees may be offered incentives or receive special recognition for their efforts.

Other Things You Can Do

Recycling is an important step we can take to more effectively manage our solid waste. It is, however, only part of the solution. Other things that your business can do to help the environment include:

1. **Reduce Your Waste Stream**
   Reducing the amount of waste that is generated locally is just as important as recycling. Look for methods of reusing materials before you recycle them. You can reduce waste at your office by making double-sided copies, using reusable dishware and cups, establishing a central file system, circulating memos and reports instead of making multiple copies, and using scrap paper for notes and messages.
2. **Buy Recycled Products**
   You can also initiate a company policy that encourages the purchase of recycled products over non-recycled products. Purchasing recycled products completes the recycling loop and helps ensure markets for recyclables.

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Electronics Recycling

What You Should Know—So Someone Doesn't Know Too Much About You!

By placing unwanted home computers at the curb for disposal*, you offer identity thieves an opportunity to learn a lot about you. Your account numbers, passwords and social security number may be left behind to dishonest people. When your computer is taken to be recycled, however, your hard drive can be reformatted and all of your personal information permanently erased.

*Effective 1/1/12, trash haulers cannot pick-up certain ewaste placed curbside for disposal (**click here** for details). Businesses/not-for-profits are **required** by law to recycle most e-waste.

What you Should Know About Electronics Disposal, the Environment and the Law

Most computer monitors and televisions contain about five pounds of lead. Computers also contain other elements that, if improperly disposed of, can be environmental hazards (including metals and rechargeable batteries).

NOTE—The NYS Electronic Equipment Recycling and Reuse Act (effective 4/1/11) requires manufacturers to provide a free and convenient way for consumers to recycle certain types of e-waste including: **Computers, Televisions, Cathode Ray Tubes, Small Scale Servers, Computer Peripherals** (*to include any cable, cord, or wiring permanently affixed to or incorporated into such product.*)

- 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 (*Small electronic equipment also include any cable, cord, or wiring permanently affixed to or incorporated into such product.*)

- VCRs
- Digital Video Recorders



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- Portable Digital Music Players
- DVD Players
- Digital Converter Boxes
- Cable or Satellite Receivers
- Electronic or Video Game Consoles

Please click here for details of this law.

Where can you Dispose of/Recycle Electronics in a Secure and Environmentally-Safe Way?

There are several companies and municipalities in the Monroe County area that will accept computers/TVs from residents. Residents should call their local municipality to see if recycling programs are offered. Several programs are listed below. Click on the links, or call the listed numbers for details.

- **Monroe County ecopark** (Cathode Ray Tube TVs and monitors accepted only during Special Collections - $10 credit/debit card only)
  10 Avion Drive
  Rochester, NY 14624
  Phone: (585) 753-7600 (Option #3)
- **ABVI-Goodwill**
  Goodwill stores in the Greater Rochester area (Brockport, Greece, Henrietta, Penfield-Webster, downtown Rochester, Webster, Victor, Macedon and Perinton-Fairport) accept certain computer equipment (excluding cathode ray tube TVs & monitors) **Free-of-Charge**. All printer cartridges are also accepted. Program details can be found by calling 232-1111 or by clicking on its link above. This is a charitable gift and donation receipts will be given.
- **Sunnking, Inc.**
  4 Owens Road
  Brockport, NY 14420
  Phone: (585) 637-8365
- **Regional Computer Recycling and Recovery**
  395 Central Avenue
  Rochester, NY 14605
  Phone: (585) 924-3840
- **Maven Technologies**
  1450 Lyell Avenue
  Rochester, NY 14606
  Phone: (585) 458-2460
- **Imagine It Recycling**
  565 Blossom Road, Suite D
  Rochester, NY 14610
  585) 872-5802
  Fundraising for charities and schools through the recycling of printer cartridges and small electronics (gaming devices, GPS devices, PDAs, cell phones, laptops, USB memory sticks, digital cameras, etc.). Imagine It has many convenient recycling boxes (grocery stores, schools, libraries, etc.).

Most computer manufacturers also offer recycling options for electronic equipment. For a partial listing of these companies, **click here**.

Donate your Functional Home or Corporate Computers to Micrecycle

Micrecycle is a not-for-profit program of Action for a Better Community that accepts certain usable computer components for reuse. The organization has distributed more than 7,000 refurbished computers to low-income families, schools, and other not-for-profit agencies that serve low-income residents of Monroe County. For a list of equipment accepted by Micrecycle call 585 224-4040.

Rechargeable Battery, Printer Cartridge and Cell Phone Recycling

State law requires retailers of Nickel-Cadmium (Ni-Cad), Button and Lithium Ion batteries to accept them back for recycling. These retailers include: Best Buy, Lowes, Home Depot, Sears, Staples, Sprint, Target, Radio Shack, Batteries Plus and Verizon Wireless. The Monroe County **ecopark** will also accept these batteries (alkaline batteries are **not** accepted). Effective Dec. 5, 2011, **state law** prohibits persons from knowingly disposing of most rechargeable batteries in the garbage.

- Cellular phone retailers must, by **NYS law**, accept cell phones back for recycling or arrange for such via shipping. For printer cartidges, see the Imagine It link above. These items are also accepted by Monroe County's Household Hazardous Waste program--**click here** or call 753-7600 (option 3).
- **NOTE**--**Regular household alkaline or zinc batteries can be disposed of in the trash**. For a fee-based alkaline/zinc battery recycling program, visit: **www.thinkgreenfromhome.com/batteries.cfm**.

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Fee-Based Chemical Waste Management Programs

Programs for Small Business, Not-For-Profits, Churches, Out-Of-County Households and Special Circumstances





Monroe County's chemical waste management program is free for Monroe County households with normal household-use chemicals (paints, cleaning liquids, pesticides, auto-care products, etc.). Industries and businesses are required to manage hazardous wastes through an authorized contractor. Monroe County provides qualified small businesses, not-for-profits, churches, etc. with a fee-based service to conveniently manage hazardous waste (see below).

To address requests for service from households outside Monroe County and from Monroe County residents who have somehow acquired non-household wastes, a fee-based program has been created. These households can download (pdf) / (excel format) and complete a form listing the materials in need of proper disposal. County staff will then review the returned form, provide a cost estimate and schedule an appointment for the service.

Disposing of Hazardous Waste for Small Business, Not-For-Profits, Churches, etc.

The Conditionally Exempt Small Quantity Generator (CESQG) program assists qualified small businesses, not-for-profits, churches, etc. in the proper disposal of hazardous waste for a fee. Since 1995, the CESQG program has handled almost 1,000 appointments to accept waste from these entities in Monroe and surrounding counties.

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Under its New York State Department of Environmental Conservation permit, the county's Household Hazardous Waste Facility will accept CESQG waste only if a business meets both the following qualifications:

Generates less than 1 kg/month (2.2 pounds) of acute Hazardous Waste (as defined by 6 NYCRR Part 371); and never stores more than this amount on site at any time.

Generates less than 100 kg/month (220 pounds) of listed and/or characteristic hazardous waste (as defined by 6 NYCRR Part 371); and never stores more than 1,000 kg/month (2,200 pounds).

CESQG Procedure

- The interested business fills out a **CESQG Form** and forwards the information to the county's Industrial Waste Section. The form includes business type, company name, contact name, and identification of waste type and quantity.
- The county ensures the business is qualified and calculates an estimated disposal fee (generally, a lower price than a business would receive from a private hazardous waste contractor).
- An appointment is arranged for the business to deliver the material (self-transport is an additional cost savings to the small business).

The completed **CESQG Form** must be returned to the Monroe County Department of Environmental Services via fax (585 324-1212) or mail to:

Monroe County Department of Environmental Services
145 Paul Road - Bldg. 10
Rochester, New York 14624
Attn: Industrial Waste Section

For more information on this program, call 585 753-7553.

Additional Online Information

- **Western New York Materials Exchange**
- **Environmental Protection Agency (EPA)**
- **New York State DEC**

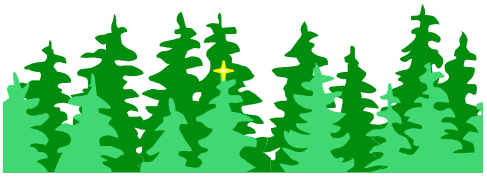
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Christmas Tree Recycling Programs 2013-2014

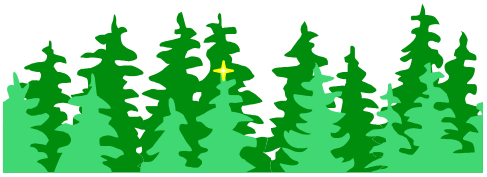


MONROE COUNTY residents may recycle their Christmas trees at the following locations. Residents save a valuable resource by having trees chipped into landscape mulch instead of disposing of them in local landfills.
Please remember to **remove all decorations, plastic bags, wires and nails** from trees to avoid damage to equipment. Where chipping is available, *residents should check with their municipality* for giveback programs - and bring their own containers.

*** This may not be a complete list of all Christmas tree recyclers in Monroe County.*

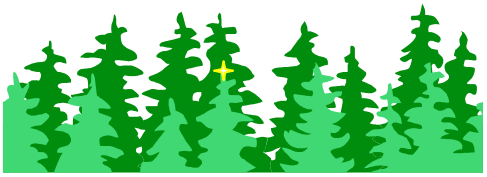
Drop off Location	Instructions
Monroe County/Waste Management **ecopark** 10 Avion Drive Rochester, NY 14624	During operating hours, trees may be dropped off next to the compost give-back center (no woodchips). For details, go to www.monroecounty.gov/ecopark or call 753-7600 (Option 3).
City of Rochester Department of Environmental Services – Operations and Parks Bureau	From Dec. 26 until Jan. 31, city residents may bring trees to the drop-off sites listed below or put them curbside on regular garbage collection day. Remove plastic bags, ornaments, etc. --- **Drop Off Sites Are:** • Materials Give Back Facility located at Ferrano and Colfax Streets • Beach Ave. West of Lake Ave. @ Estes St. • Cobbs Hill Recreation Center – Lake Riley Lodge -- parking lot • Genesee Valley Park—tennis court parking lot (Genesee Extension) • Norton Village Recreation Parking Lot- opposite 331 Waring Road
Terry Tree Service	After Christmas Day—Drop off trees at 225 Ballantyne Rd. Monday through Friday from 8 a.m. to 3:30 p.m. Please stop at side door prior to drop off.
High Acres Recycling Center & Landfill Perinton	Perinton residents may bring their trees free-of-charge to 425 Perinton Parkway from December 26 through January M-F between 9 a.m. and 3 p.m. (closed from 11:30 a.m. – 12:30 p.m.) and Saturdays between 8 a.m. and 1 p.m. – non-residents $1 fee.

Christmas Tree Recycling Programs 2013-2014



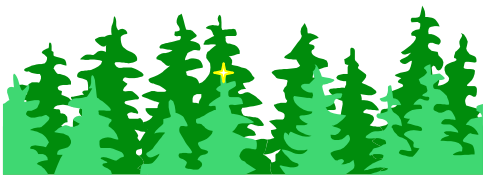
Drop Off Location / Program Sponsor	Instructions
Town of Brighton	Town collects residents' trees curbside throughout the month of January. Chips are available all year.
Town of Chili	Town residents may drop off trees in the designated area at the former Highway Dept. (3235 Chili Ave.) throughout January. Curbside pick-up and woodchips are available.
Town of Clarkson	Drop trees off any day at the Highway Dept. or on Saturdays and Wednesdays at the designated area of the Transfer Station on Redman Rd. Chips are available while they last.
Town of Gates Highway Department	Normal weekly collection with brush pickup.
Town of Greece	Town residential curbside collection during January (weather permitting). Trees may be also dropped off at 635 Flynn Road (8 a.m. to 3 p.m.).
Town of Hamlin	Residents may drop off trees through February 28th at 91Railroad Ave. (just past Highway garage) in brush pile.
Town of Henrietta	Residents may take trees to Tinker Nature Park 1525 Calkins Rd. (behind the barn). They will be chipped on **Jan. 11th & 12th** from 10 a.m. to 2 p.m. (trees may be dropped off any time prior to that weekend). Donations for the Rush-Henrietta Food Cupboard also being accepted during those dates and times.
Town of Irondequoit – Parks & Recreation	On **Jan. 18th**, residents may bring trees to Helmer Nature Center, 154 Pinegrove Ave., from 9 a.m. to 2 p.m. **NO TREES ACCEPTED AFTER 2 P.M.**

Christmas Tree Recycling Programs 2013-2014



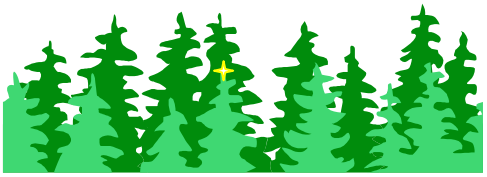
Drop Off Location / Program Sponsor	Instructions
Town of Mendon	Residents may drop off trees anytime at the Highway Dept. 101 Semmel Rd. Please place on brush pile.
Town of Ogden	Town residents may place trees at curb any time after Dec. 25 or drop in front of the Highway Garage, 2432 S. Union St.
Town of Parma	Town residents may drop off trees after Dec. 25th at designated area of the Parma Highway Garage on Henry Street.
Town of Penfield	Residents may drop off at the Penfield Highway Department, 1607 Jackson Road.
Town of Perinton	Curbside collection for residents on normal collection day.
Town of Pittsford	Town will pick up trees left curbside in the beginning weeks of January after contracted garbage companies have had a pick up opportunity.
Town of Riga	Residents may drop off trees after Dec. 25th at the Sprucewood Nature Center- between N. Main & Buffalo streets, behind Churchville Elementary School.
Town of Rush	Residents may drop off trees after Dec. 25th at the former Town Transfer Station on Stoney Brook Road.
Town of Sweden	Through January the Highway Dept. will pick up at curbside for residents.

Christmas Tree Recycling Programs 2013-2014



Drop Off Location / Program Sponsor	Instructions
Town of Webster	Residents may drop off trees from Dec. 27th through Feb. 28th at any designated area of the Town Garage – 1005 Picture Parkway.
Town of Wheatland	Residents may drop off trees Dec. 26th through Jan. 25th at the Town Garage at 1822 Scottsville-Mumford Road.
Village of Brockport	Residential Curbside collection.
Village of Churchville	Curbside pick-up or residents may drop off trees after Dec. 25th at the Sprucewood Nature Center (behind Churchville Elementary School) between N. Main & Buffalo streets.
Village of East Rochester	Residential curbside collection.
Village of Fairport	Village regular curbside collection.
Village of Hilton	Village regular curbside collection. Normal brush collection on alternating weeks.
Village of Honeoye Falls	Village curbside collection through January.
Village of Pittsford	Village Residents may leave at normal curbside collection – mulch/chip give back program available to residents.

Christmas Tree Recycling Programs 2013-2014



Drop Off Location / Program Sponsor	Instructions
Village of Scottsville	Village curbside collection through January.
Village of Spencerport	Village curbside collection through February.
Village of Webster	Village curbside collection during the weeks of January 6th and February 3th. Place trees curbside on the Sunday prior to the collection week (January 5th and February 2rd). Chips available to residents in the spring.

TOWN OF CLARKSON
2014 TRANSFER STATION RULES & REGULATIONS

LOCATION: Redman Road, approximately 1 mile north of Ridge Road/Route 104 on the east side.

HOURS: • Wednesday: 2 - 7 PM • Saturday: 8 AM - 4 PM

COST: $180 per calendar year

Present the **current registration** of the vehicle you plan to use to the Town Clerk's Office – it must be registered to your Clarkson address, along with $180 (cash or check payable to the Town of Clarkson).

There is no prorated fee for current Clarkson residents; however, if you are a new Clarkson resident (within 60 days w/proof of new residency), the fees are as follows: May-August = $100, September-December = $50.

If you replace your vehicle, you must remove the sticker from the former vehicle and present it to the Town Clerk's Office for an exchange, together with your new vehicle's current registration, before a new sticker will be issued.

The sticker should be affixed to the outside of the rear back window or rear bumper of your vehicle. Anyone without the proper sticker on his/her vehicle will not be allowed to drop off at the Transfer Station. Your permit is NOT transferable from vehicle to vehicle – no exceptions.

WHAT YOU CAN TAKE TO THE TRANSFER STATION:
- Household garbage - you may take up to six 30-gallon bags per week.
- Recyclables per Monroe County Recycling Regulations (see details on the other side).
- Cardboard and paper need to be placed in a separate container.
- Bulk items per below.

BULK ITEMS (junk items such as wood, furniture, metal):
- Fee: $50 per load, maximum size is limited to 64 cubic feet, the equivalent of a level pick-up truck load (size based on 8 ft. long x 4 ft. wide x 2 ft. deep); larger loads cannot be accepted. No picking through the drop-off areas is permitted. Please use the Exchange Emporium for browsing!

ADDITIONAL FEE ITEMS:
- Tires: car/pick-up = $2 each, large truck = $10 each, large tractor = $20 each
- Refrigerators/freezers: $25 each
- Propane tanks: $ 2 each
- Air conditioners/dehumidifiers: $10 each

NO CHARGE ITEMS: Brush & tree cuttings, Christmas trees, lawn clippings, stone & concrete, used motor oil, electronics (monitors/computers/TVs), metal, glass.

NOT ACCEPTED: Roofing materials, paint, antifreeze, hazardous chemicals, flammables, hot ashes, wire (check w/operator re: disposal).

Purchase of a Transfer Station permit indicates that you have read and agreed to the terms stated above. Permits are for residential garbage and the allowable bulk items listed above only. Loads are subject to inspection and may be turned away or an additional fee charged. The permit is not transferable and is only valid for the vehicle registered to the permit. If you have household items that could be of value to others, feel free to leave them at the Exchange Emporium building onsite.

The Town Board reserves the right to revoke a permit from any permit holder.

Revised 12/16/2013

MONROE COUNTY, WESTSIDE TOWNS TO HOST HOUSEHOLD HAZARDOUS WASTE COLLECTION

Monroe County Department of Environmental Services (DES) and the towns of Ogden, Hamlin, Clarkson, Sweden, and Parma, and the villages of Hilton, Brockport and Spencerport will partner to hold an **appointment-only** Household Hazardous Waste (HHW) collection at the Ogden Highway Garage, 2432 South Union St., Spencerport, NY 14559, on **Saturday, June 14, 2014 from 7:45 a.m. to 12 noon.**

Most HHW (paint, flammables and other chemicals from home-use) is safe when used and stored properly. When they become unwanted and are disposed of improperly, these household wastes can become environmental hazards.

This service is open to all Monroe County residents. To ensure safety and reduce waiting times, appointments are required at all HHW collections throughout the year. Appointments for this HHW collection can be made until June 13th.

To schedule an appointment call;

- 617-6161 if you are an Ogden or Spencerport resident.
- 392-9464 if you are a Parma or Hilton resident.
- 964-2421 if you are a Hamlin or Clarkson resident.
- 637-2144 if you are a Sweden or Brockport resident.
- 753-7600 (option #3) if you live anywhere else in Monroe County.
-

or go on-line to http://www.monroecounty.gov/hhw to schedule your appointment. This collection is open to all Monroe County residents. **Waste from businesses will not be accepted.**

Up to 30 gallons of the following materials will be accepted per appointment at no charge:

- Oil-based & Latex Paint (for 1/3-gallon or less of **latex** paint: discard lid, add kitty litter, let dry, place can in trash)
- Wood Stain & Preservatives
- Automotive Fluids (antifreeze; brake, power steering and transmission fluids)
- Pesticides & Fertilizers
- Flammable Products (gasoline, kerosene, thinners, strippers, solvents)
- Household Cleaners (liquid soaps & waxes, drain cleaners, etc.)
- Driveway Sealer
- Pool & Photo Chemicals
- Rechargeable (Ni-Cad) & Button Batteries
- Mercury (thermometers, thermostats)
- Syringes/Sharps (safely packaged)

Do Not Bring used motor oil & vehicle batteries (contact service station or retailer); Pharmaceutical Wastes, Propane tanks (permanent HHW facility only), cans with dried paint (if it rattles when shaken – remove lid and place in trash); empty containers (trash or recycle); everyday alkaline batteries (trash); glazing/spackle & joint compounds (trash).

If residents are unable to take advantage of this one day HHW collection, the County offers other collections throughout the year. For more information, or for business waste disposal options, call DES at 753-7600 (option 3), or go on-line at www.monroecounty.gov

2013 Town of Greece Leaf Collection Instructions and Schedule

LEAF PROGRAM

This year, from October 14th through December 13th the Town will pick up leaves. The accompanying map outlines the dates for collection in your area, and is based on a 2-week rotation schedule. Depending on the need and weather conditions, the Town will add an additional rotation after December 13th. The program calls for residents to place leaves into **paper bags** to be collected by the Department of Public Works.

An alternative to **paper bags** is the use of 30-gallon garbage cans with handles provided that (1) the container does not weigh more than 50 lbs. and (2) the container is tagged or identified in such a way that crews will know it contains leaves. Experience has shown that, particularly on refuse collection day, it is very difficult to know what is in the container. While it is recognized that the use of containers is an alternative, residents are reminded that once frozen, the containers may be susceptible to damage.

Another alternative is for residents to dispose of their own leaves at one of the Town's drop-off sites. The five sites, identified on the map to the left are: (A) the Yard Waste Management Facility, 635 Flynn Road, (B) Barnard Park, 410 Maiden Lane, (C) Carter Park, 1281 Long Pond Road, (D) George Badgerow Park South, 1120 Latta Road, and (E) Basil A. Marella Park, 975 English Road. The sites will be open throughout the leaf program. The drop-off site locations will be identifiable by a snowfence. The Yard Waste Management Facility has signs indicating the leaf drop-off site. No plastic bags, brush, or containers are to be left at any site.

Composting leaves is the most effective and environmentally sound method of leaf disposal, and the Town of Greece is pleased to be the first municipality in Monroe County to have a composting site. All of the leaf compost produced at the North Greece site is returned to Town residents free of charge.

Please follow these procedures for leaf collection services:

- **Plastic bags cannot be picked up.**
- Place your **paper bags** at curbside on the evening before your scheduled collection day to minimize breakage.
- Please keep rocks, cans, glass, branches, etc. out of your bags. This material will interfere with composting.
- Please identify covered containers of leaves, or keep the cover off.

WASTE OIL

On the second Saturday of each month the Town Department of Public Works is open for residents to bring in used waste oil. Between 8:00 A.M. and 3:00 P.M. residents can bring up to five (5) gallons of used oil to the DPW facility, 647 Long Pond Road. **Other liquids, such as antifreeze and gasoline cannot be accepted.**

HOUSEHOLD HAZARDOUS WASTE

Monroe County offers free, safe disposal of unwanted household chemicals. Materials are accepted by appointment only on specific collection days. When calling, please be prepared to describe the type of materials and quantities of each. You will receive directions, reuse options, and instructions for transporting your materials safely after scheduling your drop-off appointment. Call 753-7600, option 3, Monday - Friday, 8:30 A.M. - 4:30 P.M., or visit www.monroecounty.gov/hhw to schedule an appointment.

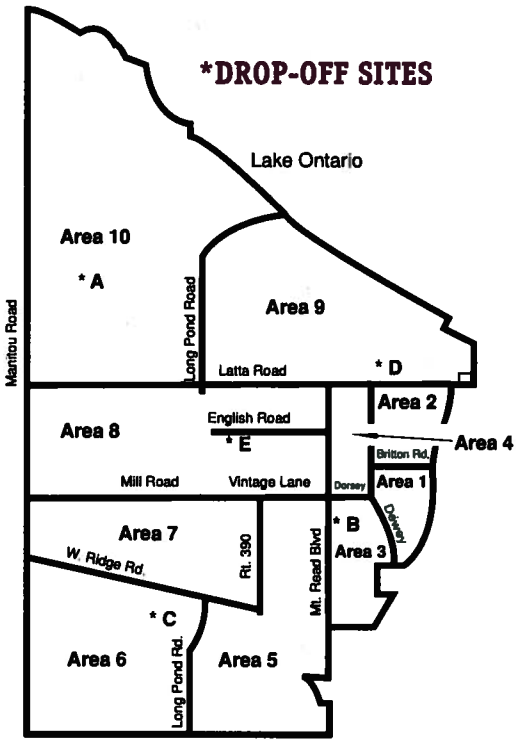
CONCRETE

The Town will pick up small amounts of waste concrete generated by the homeowner. **Concrete spoils generated by a contractor must be disposed of by the contractor.** There is not a regular schedule for curbside collection of waste concrete, and pick up occurs at the Town's discretion. Once the material is placed at the curb, call 225-4590 to get listed for collection. If you are not sure what is acceptable, **please call first** and a representative will be able to advise you.

2013 COLLECTION DATES:

Area 1:	Area 2:	Area 3:	Area 4:	Area 5:
Oct. 14	Oct. 15	Oct. 16	Oct. 17	Oct. 18
Oct. 28	Oct. 29	Oct. 30	Oct. 31	Nov. 1
Nov. 12	Nov. 13	Nov. 15	Nov. 18	Nov. 19
Nov. 27	Dec. 3	Dec. 4	Dec. 5	Dec. 6

Area 6:	Area 7:	Area 8:	Area 9:	Area 10:
Oct. 21	Oct. 22	Oct. 23	Oct. 24	Oct. 25
Nov. 4	Nov. 5	Nov. 6	Nov. 7	Nov. 8
Nov. 20	Nov. 21	Nov. 22	Nov. 25	Nov. 26
Dec. 9	Dec. 10	Dec. 11	Dec. 12	Dec. 13



DID YOU KNOW?

- **If a problem occurs with your sewer the town provides free sewer inspections.** If you ever have a problem with your sewer, please be sure to call the Department of Public Works (225-4590) FIRST. We can usually determine whether or not a plumber is necessary and we can often solve the problem at no cost to you.
- **Most work done within the Town Right-of-Way requires a "Highway Permit."** The Right-of-Way is measured from the center of the road, and, usually extends 25 to 30 feet in both directions. Driveway installations, curbing and edging, lawn sprinklers, invisible fencing, and landscape installations are some examples of the types of work which would require a permit. Mailbox installations typically do not require a permit if only a post and box are to be installed. More elaborate installations may require review.
- **Before you or your contractor perform any work within the Right-of-Way, you are required to obtain a permit.** For more information about the "Highway Permit" process, please call 225-4590.
- Weather permitting, each January we will pick up Christmas trees placed at the curbside for collection. They can also be dropped off at our Flynn Road site during the hours of operation. **Plastic bags must be removed from trees.**

2013 Town of Greece Brush Collection Instructions and Schedule:

BRUSH PROGRAM

The Town offers residential brush collection on a year-round basis, and will follow the schedule shown on the accompanying map. **Trees, brush, and stumps generated from lot clearing and commercial enterprises will not be picked up.** The Town also permits residents to dispose of their residential brush at the Yard Waste Management Facility, 635 Flynn Road, Monday - Friday, 8:00 A.M. - 3:00 P.M.; Saturday - Sunday, 8:30 A.M. - 3:00 P.M.

When putting out brush for collection, please follow these procedures:

- **Have the brush at curbside by Monday morning of your scheduled week. This will help to ensure that you will not be skipped.**
- Cut all brush, limbs or trees to a length no greater than 4'.
- Tree stumps "may" be picked up if they are reasonably free of dirt and rocks.
- **Do not** mix any metal, rocks, dirt, lumber, concrete, or other foreign debris in with the brush.
- **Do not** pile the brush under overhead wires of any kind, keep all brush piles away from telephone poles, fire hydrants, guide wires, low tree limbs, plants, and guiderails.
- **Do not** place yard debris and/or brush in, or near waterways and ponds.
- Place the material parallel to the road, neatly and uniformly, so as not to block the road, sidewalk, or another property.

In order to keep on schedule, it is essential that residents follow these procedures. Any brush which does not meet regulations may not be picked up on the regular schedule, or may not be picked up at all. If you have any questions, please call the Department of Public Works at 225-4590.

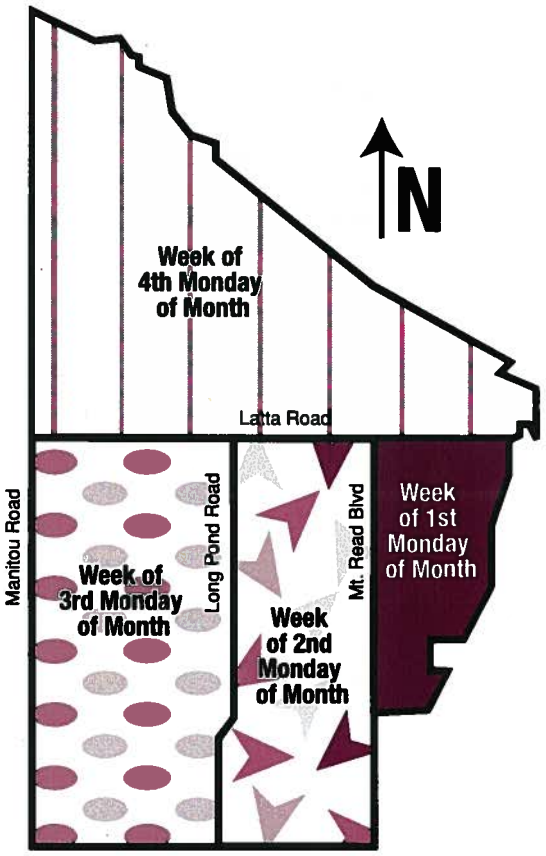
CONTRACTORS

All tree service firms which work in the Town must be registered with the Town Clerk. Any tree service or landscaping firm that does work in the Town is responsible for disposing of all brush, limbs, and stumps. The Town will not pick up material generated by contractors. Additionally, contractors are not permitted to use any of the Town's drop-off sites for materials generated by their work.

EMERALD ASH BORER

The Emerald Ash Borer (EAB) is an Asian beetle that attacks all species of ash trees. While the EAB has not yet been found in the Town of Greece, it has been found within Monroe County. As a result, the Town of Greece is located within the quarantine expansion area. New York State has placed a restriction on the movement of any part of ash trees including branches, leaves and bark, ash lumber, or any item made from ash. There is also a restriction on the movement of firewood from any tree species. Your cooperation in observing these restrictions can help prevent the spread of the EAB. For more information, visit the EAB page at our website at www.greeceny.gov/eab.

Each month the Town will provide curbside brush collection according to the following weekly schedule:



GIVE-BACK PROGRAM

WOOD CHIPS AND LEAF COMPOST

The Yard Waste Management Facility, 635 Flynn Road, is open Monday through Friday, 8:00 A.M. to 3:00 P.M. and Saturdays, Sundays and Holidays from 8:30 A.M. to 3:00 P.M. for residents wanting wood chips or leaf compost. Residents must bring their own container. The DPW may also provide truck load delivery of wood chips or leaf compost as its schedule permits.

Request forms for truckload deliveries are available on the Town's website, or you can fill one out in person at the Department of Public Works, 647 Long Pond Road. If you are unfamiliar with these products, it is strongly recommended that you view samples at the Department of Public Works before making a request. For additional information, please call 225-4590.

Wood chips produced by our state-of-the-art grinder are high quality and great for all your landscaping projects. Demand for the wood chips is high, and it is recommended that you make your request for this product early in the Spring.

There is no charge for wood chips or leaf compost. If either is unavailable, we will hold onto your request until it is once again available.

STONE

The Town may also offer stone which is swept up from the "chip seal" program. This product is not delivered, but may be available at the Yard Waste Management Facility, 635 Flynn Road, at no charge. Call the Department of Public Works, 225-4590, to check on availability after July 1.

TREE STUMP GRINDINGS

Also available is a product made from tree stump grindings mixed with dirt. Again, this product is not delivered, but is available at the Yard Waste Management Facility, 635 Flynn Road, at no charge.

GRASSCYCLING

Your private refuse hauler is required to take grass clippings. However, the Town (along with Monroe County) supports and encourages grasscycling. Grasscycling means leaving grass clippings on your lawn after each mowing. It not only enriches your lawn with important nutrients, but also reduces the demand on expensive landfills. Just leave the clippings on your lawn after mowing, or add them to your compost pile. Cut only the top 1/3 of your grass with each mowing. Remember to cut your grass when it's dry, and keep your mower blade sharp. For more information, call the Monroe County Cornell Cooperative Extension Garden Helpline at 473-5335.

HOME COMPOSTING

Leaves and grass are a major part of the overall waste stream. Turning organic waste into a nutrient-rich soil supplement for your garden is a great way to reuse these valuable materials and it's environmentally sound. For more information, call the Cooperative Extension at 473-5335.

Please cut out

Appendix B

Copy of the Local Solid Waste Law

SOLID WASTE REUSE AND RECYCLING LAW

BE IT ENACTED BY THE LEGISLATURE OF THE COUNTY OF MONROE, as follows:

Section 1: A new local law entitled, "Solid Waste Reuse and Recycling Law" shall be enacted to read as follows:

Section I. Short Title.

This law shall be known as the reuse and recycling law.

Section II. Findings.

The County Legislature of Monroe County finds that:

A. Removal of certain materials from the solid waste stream will decrease the flow of solid waste to landfills, aid in the conservation of valuable resources, and reduce the required capacity of existing and proposed Solid Waste disposal facilities.

B. The New York Solid Waste Management Act of 1988 requires all municipalities to adopt a local law or ordinance by September 1, 1992 requiring that Solid Waste which has been left for collection or which is delivered by the generator of such waste to a Solid Waste Management Facility, shall be separated into recyclable, reusable or other components for which economic markets for alternate uses exist.

Section III. Purposes.

This law is adopted pursuant to Chapter 345 of the Laws of 1975 of the State of New York as amended, Chapter 541 of the Laws of 1976 of the State of New York as amended and Chapter 552 of the Laws of 1980 of the State of New York as amended to:

A. Institute a plan for the management of recyclable materials generated or originated in Monroe County, to promote the safety, health and well-being of persons and property within Monroe County; and to

B. Implement the express policy of the State of New York encouraging waste stream reduction through recycling.

Section IV. Definitions.

"Administrator" means the Solid Waste Administrator of Monroe County, or such other office or employee of the County who may, from time to time, be designated by the County Executive with the responsibility for the County's solid waste issues and programs.

"Authorized Recycling Facility" or "Facilities" means any and all permitted or specifically exempt facility or facilities for processing, reprocessing and/or recycling Recyclable Materials which are specified in the rules and regulations promulgated pursuant to Section V(A) of this law. This term shall exclude incineration facilities, waste-to-energy facilities and landfills.

"Container" means a County-provided blue box container with a County logo for Recyclable Materials or any other durable container for Recyclable Materials readily identifiable by the Hauler as a container for Recycling Materials.

"County" means Monroe County.

"Executive" means the County Executive of Monroe County.

"Exempt" means the status granted to any individual who can demonstrate an inability to comply with this Law and applies to the Administrator or the Municipality and receives a certificate of exemption from this Law, or parts thereof, pursuant to the rules and regulations.

"Facility" means any solid waste management-resource recovery facility employed beyond the initial solid waste collection process which is to be used, occupied or employed for or recovery by any means of any material or energy product or resource therefrom including recycling centers, transfer stations, processing systems, resource recovery facilities, sanitary landfills, plants and facilities for composting or landspreading of solid wastes, secure land burial facilities, reprocessing and recycling facilities, surface impoundments and waste oil storage, incinerators, and other solid waste disposal, reduction or conversion facilities.

"Hauler" means any Person who collects and transports Solid Waste and/or Recyclable Materials within the County whether or not licensed by a municipality within Monroe County.

"Hazardous Waste" means (1) any "hazardous waste" as defined under the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., or "hazardous substance" as defined under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 et seq., or "hazardous waste" as defined under New York Environmental Conservation Law Section 27-0901 et seq., as each such law may be amended from time to time, and the regulations promulgated thereunder, and any analogous or succeeding federal, State or local law, rule or regulation and any regulations

promulgated thereunder and (2) any other material which any governmental agency or unit having appropriate jurisdiction shall determine from time to time cannot be processed at the Facility because it is harmful, toxic or dangerous.

"Other Recoverable Material" means any material, substance, by-product, compound or any other item generated or originated within the County and separated from Solid Waste at the point of generation for separate collection, sale, external reuse or reprocessing and/or disposition other than by disposal in landfills, sewage treatment plants or incinerators. Other Recoverable Materials do not include Recyclable Materials as defined herein.

"Person" means any natural person, partnership, association, joint venture, corporation, estate, trust, association, county, city, town, village, school district, improvement district, governmental entity or other legal entity.

"Recyclable Material" means any Solid Waste generated or originated within the County as designated in the rules and regulations promulgated hereunder, which may include but not be limited to the following:

I. Containers

1. "Aluminum" Aluminum products and containers fabricated primarily of aluminum and commonly used for soda, beer, beverages or other food or drink products.

2. "Glass Food and Beverage Containers" – New and used glass food and beverage containers which have been rinsed and are free of food contamination, including clear (flint), green and brown (amber) colored glass bottles. Glass shall not include ceramics, plate glass, auto glass, Pyrex, leaded glass, mirrored glass, flat glass, make-up, perfume or medicine bottles.

3. "Metal cans" – Containers fabricated primarily of steel or tin, or bi-metal cans of steel, tin and/or aluminum, but not including aluminum cans.

4. "Plastics" – including high-density polyethylene (HDPE), low-density polyethylene (LDPE), polystyrene, and polyethylene terepthalate (PET). Commonly used for soda, milk and other containers.

II. Paper

5. "Boxboard" – Woodpulp-based material which is usually smooth on both sides but with no corrugated center. Excludes material with wax coating.

6. “Corrugated” – Woodpulp-based material which is usually smooth on both sides with a corrugated center. Commonly used for boxes. Excludes material with wax coating.

7. “High grade paper” – White and colored office bond, duplicating paper, computer paper, and other high-quality paper.

8. “Magazines” – Magazines, glossy catalogs, and other glossy paper.

9. “Newsprint” – Common, inexpensive machine finished paper made chiefly from woodpulp and used for newspapers. This term excludes magazines.

III. Other

10. “Construction and demolition debris” – material resulting from the construction, renovation, equipping, remodeling, repair and demolition of structures and roads; and material consisting of vegetation resulting from land clearing and grubbing, utility line maintenance and seasonal and storm related cleanup. Such material includes, but is not limited to, bricks, concrete and other masonry materials, soil, rock, wood, wall coverings, plaster, drywall, plumbing fixtures, non-asbestos insulation, roofing shingles, asphaltic pavement, glass, plastics, electrical wiring and components, carpeting, foam padding, linoleum, and metals that are incidental to any of the above.

11. “Large appliances” – Stoves, refrigerators, dishwashers, dryers, washing machines, water heaters and other large appliances and scrap metal and excluding air conditioners, microwaves and televisions.

12. “Wood Waste” – including logs, pallets and other wood materials.

13. “Yard Waste” – Grass clippings, leaves, branches up to 4 inches in diameter and other like vegetative garden materials.

“Recycling” or “Recycled” means any method, technique or process utilized to separate, process, modify, convert, treat or otherwise prepare solid waste so that its component materials or substances may be beneficially used or reused.

“Solid Waste” means all putrescible and non-putrescible solid wastes generated or originated within the County, including, but not limited to, materials, or substances discarded or rejected, whether as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection or for any other reason, or are being accumulated, stored, or physically, chemically or biologically treated prior to being discarded, have served their intended use, or are a manufacturing by-product, including, but not limited to, garbage, refuse, and

other discarded solid materials, including solid waste materials, resulting from industrial, commercial and agricultural operations and from community activities, sludge from air or water pollution control facilities or water supply treatment facilities, rubbish, ashes, contained gaseous material, incinerator residue, demolition and construction debris and offal, but not including sewage and other highly diluted water-carried materials or substances and those in gaseous form, or hazardous waste as defined in this law.

"Source Separation" means the segregation of Recyclable Materials and Other Recoverable Materials from solid waste at the point of generation for separate collection, sale or other disposition.

"Waste Stream Reduction Program" includes Source Separation, Recycling programs, changes to the packaging portion of the waste stream to reduce solid waste generated, activities and enterprises of scrap dealers, processors and consumers and other programs designed to reduce the volume of solid waste or enhance reclamation and recovery of Solid Waste or Recyclable Materials otherwise destined for the municipal waste stream. For purposes of this paragraph, such waste stream reduction programs shall not include the processing of waste for incineration or disposal by landfill or other means.

Section V. Administrative Responsibilities.

The Executive is hereby authorized and directed to:

A. Promulgate and publish rules and regulations from time to time which:

1. identify, define, expand and modify categories of Solid Waste and Recyclable Materials consistent with the implementation schedule set forth in Chapter 6.4 of the Monroe County Comprehensive Recycling Analysis ("CRA") approved by New York State Department of Environmental Conservation; except that in the event of an emergency condition, the Executive may amend the categories of Solid Waste and Recyclable Materials to respond to such emergency conditions. In the event of such an emergency condition, the Executive shall immediately notify the Legislature and report to and confer with the members of the Public Works Committee of the Legislature at its next regularly scheduled committee meeting. The Executive is authorized to expand and modify the categories of Recyclable Materials set forth in the CRA with legislative approval.

2. identify one or more Authorized Recycling Facilities to which Recyclable Materials may be delivered, subject to such exceptions as the Executive may determine with legislative approval to be in the public interest.

3. establish a Countywide program to implement and enforce Source Separation of Recyclable Materials and to maximize the opportunity for and educate and inform the public regarding the reclamation and recovery of Recyclable Materials. These rules and regulations shall prescribe methods of Source Separation, and may reflect local differences in population density, accessibility and capacity of markets and facilities, collection practices and waste composition. In promulgating such rules and regulations, the Executive shall also give due consideration to existing Source Separation, recycling and other facilities in the area, to the adequacy of markets for separated materials, and any additional expense and effort to be incurred by residents and Authorized Haulers. In addition, the Executive shall consider the capacity, handling, disposal and marketing capabilities of available Facilities, the geographical location of Facilities and such other factors enabling the Executive to determine that the public interest is served by the rule or regulation.

4. not withstanding any provision herein, no material changes shall be made to the schedule of fines set forth in Article H of the Regulations without prior legislative approval.

B. Pursuant to Section 302 of the County Charter, sign contracts and any amendments there deemed necessary or desirable for the implementation of this law and such rules, regulations and orders promulgated hereunder to the limit of funds appropriated therefor.

C. Revise, amend, promulgate and publish other such rules, regulations and orders necessary to carry out the purposes of this law.

D. The Executive shall perform the administrative functions, powers and duties specified in this local law on behalf of the County, and may delegate any or all of the administrative functions, powers and duties specified herein. He shall report annually, and at other times he deems necessary, to the County Legislature. Nothing in this local law divests the County Executive or the County Legislature of any functions, powers and duties which they may otherwise have.

Section VI. Advisory Committee.

An Advisory Committee is hereby established to assist and advise the County in the implementation of this Law. The Advisory Committee shall by comprised of fifteen (15) members appointed and confirmed as follows:

1. two members appointed by the Executive and confirmed by the Legislature;

2. two members appointed by the President of the Legislature and confirmed by the Legislature;

3. two members appointed by the Legislature, one recommended, by the Majority Leader and recommended by the Minority Leader, and confirmed by the Legislature;

4. one member from each of the following organizations, each of whom shall be appointed by the Executive and confirmed by the Legislature; the Chamber of Commerce, the Environmental Management Council, the Industrial Management Council, the Town Supervisors' Association, the Village Mayors' Association, and the Waste Haulers Association;

5. one member recommended by the Mayor of the City of Rochester, appointed by the Executive and confirmed by the Legislature; and

6. one operator of a materials recycling facility and one scrap dealer, each of whom shall be appointed by the Executive and confirmed by the Legislature.

Each member shall serve a term of two (2) years, except that seven (7) members, designated by the Executive, shall be appointed to an initial term of one (1) year in order to stagger the expiration of terms. Committee members shall be appointed or reappointed by October 1 of each year that terms of appointment expire, and at such other times as are necessary to fill committee membership positions vacant due to resignation or other reason.

Section VII. Waste Delivery and Disposal; Source Separation.

A. Solid waste generated or originated within the County which has been left for collection or which is delivered by the generator of such waste to a Facility shall be handled and disposed of as follows:

   1. Prior to initial collection or transport, such Solid Waste shall be Source Separated into Recyclable Materials and remaining Solid Waste as provided in the rules and regulations promulgated hereunder.

   2. Source Separated Recyclable Materials shall not be commingled with other Solid Waste during collection, transportation, processing or storage following collection.

   3. All Source Separated Recyclable Materials generated or originated within the County must be delivered to an Authorized Recycling Facility or handled through a Waste Stream Reduction Program.

4. No Authorized Recycling Facility or Waste Steam Reduction Program shall receive Recyclable Materials generated or originated within the County except as permitted by law.

B. Disposal of Solid Waste which is barred from Authorized Recycling Facilities by rules, regulations or orders promulgated pursuant to Section V of this law, or by any other law, regulation or ordinance shall not otherwise be regulated by this law.

C. No Hazardous Waste may be delivered to an Authorized Recycling Facility.

D. No Facility other than an Authorized Recycling Facility shall accept for disposal Recyclable Materials which have been Source Separated.

E. Each City, Town and Village within Monroe County shall enact a mandatory recycling ordinance within 90 days of the adoption of this law which shall be based upon a model ordinance provided by the County.

Section VIII. Collection of Recyclables.

Only Persons acting under the authority of a Hauler or the County shall collect, pick up, remove or cause to be collected, picked up or removed, any Recyclable Materials placed in or adjacent to a Container for collection; each such unauthorized collection, pick up or removal shall constitute a separate violation of this law. Provided, however, where the Hauler or the County has refused to collect Recyclable Materials because they have not been separated, placed or treated in accord with the provisions of this law, the Person responsible for initially placing those Materials for collection may and shall remove those Materials from any curb, sidewalk, streetside or other designated collection place.

Nothing herein shall prevent any Person from making arrangements for the reuse, private collection, sale or donation of Recyclable Materials; provided that Recyclable Materials to be privately collected, sold or donated shall not be placed curbside or at any other designated collection place on or immediately preceding the day for collection of such Recyclable Materials. Any and all Recyclable Materials placed in a County-supplied Container at curbside or at any designated collection place shall immediately become the property of the County.

Section IX. Reporting Requirements.

All persons engaged in the collection of Recyclable Materials and Other Recoverable Materials through a Waste Stream Reduction Program other than as a Hauler shall provide an annual report, on forms to be provided by the County, to the County Executive or his designee who shall then file a summary report with the Clerk of the Legislature.

Section X. Haulers.

A. Haulers shall be subject to the following requirements:

1. Haulers must maintain separate monthly records of Solid Waste and Recyclable Materials collected, transported or disposed of by the Hauler which include the following information:

   a. the municipality or geographical area and number of households in which the Solid Waste and of each type of Recyclable Material collected;

   b. the quantity, by ton, of Solid Waste and of each type of Recyclable Material collected;

   c. the quantity, by ton, of Recyclable Material delivered to each Authorized Recycling Facility; and

   d. the quantity, by ton, of Solid Waste delivered to each Facility.

2. Reports containing the information required in paragraph (1) of this section shall be compiled and delivered to the Administrator for each reporting period as designated by the Regulations, but which shall be no more frequently than quarterly.

3. Haulers shall indemnify and hold harmless Monroe County for any pending, threatened or actual claims, liability or expenses arising from collection and disposal by the Hauler in violation of this law.

4. Haulers shall offer or cause to be offered collection services for all Recyclable Materials to all residential customers for wheom they provide Solid Waste collection services, on the same days as Solid Waste collection services are provided, unless otherwise authorized by the Regulations.

5. Each Hauler shall develop and submit for County approval a generic collection plan for collecting Recyclable Materials from its commercial, industrial and institutional customers.

6. Haulers shall not accept for collection Solid Waste which has not been Source Separated in conformity with the Regulations promulgated hereunder and shall leave a notice with the generator informing the generator of why the Solid Waste or Recyclable Materials were not collected, unless the Hauler reports the violation to the appropriate public official pursuant to Section XI herein.

Section XI. Enforcement

A. Inspections and Appearance Tickets.

1. All portions of vehicles and containers used to haul, transport or dispose of Recyclable Materials, including such containers placed outside of residences, shall be subject to inspection to ascertain compliance with this law and the rules, regulations or orders promulgated hereunder, by any police officer, peace officer, or any other public official designated by the County or Municipality.

2. Police officers, peace officers, and the specified public officials are hereby authorized and directed to issue appearance tickets for violations of this law.

B. Penalties.

1. Civil Sanctions.

   The County may commence a civil action to enjoin or obtain any other available legal or equitable remedy for any failure to comply with this ordinance.

2. Criminal Penalties.

   a. In addition to the civil sanctions provided herein, failure to comply with this law or the rules and regulations promulgated hereunder shall be a violation as defined in Section 55.10 of the Penal Law and penalties may be imposed thereunder and/or under Section 10 of the Municipal Home Rule Law. Appeals may be taken by the aggreived party in the same way as any appeal of a violation under Penal Law §55.10.

3. Any penalties or damages recovered or imposed under this law are in addition to any other remedies available at law or equity.

4. No penalties, fines, civil sanctions or other enforcement actions will be commenced against any generator of Solid Waste or Recyclable Materials until one hundred and eighty (180) days after the effective date of this law in order to permit Persons regulated hereunder to come into compliance with this law.

Section XII. Severability.

If any clause, sentence, paragraph, section, or part of this title shall be adjudged by any court of the competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, section or part thereof involved in the controversy in which such judgment shall have been rendered.

Section XIII. Effective Date.

The provisions of this law shall be effective four (4) months after the Administrator files a certificate with the Executive and the Clerk of the County Legislature stating that one or more Authorized Recycling Facility or Waste Stream Reduction Program with sufficient capacity to handle the quantities of Recyclable Materials anticipated to be generated is or will be ready to operate on a regular basis to process one or more Recyclable Materials, or January 1, 1992, whichever whichever date is earlier; except that all Haulers shall provide collection for Source Separated Newsprint to all customers as of September 16, 1991. The Executive shall give notice of the effective date of this local law by publishing notice thereof at least once in the official newspaper of the County, not less than 30 days prior to the effective date.

Section 2. This local law shall take effect in accordance with the provisions of Section 21 and Section 27 of the Municipal Home Rule Law.

Public Works Committee: April 2, 1991 – CV: 7-0
File No. 90-0481

ADOPTION: Date: April 30, 1991 Vote: 29-0

ACTION BY COUNTY EXECUTIVE

APPROVED: ____X____ VETOED:_____

SIGNATURE:_____

EFFECTIVE DATE OF RESOLUTION: May 23, 1991

SOLID WASTE REUSE AND RECYCLING REGULATIONS

September 13, 1991

The Monroe County Executive, Thomas R. Frey, pursuant to his authority under the Monroe County Solid Waste Reuse and Recycling Law, Local Law No. 3 of 1991, hereby promulgates the following regulations:

ARTICLE A – DEFINITIONS

Terms defined in the Monroe County Solid Waste Reuse and Recycling Law, Local Law no. 3 of 1990, (the "Law") shall have the same meaning in the regulations as in the Law.

ARTICLE B – IDENTIFICATION OF VARIOUS CLASSES OF SOURCES OF RECYCLABLE MATERIAL

The following classes of sources of Recyclable Materials shall apply herein:

1. **Drop-Off Center Users**: Persons who do not contract with Haulers or otherwise arrange for the collection and transportation of Solid Waste or Recyclable Materials, but who themselves may transport Solid Waste or Recyclable Materials to a transfer station or community drop-off center or otherwise dispose of Solid Waste or Recyclable Materials.

2. **Individually-Served Residential**: Residential-based sources of Recyclable Materials with individual collection service for each residential unit. For the purpose of newsprint collection beginning September 16, 1991, only Individually-Served Residential sources shall be classified as "customers" as that term is used in Section XIII of the Solid Waste Reuse and Recycling Law.

3. **Centrally-Served Multi-Unit Residential**: Residential-based sources of Recyclable Materials with collection service at centralized accumulation points.

4. **Small Commercial or Industrial**: Commercial or industrial facilities with fifty (50) or fewer employees per site.

5. **Large Commercial or Industrial**: Commercial or industrial facilities with greater than fifty (50) employees per site.

6. **Construction and Demolition Projects**: All construction, excavation, demolition or other similar projects, whether residential, commercial, industrial, institutional or municipal, which generate Construction and Demolition Debris.

7. **Institutional**: Schools, universities, colleges, hospitals, long- and short-term health care facilities and similar facilities.

8. **Exempt**: The status granted to any individual who can demonstrate an inability to comply with this Law and applies to the Administrator or his or her local municipality and receives a certificate of exemption from the Law, or parts thereof.

ARTICLE C – RECYCLABLE MATERIALS TO BE SOURCE SEPARATED

1. The following Recyclable Materials shall be source-separated in the manner set forth in Article F hereunder:

   I. Containers
      a. Aluminum
      b. Metal cans
      c. Glass food and beverage containers
      d. Plastics: only high-density polyethylene (HDPE) and polyethylene terephthalate (PET)
      e. Gable Top and Drink Boxes

   II. Paper
      e. Corrugated
      f. High-grade paper
      g. Magazines
      h. Newsprint

   III. Other
      i. Large appliances

2. No Recyclable Materials shall be commingled with any Hazardous Waste.

ARTICLE D – IMPLEMENTATION OF REGULATIONS

1. The regulations shall be effective on the same date as the Law becomes effective.

ARTICLE E – AUTHORIZED RECYCLING FACILITIES AND WASTE STREAM REDUCTION PROGRAMS

1. An authorized Recycling Facility or Waste Stream Reduction Program ("Program") shall be deemed ready to operate on a regular basis either:

   a. after a successful acceptance test for a new Authorized Recycling Facility or Program; or
   b. the Effective Date for the Monroe County Materials Recycling Center (MRC) as defined in the Service Agreement for the MRC; or

c. after an existing recycling facility or Program has filed with the Administrator a complete application requesting inclusion in the list of Authorized Recycling Facilities and Waste Stream Reduction Programs, on forms to be provided by the County and the Administrator has approved such application.

2. The Administrator shall compile and maintain a list of Authorized Recycling Facilities which shall constitute the only facilities within the County to which Recyclable Materials may be transported by Haulers and which shall include any and all of the following facilities within the County which file a complete application complying with Article E(1) hereof:

   a. Drop-off centers operated by or on behalf of the County or other municipality within the County
   b. Any and all facilities, private or municipal, permitted under 6 N.Y.C.R.R. Part 360-12 or specifically exempt thereunder which process Recyclable Materials for beneficial reuse.

3. Authorized Recycling Facilities and Waste Stream Reduction Programs must comply with all necessary local, state and federal laws, including zoning laws, and possess all necessary construction and operating permits or operate under provisions of the New York State Administrative Procedures Act, copies of which must be made available to the Administrator for inspection.

4. Authorized Recycling Facilities and Waste Stream Reduction Programs must agree to comply with all record-keeping and reporting requirements under this Law and these Regulations.

5. Authorized Recycling Facilities and Waste Stream Reduction Programs shall not knowingly accept Recyclable Materials belonging exclusively to other Facilities or Programs; for example, Recyclable Materials placed in County "Blue-Box" Containers shall be delivered only to such authorized Recycling Facilities or Waste Stream Reduction Programs as the County may direct.

6. A list of authorized Recycling Facilities and Waste Stream Reduction Programs shall be published and amended as required at the discretion of the Administrator.

ARTICLE F – SOURCE-SEPARATION AND COLLECTION REQUIREMENTS

1. **Haulers**:

   A. Each Hauler shall distribute individual Containers to each of its individually served Residential and other appropriate residential customers for Recyclable Materials, which Containers, if provided by the County shall remain the property of the County. All Recyclable Materials placed in a County-provided Container shall be transported to specific authorized Recycling Facilities designated by the County for such purpose.
   B. Upon suspicion of a customer's failure to comply with the law or Regulations, Haulers shall examine or cause to be examined Solid Waste and Recyclable Materials at the point

of collection and shall refuse to collect any Solid Waste which has been commingled with Recyclable Materials or any Recyclable Materials which have been commingled with Solid Waste unless Hauler properly reports the violation under Article F (1)(D) herein and a citation is issued to the Person generating the mixed Solid Waste under Article I herein.

C. Haulers shall report repeat violators to the municipality with a copy to the Administrator on forms to be provided by the County.
D. All vehicles used to transport Recyclable Materials within the County shall be equipped, maintained and operated to prevent litter and contamination of loads.
E. The Administrator, the County Director of Public Works and their designees are authorized to inspect all Authorized Recycling Facilities, Containers and vehicles used to transport Recyclable Materials within the County. Penalties for violations shall be imposed as specified under Article I hereof.
F. Haulers shall develop a generic collection plan for collecting Recyclable Materials from commercial, industrial and institutional customers on a form to be provided by the County Division of Solid Waste, and submit such plans to the Administrator for approval by November 15, 1991.

2. **Individually-Served Residential**:

A. In Individually-Served Residential facilities, the tenant or homeowner is responsible for Source Separation of Recyclable Materials from Solid Waste. Such tenants and homeowners shall be responsible for maintaining their own Containers.
B. Homeowners and tenants shall separate from solid Waste Aluminum and Metal Cans, Plastic containers, Glass Food and Beverage Containers, clean of contents, and Newsprint, Corrugated and Magazines. Such Recyclable Materials shall be placed in or adjacent to a clean Container at curbside for collection. Corrugated which does not fit into the Container shall be flattened and tied into manageable bundles.
C. Large appliances shall be separated from Solid Waste and placed at curbside for collection. Doors shall be removed from hinges.

3. **Centrally-Served Residential**:

A. Landlords of Centrally-Served Residential facilities must provide educational materials and centrally located recycling containers to their tenants.
B. Tenants shall separate from solid Waste Aluminum and Metal Cans, Plastic Containers and Glass Food and Beverage Containers, clean of contents, and place in a recycling container provided by the landlord or his/her designee.
C. Tenants shall separate from Solid Waste Newsprint, Corrugated, and Magazines and place in a recycling container [provided by the Landlord or his/her designee. Corrugated which does not fit into the Container shall be flattened and tied with string into manageable bundles.

4. **All Commercial, Industrial and Institutional Generators shall**:

A. Separate or cause to be separated Corrugated from Solid Waste and set it out for collection and recycling.
B. Separate or cause to be separated High Grade Paper from Solid Waste and set it out for collection and recycling.
C. Separate or cause to be separated and set out for collection and recycling Food and Beverage Containers made of Glass, aluminum, Metal or Plastic, clean of contents, which are generated in food service facilities constituting all or a significant part of a particular commercial, industrial or institutional facility. Food and beverage facilities consisting solely of vending machines are encouraged but are not required to separate food and beverage containers.
D. Choose one of the following options:
    1. Contract with a Hauler who has developed a Commercial, Industrial and Institutional Recyclable Materials Plan pursuant to Article F(1)(G) herein, which has been approved by the County, or
    2. Complete a Solid Waste and Recycling Materials audit and a Recycling Plan and shall separate and set out for collection and recycling any Recyclable Materials which are in addition to those Recyclable Materials identified in this Article F(4), or other Recoverable Materials identified in that Plan, there shall be a rebuttable resumption that any additional Recyclable Material identified in an Audit (other than Corrugated, High Grade Paper, or Food and Beverage Containers) which comprises at least fifteen percent (15%) by volume of the Generator's total solid waste stream by recyclable unless the Generator demonstrates that reasonable Markets do not exist. The Generator shall maintain a copy of the Audit and the Plan on file for inspection by the Administrator, his designee or the Hauler.

5. **Drop-Off Center Users**:

A. All Drop-off Center Users shall separate Recyclable Materials as defined in Article 5(2) herein, and shall dispose of those materials in separate containers that shall be made available to Persons at the drop off center. Once deposited in the containers provided, all Recyclable Materials become the property of the operator of the drop-off center.

ARTICLE G – RECORDKEEPING AND REPORTING REQUIREMENTS

1. Haulers must maintain separate monthly records, on forms to be provided by the County, of Solid Waste and Recyclable Materials (other than those Recyclable Materials delivered to the County Recycling Center) collected, transported or disposed of by the Hauler which include the following information:

a. the municipality or geographical area and number of households in which the Solid Waste or Recyclable Material was generated;
b. the quantity, by ton, of Recyclable Materials delivered to each Authorized Recycling Facility other than the MRC; and
c. the quantity, by ton, of Solid Waste delivered to each Facility other than the Monroe County Transfer Station.

Such reports shall be compiled and delivered to the Administrator on or before February 1st, May 1st, August 1st, and November 1st of each calendar year for each preceding quarter.

2. Authorized Recycling Facilities shall maintain quarterly records, on forms to be provided by the County, of Recyclable Materials received and marketed which include the quantity of Recyclable Materials received from each Hauler, and quantity, by type of each Recyclable Material shipped to market. Such reports shall be compiled and delivered to the Administrator on or before February 1st, May 1st, August 1st and November 1st of each calendar year for each preceding quarter.

3. All Persons engaged in the operation of a Waste Stream Reduction Program other than as a Hauler shall provide an annual report to the County on the quantities of each type of Recyclable Materials, by ton, which are collected, processed or transferred to market and the Facilities or Waste Stream Reduction Programs to which the Recyclable Materials were transported, if located within the County, on forms to be provided by the County.

ARTICLE H – EXEMPTIONS

1. Any Person may apply to the Administrator or his or her local municipality for an exemption from the Law or these Regulations, or parts thereof, by filing with the Administrator or local municipality a Request for Exemption on a form provided.

2. Exemptions may be granted upon a show of inability to comply with the Law or Regulations, in whole or in part, due to physical handicap or other medical disability, and a showing that no other individual in the household is able to comply with the Law or Regulations. The Administrator shall grant or deny Exemptions in writing to the applicant within ten (10) working days of receipt of the request, and a copy of such approval or denial shall be sent to the Hauler identified on the Request for Exemption form completed by the applicant.

3. If a Hauler is willing to provide service other than at the curbside for pickup and removal of the Solid Waste, Hauler shall provide the same pickup and removal service for Recyclable Materials for Persons who would otherwise qualify for an exemption under these Regulations.

ARTICLE I – ENFORCEMENT

1. Any Person violating the Law or Regulations shall be subject to a warning by the Administrator, police officer, peace officer or any designated public official for the first violation.

2. Any Person violating the Law or its regulations shall be subject to a fine of up to $50.00 for the second violation.

3. Any Person violating the Law or its regulations shall be subject to a fine of up to $1,000.00 for the third or any additional violation.

4. Any and all of the following Persons may inspect Solid Waste Containers set out for collection, recycling containers at centrally served residential facilities or at Commercial, Industrial or Institutional facilities and collection vehicles for violations:

    - Administrator
    - Director of Public Works
    - Their Designees
    - Police Officers
    - Peace Officers
    - Municipal Code Officers

ARTICLE J – AMENDMENT OF REGULATIONS

1. These regulations may be amended at the discretion of the Executive, with the advice of the Advisory Committee.

2. Any amendment to these regulations must be published in a newspaper of general circulation in the County at least sixty (60) days before the effective date of the amendment, except for any amendment to the list of Recyclable Materials set forth in Article C, which must be published in a newspaper of general circulation in the County at least six (6) months before the effective date of the amendment.

3. The Executive also shall publicize or cause to be publicized amendments to the extent he/she deems necessary.

4. Any Persons, including but not limited to Haulers and Authorized Recycling Facilities, who wish to receive individual notification of amendments shall file their request with the Administrator, and shall pay in advance such postage and handling charges as may be necessary. Individual notifications made pursuant to this paragraph shall be by first class mail to the name and address on file with the Administrator.

_____

Thomas R. Frey
Monroe County Executive

Appendix C

Detailed Waste Composition Spreadsheets

Monroe County

Municipal Solid Waste (MSW) Detailed Composition Analysis Year 2010

Material	MSW GENERATED									
	Rural			Suburban			Urban			Planning Unit/ Municipality Percentages
	5.10%			66.61%			28.29%			
	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	
	58.00%	42.00%	100.00%	55.00%	45.00%	100.00%	52.00%	48.00%	100.00%	100.00%
Newspaper	**5.20%**	**1.90%**	**3.81%**	**5.00%**	**1.90%**	**3.61%**	**6.60%**	**2.00%**	**4.39%**	**3.84%**
Corrugated Cardboard	**6.60%**	**13.90%**	**9.67%**	**6.60%**	**13.90%**	**9.89%**	**6.90%**	**13.70%**	**10.16%**	**9.95%**
Other Recyclable Paper										
Paperboard	3.20%	1.10%	2.32%	3.30%	1.00%	2.27%	3.60%	0.90%	2.30%	2.28%
Office Paper	0.80%	3.80%	2.06%	0.90%	4.20%	2.39%	1.10%	5.80%	3.36%	2.64%
Junk Mail	3.00%	0.70%	2.03%	3.20%	0.70%	2.08%	3.50%	0.70%	2.16%	2.10%
Other Commercial Printing	1.70%	2.30%	1.95%	1.70%	2.40%	2.02%	2.30%	2.60%	2.44%	2.13%
Magazines	1.10%	0.90%	1.02%	1.00%	0.80%	0.91%	1.10%	1.00%	1.05%	0.96%
Books	0.50%	0.30%	0.42%	0.50%	0.30%	0.41%	0.60%	0.40%	0.50%	0.44%
Bags	0.50%	0.20%	0.37%	0.50%	0.20%	0.37%	0.60%	0.20%	0.41%	0.38%
Phone Books	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.20%	0.25%	0.29%
Poly-Coated	0.20%	0.30%	0.24%	0.20%	0.20%	0.20%	0.30%	0.20%	0.25%	0.22%
Other Recyclable Paper (Total)	**11.30%**	**9.90%**	**10.71%**	**11.60%**	**10.10%**	**10.93%**	**13.40%**	**12.00%**	**12.73%**	**11.42%**
Other Compostable Paper	**6.80%**	**6.80%**	**6.80%**	**6.40%**	**6.40%**	**6.40%**	**6.80%**	**6.80%**	**6.80%**	**6.53%**
Total Paper	***29.90%***	***32.50%***	***30.99%***	***29.60%***	***32.30%***	***30.82%***	***33.70%***	***34.50%***	***34.08%***	***31.75%***
Ferrous/Aluminum Containers										
Ferrous Containers	1.90%	1.00%	1.52%	1.20%	0.70%	0.98%	1.40%	0.70%	1.06%	1.03%
Aluminum Containers	0.70%	0.40%	0.57%	0.60%	0.30%	0.47%	0.50%	0.40%	0.45%	0.47%
Ferrous/Aluminum Containers (Total)	**2.60%**	**1.40%**	**2.10%**	**1.80%**	**1.00%**	**1.44%**	**1.90%**	**1.10%**	**1.52%**	**1.49%**
Other Ferrous Metals	**5.20%**	**5.40%**	**5.28%**	**5.00%**	**5.80%**	**5.36%**	**3.30%**	**3.70%**	**3.49%**	**4.83%**
Other Non-Ferrous Metals										
Other aluminum	0.20%	0.30%	0.24%	0.20%	0.30%	0.25%	0.20%	0.30%	0.25%	0.25%
Automotive batteries	0.80%	0.50%	0.67%	0.70%	0.40%	0.57%	0.20%	0.20%	0.20%	0.47%
Other non-aluminum	0.50%	0.30%	0.42%	0.30%	0.40%	0.35%	0.40%	0.20%	0.30%	0.34%
Other Non-Ferrous Metals (Total)	**1.50%**	**1.10%**	**1.33%**	**1.20%**	**1.10%**	**1.16%**	**0.80%**	**0.70%**	**0.75%**	**1.05%**
Total Metals	***9.30%***	***7.90%***	***8.71%***	***8.00%***	***7.90%***	***7.96%***	***6.00%***	***5.50%***	***5.76%***	***7.37%***
PET Containers	**1.10%**	**0.80%**	**0.97%**	**0.90%**	**0.80%**	**0.86%**	**1.20%**	**1.00%**	**1.10%**	**0.93%**
HDPE Containers	**1.10%**	**0.60%**	**0.89%**	**0.90%**	**0.70%**	**0.81%**	**1.00%**	**0.70%**	**0.86%**	**0.83%**
Other Plastic (3-7) Containers	**0.20%**	**0.10%**	**0.16%**	**0.20%**	**0.20%**	**0.20%**	**0.20%**	**0.20%**	**0.20%**	**0.20%**
Film Plastic	**5.70%**	**5.90%**	**5.78%**	**5.50%**	**5.80%**	**5.64%**	**5.80%**	**5.80%**	**5.80%**	**5.69%**
Other Plastic										

Monroe County

Municipal Solid Waste (MSW) Detailed Composition Analysis Year 2010

Material	MSW GENERATED									
	Rural			Suburban			Urban			Planning Unit/ Municipality Percentages
	5.10%			66.61%			28.29%			
	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	Residential	Comm/Inst.	Combined	
	58.00%	**42.00%**	**100.00%**	**55.00%**	**45.00%**	**100.00%**	**52.00%**	**48.00%**	**100.00%**	**100.00%**
Durables	3.10%	3.20%	3.14%	3.00%	3.20%	3.09%	3.20%	3.30%	3.25%	3.14%
Non-Durables	1.60%	1.80%	1.68%	1.60%	1.80%	1.69%	1.80%	1.90%	1.85%	1.73%
Packaging	1.40%	1.10%	1.27%	1.40%	1.10%	1.27%	1.50%	1.10%	1.31%	1.28%
Other Plastic (Total)	**6.10%**	**6.10%**	**6.10%**	**6.00%**	**6.10%**	**6.05%**	**6.50%**	**6.30%**	**6.40%**	**6.15%**
Total Plastics	***14.20%***	***13.50%***	***13.91%***	***13.50%***	***13.60%***	***13.55%***	***14.70%***	***14.00%***	***14.36%***	***13.80%***
Glass Containers	**4.10%**	**3.80%**	**3.97%**	**3.90%**	**3.80%**	**3.86%**	**4.30%**	**3.80%**	**4.06%**	**3.92%**
Other Glass	**0.50%**	**0.40%**	**0.46%**	**0.30%**	**0.40%**	**0.35%**	**0.40%**	**0.40%**	**0.40%**	**0.37%**
Total Glass	***4.60%***	***4.20%***	***4.43%***	***4.20%***	***4.20%***	***4.20%***	***4.70%***	***4.20%***	***4.46%***	***4.29%***
Food Scraps	**12.70%**	**13.30%**	**12.95%**	**12.90%**	**15.50%**	**14.07%**	**17.20%**	**25.20%**	**21.04%**	**15.98%**
Yard Trimmings	**3.10%**	**1.10%**	**2.26%**	**11.30%**	**9.10%**	**10.31%**	**4.20%**	**1.50%**	**2.90%**	**7.80%**
Total Organics	***15.80%***	***14.40%***	***15.21%***	***24.20%***	***24.60%***	***24.38%***	***21.40%***	***26.70%***	***23.94%***	***23.79%***
Clothing Footwear, Towels, Sheets	4.60%	3.00%	3.93%	4.40%	3.20%	3.86%	4.80%	2.50%	3.70%	3.82%
Carpet	1.40%	1.30%	1.36%	1.70%	1.40%	1.57%	1.70%	0.90%	1.32%	1.48%
Total Textiles	***6.00%***	***4.30%***	***5.29%***	***6.10%***	***4.60%***	***5.43%***	***6.50%***	***3.40%***	***5.01%***	***5.30%***
Total Wood	***4.10%***	***9.00%***	***6.16%***	***2.90%***	***4.10%***	***3.44%***	***2.00%***	***3.50%***	***2.72%***	***3.37%***
C&D Materials	8.00%	7.60%	7.83%	3.80%	2.70%	3.31%	4.40%	3.80%	4.11%	3.76%
Other Durables	1.90%	1.70%	1.82%	1.60%	1.50%	1.56%	1.90%	1.50%	1.71%	1.61%
Diapers	1.90%	1.10%	1.56%	2.10%	1.20%	1.70%	2.30%	1.10%	1.72%	1.70%
Electronics	1.30%	1.40%	1.34%	1.60%	1.70%	1.65%	1.30%	1.30%	1.30%	1.53%
Tires	1.80%	1.80%	1.80%	1.70%	1.40%	1.57%	0.50%	0.40%	0.45%	1.26%
HHW	0.60%	0.00%	0.35%	0.60%	0.00%	0.33%	0.50%	0.00%	0.26%	0.31%
Fines	0.60%	0.60%	0.60%	0.10%	0.20%	0.15%	0.10%	0.10%	0.10%	0.16%
Total Miscellaneous	***16.10%***	***14.20%***	***15.30%***	***11.50%***	***8.70%***	***10.24%***	***11.00%***	***8.20%***	***9.66%***	***10.33%***
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Monroe County

Municipal Solid Waste (MSW) Combined Composition Analysis and Projections

Material	Tons Generated	% of Total	2010		YEAR 1 2016		YEAR 2 2017		YEAR 3 2018		YEAR 4 2019		YEAR 5 2020		YEAR 6 2021		YEAR 7 2022		YEAR 8 2023		YEAR 9 2024		YEAR 10 2025	
			Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted
Newspaper	28,639	3.84%	27,869	97.31%	17,756	62.00%	18,616	65.00%	18,616	65.00%	20,048	70.00%	20,048	70.00%	20,048	70.00%	21,480	75.00%	21,480	75.00%	22,912	80.00%	25,775	90.00%
Corrugated Cardboard	74,262	9.95%	28,976	39.02%	20,051	27.00%	25,992	35.00%	29,705	40.00%	29,705	40.00%	33,418	45.00%	37,131	50.00%	44,557	60.00%	51,984	70.00%	59,410	80.00%	66,836	90.00%
Other Recyclable Paper																								
Paperboard	17,003	2.28%	2,737	16.10%	6,461	38.00%	6,801	40.00%	7,651	45.00%	8,501	50.00%	9,352	55.00%	10,202	60.00%	10,202	60.00%	11,052	65.00%	11,902	70.00%	11,902	70.00%
Office Paper	19,722	2.64%	8,836	44.80%	7,889	40.00%	7,889	40.00%	8,875	45.00%	9,861	50.00%	9,861	50.00%	11,833	60.00%	12,819	65.00%	13,805	70.00%	14,791	75.00%	16,763	85.00%
Junk Mail	15,638	2.10%	651	4.16%	5,786	37.00%	7,037	45.00%	7,037	45.00%	7,819	50.00%	7,819	50.00%	8,601	55.00%	9,383	60.00%	10,165	65.00%	10,165	65.00%	10,947	70.00%
Other Commercial Printing	15,916	2.13%	8,944	56.20%	6,367	40.00%	7,162	45.00%	7,958	50.00%	8,754	55.00%	9,550	60.00%	9,550	60.00%	10,346	65.00%	11,142	70.00%	11,937	75.00%	12,733	80.00%
Magazines	7,130	0.96%	466	6.54%	2,852	40.00%	2,852	40.00%	2,852	40.00%	2,852	40.00%	3,565	50.00%	3,565	50.00%	3,922	55.00%	4,278	60.00%	4,635	65.00%	4,991	70.00%
Books	3,260	0.44%	15	0.45%	391	12.00%	489	15.00%	489	15.00%	652	20.00%	815	25.00%	978	30.00%	1,141	35.00%	1,141	35.00%	1,630	50.00%	1,956	60.00%
Bags	2,818	0.38%	7	0.27%	282	10.00%	423	15.00%	564	20.00%	704	25.00%	845	30.00%	986	35.00%	1,127	40.00%	1,268	45.00%	1,409	50.00%	1,691	60.00%
Phone Books	2,137	0.29%	13	0.59%	598	28.00%	748	35.00%	855	40.00%	962	45.00%	1,069	50.00%	1,175	55.00%	1,282	60.00%	1,389	65.00%	1,496	70.00%	1,817	85.00%
Poly-Coated	1,618	0.22%	99	6.12%	243	15.00%	243	15.00%	243	15.00%	243	15.00%	405	25.00%	405	25.00%	566	35.00%	566	35.00%	647	40.00%	647	40.00%
Other Recyclable Paper (Total)	85,241	11.42%	21,768	25.54%	30,868	36.21%	33,644	39.47%	36,523	42.85%	40,348	47.33%	43,280	50.77%	47,294	55.48%	50,787	59.58%	54,805	64.29%	58,612	68.76%	63,446	74.43%
Other Compostable Paper	48,750	6.53%	0	0.00%	0	0.00%	1,950	4.00%	3,900	8.00%	5,850	12.00%	7,800	16.00%	9,750	20.00%	11,700	24.00%	13,650	28.00%	14,625	30.00%	19,500	40.00%
Total Paper	236,893	31.75%	78,613	33.19%	68,676	28.99%	80,201	33.86%	88,744	37.46%	95,951	40.50%	104,545	44.13%	114,223	48.22%	128,524	54.25%	141,919	59.91%	155,558	65.67%	175,558	74.11%
Ferrous/Aluminum Containers																								
Ferrous Containers	7,671	1.03%	585	7.62%	1,534	20.00%	1,534	20.00%	1,918	25.00%	2,301	30.00%	2,685	35.00%	3,068	40.00%	3,452	45.00%	3,835	50.00%	4,603	60.00%	5,370	70.00%
Aluminum Containers	3,484	0.47%	2,314	66.41%	1,916	55.00%	2,090	60.00%	2,090	60.00%	2,090	60.00%	2,090	60.00%	2,439	70.00%	2,439	70.00%	2,787	80.00%	2,787	80.00%	3,135	90.00%
Ferrous/Aluminum Containers (Total)	11,155	1.49%	2,898	25.98%	3,450	30.93%	3,624	32.49%	4,008	35.93%	4,391	39.37%	4,775	42.81%	5,507	49.37%	5,890	52.81%	6,622	59.37%	7,389	66.25%	8,505	76.25%
Other Ferrous Metals	36,022	4.83%	238	0.66%	10,806	30.00%	10,806	30.00%	12,608	35.00%	14,409	40.00%	16,210	45.00%	21,613	60.00%	22,333	62.00%	23,054	64.00%	23,774	66.00%	25,215	70.00%
Other Non-Ferrous Metals																								
Other aluminum	1,833	0.25%	25	1.35%	73	4.00%	220	12.00%	367	20.00%	458	25.00%	550	30.00%	733	40.00%	917	50.00%	1,100	60.00%	1,283	70.00%	1,467	80.00%
Automotive batteries	3,487	0.47%	3,475	99.66%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%	3,487	100.00%
Other non-aluminum	2,515	0.34%	0	0.00%	101	4.00%	302	12.00%	503	20.00%	704	28.00%	905	36.00%	1,106	44.00%	1,308	52.00%	1,509	60.00%	1,710	68.00%	2,012	80.00%
Other Non-Ferrous Metals (Total)	7,835	1.05%	3,500	44.67%	3,661	46.72%	4,009	51.16%	4,356	55.60%	4,649	59.34%	4,942	63.08%	5,327	67.99%	5,711	72.89%	6,096	77.80%	6,480	82.71%	6,965	88.90%
Total Metals	55,011	7.37%	6,636	12.06%	17,917	32.57%	18,439	33.52%	20,972	38.12%	23,449	42.63%	25,927	47.13%	32,446	58.98%	33,935	61.69%	35,772	65.03%	37,644	68.43%	40,685	73.96%
PET Containers	6,950	0.93%	3,596	51.74%	3,614	52.00%	3,823	55.00%	3,823	55.00%	4,170	60.00%	4,170	60.00%	4,518	65.00%	4,518	65.00%	4,865	70.00%	5,213	75.00%	5,908	85.00%
HDPE Containers	6,171	0.83%	1,979	32.06%	2,469	40.00%	2,777	45.00%	2,777	45.00%	3,086	50.00%	3,394	55.00%	3,394	55.00%	3,703	60.00%	3,703	60.00%	4,011	65.00%	4,629	75.00%
Other Plastic (3-7) Containers	1,476	0.20%	1,070	72.47%	517	35.00%	517	35.00%	517	35.00%	591	40.00%	591	40.00%	591	40.00%	591	40.00%	664	45.00%	664	45.00%	738	50.00%
Film Plastic	42,450	5.69%	9	0.02%	425	1.00%	1,485	3.50%	2,545	6.00%	3,606	8.49%	4,666	10.99%	5,726	13.49%	6,787	15.99%	7,847	18.49%	8,907	20.98%	10,613	25.00%
Other Plastic																								
Durables	23,409	3.14%	1,324	5.66%	0	0.00%	219	0.93%	437	1.87%	656	2.80%	875	3.74%	1,094	4.67%	1,312	5.61%	1,531	6.54%	1,750	7.48%	3,511	15.00%
Non-Durables	12,941	1.73%	0	0.00%	0	0.00%	259	2.00%	518	4.00%	776	6.00%	1,035	8.00%	1,294	10.00%	1,553	12.00%	1,812	14.00%	2,071	16.00%	2,588	20.00%
Packaging	9,533	1.28%	0	0.00%	0	0.00%	238	2.50%	477	5.00%	715	7.50%	953	10.00%	1,192	12.50%	1,430	15.00%	1,668	17.50%	1,907	20.00%	2,383	25.00%
Other Plastic (Total)	45,883	6.15%	1,324	2.89%	0	0.00%	716	1.56%	1,432	3.12%	2,148	4.68%	2,864	6.24%	3,579	7.80%	4,295	9.36%	5,011	10.92%	5,727	12.48%	8,483	18.49%
Total Plastics	102,932	13.80%	7,977	7.75%	7,024	6.82%	9,317	9.05%	11,094	10.78%	13,600	13.21%	15,685	15.24%	17,808	17.30%	19,893	19.33%	22,091	21.46%	24,523	23.82%	30,370	29.50%
Glass Containers	29,242	3.92%	16,517	56.48%	14,621	50.00%	17,545	60.00%	17,545	60.00%	17,545	60.00%	19,007	65.00%	19,007	65.00%	20,469	70.00%	21,932	75.00%	23,394	80.00%	24,856	85.00%
Other Glass	2,733	0.37%	0	0.00%	0	0.00%	41	1.50%	82	3.00%	123	4.50%	164	6.00%	205	7.50%	246	9.00%	287	10.50%	328	12.00%	410	15.00%
Total Glass	31,975	4.29%	16,517	51.66%	14,621	45.73%	17,586	55.00%	17,627	55.13%	17,668	55.26%	19,171	59.96%	19,212	60.08%	20,715	64.79%	22,219	69.49%	23,722	74.19%	25,266	79.02%
Food Scraps	119,270	15.98%	0	0.00%	17,891	15.00%	17,891	15.00%	29,818	25.00%	29,818	25.00%	35,781	30.00%	35,781	30.00%	35,781	30.00%	41,745	35.00%	47,708	40.00%	59,635	50.00%
Yard Trimmings	58,232	7.80%	11,141	19.13%	14,558	25.00%	20,381	35.00%	23,293	40.00%	29,116	50.00%	32,027	55.00%	34,939	60.00%	37,851	65.00%	40,762	70.00%	43,674	75.00%	46,585	80.00%
Total Organics	177,502	23.79%	11,141	6.28%	32,448	18.28%	38,272	21.56%	53,110	29.92%	58,933	33.20%	67,808	38.20%	70,720	39.84%	73,632	41.48%	82,507	46.48%	91,382	51.48%	106,220	59.84%
Clothing Footwear, Towels, Sheets	28,481	3.82%	0	0.00%	712	2.50%	2,421	8.50%	4,130	14.50%	5,839	20.50%	7,547	26.50%	9,256	32.50%	10,965	38.50%	12,674	44.50%	14,383	50.50%	17,089	60.00%
Carpet	11,073	1.48%	0	0.00%	0	0.00%	277	2.50%	554	5.00%	830	7.50%	1,107	10.00%	1,384	12.50%	1,661	15.00%	1,938	17.50%	2,215	20.00%	2,768	25.00%
Total Textiles	39,554	5.30%	0	0.00%	712	1.80%	2,698	6.82%	4,683	11.84%	6,669	16.86%	8,655	21.88%	10,640	26.90%	12,626	31.92%	14,612	36.94%	16,597	41.96%	19,857	50.20%

Monroe County

Municipal Solid Waste (MSW) Combined Composition Analysis and Projections

Material	Tons Generated	% of Total		YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		YEAR 6		YEAR 7		YEAR 8		YEAR 9		YEAR 10	
				2010		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025	
				Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted
Total Wood	25,182	3.37%		387	1.54%	630	2.50%	1,598	6.35%	2,567	10.19%	3,535	14.04%	4,504	17.89%	5,472	21.73%	6,441	25.58%	7,410	29.42%	8,378	33.27%	10,073	40.00%
C&D Materials	28,086	3.76%		0	0.00%	0	0.00%	1,123	4.00%	2,247	8.00%	3,370	12.00%	4,494	16.00%	5,617	20.00%	6,741	24.00%	7,864	28.00%	8,988	32.00%	11,235	40.00%
Other Durables	12,025	1.61%		0	0.00%	0	0.00%	240	2.00%	481	4.00%	721	6.00%	962	8.00%	1,202	10.00%	1,443	12.00%	1,683	14.00%	1,924	16.00%	2,405	20.00%
Diapers	12,659	1.70%		0	0.00%	0	0.00%	253	2.00%	506	4.00%	760	6.00%	1,013	8.00%	1,266	10.00%	1,519	12.00%	1,772	14.00%	2,025	16.00%	2,532	20.00%
Electronics	11,431	1.53%		61	0.53%	171	1.50%	2,286	20.00%	3,429	30.00%	4,572	40.00%	5,715	50.00%	6,858	60.00%	8,001	70.00%	9,144	80.00%	9,716	85.00%	10,859	95.00%
Tires	9,417	1.26%		3,650	38.76%	3,296	35.00%	4,238	45.00%	4,238	45.00%	4,709	50.00%	4,709	50.00%	5,650	60.00%	5,650	60.00%	6,592	70.00%	7,534	80.00%	8,476	90.00%
HHW	2,321	0.31%		0	0.00%	580	25.00%	696	30.00%	696	30.00%	696	30.00%	812	35.00%	812	35.00%	812	35.00%	929	40.00%	929	40.00%	929	40.00%
Fines	1,160	0.16%		0	0.00%	0	0.00%	58	5.00%	58	5.00%	116	10.00%	174	15.00%	232	20.00%	232	20.00%	232	20.00%	232	20.00%	232	20.00%
Total Miscellaneous	77,099	10.33%		3,711	4.81%	4,048	5.25%	8,895	11.54%	11,656	15.12%	14,945	19.38%	17,879	23.19%	21,639	28.07%	24,399	31.65%	28,217	36.60%	31,347	40.66%	36,666	47.56%
Total	**746,148**	**100.00%**		**123,177**	**16.51%**	**146,076**	**19.58%**	**177,007**	**23.72%**	**210,452**	**28.21%**	**234,750**	**31.46%**	**264,174**	**35.40%**	**292,162**	**39.16%**	**320,165**	**42.91%**	**354,745**	**47.54%**	**389,151**	**52.15%**	**444,695**	**59.60%**
	746,148																						
Population (Actual & Projected[2])	744,344	(2010)		744,344		744,160		743,857		743,814		743,771		743,727		743,684		742,893		742,102		741,310		740,519	
MSW Generated (tons)	746,148			746,148		693,929		689,927		686,540		682,781		679,395		676,009		671,946		667,891		663,843		659,802	
MSW Diverted (tons)				123,177		146,076		177,007		210,452		234,750		264,174		292,162		320,165		354,745		389,151		444,695	
MSW Disposed (tons)				622,971		547,853		512,921		476,088		448,031		415,221		383,847		351,781		313,147		274,692		215,107	
Per Capita MSW Generated (lbs)	2,005			1,874		1,865		1,855		1,846		1,836		1,827		1,818		1,809		1,800		1,791		1,782	
Per Capita MSW Diverted (lbs)				331		393		476		566		631		710		786		862		956		1,050		1,201	
Per Capita/year MSW Disposed (lbs)				1,674		1,472		1,379		1,280		1,205		1,117		1,032		947		844		741		581	
Per Capita/day MSW Disposed (lbs)				4.6		4.0		3.8		3.5		3.3		3.1		2.8		2.6		2.3		2.0		1.6	

Notes:

2. Based on Cornell Program on Applied Demographics 1990 - 2040. http://pad.human.cornell.edu/counties/projections.cfm

Monroe County

Construction and Demolition (C&D) Debris Detailed Composition Analysis Year 2010

Material	C&D DEBRIS GENERATED									
	Residential				Non- Residential				Infrastructure/ Other	Planning Unit/ Municipality Percentages
	17.00%				25.00%				58.00%	
	New Construction	Renovation	Demolition	Combined Residential	New Construction	Renovation	Demolition	Combined Non-Residential	Infrastructure/ Other	
	11.00%	**29.00%**	**60.00%**	**100.00%**	**13.00%**	**48.00%**	**39.00%**	**100.00%**	**100.00%**	**100.00%**
Concrete/Asphalt/Rock/Brick	9.80%	16.10%	21.50%	18.65%	30.70%	19.10%	23.10%	22.17%	46.00%	35.39%
Wood	29.90%	19.10%	25.70%	24.25%	22.70%	12.40%	24.20%	18.34%	10.50%	14.80%
Roofing	6.00%	22.00%	6.10%	10.70%	2.10%	21.20%	5.10%	12.44%	0.00%	4.93%
Drywall	15.60%	7.90%	5.10%	7.07%	4.60%	6.40%	4.30%	5.35%	0.00%	2.54%
Soil/Gravel	11.30%	7.10%	18.50%	14.40%	13.10%	6.50%	15.60%	10.91%	38.00%	27.22%
Metal	5.30%	11.30%	5.20%	6.98%	12.00%	15.50%	11.10%	13.33%	2.40%	5.91%
Plastic	1.50%	0.70%	0.30%	0.55%	0.50%	0.70%	0.30%	0.52%	0.30%	0.40%
Corrugated/Paper	9.30%	2.90%	3.10%	3.72%	7.10%	4.60%	4.20%	4.77%	0.30%	2.00%
Other	11.30%	12.90%	14.50%	13.68%	7.20%	13.60%	12.10%	12.18%	2.50%	6.82%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Monroe County

Construction and Demolition (C&D) Debris Combined Composition Analysis and Projections

Material	Tons Generated	% of Total	2010		YEAR 1 2016		YEAR 2 2017		YEAR 3 2018		YEAR 4 2019		YEAR 5 2020		YEAR 6 2021		YEAR 7 2022		YEAR 8 2023		YEAR 9 2024		YEAR 10 2025	
			Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted	Tons Diverted	% Diverted
Concrete/Asphalt/Rock/Brick	165,724	35.39%	203,311	122.68%	74,576	45.00%	140,866	85.00%	140,866	85.00%	140,866	85.00%	149,152	90.00%	149,152	90.00%	149,152	90.00%	149,152	90.00%	149,152	90.00%	149,152	90.00%
Wood	69,289	14.80%	26,456	38.18%	27,716	40.00%	27,716	40.00%	27,716	40.00%	27,716	40.00%	31,180	45.00%	31,180	45.00%	31,180	45.00%	34,645	50.00%	34,645	50.00%	34,645	50.00%
Roofing	23,078	4.93%	6,922	29.99%	6,929	10.00%	10,393	15.00%	10,393	15.00%	10,393	15.00%	17,322	25.00%	17,322	25.00%	17,322	25.00%	20,787	30.00%	20,787	30.00%	20,787	30.00%
Drywall	11,885	2.54%	0	0.00%	1,188	10.00%	1,783	15.00%	1,783	15.00%	1,783	15.00%	2,377	20.00%	2,377	20.00%	2,377	20.00%	2,377	20.00%	2,971	25.00%	2,971	25.00%
Soil/Gravel	127,436	27.22%	12,458	9.78%	25,487	20.00%	31,859	25.00%	31,859	25.00%	38,231	30.00%	44,602	35.00%	44,602	35.00%	44,602	35.00%	44,602	35.00%	50,974	40.00%	50,974	40.00%
Metal	27,678	5.91%	560	2.02%	13,839	50.00%	13,839	50.00%	15,223	55.00%	15,223	55.00%	16,607	60.00%	16,607	60.00%	17,991	65.00%	19,374	70.00%	20,758	75.00%	22,142	80.00%
Plastic	1,857	0.40%	0	0.00%	186	10.00%	186	10.00%	186	10.00%	279	15.00%	279	15.00%	279	15.00%	279	15.00%	371	20.00%	371	20.00%	371	20.00%
Corrugated/Paper	9,362	2.00%	0	0.00%	1,404	15.00%	1,872	20.00%	1,872	20.00%	2,340	25.00%	2,340	25.00%	2,809	30.00%	2,809	30.00%	2,809	30.00%	3,277	35.00%	3,745	40.00%
Other	31,944	6.82%	0	0.00%	3,194	10.00%	3,674	11.50%	4,153	13.00%	4,632	14.50%	5,111	16.00%	5,590	17.50%	6,069	19.00%	6,549	20.50%	7,028	22.00%	4,792	15.00%
Total	468,253	100.00%	249,707	53.33%	154,519	33.00%	232,187	49.59%	234,050	49.98%	241,462	51.57%	268,971	57.44%	269,918	57.64%	271,781	58.04%	280,666	59.94%	289,963	61.92%	289,579	61.84%

Appendix D

Residential Municipal Solid Waste Composition Study

Institutional, Commercial and Industrial (IC&I) Waste Composition Study

Residential Municipal Solid Waste Composition Study

Monroe County, New York

Draft Report

Prepared for:

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September 20, 2010

Project No. 190500586

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1 INTRODUCTION

As part of Monroe County's ("County") Local Solid Waste Management Plan Update, the County initiated that a waste composition study be conducted to provide a summary of the material types and quantities of residential municipal solid waste (MSW) generated within the County. This study is intended to assist the County with their analysis of the components of the County's residential waste management system and help identify potential opportunities for landfill diversion. Stantec Consulting Services Inc. (Stantec) was retained by Barton and Loguidice, PC (B&L) on behalf of the County to undertake this composition study of the portion of the residential waste stream that is set out for disposal. The portion of the residential waste that is already being source separated for recycling under the current recycling program (known as the blue box program) was not collected nor analyzed as part of this study. The participation rate in the blue box program was however estimated based on the number of blue boxes set out and recorded during sample collection.

This report provides details of the study methodology and the study results. The sampling methodology included collecting waste for disposal from 120 different properties located throughout the County.

A separate but parallel study was also conducted by Stantec to assess the institutional, commercial and industrial (IC&I) waste stream of the County. That study applied a different methodology and is documented in a separate report.

2 WASTE MANAGEMENT SYSTEM SUMMARY

The design of the waste composition study required consideration of the current waste management systems present in the County. In general, the Towns and Villages surrounding the City of Rochester (Towns) rely on private/commercial haulers to collect and transport waste and recyclables, although some of the Villages within the Towns provide residential collection services. The City of Rochester (City) provides complete municipal collection and disposal services including some commercial services.

One of the primary companies providing residential collection services in the Towns is Waste Management of New York, LLC (WMNY). Once collected, the MSW is generally disposed at either the County's Mill Seat Landfill (Mill Seat) in Riga or WMNY's High Acres Landfill (High Acres) in Perinton. Source separated recyclables are collected separately also by the private/commercial haulers and brought to the County's Materials Recycling Center (MRC) on Lee Road.

The MSW collected by the City of Rochester is transported to the County's transfer station on Emerson Street where the MSW is transferred into trailers for transport to and disposal at Mill Seat. Source separated recyclables collected by the City are brought to the MRC.

During the study, the City of Rochester provided curbside collection to the residences selected within the City of Rochester and WMNY provided curbside collection to the residences selected within the Towns. All residences within the County have weekly collection of both residential MSW and recyclables.

3 RESIDENTIAL MSW STUDY METHODOLOGY

3.1 Pre-Study Preparations

A project initiation meeting was held at the outset of the study to develop project timelines, confirm project activities and sorting methodology, establish information and data to be collected and reporting requirements. The study preparations were led by a team from Monroe County, Stantec, Metro Waste Paper Recovery, US, Inc. (operators of Monroe County Recycling Center), and Barton and Loguidice (B&L). Additional team members included WMNY and the City of Rochester Department of Environmental Services Solid Waste Division.

3.2 Study Design

The initial study approach developed in conjunction with the County and B&L was to conduct the composition study following ASTM D5231-92(2008) Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste, which would involve sorting the trash on the transfer station tipping floor utilizing a representative sampling grid. Each sample that would be collected would be approximately 200-300 lbs. The main limitation of this approach was it only would have sampled waste generated from about 30% of the County's population.

An alternative approach based on Stantec's experience conducting waste studies, was developed and implemented. The alternative approach was to collect residential MSW from the curb at selected locations throughout the County. This approach offered the following advantages and benefits over the initial approach including:

- The influence of the various demographics on the MSW disposed of within Monroe County could be accounted for in the sampling under more controlled conditions.
- Different types of households (single family and multi-family) could be assessed.
- The number of homes sampled would be controlled.

- City of Rochester residential MSW and residential MSW from the Towns could be assessed separately.
- Residential MSW would not be compacted, which would provide safer and easier working conditions during the sorting activities.
- Residential MSW could be assessed separately from institutional, commercial and industrial waste streams, which provides better information to assess further residential recycling opportunities

As part of the design of the study, Stantec coordinated with the team members to implement the study. Metro Waste Paper Recovery provided assistance with the execution of the study (i.e., provide space, scales, containers for sorting) at their site. Stantec and Monroe County coordinated with WMNY and the City of Rochester haulers to collect the residential MSW from the designated sample locations and deliver the residential MSW to the transfer station for sorting. Further details related to the methodology of the study are provided in the sections below.

3.3 Setout Data Collection

During the residential MSW collection process, the haulers (City of Rochester and WMNY) collected setout data. Setout data was comprised of tracking the number of containers that households set out at the street for collection (i.e., residential MSW containers, recycling containers; leaf/yard waste bags). The setout data was utilized to establish participation rates for the properties being studied. Information on the type and number of containers set out for each waste stream was recorded on a daily basis. The field forms completed by the haulers are provided in Appendix B. The participation rate results by study area are provided in Section 4.

3.4 Sample Size and Area Selection

A sample of 120 properties located throughout the County, comprised of nine groups of ten properties to represent the Towns & Villages and one group of thirty properties to represent the City of Rochester were studied. The thirty properties within the City of Rochester consisted of 15 single family households, 5 two-family households, 5 three family households, and 5 four family households; therefore, there was a total of 60 households studied within the City of Rochester and a total of 150 households within Monroe County as a whole. Based on Stantec's experience completing other studies of similar scope, a sample size of 120 properties would provide a manageable amount of residential MSW for sorting as well as providing a reasonable sample size for the population of Monroe County. The selection of the study "areas" was completed for the purpose of representing the different demographics within the County. It was discussed amongst the planning team that future waste management programs that may result from this study would be intended for the County as a whole and would not be focused on one study area over the other; therefore, the MSW from individual study areas was not analyzed

separately. However, it was determined that analyzing the City of Rochester residential MSW and the Town's residential MSW separately may be beneficial in the future. A description of the sample areas is provided in Table 3-1 below.

Table 3-1 Study Sample Areas

Group	Town(s)	Street(s)
1	Hamlin, Clarkson, Brockport (V), Sweden	High View Drive – Hamlin; Morton Road – Hamlin; Ketchum Road – Hamlin; Lawton Road – Clarkson; Ireland Road – Clarkson; Redman Road – Clarkson; Sweden Walker Road – Sweden; Capen Road – Sweden; Meadow View Drive (West of Route 19) – Brockport; Oxford Street (East of Route 19) - Brockport
2	Hilton (V), Parma, Spencerport (V), Ogden	Lighthouse Road – Parma; Loretta Drive – Parma; Hill Road – Parma; Fraser – Hilton; West Avenue – Hilton; Maida Drive – Spencerport; Timber Ridge – Spencerport; Whittier Road – Ogden; Brower Road – Ogden; Big Ridge Road - Ogden
3	Greece, Gates	Castle Grove Drive – Greece; McGuire Road – Greece; Beach Avenue – Greece; Mason Avenue – Greece; Dorsey Road –Greece; Weiland Road – Greece; Lyell Road – Gates; Flamingo Drive – Gates; Colwick Road – Gates; Ashton Drive - Gates
4	Churchville (V), Riga, Chili, Wheatland, Scottsville (V)	Attridge Road – Riga; Bridgeman Road – Riga; Hubbard Drive – Chili; Chestnut Crescent – Chili; Bowen Road – Chili; Battle Green Drive – Chili; McGinnis Road – Wheatland; Smith Street – Wheatland (Mumford); Browns Avenue – Scottsville; Red Fern Drive - Churchville
5	Rush, Mendon	East River Road – Rush; Stony Brook Road – Rush; Boulder Creek Drive – Rush; Jeffords Road – Rush; Mendonshire – Mendon; Sheldon Road –Mendon; Probst Road – Mendon; Drumlin View Drive – Mendon; Mendon Center Road – Mendon; Ontario Street – Honeoye Falls
6	Brighton, Henrietta	Tumbleweed Drive – Henrietta; Valiant Drive – Henrietta; Countess Drive – Henrietta; Campus Drive – Henrietta; Westminster Park – Henrietta; Peakview Drive – Henrietta; Hibiscus Drive – Brighton; Brooklawn Drive – Brighton; Ashbourne Road – Brighton; Ambassador Drive - Brighton
7	City of Rochester	Ravenwood Avenue (19th Ward); Woodbine Avenue (19th Ward); Genesee Park Blvd (19th Ward); Cady Street (Mayor's Heights area); Frost Avenue (Mayor's Heights area/Genesee-Jefferson); Averill Street (Southwedge); Mulberry Street (Ellwanger-Barry neighborhood); Crosman Terrace (Upper Monroe area); Westminster Road (Park Avenue area); Vassar Street (Park Avenue area); Indiana Street (Culver-Winton-Main area); Woodstock Road (Culver-Winton-Main area); Nunda Blvd. (Cobbs Hill); Corwin Road (Browncroft area); Arbordale Avenue (Browncroft area); Treyer Street (North Clinton area); Weaver Street (North Clinton/Norton

Group	Town(s)	Street(s)
7 cont.	City of Rochester cont.	Street area); Murray Street (Lyell-Otis area); Child Street (Dutchtown neighborhood); Madison Street (Susan B Anthony neighborhood); Parsells Avenue (Beechwood area); Morton Street (Homestead Heights area); Ashwood Drive (Northland-Lyceum neighborhood); 4th Street(North Marketview Heights); Woodward Street (South Marketview Heights area); Gibbs Street (inside Inner Loop; South Marketview Heights area); Flower City Park (Maplewood area); Lake View Park (Maplewood area); Oakman Street (Upper Falls Area); Richmond Street (downtown)
8	Irondequoit	Norton Street; Keswick Road; Tarrington Road; Birch Hills Drive; Pinecrest Drive; Thornton Road; Fairlea Drive; Echo Street; Barry Road; Baycrest Drive
9	Webster (V), Webster, Penfield	Thrushwood Lane – Webster; Adeline Drive – Webster; Little Pond Way – Webster; Eagles Landing – Webster; Park Avenue – Webster Village; North Avenue – Webster Village; Center Court Lane – Penfield; Pond Valley Circle – Penfield; Gloria Drive – Penfield; Meadow View Drive - Penfield
10	Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)	Shag Bark Way – Perinton; Crossfield Road – Perinton; Turk Hill Road – Perinton; Moseley Road – Perinton; Woodhill Road – Pittsford; Kilbourn Road – Pittsford; South Street – Pittsford Village; Sutherland Street – Pittsford Village; Roosevelt Street – Perinton; Eaglehead Road - Perinton

3.5 Anonymity

Collection crew members maintained anonymity to the greatest degree possible with the residents of the properties to be studied and did not disclose information concerning the study to residents. This approach was done to avoid the potential for residents to alter their normal disposal practices. In addition, the sorting crew maintained anonymity as the MSW was sorted into various categories to protect the privacy of the households included in the study. Ultimately, the MSW was either recycled or disposed of properly following the sorting activities.

3.6 Duration

The study was conducted over a one week period and avoided anomalies such as weeks with a statutory holiday or scholastic holiday(s). The study was held during the week of May 3, 2010 to May 7, 2010 (Monday- Friday).

The spring of 2010 was unseasonably warm, which encouraged residents to complete their spring cleanup and yard work at the time of our study. This may have influenced the results in regards to the yard waste and plastic film (i.e, mulch bags) volumes being higher than typical.

3.7 Residential MSW Sample Collection

Sample collection was conducted by WMNY for the areas outside of the City and by the City of Rochester within the City limits. Residential MSW from each study area was collected on the study area's scheduled waste collection day, and sorted either on that day or the following day.

WMNY or the City of Rochester provided Stantec with the collection days for the study areas. The hauler doing the collection abided by the following procedures for collecting materials from the study areas:

- Recorded information on the type and number of containers for each waste stream for all properties being sampled. Set out collection logs and photographs are provided in Appendix B.
- Collected all residential MSW materials that were placed at curbside, roadside, or designated area of the properties being sampled regardless of type of container(s) used. The contents of the blue boxes as well as any other source separated recyclables were **not** collected.
- The residential MSW was not compacted.
- Returned all containers to the location from which they were taken but in no case were they placed on the travelled portion of the roadway. Care was taken not to damage containers.





Once the residential MSW from the households was collected for the study, the designated hauler transported the residential MSW to the sorting facility (Transfer Station) for analysis.

3.8 Residential MSW Sorting and Data Collection

Upon arrival at the sorting facility, the residential MSW was weighed using the truck scale and off-loaded from the transportation vehicle and staged in a designated location until it could be sorted. The MSW samples collected by the City of Rochester were kept separate from the WMNY MSW samples to ensure that these samples could be sorted separately. The residential MSW sort process consisted of breaking open bags onto a "sort table" and distributing contents into containers, each identified according to a specific material type. Details related to the sort categories are provided below.





As the sorted material containers filled, weight measurements were taken using a digital scale and recorded according to material type. Once all samples from one area (City of Rochester vs. Towns) had been sorted, each container was weighed, recorded and emptied. Proper cleaning of the sorting area ensured no contamination or co-mingling of samples between areas.

Once all materials had been sorted, residential MSW, organics and recyclable materials were delivered to the appropriate areas of the Recycling Center for disposal/recycling. Household Hazardous Waste (HHW), electronics and pharmaceuticals were disposed through the County's existing collection programs.





3.8.1 In-Field Data Management

Over the course of the study, sort data (in hardcopy) was recorded and compiled for each study area (City of Rochester and Towns). As previously discussed, the individual study areas within the Towns were not analyzed separately.

3.8.2 Sort Categories

A detailed description of each material category used for sorting can be found in Appendix A of this report. These categories were selected by Stantec with input from the planning team. The categories used were selected based on existing recycling programs as well as potential future recovery programs within the County.

3.9 Anomalies and Study Limitations

For the purpose of projecting residential MSW composition, data has been extrapolated from the one week sample period and therefore cannot take into consideration all intermittent/seasonal changes, including changes in leaf and yard waste generation, as well as bulky waste presence.

The spring of 2010 was unseasonably warm, which encouraged residents to complete their spring cleanup and yard work at the time of our study. This may have influenced the results in regards to the yard waste and plastic film (i.e, mulch bags) volumes being higher than typical.





Approximately 20% of the residential MSW was deemed unsortable during the study because it did not fit within the sort categories chosen. Examples of this material consisted of pet waste, sanitary products, diapers, soiled paper towels (and other disposable paper towel type items) and general residential MSW. In addition, soil, loose leaves, cat litter and rocks were difficult to sort and therefore ended up in the unsortable category. During the transporting process, dirt and grass was lost and not included in the sorting process.

Furthermore, when the waste entered the site it was weighed using the site scale and later following the materials being sorted a smaller scale was utilized to tally the weights.

Further information related to quantities of waste is provided below.

4 PARTICIPATION RATES AND SETOUT RATES BY STUDY AREA

While completing the collection component of the study, detailed curbside setout data was collected including the type and number of containers for each waste stream. The following sections provide a description of household setout and participation rates for the sampled households.

4.1 Setout and Participation Rates

Setout rates refer to the number of houses which placed a waste stream (i.e. residential MSW or recycling) at the curb as a percentage of the total number of house. Table 5-1 provides a summary of the number of containers set out by study area.

Additional setout and participation data can be found in Appendix B of this report.

Table 4-1 Setout and Participation Rates (May 3-7, 2010)

Study Areas	# of Houses	# of Houses with Recycle Bins	% of Houses Participating in Recycling Program	# of Houses with Residential MSW Containers	# of Residential MSW Containers	Yard Waste (# house with yard waste set out)*	Bulky Items (# of houses with bulky items set out)
City of Rochester	30	16	**53%**	30	53	1	3
Towns	90	62	**69%**	90	132	4 (36 bags)	11
TOTALS	120	78	**65%**	120	185	5	14

*This does not include houses that put yard waste in the disposal containers.
** Please note that these participation rates reflect one weeks worth of data and do not reflect an annual average.

Key Findings:

- For the County overall - 65% of the houses sampled participated in the “Blue Box” recycling program, with 53% participation rate in the City and 69% in the Towns.

5 STUDY RESULTS

The following sections provide a detailed account of residential MSW composition as collected during the study. Additional information can be found in Appendix C.

5.1 Residential MSW Disposed of by Study Area

5.1.1 Town versus City of Rochester Residential MSW Disposal Rates

On the following page, Table 5-1 provides the details of the sample sorting results recorded for each material sorting category by study area. Following Table 5-1, Figures 5-1, 5-2, 5-3 and 5-4 provide a graphical comparison of the data collected.

Table 5-1 Residential MSW* Composition by Study Area (May 3-7, 2010)

(*Excludes any source separated recyclables set out by household under blue box recycling program)

Residential MSW Description	Detailed Description	City of Rochester Residential MSW		Towns Residential MSW	
		Weight (lbs)	Percentage of Waste (%)	Weight (lbs)	Percentage of Waste (%)
Paper					
Brown grades-Paper	Corrugated, box board, brown paper bags, cereal, pasta and other food boxes; gift, toy & tissue boxes; empty soda & beer cases; pizza boxes; paper towel rolls & toilet paper rolls	199.5	6.23%	208	3.91%
White grades-Paper	Office & school paper, folders, envelopes (non-metallic), junk mail, gift wrap, etc.	153.5	4.80%	125.5	2.36%
Ground wood grades-Paper	Newspapers & Inserts, magazines & catalogs; hardcover or paperback books	122	3.81%	166.5	3.13%
Non-recyclable paper products	corrugated cardboard with wax, plastic or Styrofoam; paper plates & cups (soiled); paper towels, tissue, toilet paper; frozen food boxes (waxy coating); non-paper envelopes; metallic paper (including cards with silver/gold trimming)	171.4	5.36%	399.45	7.51%
	Total Paper	646.4	20%	899.45	17%
	Total Recyclable Paper	475	15%	500	9%
Glass					
Glass-Deposits	soda bottles; beer bottles	18.5	0.58%	0	0.00%
Glass-Non-deposits	juice bottles; food bottles & jars any color; beer bottles; liquor bottles; salsa jars; etc.	57	1.78%	52.5	0.99%
Glass-Other	Ceramics (plates & mugs); broken glass; dishes and drinking glasses; window & auto glass; mirrors; pottery & clay pots, etc.	23.5	0.73%	28.5	0.54%

Residential MSW Description	Detailed Description	City of Rochester Residential MSW		Towns Residential MSW	
		Weight (lbs)	Percentage of Waste (%)	Weight (lbs)	Percentage of Waste (%)
	Total Glass	99	3%	81	2%
	Total Recyclable Glass	75.5	2%	52.5	1%
Plastics					
Plastics-1&2	PETE; HDPE; plastic jugs; water bottles; soda bottles; juice bottles; detergent bottles; shampoo containers; milk jugs, etc.	76	2.38%	89.5	1.68%
Plastics-3,4,5,6,7	yogurt containers; baby wipe tubs; cups; margarine tubs; whipped topping tubs; food related; clam shells; microwave trays; frozen food trays; candy trays; cookie containers; etc.	71.5	2.23%	91	1.71%
Plastics-Deposits	soda bottles, water bottles	0	0.00%	31	0.58%
Plastics-Film/Plastic Bags	plastic wrapping; bags; Ziploc type bags	222.4	6.95%	458.45	8.62%
Plastics-Packaging (new/clean)	Retail type packaging; off new products	11	0.34%	25.5	0.48%
Plastics (Other)	Bulky plastics	72	2.25%	48	0.90%
	Total Plastics	452.9	14%	743.45	14%
	Total Recyclable Plastics	298.4	9%	578.95	11%
Metals					
Ferrous metals	Tin cans, steel beverage cans, mixed metal, empty aerosol cans (no paints or pesticides), metal lids	41.5	1.30%	95	1.79%
Non-ferrous metals	Aluminum non-deposit cans	22	0.69%	36.5	0.69%

Residential MSW Description	Detailed Description	City of Rochester Residential MSW		Towns Residential MSW	
		Weight (lbs)	Percentage of Waste (%)	Weight (lbs)	Percentage of Waste (%)
Metal-Deposits	Aluminum deposit cans	5	0.16%	6.5	0.12%
	Total Metals	68.5	2%	138	3%
	Total Recyclable Metals	46.5	1%	101.5	2%
Organics					
Food	pre & post-consumer; discarded food from prep; rotten food; peels; coffee grounds etc.	170.9	5.34%	360.45	6.78%
Grass, leaves	grass clippings; plant waste; weeds; garden tending debris	273.9	8.56%	1178.95	22.16%
Limbs, brush	woody debris	57	1.78%	69.5	1.31%
	Total Organics	501.8	16%	1608.9	30%
	Total Recyclable Organics	330.9	10%	1248.45	23%
Textiles					
Textiles, clothing	clothing, towels, fabrics, shoes	245.5	7.67%	172	3.23%
	Total Textiles	245.5	8%	172	3%
	Total Recyclable Textiles	245.5	8%	172	3%
Other					
Gable top containers	drink boxes; "gable-top" cartons (milk & juice); aseptic containers (drink boxes, soy milk containers, soup boxes)	4	0.13%	3.5	0.07%
E-waste	TV, computer, audio, other electronics, cell phones	165	5.16%	58	1.09%
Appliances	large and small (i.e., air conditioning units)	0	0.00%	0	0.00%
HHW	Paints, adhesives, solvents, cleaners, pesticides, herbicides, non-vehicle batteries, other	10	0.31%	8.5	0.16%

Residential MSW Description	Detailed Description	City of Rochester Residential MSW		Towns Residential MSW	
		Weight (lbs)	Percentage of Waste (%)	Weight (lbs)	Percentage of Waste (%)
Special Waste	Batteries, Light bulbs	1.5	0.05%	6	0.11%
Construction; Renovation debris	Including lumber and wood	233.5	7.30%	345	6.48%
Bulky items	Furniture, mattresses, tires	101.5	3.17%	93.5	1.76%
Medical (Rx)	actual pills; Tylenol; Rx pills; cold pills; cough syrup; etc.	2	0.06%	1.5	0.03%
	Total Other	517.5	16%	516	10%
	Total Recyclable Other	182.5	6%	77.5	1%
Unsortable	pet waste; other medical waste (bedding; blood sample kits; gloves); sanitary products; diapers; garbage	668.4	20.89%	1161.2	21.83%
	Totals	**3200**	**100%**	**5320**	**100%**

Existing Monroe County Curbside Program

Non-curbside Program Available from others (i.e., grocery stores, towns, recycling centers)





Recycling has been mandatory in Monroe County for residents since 1992. The law states, in general, that residents must recycle the following food, drink and household product containers: steel, aluminum, glass bottles and jars (clear, green, and brown only), plastic bottles, jugs and jars (numbers 1 and 2 only) and paper (gable-top cartons/drink boxes). Although not required by law, additional paper materials may be recycled. The Monroe County Recycling Center is now collecting all clean paper for recycling.

5.1.1.1 City of Rochester Residential MSW Composition

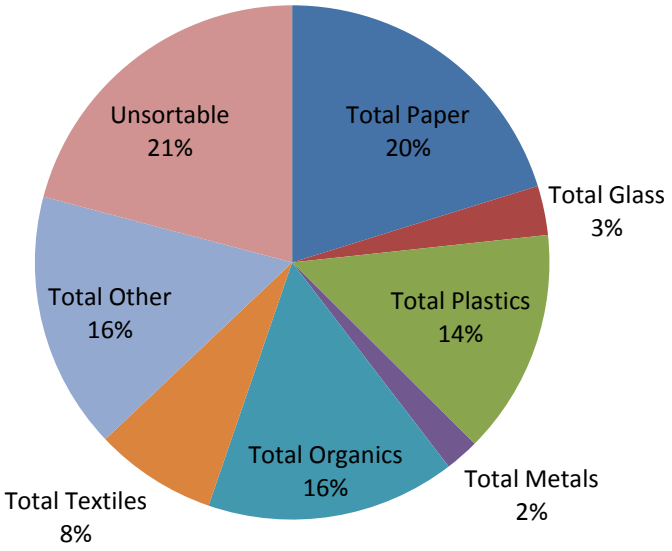
Figure 5-1 illustrates the composition of the residential MSW for the City of Rochester. Paper, plastics and total organics make up the majority of the materials found in the City of Rochester residential MSW. It should be noted that the majority of the total organics (16%) is made up of yard waste (11%) as opposed to food waste (5%).





The unsortable residential MSW consisted of materials such as diapers, pet waste, sanitary waste, soiled paper towels (and other disposable paper towel type items), and general garbage.

Figure 5-1
City of Rochester Residential MSW Composition

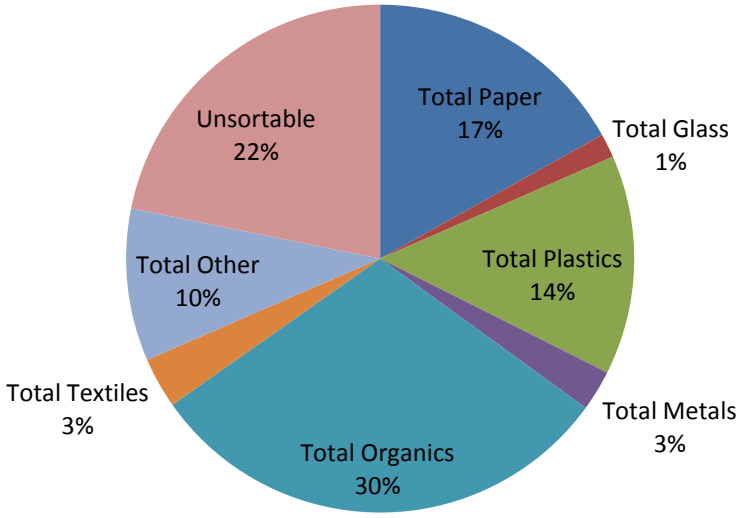


5.1.1.2 Town's Residential MSW Composition

Figure 5-2 illustrates the composition of the residential MSW for Monroe County excluding the City of Rochester. Total organics, paper, and plastics make up the majority of the materials found in the suburban residential MSW. It should be noted that the majority of the total organics (30%) is made up of yard waste (23%) as opposed to food waste (7%).

The unsortable residential MSW consisted of materials such as diapers, pet waste, sanitary waste, soiled paper towels (and other disposable paper towel type items), and general garbage.

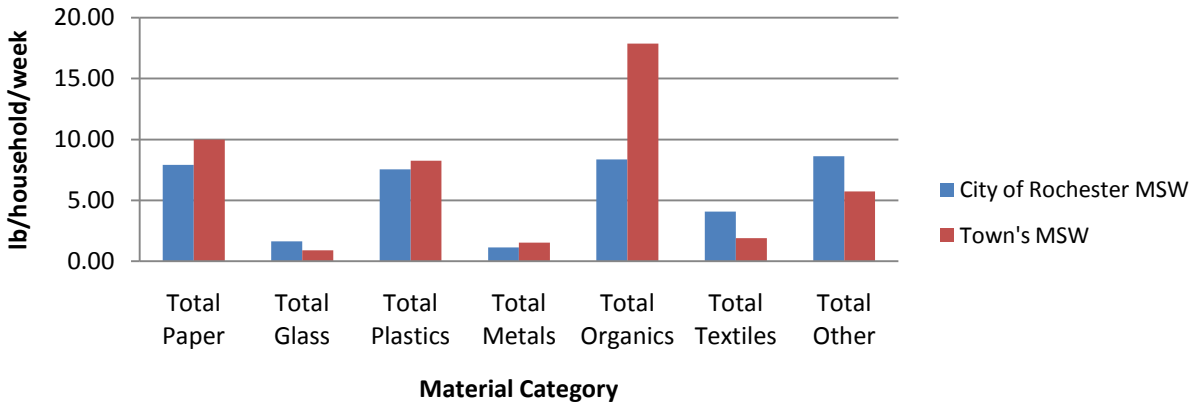
Figure 5-2
Towns Residential MSW Composition



5.1.1.3 Comparison of Residential MSW Disposed of by Study Area

As shown in Figure 5-3, based on the amounts recorded during the study, households within the City of Rochester dispose textiles and other materials (i.e., gable top containers; electronics waste; household hazardous waste, special waste, medical waste and construction and renovation debris) more than the Town households. Conversely, the households located in the Towns generally dispose of more paper, plastics and organics, which predominantly include yard waste. The amount of metals and glass disposed per household is negligible when comparing study areas.

Figure 5-3
Residential MSW Disposed of by Study Area



5.1.2 Key findings Related to Residential MSW Disposed of by Study Area

- There were generally more recyclables (materials currently accepted by the County's recycling program) in the City of Rochester residential MSW than the suburban residential MSW; however, the Towns still had recyclables in their residential MSW.
    - Recyclable Paper (Brown, white, ground grades)
        - City of Rochester – 15% by weight
        - Towns – 10% by weight
    - Plastics 1&2
        - City of Rochester 2.4% by weight
        - Towns – 1.7% by weight
    - Glass
        - City of Rochester 3% by weight
        - Towns – 2% by weight

- More yard waste in suburban residential MSW than City of Rochester residential MSW.
    - City of Rochester – ~11% by weight
    - Towns – ~23% by weight

- More textiles in City of Rochester residential MSW than suburban residential MSW
    - City of Rochester – 8% by weight
    - Towns – 3% by weight

5.2 Residential MSW Disposed of County-Wide

Based on the information gathered during this study, Table 5-2 and Figure 5-4 provide a summary of the residential MSW disposed of County-wide instead of by study area.

Table 5-2 County Wide Residential MSW* Composition Summary (May 3-7, 2010)

(*Excludes any source separated recyclables setout by household under blue box recycling program)

Residential MSW Description	Detailed Description	County-Wide Residential MSW	
		Weight (lbs)	Percentage of Garbage (%)
Paper			
Brown grades-Paper	Corrugated, box board, brown paper bags, cereal, pasta and other food boxes; gift, toy & tissue boxes; empty soda & beer cases; pizza boxes; paper towel rolls & toilet paper rolls	407.5	4.78%
White grades-Paper	Office & school paper, folders, envelopes (non-metallic), junk mail, gift wrap, etc.	279	3.27%
Ground wood grades-Paper	Newspapers & Inserts, magazines & catalogs; hardcover or paperback books	288.5	3.39%
Non-recyclable paper products	corrugated cardboard with wax, plastic or Styrofoam; paper plates & cups (soiled); paper towels, tissue, toilet paper; frozen food boxes (waxy coating); non-paper envelopes; metallic paper (including cards with silver/gold trimming)	570.9	6.70%
	Total Paper	1545.9	18%
	Total Recyclable Paper	975	11%
Glass			
Glass-Deposits	soda bottles; beer bottles	18.5	0.22%
Glass-Non-deposits	juice bottles; food bottles & jars any color; beer bottles; liquor bottles; salsa jars; etc.	109.5	1.29%
Glass-Other	Ceramics (plates & mugs); broken glass; dishes and drinking glasses; window & auto glass; mirrors; pottery & clay pots, etc.	52	0.61%
	Total Glass	180	2%
	Total Recyclable Glass	128	2%
Plastics			
Plastics-1&2	PETE; HDPE; plastic jugs; water bottles; soda bottles; juice bottles; detergent bottles; shampoo containers; milk jugs, etc.	165.5	1.94%
Plastics-3,4,5,6,7	yogurt containers; baby wipe tubs; cups; margarine tubs; whipped topping tubs; food related; clam shells; microwave trays; frozen food trays; candy trays; cookie containers; etc.	162.5	1.91%

Residential MSW Description	Detailed Description	County-Wide Residential MSW	
		Weight (lbs)	Percentage of Garbage (%)
Plastics-Deposits	soda bottles, water bottles	31	0.36%
Plastics-Film/Plastic Bags	plastic wrapping; bags; Ziploc type bags	680.9	7.99%
Plastics-Packaging (new/clean)	Retail type packaging; off new products	36.5	0.43%
Plastics (Other)	Bulky plastics	120	1.41%
	Total Plastics	1196.4	14%
	Total Recyclable Plastics	877.4	10%
Metals			
Ferrous metals	Tin cans, steel beverage cans, mixed metal, empty aerosol cans (no paints or pesticides), metal lids	136.5	1.60%
Non-ferrous metals	Aluminum non-deposit cans	58.5	0.69%
Metal-Deposits	Aluminum deposit cans	11.5	0.13%
	Total Metals	206.5	2%
	Total Recyclable Metals	148	2%
Organics			
Food	pre & post-consumer; discarded food from prep; rotten food; peels; coffee grounds etc.	531.4	6.24%
Grass, leaves	grass clippings; plant waste; weeds; garden tending debris	1452.9	17.05%
Limbs, brush	woody debris	126.5	1.48%
	Total Organics	2110.8	25%
	Total Recyclable Organics	1579.4	19%
Textiles			
Textiles, clothing	clothing, towels, fabrics, shoes	417.5	4.90%
	Total Textiles	417.5	5%
	Total Recyclable Textiles	417.5	5%
Other			
Gable top containers	drink boxes; "gable-top" cartons (milk & juice); aseptic containers (drink boxes, soy milk containers, soup boxes)	7.5	0.09%

Residential MSW Description	Detailed Description	County-Wide Residential MSW	
		Weight (lbs)	Percentage of Garbage (%)
E-waste	TV, computer, audio, other electronics, cell phones	223	2.62%
Appliances	large and small (i.e., air conditioning units)	0	0.00%
HHW	Paints, adhesives, solvents, cleaners, pesticides, herbicides, non-vehicle batteries, other	18.5	0.22%
Special Waste	Batteries, Light bulbs	7.5	0.09%
Construction; Renovation debris	Including lumber and wood	578.5	6.79%
Bulky items	Furniture, mattresses, tires	195	2.29%
Medical (Rx)	actual pills; Tylenol; Rx pills; cold pills; cough syrup; etc.	3.5	0.04%
	Total Other	1033.5	12%
	Total Recyclable Other	260	3%
Unsortable	pet waste; other medical waste (bedding; blood sample kits; gloves); sanitary products; diapers; garbage	1829.6	21.47%
	Total	**8520**	**100%**

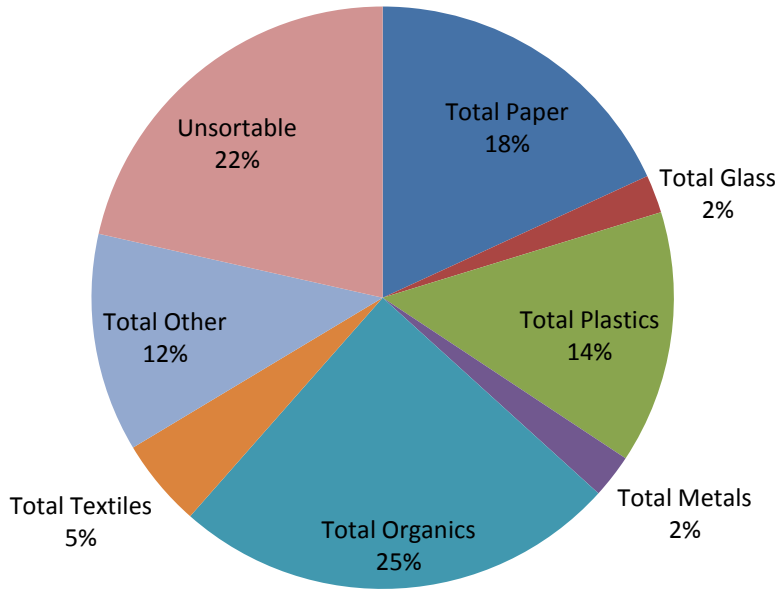

Existing Monroe County Curbside Program


Non-curbside Program Available from others (i.e., grocery stores, towns, recycling centers)

5.2.1 County-wide Residential MSW Composition

Figure 5-4 illustrates the composition of the residential MSW for Monroe County. Total organics, paper, and plastics make up the majority of the materials found in the County's residential MSW. It should be noted that the majority of the total organics (25%) is made up of yard waste (19%) as opposed to food waste (6%).

Figure 5-4
County-Wide Residential MSW Composition



5.2.2 Key Findings: County-wide

- Food waste (6%) was a small percentage of the total organics (25%). The total organics for both the City and the Towns consisted primarily of yard waste (grass clippings, leaves, garden tending waste).
- Approximately 11% by weight of recoverable paper products (brown grades, white grades, ground wood grades).

- Textiles (Approximately 5% by weight)
- Renovation debris (Approximately 7% by weight)
- Film/plastics bags (Approximately 8% by weight) – more significant volume wise.
- Food waste organics were not found to be in the quantities expected. (Approximately 6% by weight)

6 RESIDENTIAL MSW GENERATION PER HOUSEHOLD

6.1 Residential MSW Generation per Household

The following section provides a summary of the amount of residential MSW generated per household based on the quantities collected during the study.

As shown in Table 6-1, during the study time period, an average of 53 pounds of residential MSW was generated at each household in the City of Rochester. The average residential MSW per household during the week of the audit ranged from as little as 24 pounds of residential MSW per household to as much as 86 pounds of residential MSW per household. The table below also provides the breakdown of the household types that were collected within the City of Rochester.

Table 6-1 Total Residential MSW* Generated Per Household (City of Rochester) (*Excludes any source separated recyclables setout by household under blue box recycling program)

Collection Day	Weight (lb)	# of houses Residential MSW collected from	Make-up of houses	Households	Average Residential MSW* Per Household (lb)	Average Residential MSW* Per Household Per Week (lb)
Monday	240	3	1-two family; 2-four family	10	80	24
Tuesday	800	4	1-one family; 1-two family; 2 four family	11	200	73
Wednesday	940	10	5-one family; 1-two family; 3-three families; 1 four family	20	94	47
Thursday	620	7	4-one family; 1-two family; 2-three family	12	89	52
Friday	600	6	5-one family; 1-two family	7	100	86
TOTALS	**3200**	**30**	**N/A**	**60**	**107**	**53**

As shown in Table 6-2, during the study time period, an average of 59 pounds of residential MSW was generated at each household in the Towns of Monroe County. The average residential MSW per household during the week of the study ranged from as little as 34 pounds of residential MSW per household to as much as 98 pounds of residential MSW per household.

Table 6-2 Total Residential MSW* Generated Per Household (Towns) (*Excludes any source separated recyclables setout by household under blue box recycling program)

Collection Day	Weight (lb)	# of houses Residential MSW collected from	Average Residential MSW *Per House per Week (lb)
Monday	860	15	57
Tuesday	1000	24	42
Wednesday	480	14	34
Thursday	1760	18	98
Friday	1220	19	64
TOTALS	5320	90	59

Key Findings:

- Households within Monroe County generate between 53-59 pounds of residential MSW* per household per week.

Based on the 2000 U.S. Census data, there are 88,999 households within the City of Rochester and 197,513 households within Monroe County excluding the City of Rochester. Table 6-3 provides a summary of the estimated residential MSW generation within Monroe County based on the number of households and the estimated population.

The spring of 2010 was unseasonably warm, which encouraged residents to complete their spring cleanup and yard work at the time of our study. This may have influenced the results in regards to the yard waste and plastic film (i.e, mulch bags) volumes being higher than typical.

Table 6-3 Residential MSW* Generation Summary (*Excludes any source separated recyclables setout by household under blue box recycling program)

Location	Average Waste Per Household Per Week (lb)	# of Households in Study Area	Residential MSW Generated Per Week (lbs)	Residential MSW Generated Per Year (lbs)	2000 Census Population	Residential MSW Generated Per Person Per Year (lbs)	Residential MSW Generated Per Person Per Week (lbs)
City of Rochester	53	88,999	4,716,947	245,281,244	219,773	1,116	21
Towns	59	197,513	11,656,267	605,969,884	515,570	1,175	22
Monroe County	53-59	286,512	16,370,214	851,251,128	735,343	1,157	22

Key Findings:

- Based on the results of the residential curbside study for Monroe County, it is estimated that each person within Monroe County generates approximately 22 lbs of residential MSW* per week, which is equivalent to the generation of 851 million lbs per year (386,121 tons per year).

7 COMPARISON OF RESULTS

7.1 Comparison of Results to NYSDEC's Estimated Disposal Rates

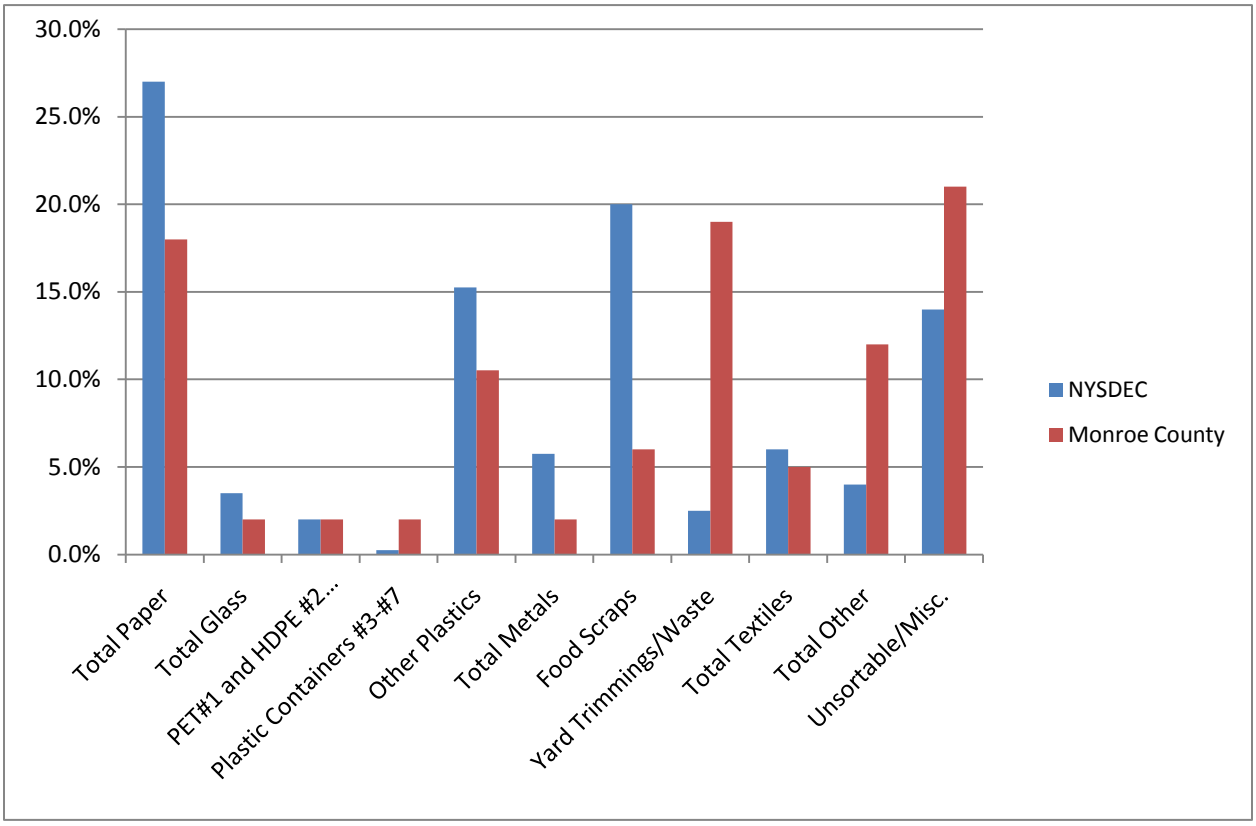
The Draft New York State Solid Waste Management Plan entitled "Beyond Waste: A Sustainable Materials Management Strategy for New York State" was recently made available for public comment by the New York State Department of Environmental Conservation (NYSDEC). Although it is in draft form, the NYSDEC provided estimates of municipal solid waste disposed of in residential sectors in New York State. The NYSDEC estimates that 54% of the MSW generated statewide is residential.

As shown in Table 7-1 and Figure 7-1, a comparison of NYSDEC's estimated disposal percentages (excluding recovered materials) by material type and the residential MSW disposal percentages that resulted from the residential curbside study in Monroe County is provided below. Following the table and figure are the key differences identified.

Table 7-1 Comparison of Estimated MSW Disposed of in NYS

Category	NYSDEC (Figure 7.6 Estimated MSW Disposed of In the Residential Sectors in NYS)	Monroe County (Residential MSW Only - excludes blue box materials)
Total Paper	27.0%	18.0%
Total Glass	3.5%	2.0%
PET#1 and HDPE #2 Plastics	2.0%	2.0%
Plastic Containers #3-#7	0.3%	2.0%
Other Plastics	15.3%	10.5%
Total Metals	5.8%	2.0%
Food Scraps	20.0%	6.0%
Yard Trimmings/Waste	2.5%	19.0%
Total Textiles	6.0%	5.0%
Total Other	4.0%	12.0%
Unsortable/Misc.	14.0%	21.0%

Figure 7-1 Comparison of Estimated MSW Disposed of in NYS Vs. Estimated MSW Disposed of During Monroe County's Study



Key differences:

- The NYSDEC's estimate (27%) for Total Paper is significantly higher than the results of the study summarized in this report (18%), which may indicate that Monroe County's paper recycling program is successful.
- The NYSDECs estimate (20%) for Food Scraps is significantly higher than the results of the study summarized in this report (6%).
- The NYSDEC's estimate (2.5%) for Yard Trimmings is significantly lower than the results of the study summarized in this report (19%).

8 CONCLUSIONS

Based on the Residential MSW Composition Study that was completed for Monroe County, the following key findings were identified:

- More recyclables (brown grade paper, white grade paper, ground wood grade paper, glass, plastics 1&2) were identified in the City of Rochester residential MSW than the Town's residential MSW.
- Yard waste was identified in quantities larger than expected (City of Rochester – 11% by weight and Town's 23% by weight).
- Food waste was not identified as readily as expected (City of Rochester – 5% by weight and Town's 7% by weight).

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APPENDIX A

Sort Categories

APPENDIX A

Sort Categories

Main Category	Sub-category	Description
Paper		
	Brown grades	Corrugated, box board, brown paper bags, cereal, pasta and other food boxes; gift, toy & tissue boxes; empty soda & beer cases; pizza boxes; paper towel rolls & toilet paper rolls
	White grades	Office & school paper, folders, envelopes (non-metallic), junk mail, gift wrap, etc.
	Ground wood grades	Newspapers & Inserts, magazines & catalogs; hardcover or paperback books
	Non-recyclable paper products	corrugated cardboard with wax, plastic or styrofoam; paper plates & cups (soiled); paper towels, tissue, toilet paper; frozen food boxes (waxy coating); egg cartons; non-paper envelopes; metallic paper (including cards with silver/gold trimming)
Glass		
	Deposits	soda bottles; beer bottles
	Non-deposits	juice bottles; food bottles & jars any color; beer bottles; liquor bottles; salsa jars; etc.
	Other	Ceramics (plates & mugs); broken glass; dishes and drinking glasses; window & auto glass; mirrors; pottery & clay pots, etc.
Plastics		
	1&2	PETE; HDPE; plastic jugs; water bottles; soda bottles; juice bottles; detergent bottles; shampoo containers; milk jugs, etc.
	3,4,5,6,7	yogurt containers; baby wipe tubs; cups; margarine tubs; whipped topping tubs; food related; clam shells; microwave trays; frozen food trays; candy trays; cookie containers; etc.
	Deposits	soda bottles, water bottles
	Film/Plastic Bags	plastic wrapping; bags; ziploc type bags
	Packaging (new/clean/non-food)	Retail type packaging; off new products
	Plastics (Other)	
Other Containers		
	Gable-top; drink boxes	drink boxes; "gable-top" cartons (milk & juice); aspetic containers (drink boxes, soy milk containers, soup boxes)

APPENDIX A

Sort Categories

Main Category	Sub-category	Description
Metals		
	Ferrous metals	Tin cans, steel beverage cans, mixed metal, empty aerosol cans (no paints or pesticides), metal lids
	Non-ferrous metals	Aluminum non-deposit cans, scrap aluminum, aluminum foil, aluminum baking tins
	Deposits	Aluminum deposit cans
Organics (non-yard waste)		
	Food	pre & post-consumer; discarded food from prep; rotten food; peels; coffee grounds etc.
Yard waste		
	Grass, leaves	grass clippings; plant waste; weeds; garden tending debris
	Limbs, brush	woody debris
E-wastes		
	Electronics	TV, computer, audio, other electronics, cell phones
	Appliances	large and small
Hazardous wastes (household)		Paints, adhesives, solvents, cleaners, pesticides, herbicides, non-vehicle batteries, other
Special wastes		Vehicle batteries, Used Oil , Light bulbs
Other		
	Construction and Renovation Debris	Including lumber and wood
	Bulky items	Furniture, mattresses, tires, large appliances
	Textiles, leather, clothing	clothing, towels, fabrics
Medical		
	Drugs/Medications/Pharmaceutical	actual pills; tylenol; Rx pills; cold pills; cough syrup; etc.
	Other Medical	red bag type waste; syringes; needles
Unsortable	All other waste	

APPENDIX B

Curbside Setout and Participation Results

Reference: Monroe County Residential Curbside Waste Audit

				Number of Items at Collection Site							
Seq #	Street/ Area List	Route	Service Day	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Yard Waste	Bulky Items		Original Address	Customer #
2	10 High View Drive - Hamlin	148C	Monday	3	1	1	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-38766
3	796 Beach Avenue — Greece	146G/145E	Monday	2	0	1	0	0	Area #3 — Greece, Gates		806-248118
15	10 Flamingo Drive — Gates	146N/145Q	Monday	1	2	0	0	0	Area #3 — Greece, Gates		806-178395
14	87 Colwick Road — Gates	146U/145L	Monday	0	0	1	0	0	Area #3 — Greece, Gates		806-241165
1	8 Bridgeman Road — Riga	148L	Monday	1	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-144912
9	24 Sheldon Road —Mendon	148I	Monday	1	0	1 *	0	0	Area #5 — Rush, Mendon	* at house	806-244486
8	210 Drumlin View Drive — Mendon	156W/1551	Monday	2	0	1	0	4	Area #5 — Rush, Mendon		806-8752
12	11 Campus Drive — Henrietta	146M/145S	Monday	2	0	1	0	0	Area #6 — Brighton, Henrietta		806-200207
13	17 Westminster Park — Henrietta	148I	Monday	0	0	1	0	0	Area #6 — Brighton, Henrietta		806-235744
10	2 Hibiscus Drive — Brighton	156X/145M	Monday	1	0	1	0	0	Area #6 — Brighton, Henrietta		806-84025
11	135 Ashbourne Road — Brighton	1566/155R	Monday	1	2	1 *	0	0	Area #6 — Brighton, Henrietta	* has a 64 gallon tote	806-203930
4	24 Keswick Road— Irondequoit	146E/145C	Monday	0	0	1	0	0	Area #8 — Irondequoit		806-235082
5	615 Tarrington Road— Irondequoit	146C/145C	Monday	2	2	0	0	0	Area #8 — Irondequoit		806-100346
6	617 Adeline Drive — Webster	157Y/1554	Monday	1	0	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-12870
7	17 Park Avenue — Webster Village	1561/1557	Monday	2	0	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-218847

Date: 5/3/10 Driver Name: BRAD Giddings Weather Condition: AM - Showers PM - cloudy Disposal Tons: .43 (860 LBS)

Reference: Monroe County Residential Curbside Waste Audit

					Number of Items at Collection Site							
Seq #		Street/ Area List	Route	Service Day	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Yard Waste	Bulky Items		Original Address	Customer #
5	170	Lawton Road — Clarkson	248F	Tuesday	0	0	1	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-212061
4	2122	Ireland Road — Clarkson	248F	Tuesday	0	0	1	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-212057
9	4652	Sweden Walker Road — Sweden	246Q/245L	Tuesday	2	1	0	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-96868
10	18	Oxford Street (East of Route 19)- Brockport	246Q/245L	Tuesday	1	0	1	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-115285
6	43	Hill Road — Parma	248F	Tuesday	1	0	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden		806-151252
8	4	Fraser — Hilton	248F	Tuesday	0	0	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden	Sunnyslope Drive — Hilton	806-131579
7	1106	West Ave — Hilton	248F	Tuesday	0	0	1	0	1	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden	Sherwood Drive — Hilton	806-246741
3	362	McGuire Road — Greece	246G/245F	Tuesday	2	0	1	0	0	Area #3 — Greece, Gates		806-57151
2	309	Dorsey Road -Greece	246J/245B	Tuesday	1	0	1	0	0	Area #3 — Greece, Gates		806-225742
11	1483	Attridge Road — Riga	248L	Tuesday	0	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-144983
1	154	Battle Green Drive — Chili	247A/245Q	Tuesday	1	0	1	0	1	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-187509
12	121	Smith Street — Wheatland (Mumford)	247B/245V	Tuesday	0	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-208150
13	822	Browns Avenue - Scottsville	248B	Tuesday	0	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-207960
15	56	Ontairo St— Honeoye Falls	256Z/2551	Tuesday	1	1	0	0	0	Area #5 — Rush, Mendon	Papermill Street— Honeoye Falls	806-4382
14	289	Tumbleweed Drive — Henrietta	246T/245N	Tuesday	1	1	1	0	0	Area #6 — Brighton, Henrietta		806-239238
22	2289	Norton Street	246D/245D	Tuesday	1	4	0	0	0	Area #8 — Irondequoit		806-43026
23	185	Echo Street	246D/245C	Tuesday	2	2	0	1	0	Area #8 — Irondequoit		806-98807
24	127	Barry Road	246A/245A	Tuesday	2	0	1	0	0	Area #8 — Irondequoit		806-90127
21	47	North Ave— Webster Village	2560/2557	Tuesday	2	0	1	0	0	Area #9 — Webster (V), Webster, Penfield	Reynolds Road — Webster Village	806-217839
20	9	Meadow View Drive - Penfield	257Y/2558	Tuesday	0	0	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-36111
16	1044	Turk Hiil Rd — Perinton	2564/255I	Tuesday	3	0	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)	Woodlawn Avenue — Fairport	806-183407
17	12	Moseley Rd — Perinton	2564/255I	Tuesday	0	1	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)	Orchard Street — Fairport	806-211437
18	851	Roosevelt — Perinton	2566/255K	Tuesday	1	0	1	6 bags	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)	Filbert Street — East Rochester	806-202999
19	304	Eaglehead Rd — Perinton	2566/255K	Tuesday	0	0	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)	Chestnut Street — East Rochester	806-175265

Date: MAY 4, 2010 Driver Name: BRAD Giddings Weather Condition: AM. Showers P.M. Cloudy Disposal Tons: .5 tons 1000 LBS.

Reference: Monroe County Residential Curbside Waste Audit

					Number of Items at Collection Site							
Seq #	Street/ Area List		Route	Service Day	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Yard Waste	Bulky Items		Original Address	Customer #
5	109	Morton Road - Hamlin	348C	Wednesday	0	3	0	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-30556
4	3285	Red man Road — Cla rkson	348C	Wednesday	1	0	1	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-30162
6	11	Ca pen Road — Sweden	348A	Wednesday	0	0	1	0	0	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-243511
3	11	Meadow View Drive (West of Route 19) — Brockport	346Q/345L	Wednesday	1	0	1	0	1	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-80244
2	31	Loretta Drive — Parma	348F	Wednesday	1	0	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden		806-29901
1	11	Ashton Drive - Gates	346L/345T	Wednesday	1	0	1	0	0	Area #3 — Greece, Gates		806-177831
7	4	Red Fern Dr.- Churchville	346N/345V	Wednesday	1	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-148243
10	18	Mendonshire — Mendon	348B	Wednesday	2	0	1	0	0	Area #5 — Rush, Mendon		806-104807
8	25	Valiant Drive — Henrietta	346M/345S	Wednesday	1	1	1	0	0	Area #6 — Brighton, Henrietta		806-153122
14	1	Baycrest Drive	346F/345B	Wednesday	0	0	1	0	0	Area #8 — Irondequoit		806-90187
13	946	Little Pond Way — Webster	3560/3552	Wednesday	0	1	0	0	0	Area #9 — Webster (V), Webster, Penfield		806-12346
11	2	Shag Bark Way — Perinton	356J/355J	Wednesday	0	1	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)		806-72328
12	2	Crossfield Road — Perinton	356G/355H	Wednesday	0	1	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)		806-6665
9	4	Woodhill Road — Pittsford	356Z/355R	Wednesday	2	0	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)		806-114927

Date: MAY 5, 2010 Driver Name: BRAD Giddings Weather Condition: Clear Disposal Tons: .24

480 LBS

Reference: Monroe County Residential Curbside Waste Audit

					Number of Items at Collection Site							
Seq #	Street/ Area List		Route	Service Day	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Yard Waste	Bulky Items		Original Address	Customer #
2	168	Lighthouse Road — Parma	448C	Thursday	1	0	1	0	4	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden		806-124188
4	14	Maida Dr — Spencerport	446Q/445L	Thursday	2	0	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden	Cottage Street — Spencerport	806-125990
5	6	Timber Ridge — Spencerport	446Q/445L	Thursday	2	1	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden	Harwood Drive — Spencerport	806-231719
6	400	Whittier Road — Ogden	446Q/445T	Thursday	2	1	0	0	1	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden		806-188945
7	16	Brower Road — Ogden	446N/44ST	Thursday	2	2	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden		806-125930
3	3578	Big Ridge Road - Ogden	446Q/445L	Thursday	1	0	1	0	0	Area #2 — Hilton (V), Parma, Spencerport (V), Ogden		806-122156
1	34	Castle Grove Drive — Greece	446H/445E	Thursday	2	2	1	0	0	Area #3 — Greece, Gates		806-9615
8	3710	Lyell Rd — Gates	446U/445T	Thursday	1	2	1	0	0	Area #3 — Greece, Gates	Lyellwood Road — Gates	806-171347
9	1	Chestnut Crescent — Chili	447A/445Q	Thursday	1	2	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-178134
10	7740	7740 E.River Rd — Rush	447B/445N	Thursday	1	3	1	0	0	Area #5 — Rush, Mendon	Golah Road — Rush	806-242601
11	50	Stony Brook Road — Rush	448B	Thursday	1	1	0	0	0	Area #5 — Rush, Mendon		806-172915
12	5	Boulder Creek Drive — Rush	448B	Thursday	0	0	3	0	1	Area #5 — Rush, Mendon		806-222255
13	563	Countess Drive — Henrietta	446S/4455	Thursday	1	0	1	0	0	Area #6 — Brighton, Henrietta		806-167586
18	25	Pinecrest Drive	446E/445D	Thursday	1	0	1	4 bags	0	Area #8 — Irondequoit		806-219097
17	21	Thornton Road	446A/445A	Thursday	1	0	1	0	0	Area #8 — Irondequoit		806-43407
16	130	Fairlea Drive	446F/445A	Thursday	0	1	1	25 bags	0	Area #8 — Irondequoit		806-230476
15	6	Eagles Landing — Webster	448I	Thursday	2	0	2	0	1	Area #9 — Webster (V), Webster, Penfield		806-142241
14	1	Center Court Lane — Penfield	456E/4557	Thursday	0	0	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-201316

Date: _____ Driver Name: _____ Weather Condition: _____ Disposal Tons: _____

Reference: Monroe County Residential Curbside Waste Audit

					Number of Items at Collection Site							
Seq #	Street/ Area List		Route	Service Day	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Yard Waste	Bulky Items		Original Address	Customer #
3	59	Ketchum Road — Hamlin	548C	Friday	0	0	1	0	1	Area #1 - Hamlin, Clarkson, Brockport (V), Sweden		806-122296
2	98	Mason Avenue — Greece	546K/545L	Friday	0	0	1	0	0	Area #3 — Greece, Gates		806-60632
1	1276	Weiland Road — Greece	546J/545E	Friday	2	0	1	0	0	Area #3 — Greece, Gates		806-75904
4	10	Hubbard Drive — Chili	546N/545T	Friday	3	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-127487
5	144	Bowen Road — Chili	547A/545Q	Friday	3	0	1	0	0	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-168608
6	189	McGinnis Road — Wheatland	548L	Friday	0	0	1	0	1	Area #4 — Churchville (V), Riga, Chili, Wheatland, Scottsville (V)		806-165244
8	59	Jeffords Road — Rush	546M/545N	Friday	2	0	1	0	0	Area #5 — Rush, Mendon		806-170873
10	36	Probst Road — Mendon	548B	Friday	3	0	1	0	0	Area #5 — Rush, Mendon		806-8745
9	192	Mendon Center Road — Mendon	548B	Friday	3	0	1	0	0	Area #5 — Rush, Mendon		806-242687
7	3	Peakview Drive — Henrietta	546T/545N	Friday	1	2	0	0	0	Area #6 — Brighton, Henrietta		806-172083
17	21	Brooklawn Drive — Brighton	556J/555H	Friday	0	0	1	0	0	Area #6 — Brighton, Henrietta		806-158282
16	435	Ambassador Drive - Brighton	556X/555R	Friday	1	2	0	0	0	Area #6 — Brighton, Henrietta		806-208207
19	115	Birch Hills Drive	546D/545A	Friday	0	1	0	0	0	Area #8 — Irondequoit		806-176286
18	379	Thrushwood Lane — Webster	556F/5554	Friday	0	5	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-211883
14	1	Pond Valley Circle — Penfield	5563/555I	Friday	2	2	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-180981
15	1735	Gloria Drive — Penfield	556E/5557	Friday	2	0	1	0	0	Area #9 — Webster (V), Webster, Penfield		806-148344
13	398	Kilbourn Road — Pittsford	5566/5553	Friday	2	1	1	0	1	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)		806-146431
12	68	South St — Pittsford	5566/5556	Friday	1	0	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)	Maple Street — Pittsford Village	806-242425
11	19	Sutherland Street — Pittsford Village	556J/5556	Friday	1	0	1	0	0	Area #10 — Pittsford (V), Pittsford, East Rochester, Perinton, Fairport (V)		806-164567

Date: MAY 7, 2010 Driver Name: BRAD Goddings Weather Condition: cloudy Disposal Tons: 1220 LBS.

Date: 5/3/10 (MONDAY)

City of Rochester: Residential Curbside Waste Audit

Driver Name: T Knight & J Newton

					Number of Items at Collection Site				
	Address	Route	Service Day	State Code	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Branches	Bulk Items
(2)	271-273 407 Murray St	M49	Monday	2F 220	0	0	3	0	0
(3)	591 Flower City Pk	M23	Monday	Apts 411	2	0	1	0	0
(2)	450 Lakeview Pk	M36	Monday	Apts 411	0	0	1	0	0
						X	X		

(1) 271-273 Murray St 2F serviced instead of 407 Murray

Date: 5/4/10 TUES.

City of Rochester: Residential Curbside Waste Audit

Driver Name: J Newton + T Wheeler

	Address	Route	Service Day	State Code	Number of Items at Collection Site: Recy Bins	Garbage Bags/Cans	96 Gal Toters	Branches	Bulk Items
(2)	24 Treyer St	T10	Tuesday	2F 220	1	0	1	0	0
	~~157 Weaver St~~	~~T36~~	~~Tuesday~~	~~411~~				not	out
(4)	96 Ashwood Dr	T20	Tuesday	1F 210	1	0	1	0	0
(1)	20 Oakman St	T08	Tuesday	Apts 411	0	BAGS 1 / [illegible] 2	2	0	0
(3)	29 Weaver St			Apts	0	X 0	X 4	0	0

City of Rochester: Residential Curbside Waste Audit

Date: 5/5/10 WEDNES.

Driver Name: T & Meeker & J. Newton

		Address	Route	Service Day	State Code	Number of Items at Collection Site				
						Recy Bins	Garbage Bags/Cans	96 Gal Toters	Branches	Bulk Items
(4)		55 Indiana St	W43	Wednesday	1F 210	1	0	1	0	0
(5)		205 Woodstock Rd	W24	Wednesday	1F 210	1	0	1	0	0
(6)		130 Corwin Rd	W56	Wednesday	1F 210	2	0	1	0	0
(7)	182	NOT OUT 189 Arbordale Av	W17	Wednesday	1F 210	1	0	1	0	0
(3)		238 Parsells Av	W41	Wednesday	3F 230	0	0	2	0	SERVICED by Driver
(1)	176	REMODELING 170 Morton St	W29	Wednesday	1F 210	0	0	1	0	0
(2)	196	SERVICED 237 4th St	W06	Wednesday	3F 230	0	0	3	0	1
(9)	36	SERVICED 53 Woodward St	W03	Wednesday	3F 230	0	0	2	0	0
(10)		165 Gibbs St	W03	Wednesday	Apts 411	3 P.M. 3 T.M.	0	4	0	0
(8)	92	NOT OUT 94 Richmond St	W53	Wednesday	2F 220	1	0	1	0	0

Date: 5/6/10 THURS.

Driver Name: J. Newton + T Wheeler

City of Rochester: Residential Curbside Waste Audit

					Number of Items at Collection Site				
	Address	Route	Service Day	State Code	Recy Bins	Garbage Bags/Cans	96 Gal Toters	Branches	Bulk Items
(2)	71 For Sale 52 Averill Av ~~for sale~~	H44	Thursday	3F 230	0	0	2	0	0
(3)	66 Mulberry St	H46	Thursday	1F 210	2	0	1	0	0
(6)	27 Crosman Ter	H18	Thursday	1F 210	0	0	1	0	0
(4)	240 Westminister Rd	H19	Thursday	1F 210	2	0	1	0	0
(5)	corner property - refuse on 2 sides 101 Vassar St	H11	Thursday	3F 230	0	0	3	0	0
(7)	54 Nunda Blvd	H15	Thursday	1F 210	2	0	1	0	0
(1)	55 Madison St	H33	Thursday	2F 220	0	1	1	YES	0

71 Averill replaced 52 Averill

THURS.

City of Rochester: Residential Curbside Waste Audit

Date: 5/7/10 FRIDAY

Driver Name: J. Nealey & T. Wheeler

	Address	Route	Service Day	State Code	Number of Items at Collection Site				
					Recy Bins	Garbage Bags/Cans	96 Gal Toters	Branches	Bulk Items
(5)	134 Ravenwood Ave	F24	Friday	1F 210	0	0	2	0	4
(4)	296 Woodbine Ave	F33	Friday	1F 210	2	0	1	0	0
(6)	916 NOT OUT 882 Genesee Park Blvd	F21	Friday	1F 210	1	0	1	0	0
(2)	157 Cady St	F32	Friday	1F 210	0	0	3	0	0
(3)	431 NOT OUT 440 ~~Crest~~ Ave	F32	Friday	1F 210	1	0	1	0	0
(1)	600 Child St	F09	Friday	2F 220	1	0	1	0	0

APPENDIX C

Additional Information Related to Study

(1) Field Notes

(2) Curbside Study Locations

FIELD NOTES

COR waste wet when dumped on Tuesday.

Monday's WM waste

- Consisted of loose renovation waste and yard waste.
- Difficult to capture loose yard waste.
- Much of waste was unbagged, which seemed odd.
- A large volume of non-recyclable paper products were in waste stream, which consisted of stickers/labels. These products appeared to be related to a commercial outfit even though waste was residential.
- Paper and film plastics were bulk of waste disposed.

Monday and Tuesday's City of Rochester waste

- More recyclables evident in City waste stream than suburban waste stream.
- Full or partially full food containers were noted.
- More food noted in Mon. & Tues. City waste than Mon. suburban waste.

General observations – Monday WM trash and M&T COR trash predominantly unbagged. Grass, etc. intermixed amongst trash made it difficult to get an accurate weight/quantity. WM waste had a large amount of non-recyclable paper. COR waste had more food waste than WM waste. Also textile/clothing type waste was more abundant in COR waste than WM waste stream. COR and WM waste streams had comparable amounts of yard waste.

Methodology adopted following Tuesday's sort:

Take what can be retrieved/identified off of the conveyor belt and either place it in the sorting containers or take it to a table and sort the materials at the tables. Any trash or items that cannot fit into our sort categories can remain on the belt and proceed as non-recoverable waste.

Wednesday COR observations

- Bags of medical waste identified in waste stream. For H&S purposes, these bags were not sorted. The waste included gloves, blood sampling kits, dressing, paperwork associated with Red Cross.
- Styrofoam plates in larger quantities were identified in the waste stream along with several gable top milk cartons. In home daycare possibly.
- More bulky items identified/retrieved.
- More 1&2 plastics than 3&7 plastics apparent in waste stream.
- Filled file boxes full of deposit cans, e-waste, gable top containers from M, T, W COR waste.

FIELD NOTES

Thursday COR Observations

- Waste appeared to be bagged more readily than earlier in the week.
- More yard waste apparent than earlier in the week.

Waste Management waste stream – Tuesday/Wednesday Observations

- More yard waste
- Fewer containers (1&2 and 3-7) in waste stream
- Still a lot of cardboard/paper and film/plastics evident in waste stream.
- Also Styrofoam still evident in large quantities in the waste stream.

Friday COR waste observations

- Waste cleaner than other COR waste collected earlier in the week.
- Some yard waste – more than earlier in the week
- Toys, food, film, plastics, textiles heavy
- More 3-7 plastics than 1&2 plastics
- Plastic film and packaging greater by volume than by weight

Friday WM waste

- Grass clippings very evident in the waste stream

This map may contain data from a variety of sources. This map is not intended to replace a survey by a Licensed Surveyor.
Stantec does not certify the accuracy of the data. This map is for reference only and should not be used for construction.

Carlton
Kendall
Hamlin
Gaines
Murray
Albion
Albion
Holley
Clarkson
Parma
Greece
Irondequoit
Webster
Ontario
Williamson
Barre
Clarendon
Sweden
Ogden
Rochester
Penfield
Gates
Walworth
Marion
Elba
Byron
Bergen
Bergen
Riga
Chili
Brighton
East Rochester
Macedon
Palmyra
Oakfield
Elba
Pittsford
Perinton
Macedon
Palmyra
Henrietta
Batavia
Batavia
Le Roy
Wheatland
Stafford
Le Roy
Caledonia
Caledonia
Rush
Mendon
Victor
Victor
Farmington
Manchester
Manchester
Shortsville
Alexander
Pavilion
Pavilion
Avon
Avon
Lima
West Bloomfield
East Bloomfield
Canandaigua
Hopewell

Geographic Information Systems

Cartographic Design By: Andrew Less

Tuesday, June 8, 2010 9:40:31 AM
U:\190500586\GIS\mxd\Monroe County Only Household Study A

Stantec Consulting
2250 Brighton Henrietta Townline Road
Rochester, NY 14623
Phone 585.475.1440 Fax 585.424.5951
www.stantec.com
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Curbside Study Locations
Monroe County

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Stantec does not certify the accuracy of the data. This map is for reference only and should not be used for construction.

Clarkson
Parma
Greece
Irondequoit
Webster
Ogden
Rochester
Penfield
Gates
Brighton
Riga
Chili
East Rochester
Perinton
Pittsford
Henrietta

Geographic Information Systems

Cartographic Design By: Andrew Less

Tuesday, June 8, 2010 9:33:01 AM
U:\190500586\GIS\mxd\City Of Rochester Only Household Study

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Curbside Study Locations
City of Rochester

Institutional, Commercial and Industrial (IC&I) Waste Composition Study

Monroe County, New York

Draft Report

Prepared for:
Barton & Loguidice
290 Elwood Davis Road, Box 3107
Syracuse, New York 13220

Prepared by:
Stantec Consulting Services Inc.
61 Commercial Street
Rochester, New York 14614

September 21, 2010

Project No. 190500586

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Figure 4 Summary of IC&I Waste Composition in Monroe County

Figure 5 Summary of Commercial Sector Waste Composition

Figure 6 Summary of Institutional Sector Waste Composition

Figure 7 Summary of Industrial Sector Waste Composition

1 INTRODUCTION

This study was conducted as part of Monroe County, New York's (County) effort to update the County's Local Solid Waste Management Plan as required by the New York State Department of Environmental Conservation (NYSDEC). Stantec Consulting Services Inc. (Stantec) was retained by Barton and Loguidice, PC (B&L) on behalf of Monroe County to estimate the current composition of the solid waste in the County.

This report documents the methodology and results of a study completed to estimate the characteristics and quantities of solid waste generated by the Institutional, Commercial and Industrial (IC&I) sectors of Monroe County. A separate and parallel study was also conducted by Stantec to assess the residential municipal solid waste (MSW) stream of the County. That study applied a different methodology and is documented in a separate report.

2 METHODOLOGY

A project initiation meeting was held at the outset of the study to develop project timelines, confirm project scope, and gather information and data. The study preparations were led by a team from Monroe County, Stantec, Metro Waste Paper Recovery, US, Inc. (Metro - operators of Monroe County Recycling Center), and B&L. The approach for estimating the IC&I portion of the waste stream was developed considering the intended use of the information, availability of existing data and the scope and cost of obtaining new data.

The objective of this study was to estimate the current volume and composition of IC&I waste generated in Monroe County. The methodology applied to develop these estimates used several sources of existing data. It was beyond the scope of this study to conduct actual waste sampling and analysis in the field. The existing data consisted of:

- New York State Department of Labor (NYSDOL) labor statistics[1];
- NYSDEC Part 360 Annual Reports for High Acres Landfill, Mill Seat Landfill, Ontario County Landfill and Seneca Meadows Landfill[2];
- U.S. EPA waste composition reports[3];
- New York State Department of Environmental Conservation (NYSDEC) waste composition estimates[4]; and
- Reports commissioned by various organizations such as the Wisconsin Department of Natural Resources (WDNR) [5], State of Connecticut Department of Environmental Protection[6], Delaware

[1] New York State Department of Labor Quarterly Census of Employment and Wages (QCEW) for the 3rd Quarter of 2009.
[2] NYSDEC Part 360 Annual Reports from 2007, 2008 and 2009 for Mill Seat Landfill, High Acres Landfill, Ontario County Landfill and Seneca Meadows Landfill
[3] USEPA. Municipal Solid Waste Generation, Recycling, and Disposal in the United States, 2008.
[4] NYSDEC, *Beyond Waste: A Sustainable Materials Management Strategy for New York*, 2010, DRAFT
[5] Cascadia Consulting Group, Inc. Wisconsin Statewide Waste Characterization Study, May 2003.
[6] DSM Environmental Services, Inc.; Cascadia Consulting Group; MidAtlantic Solid Waste Consultants. 2009 Connecticut

Solid Waste Authority[7], California Integrated Waste Management Board[8], and Massachusetts Department of Environmental Protection[9].

- In addition to reports prepared within the United States, Stantec also utilized the results from reports prepared for the cities of Ottawa and Owen Sound[10] [11] [12] and for the Province of Alberta to supplement the information gathered from the other resources.

State-wide Municipal Solid Waste Disposal Composition and Characterization Study, 2009.

[7] DSM Environmental Services, Inc.; Cascadia Consulting Group; MSW Consultants. Delaware Solid Waste Authority Statewide Characterization Study, 2006-2007.

[8] Cascadia Consulting Group, Inc. Targeted Statewide (California) Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, June 2006.

[9] DSM Environmental Services, Inc., 2007 Massachusetts Construction and Demolition Debris Industry Study.

[10] International, *The Private Sector IC&I Waste Management System in Ontario*, 2005

[11] Kelleher Environmental, Genivar and Jacques Whitford, *City of Ottawa, IC&I Waste Characterization Report, IC&I 3Rs Strategy Project*, 2007.

[12] Kelleher Environmental, Analysis *of City of Owen Sound Waste Audit/Recycling Plan Data from IC&I Premises*, 2008.

3 IC&I WASTE GENERATION AND COMPOSITION IN MONROE COUNTY

3.1 IC&I Waste Generation

The starting point for the research was determining the tonnages of waste generated within Monroe County and disposed of at the local and regional municipal solid waste landfills by examining existing regional landfill disposal records. The NYSDEC requires landfills to report the county of origin from which the waste streams are derived from as well as the weight of the waste streams on an annual basis. Stantec reviewed disposal information for 2007, 2008 and 2009 for Mill Seat Landfill, High Acres Landfill, Ontario County Landfill and Seneca Meadows Landfill where Monroe County's waste is being disposed. The NYSDEC also requires the disposal information to be broken down into several categories, which provides some information related to the type of composition. Supporting documentation for this analysis can be found in Appendix A.

Based on the residential MSW study completed by Stantec (provided under separate cover) as well as estimates from the NYSDEC and the USEPA, it is estimated that the residential MSW is 47% of total waste generation, leaving 53% from IC&I locations such as schools, hospitals, industries and businesses. Based on annual reports from 2007, 2008 and 2009 for Mill Seat Landfill, High Acres Landfill, Ontario County Landfill and Seneca Meadows Landfill, on average, a total of 825,318 tons of waste from Monroe County has been disposed of at these four landfills on an annual basis. Based on this information, it is estimated that 439,197 tons is generated from the IC&I sector on an annual basis.

It is assumed that the majority of the IC&I waste generated within Monroe County is disposed of at these four landfills; however, it is understood that a portion of the County's IC&I waste stream may be disposed of at other landfills within the state or outside of NYS, but that information was not available and therefore was not included during this study.

3.2 IC&I Waste Composition

The table and figure below provides a breakdown by solid waste type, as per the Part 360 annual reporting requirements for landfills, and the average tonnages generated by IC&I sectors in Monroe County and disposed of between 2007-2009.

Table 1 Composition of IC&I Waste Disposed in Monroe County[13]

Part 360 Reporting Categories	Tons (per year)	Percent (%)
Institutional and Commercial (I&C) Municipal Solid Waste (MSW)	225,280	51%
Construction and Demolition Debris	71,001	16%
Ash	152	0.03%
Asbestos	16,114	3.7%
Industrial Waste	22,405	5.1%
Sewage Treatment Sludge	87,086	20%
Petroleum Cont. Soil	7,738	1.7%
Other Cont. Soil	5	0.001%
Treated Regulated Medical Waste	1,267	0.29%
Soil - cover	5,190	1.2%
C&D - cover	2,870	0.65%
Special Waste	88	0.02%
Total IC&I Waste	**439,197**	**100%**

[13] NYSDEC Part 360 Annual Reports from 2007, 2008 and 2009 for Mill Seat Landfill, High Acres Landfill, Ontario County Landfill and Seneca Meadows Landfill

Figure 1 Composition of IC&I Waste Disposed in Monroe County[14]

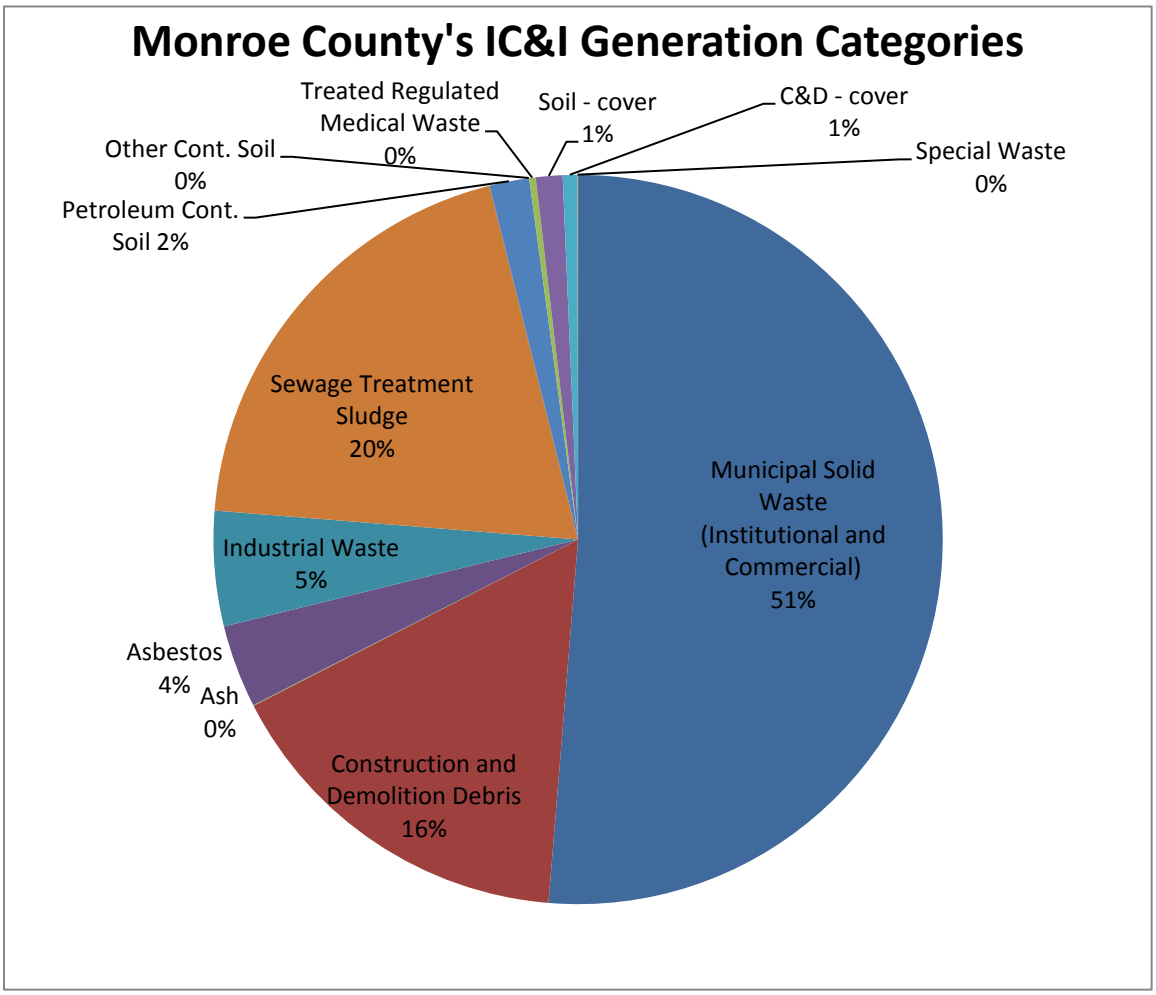


Table 1 and Figure 1 show that the largest category of waste disposed of within the IC&I sector is MSW from the institutional and commercial sector with sewage treatment sludge and construction and demolition debris following.

I&C MSW would be defined as municipal solid waste from establishments such as schools, hospitals, offices, restaurants, retail businesses, and other businesses. MSW is further defined as garbage, refuse, and other discarded materials resulting from commercial, mining and agricultural operations, and from community activities. For the purposes of this study, it does not include commercial construction and demolition debris, sewage treatment sludge, ash, asbestos, industrial waste, contaminated soil used for cover, treated regulated medical waste

[14] NYSDEC Part 360 Annual Reports from 2007, 2008 and 2009 for Mill Seat Landfill, High Acres Landfill, Ontario County Landfill and Seneca Meadows Landfill

or other special waste, which were accounted for separately using the information from the annual reports.

Given that I&C MSW is a broad category, Stantec reviewed other reports available to breakdown the I&C MSW category into more detail. The breakdown of I&C MSW is provided in the section below.

3.2.1 I&C MSW Composition

To further investigate the composition of I&C MSW, information was gathered from several reports[15], [16], [17], [18], [19], [20], [21] analyzing I&C waste composition in various states in the U.S. and averaged to provide an estimate of the I&C waste composition within Monroe County. A range of the percentages from the various reports is also provided for reference purposes and details from the various reports are also included in Appendix B.

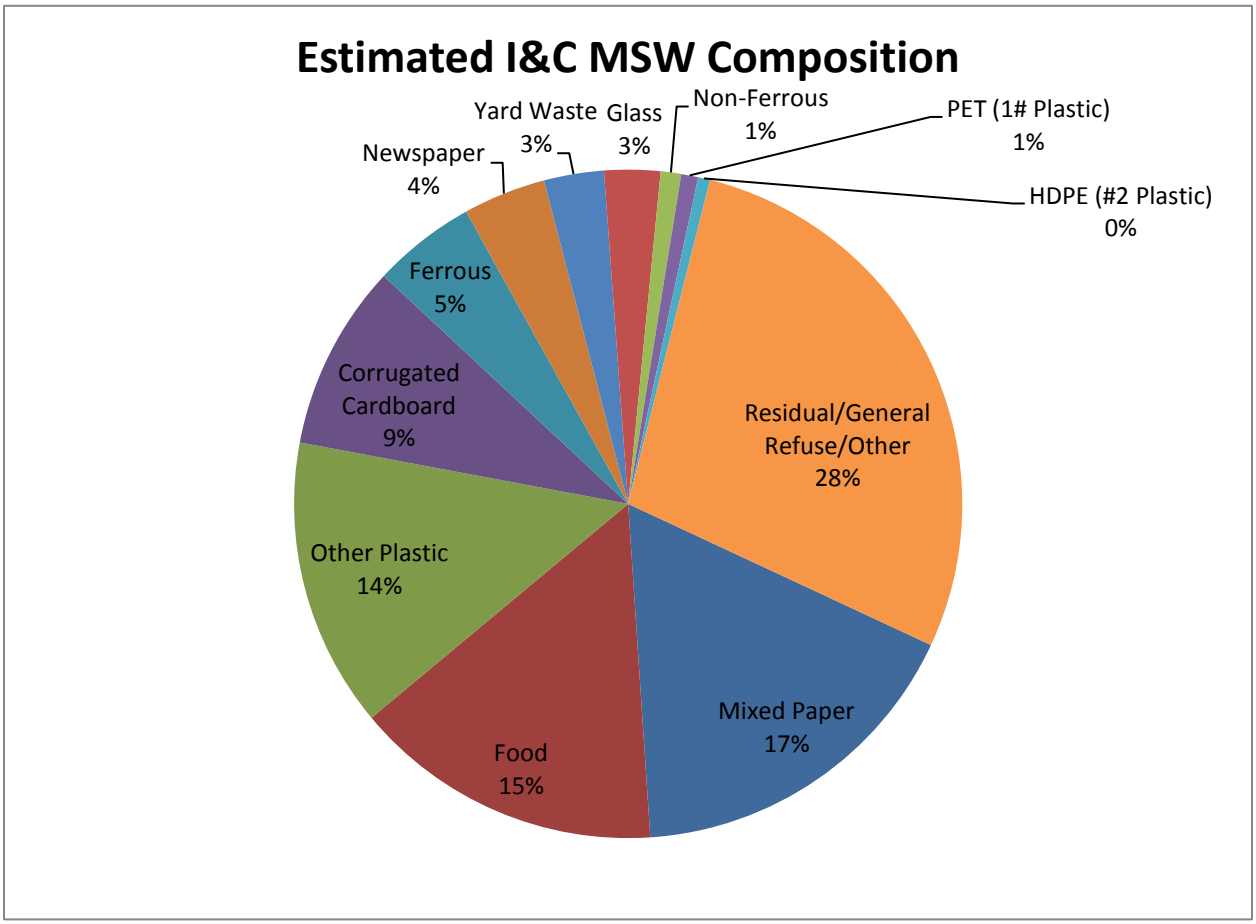
An estimate of the composition of the MSW attributed to institutions and commercial industries is outlined in Table 2 below.

Table 2 Estimated Composition of I&C MSW Disposed in Monroe County (based on IC&I composition studies)

Breakdown of I&C MSW Composition	Range of I&C MSW Disposed *(based on reports reviewed and referenced as footnotes)*	Estimated Average of I&C MSW Disposed in Monroe County (%)
Mixed Paper	**3-24%**	**17%**
Food	**12-19%**	**15%**
Other Plastic	**11-17%**	**14%**
Corrugated Cardboard	**3-17%**	**9%**
Ferrous	4-6%	5%
Newspaper	2-12%	4%
Yard Waste	1.2-7%	2.9%
Glass	2-6%	2.7%
Non-Ferrous	0.5-2%	0.99%
PET (1# Plastic)	0.5-0.9%	0.82%
HDPE (#2 Plastic)	0.4-1%	0.58%
Residual/General	9-42%	28%

[15] NYSDEC, *Beyond Waste: A Sustainable Materials Management Strategy for New York*, 2010, DRAFT
[16] Cascadia Consulting Group, Inc. Wisconsin Statewide Waste Characterization Study, May 2003.
[17] DSM Environmental Services, Inc.; Cascadia Consulting Group; MidAtlantic Solid Waste Consultants. 2009 Connecticut State-wide Municipal Solid Waste Disposal Composition and Characterization Study, 2009.
[18] DSM Environmental Services, Inc.; Cascadia Consulting Group; MSW Consultants. Delaware Solid Waste Authority Statewide Characterization Study, 2006-2007.
[19] Cascadia Consulting Group, Inc. Targeted Statewide (California) Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, June 2006.
[20] DSM Environmental Services, Inc., 2007 Massachusetts Construction and Demolition Debris Industry Study.
[21] USEPA. Municipal Solid Waste Generation, Recycling, and Disposal in the United States, 2008.

Figure 2 Composition of I&C MSW Disposed in Monroe County



The top I&C MSW material disposed in Monroe County, besides general refuse, are estimated to be mixed paper at 17%, food at 15%, plastic at 14% and corrugated cardboard at 9%. Based on this information, it may be prudent to target I&C establishments that generate this type of waste for future waste diversion programs. Target establishments may include restaurants, hotels, wholesale distributors, retail stores, grocery stores, and large office buildings.

Although there are waste diversion programs for many of these categories, limits still remain to the percentage of the waste that is actually recoverable. It is estimated that approximately 60% of the mixed paper, 57% of the food, and 80% of corrugated cardboard is in a condition that could be recycled. The estimates for material recovery are based on detailed material composition data and knowledge of public behavior. Materials that can be easily separated from the waste stream, such as corrugated cardboard, have a higher average recovery rate than materials that cannot be easily separated, such as mixed paper and food.

4 IC&I PROFILE SPECIFIC TO INDUSTRY SECTOR

Section 3.0 provided a breakdown of the estimated composition of the IC&I waste stream disposed within Monroe County based on landfill records and other waste composition studies; however, it is also useful to gain an understanding of the IC&I sector profile of Monroe County to understand the sources of waste present and which sectors predominate the business community. Consequently, Stantec examined the NYSDOL employment statistics for Monroe County to determine the number of IC&I establishments and their respective number of employees. By determining the largest employer and potentially the largest generator of waste by industry sector, a municipality can target those sectors to develop waste diversion programs specific to their needs.

4.1 IC&I Profile – Monroe County

For Monroe County's IC&I profile, Stantec obtained information from the NYSDOL Quarterly Census of Employment and Wages (QCEW) for the 3rd Quarter of 2009. Table 3 shows the number of units and the total work force broken down by category. These categories originate from the North American Industry Classification System (NAICS) which is a the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

Based on the 2000 Census, Monroe County's total population is 735,343 and according to NYSDOL's QCEW data, Monroe County employed 361,087 individuals during the 3rd Quarter of 2009. A detailed version of this information is provided in Appendix C. In addition, a complete definition of the NAICS codes can be found at http://www.census.gov/eos/www/naics/.

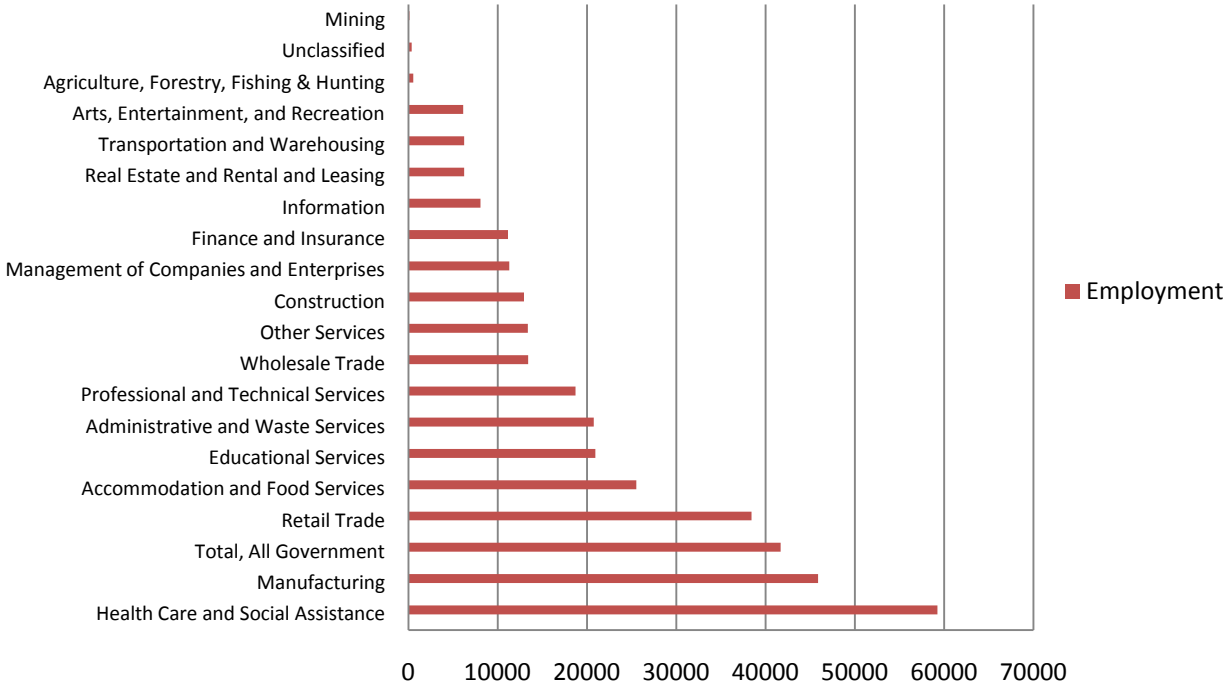
Table 3 Work Force by Category, NYSDOL QCEW[22]

Category	Number of Units	Employment
Agriculture, Forestry, Fishing & Hunting	47	550
Mining	8	123
Construction	1,615	12,949
Manufacturing	**935**	**45,864**
Wholesale Trade	1,061	13,426
Retail Trade	2,303	38,410
Transportation and Warehousing	342	6,234
Information	267	8,072
Finance and Insurance	1,003	11,141
Real Estate and Rental and Leasing	788	6,259
Professional and Technical Services	2,075	18,732
Management of Companies and Enterprises	155	11,314
Administrative and Waste Services	1,006	20,771
Educational Services	272	20,922
Health Care and Social Assistance	**1,737**	**59,224**

[22] New York State Department of Labor Quarterly Census of Employment and Wages (QCEW) for the 3rd Quarter of 2009.

Category	Number of Units	Employment
Arts, Entertainment, and Recreation	266	6,146
Accommodation and Food Services	1,412	25,541
Other Services	1,780	13,371
Total, All Government	**324**	**41,676**
Unclassified	409	362

Figure 3
Number of Employees within Monroe County
by Category (Based on 3rd Quarter 2009 NYSDOL QCEW)



As shown in Table 3 and Figure 3 above, the IC&I sector with the highest number of employees within Monroe County is health care and social assistance, followed by manufacturing and then government employment. Based on this information, it would seem possible that the largest employer generates the most waste; however, without a site specific waste study at each of these types of categories within Monroe County it is difficult to determine the largest generator of waste within Monroe County.

However, based on Stantec's experience with completing waste studies[23][24][25] and review of other

[23] International, *The Private Sector IC&I Waste Management System in Ontario*, 2005
[24] Kelleher Environmental, Genivar and Jacques Whitford, *City of Ottawa, IC&I Waste Characterization Report, IC&I 3Rs Strategy Project*, 2007.

waste characterization studies[2627] that focus on target industries, the following industry sectors typically generate the most waste per employee: (1) construction (NAICS Code 23); (2) administrative support, waste management and remediation (NAICS Code 56); (3) arts, entertainment and recreation (NAICS Code 71); (4) accommodation and food services (NAICS Code 72), and (5) retail trade (NAICS Code 44, 45).

It should be noted that the amounts of waste generated per industry sector are not indicative of the activities of the employees themselves, but reflect the nature of the industry and the types of waste materials produced. For instance in sector 56, the amount generated per employee is much higher than expected due to the category (waste management) which takes into account the amount of residue being generated through waste management activities.

[25] Kelleher Environmental, Analysis *of City of Owen Sound Waste Audit/Recycling Plan Data from IC&I Premises*, 2008.
[26] DSM Environmental Services, Inc.; Cascadia Consulting Group; MSW Consultants. Delaware Solid Waste Authority Statewide Characterization Study, 2006-2007.
[27] Cascadia Consulting Group, Inc. Targeted Statewide (California) Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, June 2006.

5 CONCLUSION

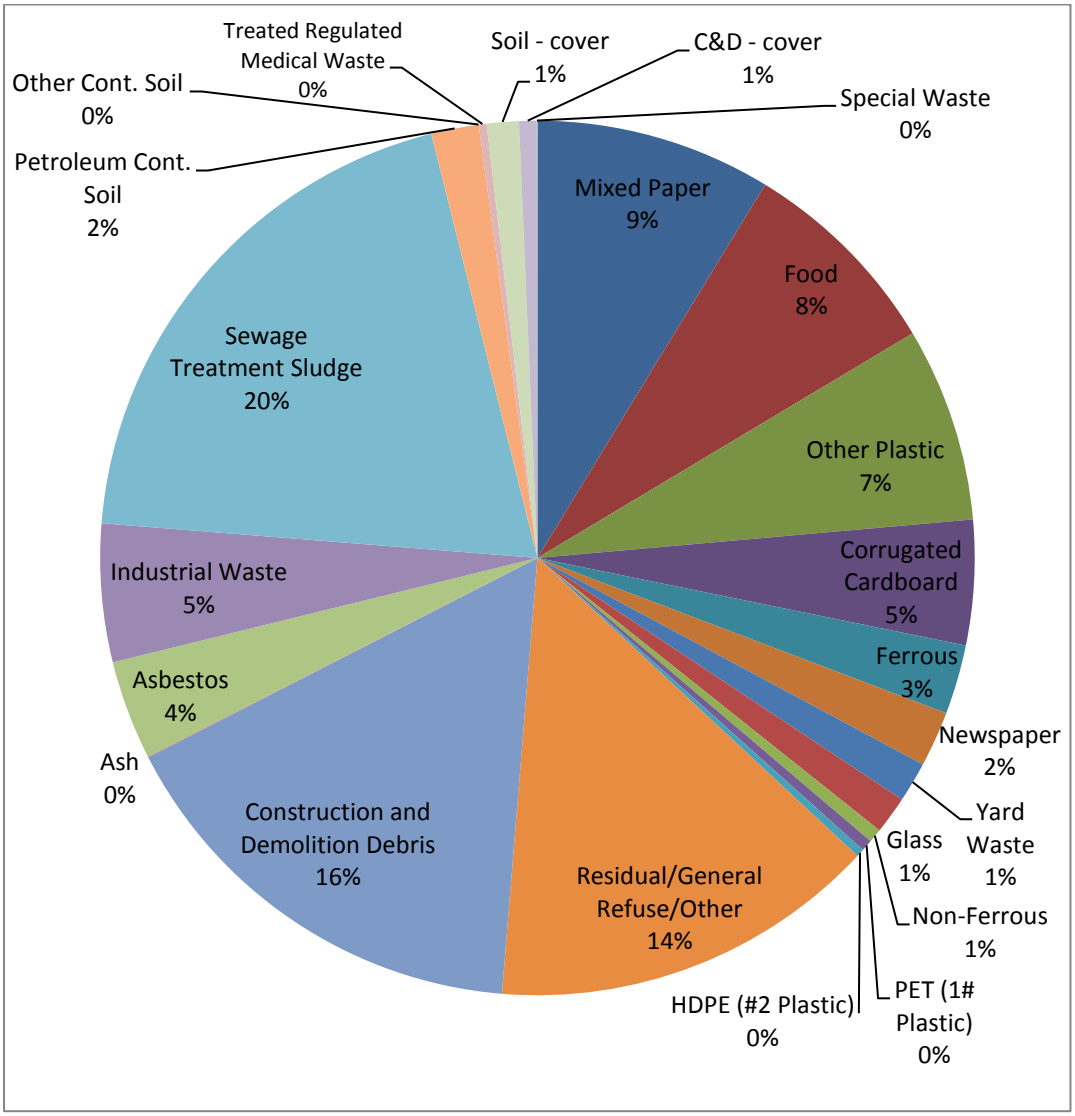
Based on the findings, the health care and social assistance industry sector is the largest employer within Monroe County. In recent years this has been a change in the employment profile within the County. For many years, prior to the downsizing of large manufacturing facilities, such as Kodak, the manufacturing industry sector was the largest employer within the County. Today other IC&I businesses predominate large manufacturers as employers.

Table 4 provides a summary of the estimated IC&I waste composition within Monroe County as it was presented in the previous sections.

Table 4 Summary of IC&I Waste Composition in Monroe County

Type of Solid Waste	%
Municipal Solid Waste (Institutional and Commercial) (51%)	
Mixed Paper	8.7%
Food	7.7%
Other Plastic	7.2%
Corrugated Cardboard	4.6%
Ferrous	2.6%
Newspaper	2.1%
Yard Waste	1.5%
Glass	1.4%
Non-Ferrous	0.51%
PET (1# Plastic)	0.42%
HDPE (#2 Plastic)	0.30%
Residual/General Refuse/Other	14.4%
Construction and Demolition Debris	16%
Ash	0.03%
Asbestos	3.7%
Industrial Waste	5.1%
Sewage Treatment Sludge	20%
Petroleum Cont. Soil	1.7%
Other Cont. Soil	0.001%
Treated Regulated Medical Waste	0.29%
Soil - cover	1.2%
C&D - cover	0.65%
Special Waste	0.02%
Total IC&I Waste	**100%**

Figure 4 Summary of IC&I Waste Composition in Monroe County



5.1 Metro Waste Case Studies

Independent of this study, Metro Waste, completed site specific non-hazardous solid waste audits between 2007 and 2009 of the following facilities:

General IC&I Sector	Occupancy (at time of audit)	Building Information	Working Days/Year
Commercial Office Space – (government)	600 employees	9 floors; 274,000 sq.ft.	250
College Campus – (educational services – institutional)	Not Available	12 areas of the campus were studied	250
Health Care – Medical Center	Not Available	Not Available	365
Industrial – (manufacturing)	Not Available	Not Available	261

These studies provide a local perspective from 4 different IC&I sectors. The studies included physical material collection, sorting and reviews of hauling records.

Based on the study, the institutional facility, which included dining facilities, produced the most waste at 255.9 tons and had the 2nd highest diversion rate. The healthcare facility produced the second highest amount of waste but had a low diversion rate at 25%. This indicates that the institutional facility produces more waste, but also recycles more waste than the healthcare facility. The industrial facility produces more waste and recycles 25% less than the commercial office facility.

Each waste audit was completed using different sets of material categories and therefore different definitions of Residuals (the materials not listed in the waste audit). However, in general it will include non-recoverable materials and contaminated recoverable materials such as food packaging materials, contaminated paper towels and tissues, non-recyclable plastics and other contaminated packaging.

Table 5 indicates the waste which was recovered and landfilled from the total amount of waste produced per year. The diversion rate is the percentage of a potentially recyclable material that had been diverted out of the waste disposal stream.

Table 5 Summary of MSW Audits Completed by Metro Waste

General IC&I Sector	Waste Produced per Year (T)	Recovered (T)	Landfilled (T)	Diversion Rate
Commercial Office Space – (government)	117.9	49.9	68.0	42%
College Campus – (educational services – institutional)	255.9	104.2	151.7	41%
Health Care	192.0	48.0	144.0	25%
Industrial – (manufacturing)	171.1	29.7	141.3	17%

* The healthcare waste audit does not have detailed categories and data.

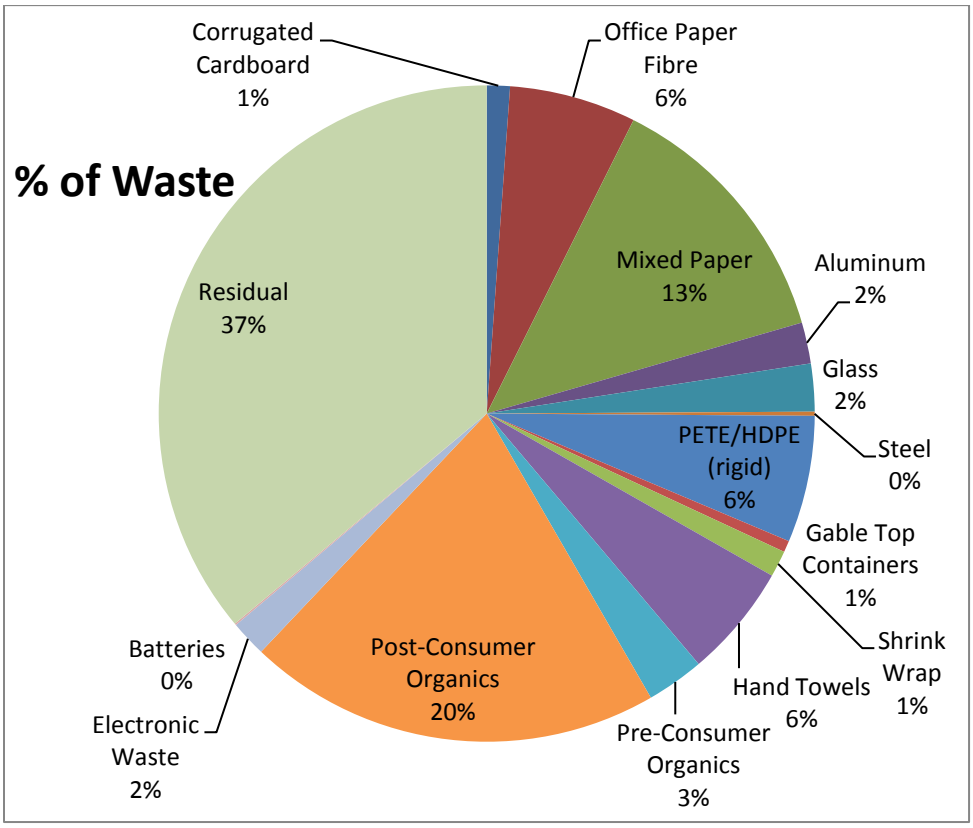
The commercial office building has 9 floors that contain desks, copier rooms, break rooms, and kitchenettes. The waste audit took place on November 26, 2007 and was sorted into 15 categories which are shown in Table 6.

Table 6 Summary of MSW Audit Conducted at a Local Commercial Facility

Type of Solid Waste	Daily (lbs)	Annual (lbs)	Annual (lbs) per employee
Misdirected Municipal Solid Waste			
Corrugated Cardboard	2.8	700	1.2
Office Paper Fibre	15.4	3,850	6.6
Mixed Paper	32.4	8,100	13.5
Aluminum	5.0	1,255	2.1
Glass	5.8	1,460	2.4
Steel	0.5	135	0.23
PETE/HPDE (rigid)	15.4	1.4	0.002
Gable Top Containers	1.4	355	0.59
Total	78.7	15,856.4	26.4
Untargeted Municipal Solid Waste			
Shrink Wrap	3.2	800	1.3
Hand Towels	13.8	3,450	5.8
Pre-Consumer Organics	7.0	1,750	2.9
Post-Consumer Organics	50.3	12,575	20.9
Electronic Waste	4.4	1,100	1.8
Batteries	0.2	55	0.09
Total	78.9	19,730	32.9
Residual			
Residual	88.9	22,225	37.0
Total	88.9	22,225	37.0
Grand Total	**246.5**	**57,811**	**96.4**

As indicated by Figure 5, the highest waste category percentages for the commercial facility are Residual, Post-Consumer Organics, and Mixed Paper.

Figure 5 Summary of Commercial Sector Waste Composition



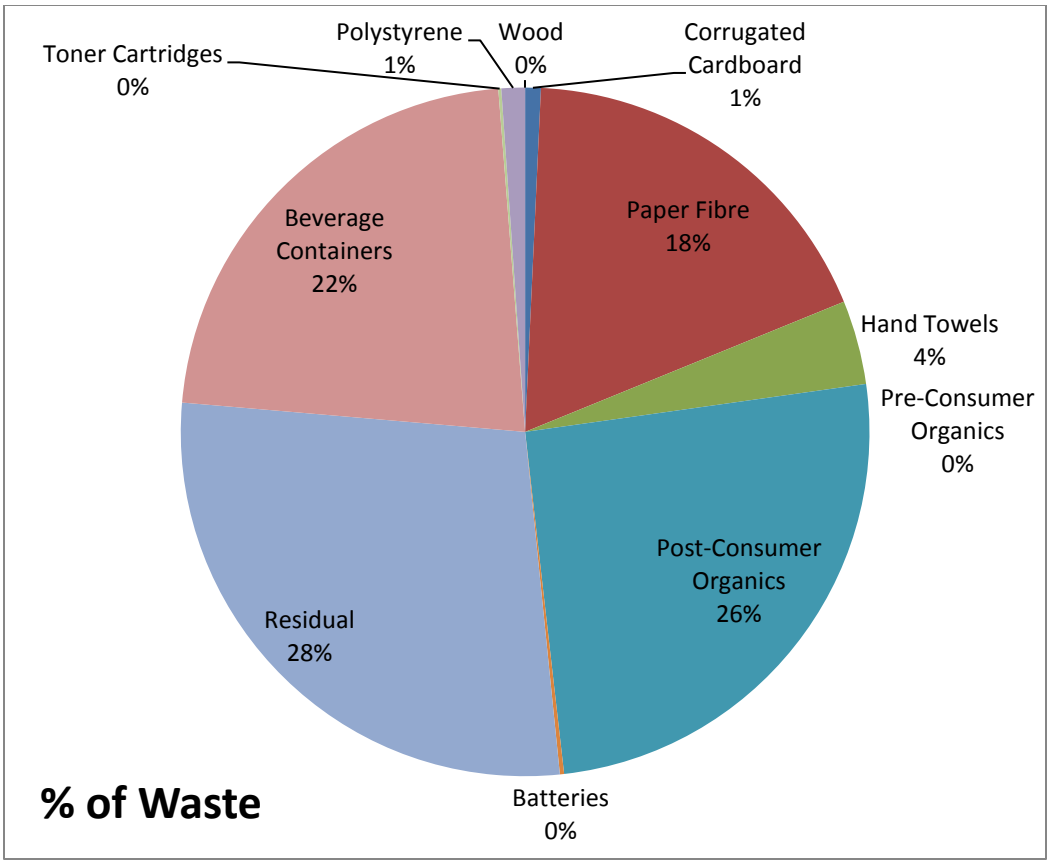
The institutional facility audited is a college campus with several buildings that contain offices, workspaces, classrooms, washrooms, meeting rooms, public/non public areas and labs. The waste audit took place on April 23, 2008 and was sorted into 11 categories which are shown in Table 7.

Table 7 Summary of MSW Audit Conducted at a Local Institutional Facility

Type of Solid Waste	Daily (lbs)	Annual (lbs)
Recoverable Materials		
Corrugated Cardboard	8.9	2,218
Paper Fibre	219.6	54,908
Beverage Containers	271.8	67,954
Toner Cartridges	1.7	433
Polystyrene	13.4	3,349
Wood	0	0
Hand Towels	47.9	11,966
Pre-Consumer Organics	0	0
Post-Consumer Organics	308.4	77,090
Batteries	2.4	612.2
Total	874.1	218,530
Residual		
Residual	339.4	84,845
Total	339.4	84,845
Grand Total	**1213.5**	**303,375**

As indicated by Figure 6, the highest waste category percentages for the institutional facility, which included dining facilities, are Residual, Post-Consumer Organics, and Beverage Containers.

Figure 6 Summary of Institutional Sector Waste Composition



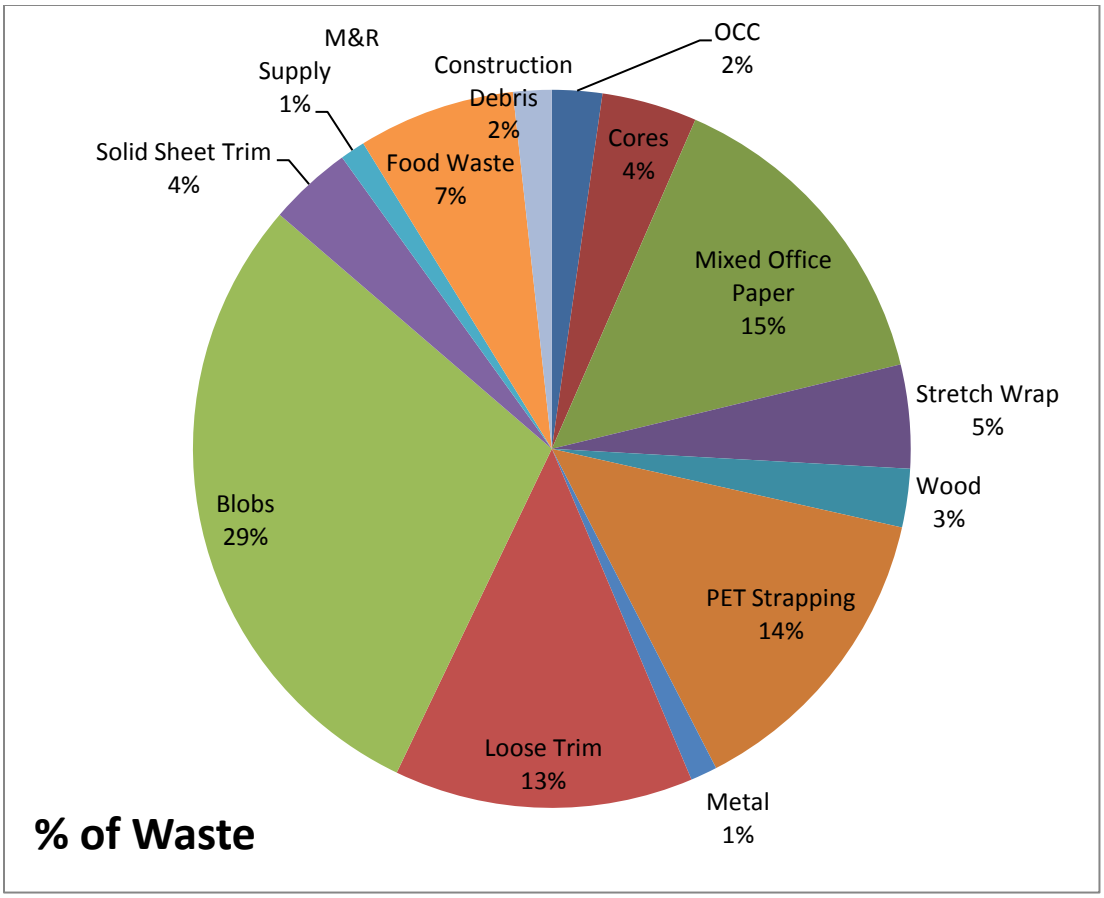
The industrial facility audited is a food packaging leader. The waste audit took place on September 21, 2009 and was sorted into 13 categories which are shown in Table 8.

Table 8 Summary of Industrial Sector MSW Audit

Type of Solid Waste	Daily (lbs)	Annual (lbs)
Recoverables		
OCC	30	7,995
Cores	57	5,996
Mixed Office Paper	195	51,441
Stretch Wrap	62	16,305
Wood	35	9,257
PET Strapping	185	48,916
Metal	16	4,103
Total	580	144,013
Non-Recoverables		
Loose Trim	179	47,338
Blobs (plastic waste)	388	102,460
Solid Sheet Trim	50	13,255
M&R Supply	15	3,997
Food Waste	94	24,931
Construction Debris	23	6,101
Total	749	198,082
Grand Total	1,329	342,095

As indicated by Figure 7, the highest waste category percentages for the industrial facility are Blobs, Mixed Office Paper and PET Strapping.

Figure 7 Summary of Waste Composition at a Local Industrial Facility



Overall these local, site specific audits support the IC&I waste composition estimates provided in Table 2; however, each facility completed their audits with a specific goal or intention in mind, which prevents the apples to apples comparison.

If the County is going to pursue further waste reduction or diversion programs in the IC&I sector, it may be practical to target the types of I&C MSW disposed in Monroe County in larger quantities, which would include mixed paper, food, plastic and corrugated cardboard. Target I&C establishments that generate this type of waste for future waste diversion programs may include restaurants, hotels, wholesale distributors, retail stores, grocery stores, and large office buildings.

Alternatively, it may be prudent to conduct industry specific waste audits to obtain more detailed disposal information for each sector. Target industries may include: (1) construction (NAICS Code 23); (2) administrative support, waste management and remediation (NAICS Code 56); (3) arts, entertainment and recreation (NAICS Code 71); (4) accommodation and food services (NAICS Code 72), and (5) retail trade (NAICS Code 44, 45) which typically generate the most waste per employee.

APPENDIX A – IC&I QUANTITY AND COMPOSITION SUPPORTING DOCUMENTATION

Data used in Table 1:

NYSDEC Annual Report Categories (County of Origin: Monroe)	2007				
	Mill Seat (2007)	Ontario County (2007)	Seneca Meadows (2007)	High Acres (2007)	Total 2007
MSW (Residential, Commercial, Institutional)	473,387	5,140	1,395	174,085	654,007
C&D	21,447	3,013	2,458	39,232	66,150
Ash				79	79
Asbestos	12,312	2,299		19,083	33,695
Industrial Waste		55	3	9,225	9,282
Sewage Treatment Sludge	47,770			53,154	100,923
Petroleum Cont. Soil			132	9,980	10,112
Other Cont. Soil					0
Treated Regulated Medical Waste					0
Soil - cover					0
C&D - cover					0
Special Waste					0
TOTAL	554,916	10,507	3,988	304,838	874,248

Data used in Table 1:

NYSDEC Annual Report Categories (County of Origin: Monroe)	2008				
	Mill Seat (2008)	Ontario County (2008)	Seneca Meadows (2008)	High Acres (2008)	Total 2008
MSW (Residential, Commercial, Institutional)	424,479	15,840	2,543	155,475	598,337
C&D	34,822	17,698	7,761	18,523	78,804
Ash	166			65	232
Asbestos	1,943	4,081		825	6,848
Industrial Waste	21,848	103		9,023	30,974
Sewage Treatment Sludge	28,987			53,459	82,446
Petroleum Cont. Soil	57			5,595	5,652
Other Cont. Soil					0
Treated Regulated Medical Waste	2,254				2,254
Soil - cover					0
C&D - cover					0
Special Waste					0
TOTAL	514,556	37,722	10,304	242,965	805,548

Data used in Table 1:

NYSDEC Annual Report Categories (County of Origin: Monroe)	2009				
	Ontario County (2009)	Seneca Meadows (2009)	High Acres (2009)	Mill Seat (2009)	total
MSW (Residential, Commercial, Institutional)	64,056	1,841	134,260	381,704	581,860
C&D	22,314	2,928	16,530	26,278	68,050
Ash				145	145
Asbestos	959		2,525	4,315	7,799
Industrial Waste	4		7,658	19,297	26,958
Sewage Treatment Sludge			50,779	27,109	77,888
Petroleum Cont. Soil		16	7,403	32	7,451
Other Cont. Soil			14		14
Treated Regulated Medical Waste				1,548	1,548
Soil - cover			15,571		15,571
C&D - cover			8,611		8,611
Special Waste			264		264
TOTAL	87,333	4,785	243,614	460,427	796,159

Data used in Table 1:

NYSDEC Annual Report Categories (County of Origin: Monroe)	Average tonnages for 2007, 2008, 2009	Residential*	IC&I
MSW (Residential, Commercial, Institutional)	611,401	386,121	225,280
C&D	71,001		71,001
Ash	152		152
Asbestos	16,114		16,114
Industrial Waste	22,405		22,405
Sewage Treatment Sludge	87,086		87,086
Petroleum Cont. Soil	7,738		7,738
Other Cont. Soil	5		5
Treated Regulated Medical Waste	1,267		1,267
Soil - cover	5,190		5,190
C&D - cover	2,870		2,870
Special Waste	88		88
TOTAL	825,318	386,121	439,197

* MSW (Res.) Study
* Note: The residential waste was estimated to be 47% of the total waste disposed in Monroe County based on the Residential MSW Composition Study completed in May 2010.

APPENDIX B – I&C MSW SUPPORTING DOCUMENTATION

Data used in Table 2:

Breakdown of I&C Waste Composition	Background information								
	Delaware Study	Wisconsin Study	Montgomery County, Maryland	2003 Pennsylvania (Commercial) Study	Connecticut Study	EPA - 2008 (discarded)	NYSDEC Estimates	Range of Composition Generated	Average % - Estimated Composition Generated
Residual/General Refuse/Other	24%	36%	21%	30%	42%	23%	20%	9-42%	28%
Mixed Paper	18%	18%	24%	21%	3%	21%	16%	3-24%	17%
Food	14%	13%	15%	12%	13%	19%	24%	12-19%	15%
Other Plastic	15%	14%	11%	11%	16%	17%	16%	11-17%	14%
Corrugated Cardboard	15%	6%	17%	3%	10%		7%	3-17%	9%
Ferrous	5%	6%	4%	4%	4%	6%	6%	4-6%	5%
Newspaper	2%	2%	3%	12%	6%		3%	2-12%	4%
Yard Waste	2%	1.3%	1.2%	3%	4%	7%	2%	1.2-7%	2.9%
Glass	2%	2%	2%	2%	2%	6%	4%	2-6%	2.7%
Non-Ferrous	1.1%	1.0%	0.8%	1.1%	0.5%	2%	1%	0.5-2%	0.99%
PET (1# Plastic)	0.90%	0.50%	0.80%	0.90%			1%	0.5-0.9%	0.82%
HDPE (#2 Plastic)	0.6%	0.4%	0.4%	0.5%			1%	0.4-1%	0.58%

APPENDIX C – NYSDOL's QCEW DATA - SUPPORTING DOCUMENTATION

Quarterly Census of Employment and Wages (QCEW)
NAICS Based Industry Employment and Wages
New York State, Labor Market Regions, Metropolitan Areas, Local Workforce Investment Areas and Counties
Data for 2008 and 2009 is preliminary and subject to revision
NAICS Sector = All Sectors
NAICS Industry = All
Area =Monroe County

Industry Title	Year	Quarter	Reporting Units	Month1 Employed	Month2 Employed	Month3 Employed	Average Employment	Total Wages	Average Wages
Total, All Industries	2009(P)	3	17,812	360,018	359,388	366,917	362,108	$3,807,624,055	$10,515
Total, All Private	2009(P)	3	17,488	321,285	321,415	318,597	320,432	$3,358,527,274	$10,481
Agriculture, Forestry, Fishing & Hunting	2009(P)	3	47	525	498	628	550	$2,674,503	$4,863
Crop Production	2009(P)	3	30	430	397	535	454	$2,102,324	$4,631
Animal Production	2009(P)	3	8	56	59	56	57	$403,879	$7,086
Agriculture & Forestry Support Activity	2009(P)	3	9	39	42	37	39	$168,300	$4,315
Mining	2009(P)	3	8	123	123	123	123	$1,505,682	$12,241
Mining (except Oil and Gas)	2009(P)	3	8	123	123	123	123	$1,505,682	$12,241
Construction	2009(P)	3	1,615	13,009	13,257	12,582	12,949	$156,493,193	$12,085
Construction of Buildings	2009(P)	3	519	3,419	3,387	3,251	3,352	$42,566,935	$12,699
Heavy and Civil Engineering Construction	2009(P)	3	50	1,336	1,424	1,369	1,376	$19,252,779	$13,992
Specialty Trade Contractors	2009(P)	3	1,046	8,254	8,446	7,962	8,221	$94,673,479	$11,516
Manufacturing	2009(P)	3	935	45,839	46,201	45,551	45,864	$683,827,891	$14,910
Food Manufacturing	2009(P)	3	60	2,323	2,315	2,280	2,306	$24,307,611	$10,541
Beverage & Tobacco Product Manufacturing	2009(P)	3	7	553	547	556	552	$6,038,830	$10,940
Apparel Manufacturing	2009(P)	3	8	713	695	686	698	$5,662,785	$8,113
Wood Product Manufacturing	2009(P)	3	12	71	70	65	69	$440,361	$6,382
Paper Manufacturing	2009(P)	3	20	1,014	1,006	974	998	$11,868,267	$11,892
Printing and Related Support Activities	2009(P)	3	116	2,358	2,360	2,329	2,349	$25,456,616	$10,837
Petroleum & Coal Products Manufacturing	2009(P)	3	4	38	38	39	38	$469,421	$12,353
Chemical Manufacturing	2009(P)	3	21	7,671	7,728	7,663	7,687	$131,832,924	$17,150
Plastics & Rubber Products Manufacturing	2009(P)	3	42	2,678	2,728	2,711	2,706	$28,718,094	$10,613
Nonmetallic Mineral Product Mfg	2009(P)	3	23	305	314	320	313	$3,109,685	$9,935
Primary Metal Manufacturing	2009(P)	3	9	219	218	223	220	$2,488,930	$11,313
Fabricated Metal Product Manufacturing	2009(P)	3	199	5,044	5,078	5,064	5,062	$56,424,946	$11,147
Machinery Manufacturing	2009(P)	3	194	10,195	10,186	10,110	10,164	$176,269,940	$17,343
Computer and Electronic Product Mfg	2009(P)	3	81	6,644	6,617	6,324	6,528	$119,501,093	$18,306
Electrical Equipment and Appliances	2009(P)	3	11	770	768	764	767	$10,387,007	$13,542
Transportation Equipment Manufacturing	2009(P)	3	16	1,515	1,813	1,777	1,702	$27,154,835	$15,955
Furniture and Related Product Mfg	2009(P)	3	25	319	318	321	319	$2,953,397	$9,258
Miscellaneous Manufacturing	2009(P)	3	74	3,242	3,246	3,202	3,230	$49,838,247	$15,430
Wholesale Trade	2009(P)	3	1,061	13,505	13,486	13,286	13,426	$193,904,641	$14,442
Merchant Wholesalers, Durable Goods	2009(P)	3	578	8,821	8,824	8,700	8,782	$125,152,495	$14,251
Merchant Wholesalers, Nondurable Goods	2009(P)	3	181	3,327	3,320	3,265	3,304	$46,511,314	$14,077
Electronic Markets and Agents/Brokers	2009(P)	3	302	1,357	1,342	1,321	1,340	$22,240,832	$16,598
Retail Trade	2009(P)	3	2,303	38,601	38,715	37,915	38,410	$226,128,514	$5,887
Motor Vehicle and Parts Dealers	2009(P)	3	242	4,289	4,317	4,315	4,307	$44,359,944	$10,299
Furniture and Home Furnishings Stores	2009(P)	3	109	984	977	971	977	$7,530,255	$7,708
Electronics and Appliance Stores	2009(P)	3	134	1,353	1,388	1,361	1,367	$11,669,686	$8,537

Building Material & Garden Supply Stores	2009(P)	3	152	3,028	2,941	2,804	2,924	$22,995,558	$7,864
Food and Beverage Stores	2009(P)	3	384	12,128	12,108	11,581	11,939	$58,019,894	$4,860
Health and Personal Care Stores	2009(P)	3	184	1,826	1,827	1,827	1,827	$14,376,532	$7,869
Gasoline Stations	2009(P)	3	200	1,334	1,320	1,314	1,323	$5,397,683	$4,080
Clothing and Clothing Accessories Stores	2009(P)	3	299	2,682	2,706	2,627	2,672	$10,515,155	$3,935
Sporting Goods/Hobby/Book/Music Stores	2009(P)	3	167	1,879	1,933	2,000	1,937	$7,499,366	$3,872
General Merchandise Stores	2009(P)	3	100	6,114	6,205	6,176	6,165	$26,574,516	$4,311
Miscellaneous Store Retailers	2009(P)	3	241	2,107	2,109	2,079	2,098	$10,315,790	$4,917
Nonstore Retailers	2009(P)	3	91	877	884	860	874	$6,874,135	$7,865
Transportation and Warehousing	2009(P)	3	342	6,231	6,216	6,254	6,234	$47,730,535	$7,656
Air Transportation	2009(P)	3	16	246	242	238	242	$2,784,889	$11,508
Truck Transportation	2009(P)	3	128	1,342	1,347	1,290	1,326	$12,418,467	$9,365
Transit and Ground Passenger Transport	2009(P)	3	38	1,891	1,867	2,039	1,932	$7,778,852	$4,026
Pipeline Transportation	2009(P)	3	5	11	11	11	11	$220,573	$20,052
Scenic and Sightseeing Transportation	2009(P)	3	3	44	34	28	35	$105,296	$3,008
Support Activities for Transportation	2009(P)	3	63	547	552	536	545	$4,925,466	$9,038
Couriers and Messengers	2009(P)	3	56	1,024	1,034	1,031	1,030	$9,995,049	$9,704
Warehousing and Storage	2009(P)	3	33	1,126	1,129	1,081	1,112	$9,501,943	$8,545
Information	2009(P)	3	267	8,206	8,076	7,935	8,072	$113,436,648	$14,053
Publishing Industries	2009(P)	3	73	2,023	1,975	1,962	1,987	$23,468,734	$11,811
Motion Picture & Sound Recording Ind	2009(P)	3	38	469	425	384	426	$2,193,587	$5,149
Broadcasting (except Internet)	2009(P)	3	21	775	754	712	747	$8,689,618	$11,633
Telecommunications	2009(P)	3	77	4,174	4,153	4,104	4,144	$64,068,675	$15,461
ISPs, Search Portals, & Data Processing	2009(P)	3	38	444	449	453	449	$10,432,898	$23,236
Other Information Services	2009(P)	3	20	321	320	320	320	$4,583,136	$14,322
Finance and Insurance	2009(P)	3	1,003	11,102	11,204	11,116	11,141	$171,106,162	$15,358
Credit Intermediation & Related Activity	2009(P)	3	347	3,933	4,051	4,042	4,009	$52,501,357	$13,096
Securities and Commodity Contracts	2009(P)	3	236	1,411	1,428	1,390	1,410	$33,213,186	$23,555
Insurance Carriers & Related Activities	2009(P)	3	406	5,684	5,652	5,616	5,651	$84,406,776	$14,937
Funds, Trusts & Other Financial Vehicles	2009(P)	3	14	74	73	68	72	$984,843	$13,678
Real Estate and Rental and Leasing	2009(P)	3	788	6,333	6,368	6,075	6,259	$46,569,806	$7,440
Real Estate	2009(P)	3	652	4,951	4,927	4,695	4,858	$34,904,203	$7,185
Rental and Leasing Services	2009(P)	3	132	1,373	1,431	1,369	1,391	$11,603,301	$8,342
Lessors, Nonfinancial Intangible Assets	2009(P)	3	4	9	10	11	10	$62,302	$6,230
Professional and Technical Services	2009(P)	3	2,075	18,903	18,698	18,596	18,732	$263,755,388	$14,080
Professional and Technical Services	2009(P)	3	2,075	18,903	18,698	18,596	18,732	$263,755,388	$14,080
Management of Companies and Enterprises	2009(P)	3	155	11,351	11,334	11,257	11,314	$228,703,720	$20,214
Management of Companies and Enterprises	2009(P)	3	155	11,351	11,334	11,257	11,314	$228,703,720	$20,214
Administrative and Waste Services	2009(P)	3	1,006	20,667	20,918	20,728	20,771	$152,067,638	$7,321
Administrative and Support Services	2009(P)	3	953	19,598	19,956	19,839	19,798	$141,124,292	$7,128
Waste Management and Remediation Service	2009(P)	3	53	1,069	962	889	973	$10,943,346	$11,247
Educational Services	2009(P)	3	272	20,177	20,045	22,544	20,922	$296,768,564	$14,185
Educational Services	2009(P)	3	272	20,177	20,045	22,544	20,922	$296,768,564	$14,185
Health Care and Social Assistance	2009(P)	3	1,737	59,458	59,334	58,879	59,224	$554,035,009	$9,355
Ambulatory Health Care Services	2009(P)	3	1,098	14,793	14,789	14,712	14,765	$164,841,665	$11,164
Hospitals	2009(P)	3	7	19,912	19,887	19,673	19,824	$236,058,588	$11,908
Nursing and Residential Care Facilities	2009(P)	3	242	14,244	14,248	14,246	14,246	$94,410,492	$6,627

Social Assistance	2009(P)	3	390	10,509	10,410	10,248	10,389	$58,724,264	$5,653
Arts, Entertainment, and Recreation	2009(P)	3	266	6,638	6,328	5,473	6,146	$26,541,818	$4,319
Performing Arts and Spectator Sports	2009(P)	3	72	915	667	634	739	$5,371,893	$7,269
Museums, Parks and Historical Sites	2009(P)	3	8	741	710	715	722	$3,764,872	$5,215
Amusement, Gambling & Recreation Ind	2009(P)	3	186	4,982	4,951	4,124	4,686	$17,405,053	$3,714
Accommodation and Food Services	2009(P)	3	1,412	25,646	25,820	25,158	25,541	$92,422,007	$3,619
Accommodation	2009(P)	3	80	2,669	2,739	2,576	2,661	$13,944,013	$5,240
Food Services and Drinking Places	2009(P)	3	1,332	22,977	23,081	22,582	22,880	$78,477,994	$3,430
Other Services	2009(P)	3	1,780	13,581	13,422	13,111	13,371	$80,281,832	$6,004
Repair and Maintenance	2009(P)	3	454	3,124	3,120	3,086	3,110	$25,535,182	$8,211
Personal and Laundry Services	2009(P)	3	460	3,553	3,532	3,456	3,514	$19,357,777	$5,509
Membership Organizations & Associations	2009(P)	3	609	6,561	6,430	6,229	6,407	$33,418,143	$5,216
Private Households	2009(P)	3	257	343	340	340	341	$1,970,730	$5,779
Total, All Government	2009(P)	3	324	38,733	37,973	48,320	41,676	$449,096,781	$10,776
Federal Government	2009(P)	3	73	2,848	2,809	2,806	2,821	$40,775,592	$14,454
State Government	2009(P)	3	33	4,611	4,608	4,787	4,669	$67,166,196	$14,386
Local Government	2009(P)	3	218	31,274	30,556	40,727	34,186	$341,154,993	$9,979
Unclassified	2009(P)	3	409	357	353	375	362	$2,254,195	$6,227

Appendix E

Example Compliance Report Outline

Monroe County
Local Solid Waste Management Plan

Compliance Report

Reporting Period:
January 1, 20XX - December 31, 20XX

February 20XX

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II. Status of the County's Program Strategies .....
- A. Summary of Program Strategies .....
- B. Obstacles Met in Efforts to Reach Milestones Contained Within the LSWMP, and Attempts to Overcome Such Obstacles .....
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- D. Solid Waste Issues Not Previously Addressed in the LSWMP .....
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III. Funding and Staffing Resources .....
- A. Financial Resources .....
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IV. Accomplishments/New Issues .....

V. Waste Reduction, Reuse, and Recycling .....
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- B. Differences between Current Recycling Program and Recycling Program Contained Within the LSWMP .....
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VI. Solid Waste and Recyclables Inventories .....

Appendices

Appendix A – 20XX Monroe County Solid Waste and Recyclables Inventory
Appendix B – 20XX Monroe County Solid Waste and Recyclables Inventory

Appendix F

Residential Recycling Survey

Monroe County Recycling Center
Single Stream Conversion

- Single Stream conversion is complete

- Purpose of survey is to tap into attitudes and behaviors around recycling
  - Goal is ultimately to increase participation and maintain low contamination rates

- Booster shot to local recycling education and marketing as it relates to single stream
  - Collaboration among all participants is necessary for effective programs and enforcement support
  - Private companies, municipalities, customers, and public

Residential Recycling Survey Summary

DRAFT





Prepared by BRX Global Research Services, Inc.

METHODOLOGY

•The questionnaire was developed by Waste Management, Monroe County, and BRX.

•It was programmed for online administration by BRX and made available online.

•Harris Interactive, Inc. provided panel members to participate in the study.

•In order to qualify for the survey, respondents had to live in Monroe County, be age 18 or older and be able to answer a questions about their household's recycling.

•The survey administration period was 1/21/14 - 1/29/14. The survey period was closed when the targeted number of at least 800 completed surveys was achieved. (The actual number of completed surveys is 801.)

•The sample was very similar to the Monroe County population on age and geographic distribution, our two key population measures. Fifty-seven percent of the sample was between the ages of 35 and 64 as compared to fifty-two percent of the population according to Census statistics. Seventeen percent of the sample was from the City of Rochester, versus twenty-seven percent per the Census.

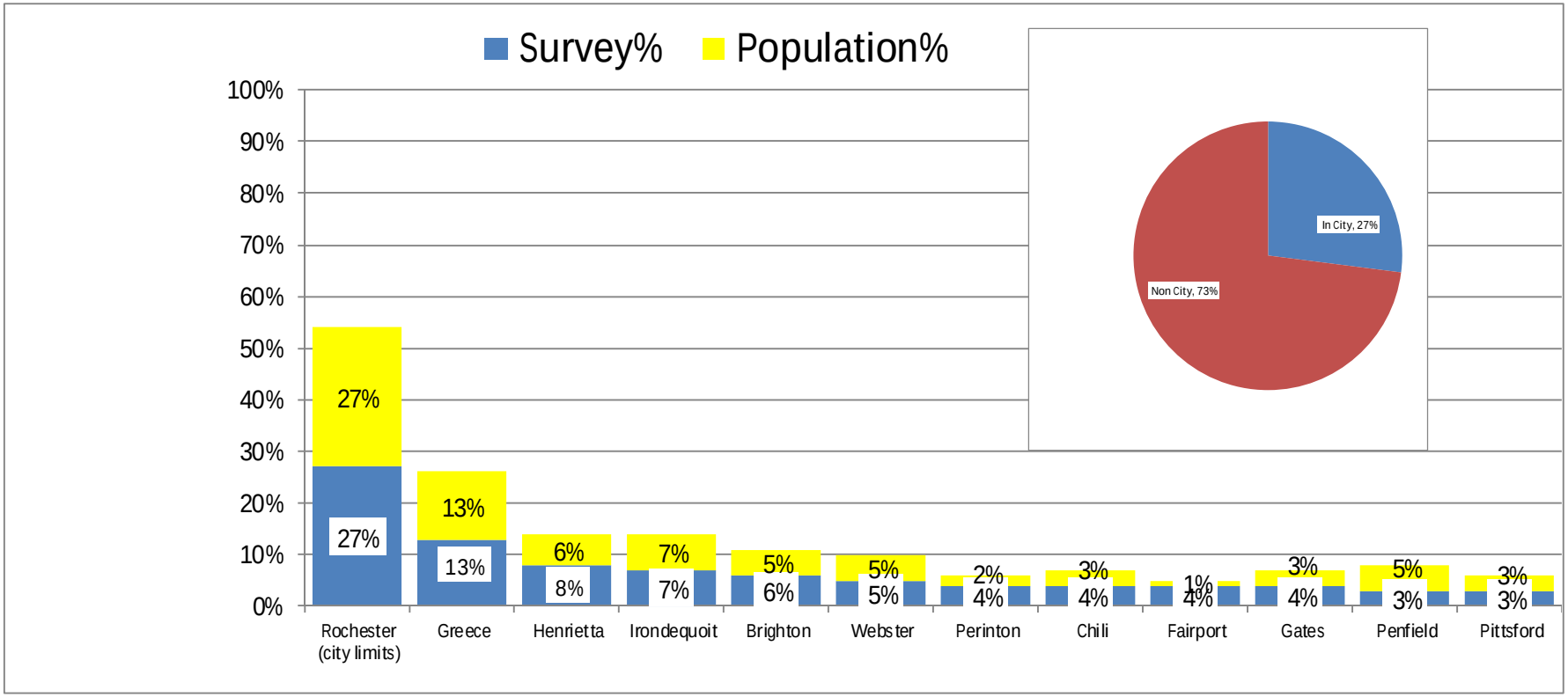
Respondent Profile

The following demographic variables were collected:

- Geography
- Age
- Home owners vs. renters
- Gender
- Length of time at current address
- Marital status
- Annual household income
- Level of education
- Number of adults in household
- Children in household

RESPONDENT PROFILE

In which town or city do you live in: (Top Responses)



The towns surrounding the City of Rochester were well represented (weighted survey distribution).

n = 801

Question Responses

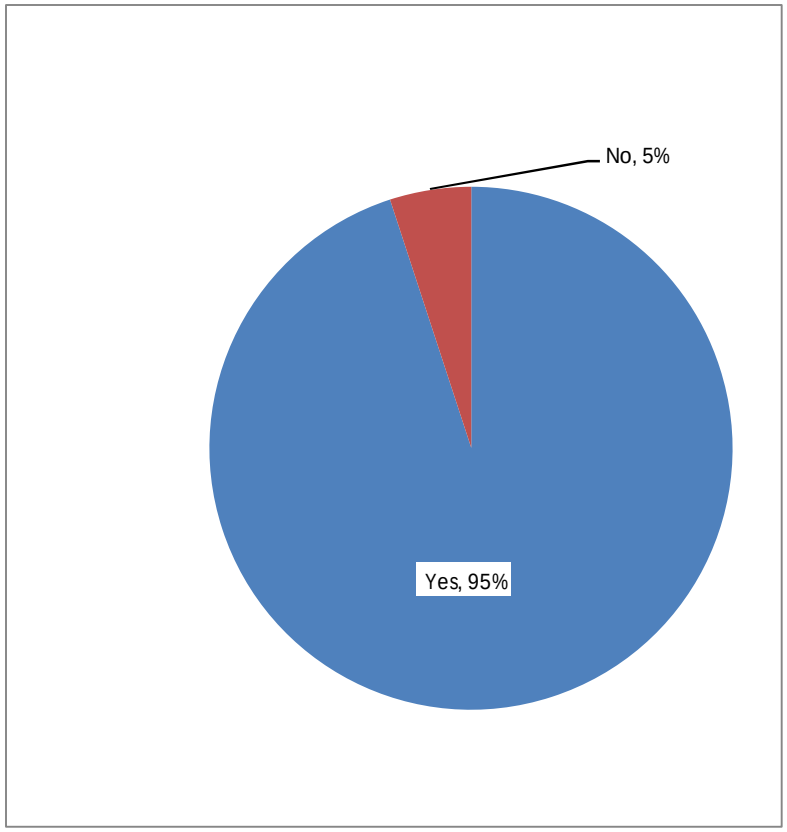
This section show responses to the survey questions.
In addition to tabulating the overall responses to each question, responses were also separately cross-tabulated by home ownership (renters vs. owners), location (City of Rochester dwellers vs. others) and income groups (under $50K, $50K - $74K, and $75K and up). Differences according to these characteristics are noted where significant.

Does your household use a container in your house or apartment to collect recyclable materials?

Only 5% said that they don't recycle at home using a container.

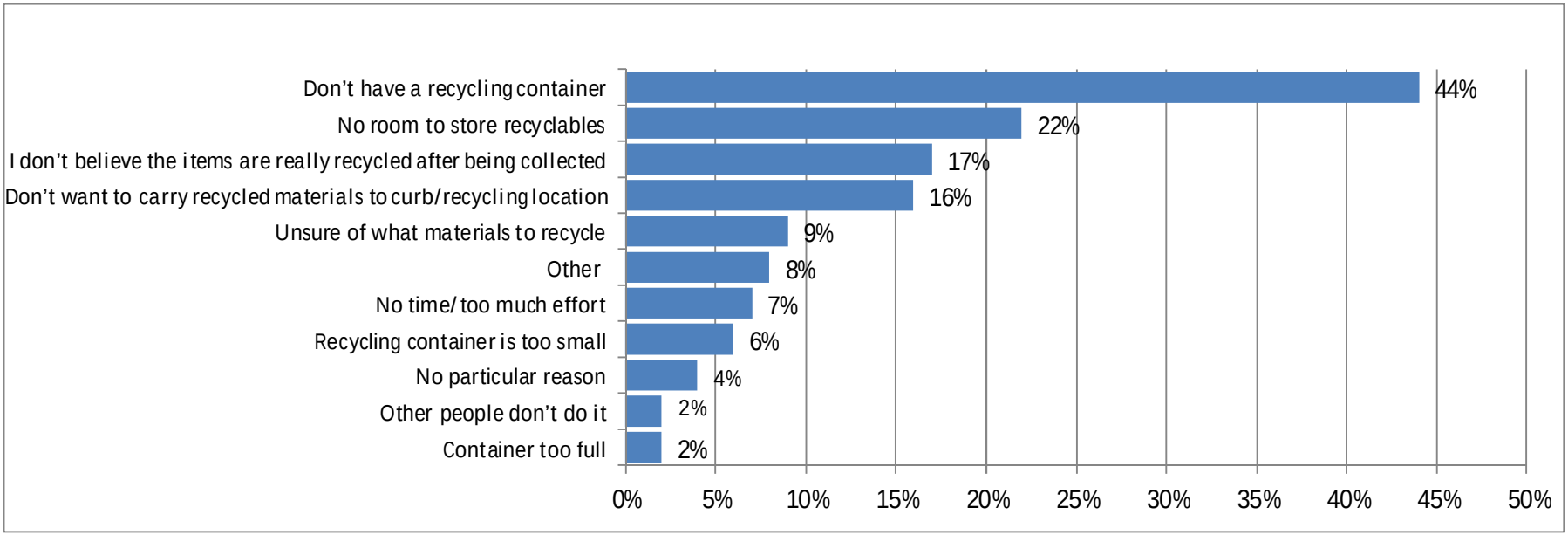
Only 2% of homeowners said they don't recycle versus 12% of renters. However, there was no difference when comparing those who live in the City of Rochester and those who do not.

For the remainder of the report, "non-recyclers" are those who answered "No" to this question and "recyclers" are those who responded "Yes".



n = 801

What prevents your household from recycling using a container in your home?



The main reason given for not recycling is the lack of a container.

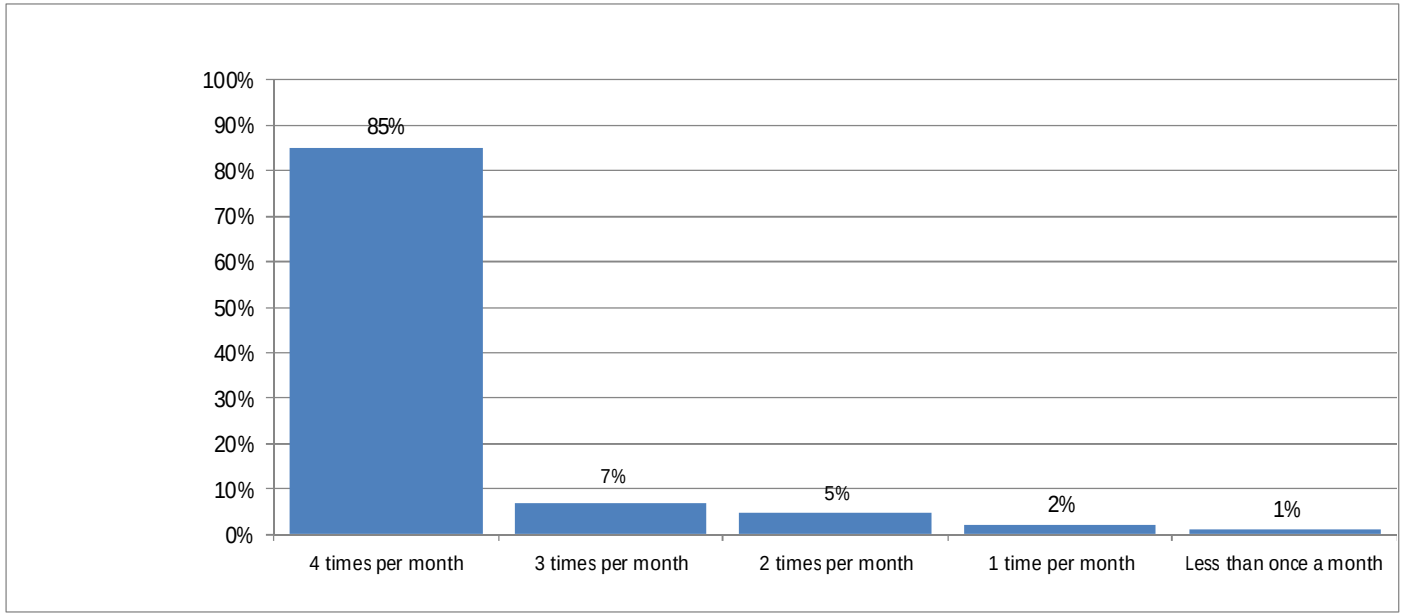
Asked of non-recyclers (39 respondents)

n =39
Multiple Responses Allowed

How often does your household typically put the recycling container at the curb?

Most respondents take their recycling container out every week.

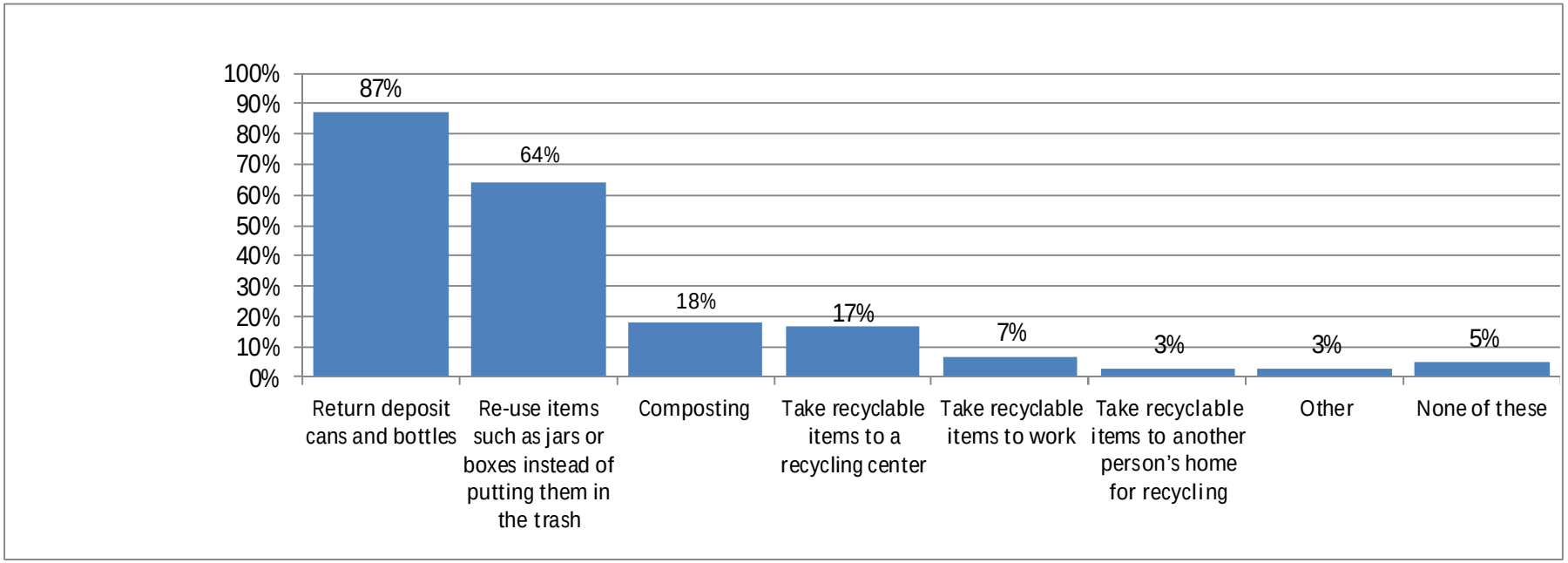
Respondents who live outside of the city and homeowners take the container to the curb more frequently than those living in the city and renters.



Asked of curbside recyclers

n = 669

Does your household recycle in any of the other following ways?



Most respondents return cans and bottles and the majority re-use items.

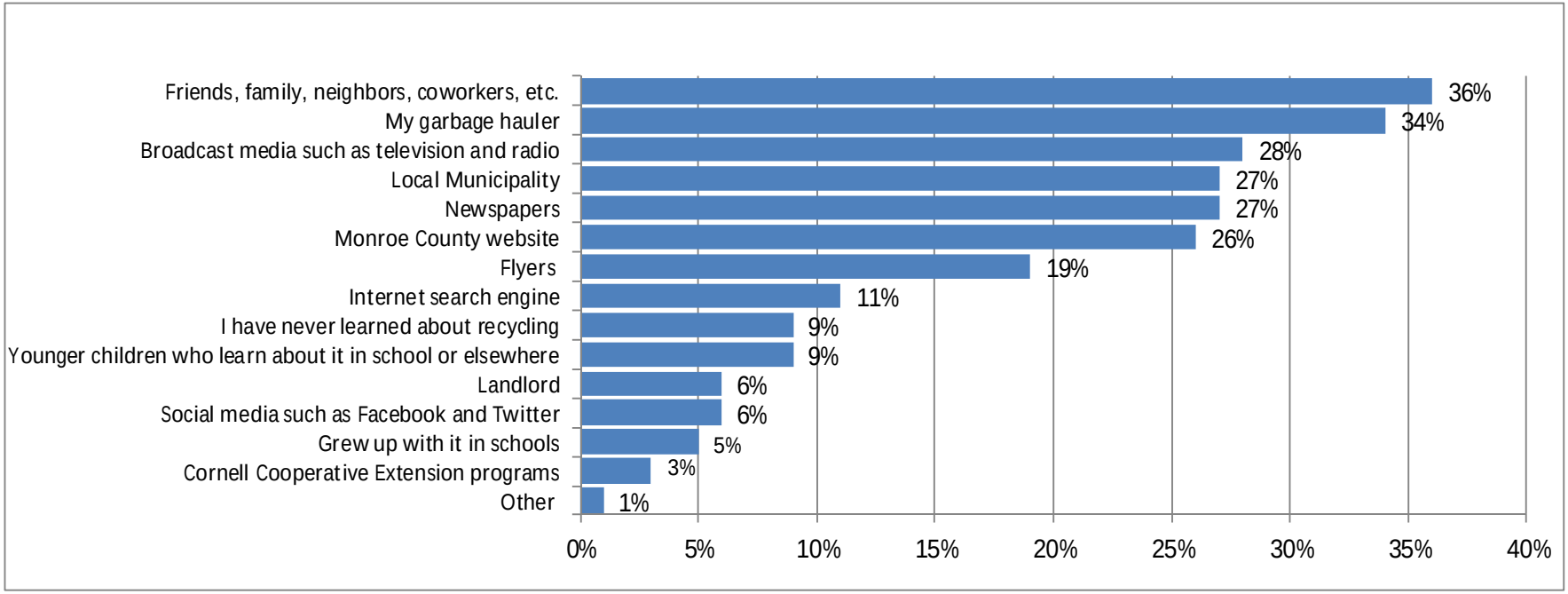
Out of the 39 people who don't recycle by way of container at their household ("non-recyclers"), only 9 said they do none of these. Thus, only 1.1% of the respondents don't recycle at all.

Those who live outside of the city and homeowners are more likely to return deposit cans and bottles than those who live in the city and renters. Homeowners/higher income households were also more likely than renters to compost and renters more likely to take recyclables to another's home. Those who live outside of the city were also more likely than those living in it to take recyclable items to a recycling center.

Asked of all respondents

n = 801
Multiple Responses Allowed

How do you learn about recycling?

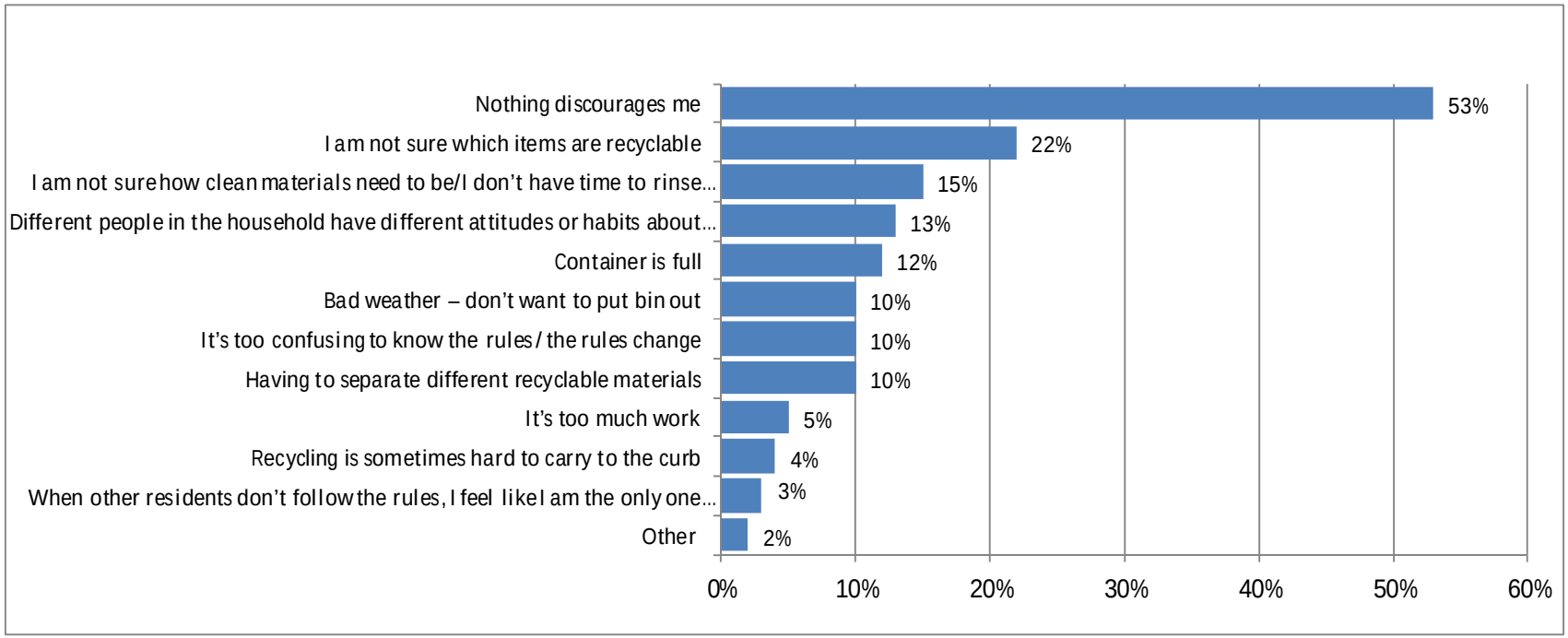


No one source really stood out for where the respondent learned about recycling, but “friends/family” and “garbage hauler” lead in mentions.

Those who live in the city are more likely than those who live outside of it to learn about recycling from friends/family/etc., from flyers and from their landlord. Those who live outside of the city are more likely than those who live in the city to learn from their garbage hauler. Renters are more likely than homeowners to hear about recycling from friends/family/etc., their landlord and social media while homeowners are more likely than renters to learn from their garbage hauler, local municipality and newspapers.

n = 801
Multiple Responses Allowed

What discourages your household from recycling more often?



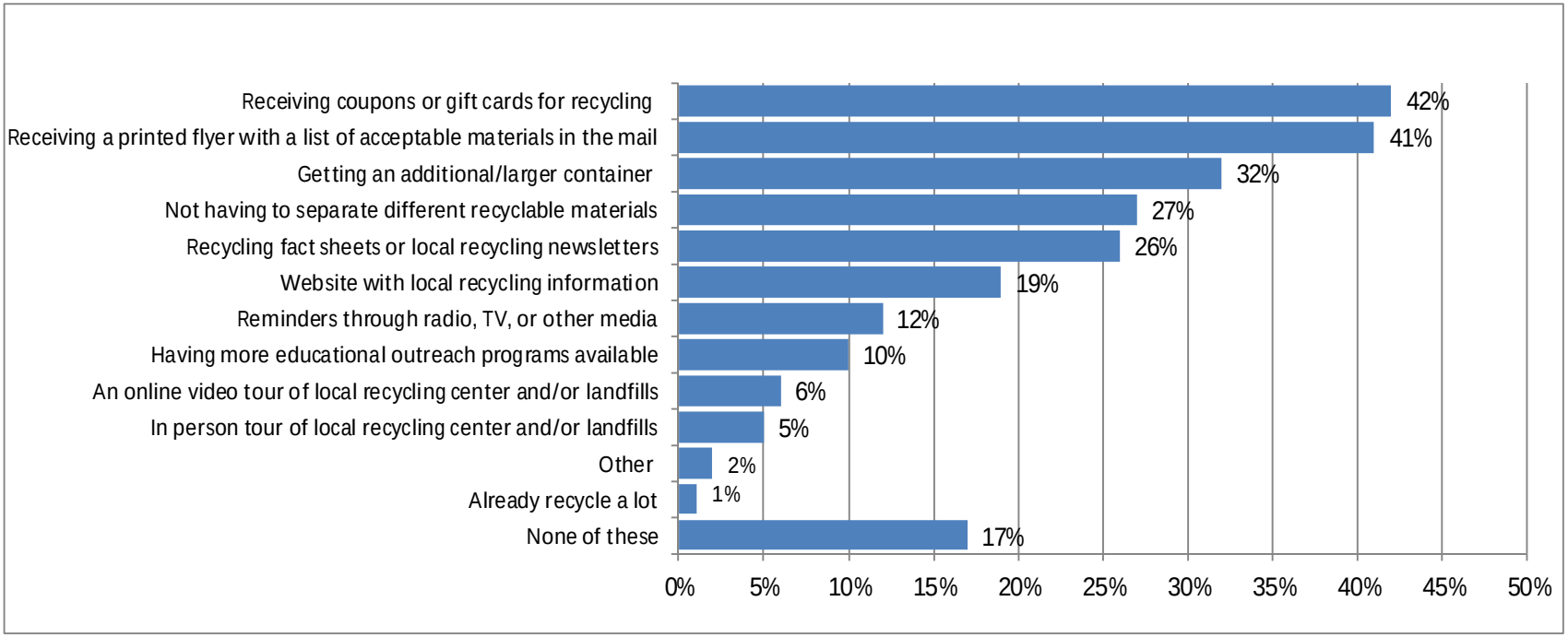
While the majority said nothing discourages them, the biggest issue that discourages recyclers from recycling more often is not knowing which items are recyclable.

Homeowners are somewhat more likely than renters to say nothing discourages them from recycling.

Asked of recyclers

n = 762
Multiple Responses Allowed

Which of these ideas would encourage you to recycle (or recycle more often)?



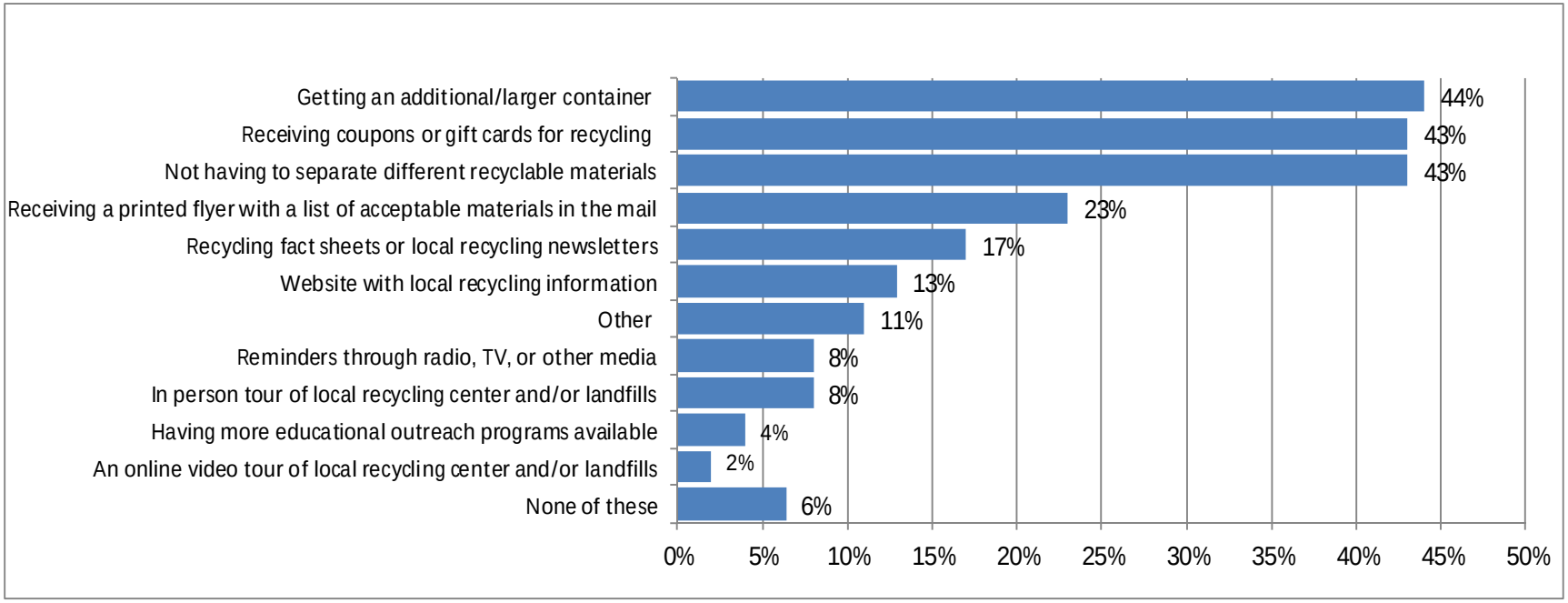
"Coupons/Gift cards" and "a printed flyer" are the two leading ideas to encourage respondents to recycle/recycle more often.

Those who live in the city are more likely than those living outside of it to be encouraged by getting an additional/larger container and reminders through media. Renters are more likely than homeowners to be encouraged by receiving coupons/gift cards, educational outreach and not having to separate. Homeowners would be most encouraged by receiving a printer flyer.

Asked of all responders

n = 801
Multiple Responses Allowed

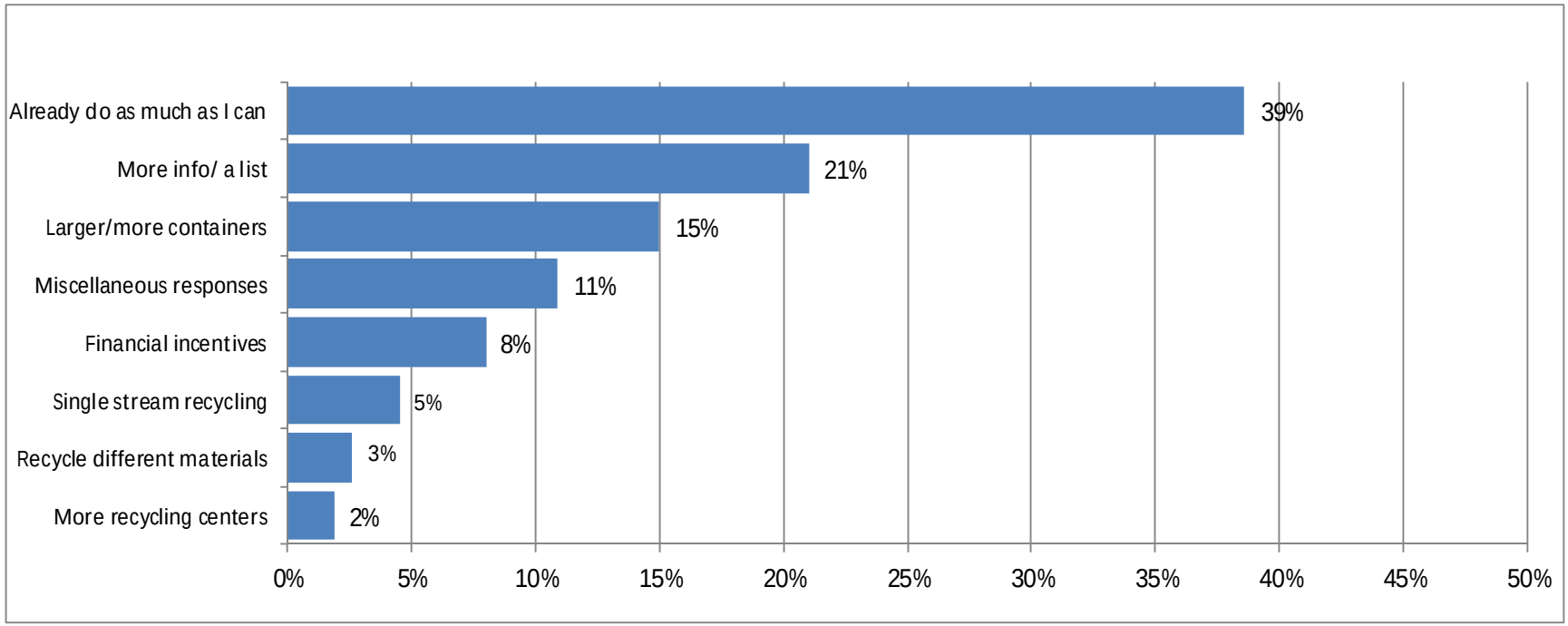
Which of these ideas would encourage you to recycle (or recycle more often)?



Asked of all NON-RECYCLERS

n = 39
Multiple Responses Allowed

What could be done to increase your participation in recycling? *(asked as open-ended question, then categorized)*



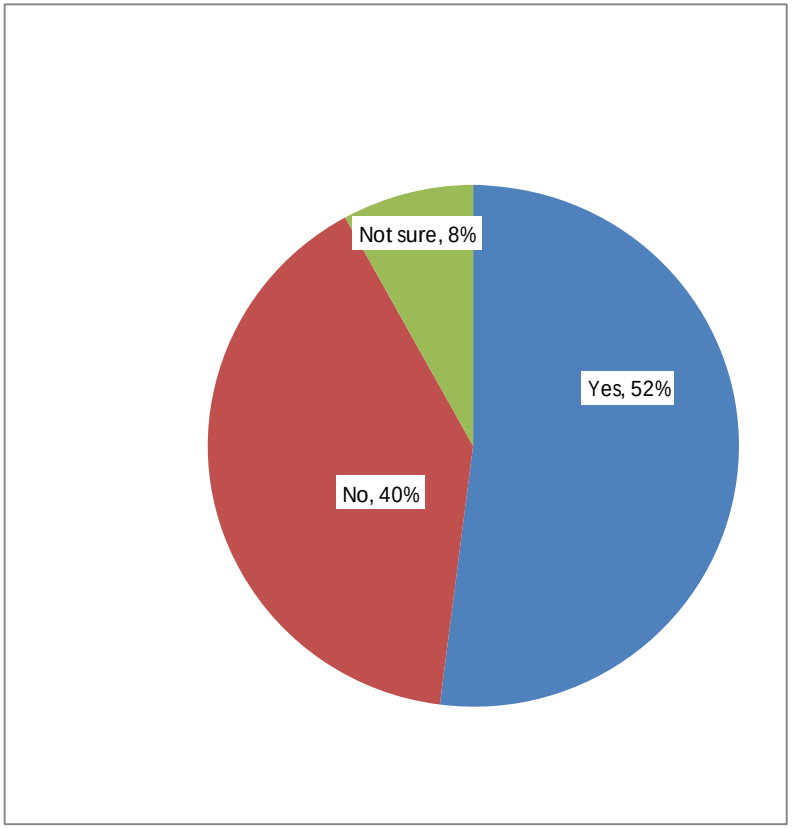
Many respondents said that they wish they knew more about what could be recycled; some suggested a laminated list.

n = 300 (randomly selected responses)

Does your household need a larger recyclable container?

A slight majority feel they need a larger recyclable container.

Those who live in the city are somewhat more likely than those living outside of it to say they need a larger container, as were those in the higher income categories.



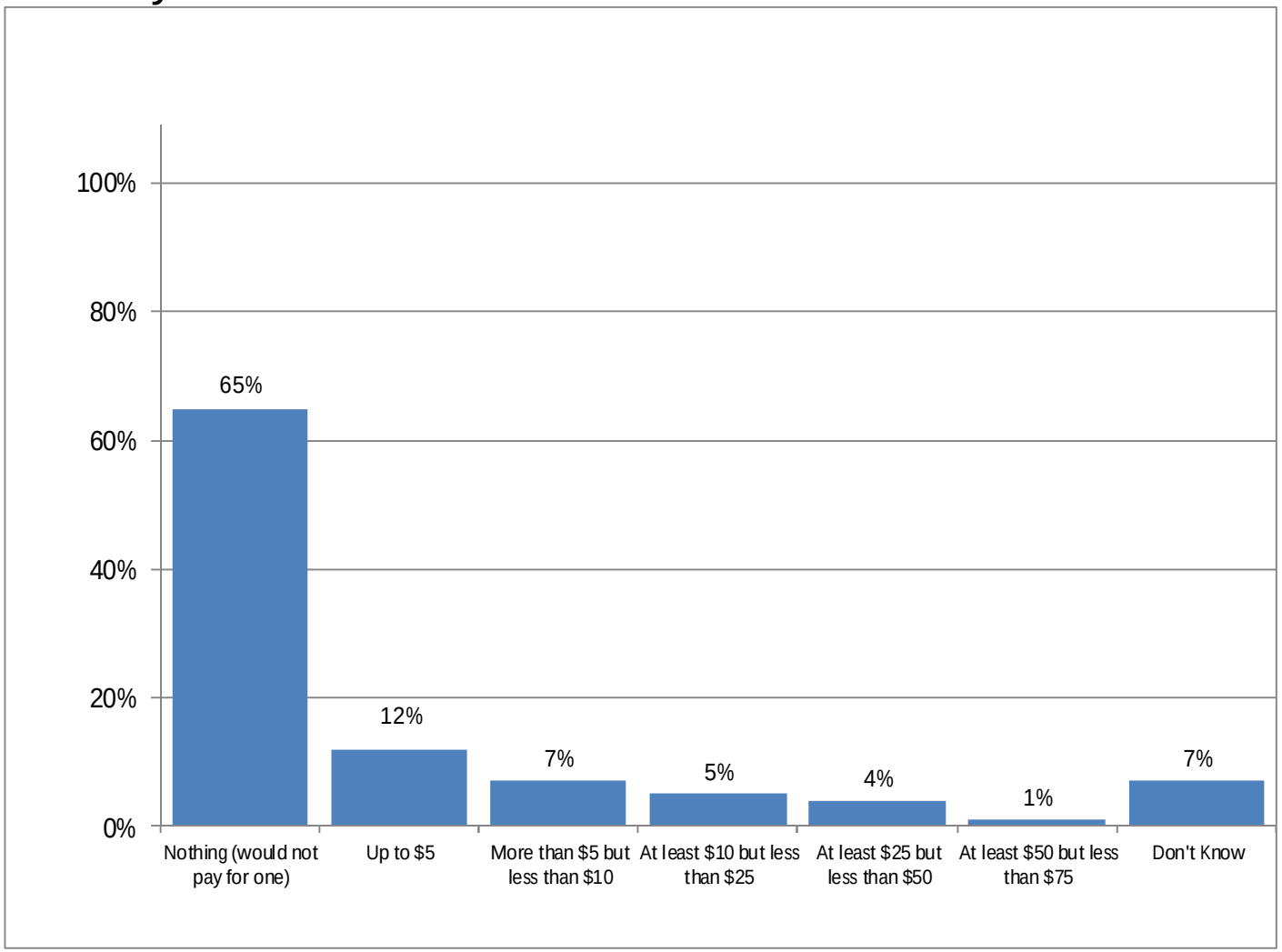
n = 801

Asked of all respondents

How much would your household be willing to pay as a one-time fee for a wheeled, covered recyclable container?

The majority of respondents would not be willing to pay anything for a covered container.

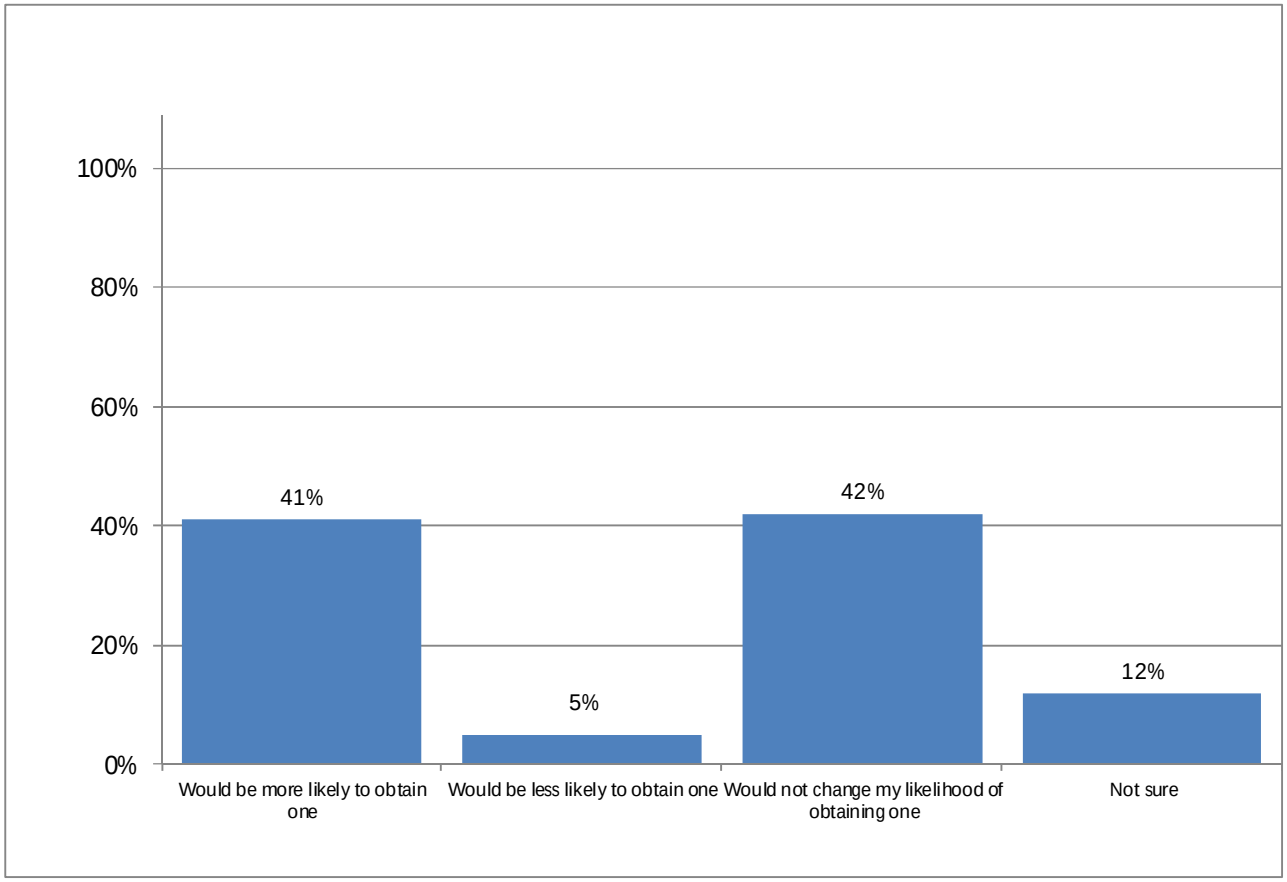
Those living outside of the city and homeowners were more likely than those living in the city and those renting to say they would pay nothing for it.



Asked of all respondents

n = 801

Your trash collector may no longer be requiring, or may soon not be requiring, that recyclable materials be separated, and thus all materials such as newspapers, plastic, glass and all other recyclable materials can be placed in one container. How will this change affect your likelihood of obtaining a covered wheeled recycling container described previously?



SURVEY CONCLUSIONS

- A very high percentage of Monroe County residents participate in household recycling. Almost all households (95%) reported saving recyclable materials in their homes for placement at the curb or a recycling location.
    - The rate was especially high for homeowners (98%).

- Of the small number who do not recycle in this manner, most still participate in some other form of recycling, including returning deposit containers and reusing materials instead of discarding them.
    - However, the main reason given for not using a household container to recycle was lack of a container.

- For recyclers, recycling is a routine household activity. Most curbside recyclers take their recycling container to the curb every trash pickup, and this is usually due the bin being full. Those who use a central location usually take their recyclables to the container at least once a week, and many do so more often.

SURVEY CONCLUSIONS continued

- Monroe County residents have heard about recycling from a wide variety of sources, especially via word of mouth from friends, family, etc., but trash collectors have been equally useful in providing information. The Monroe County website has also been one of the widely used sources of information.

- Despite the high rate of current participation, opportunities exist for increased recycling.
    - There is a limited opportunity to convert those who do not use a storage container at all to start doing so. Almost half said that they do not have a container to do so, and they tend to have positive attitudes about recycling. They tend to be renters, who many have less room for a container. They also are likely to have fewer items to recycle than those who already recycle.

SURVEY CONCLUSIONS continued

- Recyclers are not recycling all the items that they could and this is due in part to lack of information. Many recyclers in this study were vocal about wanting to recycle all that they could while at the same time not knowing what should be recycled. Thus, providing an up-do-date list of what can be recycled (e.g. in a laminated sheet as suggested by several) should be useful.

- Another increase in recycling could come from helping households to acquire more or larger containers. About half of all households said that they need a larger container, and the wheeled roller with a covered top received many positive comments. While the majority of those who need more container capacity said they would not pay for more, nor would the majority of those who reacted well to the idea of a covered rolled container pay for it, there are substantial numbers who would pay to get more container capacity.

- When implemented, single streaming should also contribute to increased material being recycled.

Monroe County Single Stream

- Opportunities to market single stream, increase awareness of how to recycle right, and increase recycling rates
  - Top 5 methods shown in survey include info flyer, additional/larger containers, and not having to sort

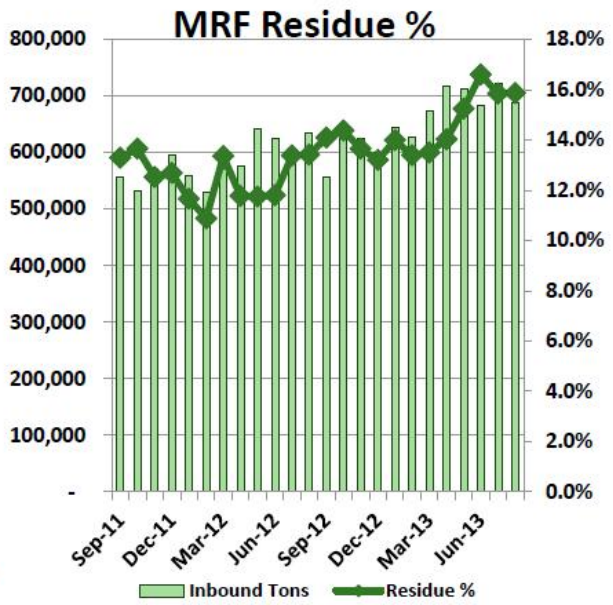
- Survey is first step in developing marketing plan, which will help us achieve goal of increasing volume and maintaining low contamination rates

WM Single Stream

- Market research led to development of campaign and supporting materials called “Recycle Often. Recycle Right.”

- Objective is to increased recycled tonnage and reduce residue by increasing consumer understanding of recycling

- Contamination is on average 16% of inbound tons (nationwide WM) Cost $140 per ton
  - MCRC dual stream rate is less than 10%





Conclusions

- Parties involved: Monroe County, WMNY, WM residential and commercial customers, WM Rochester Hauling, City of Rochester, Monroe County Recycling Center, Recycle America, Recycling Advisory Committee, municipalities, other private haulers

- Implications for operations and communications

- Two options to grow volume at MCRC remain questions:
  - How to we improve volume of existing customers?
  - How do we gain quality 3rd party customers?

- Shared responsibility for effectively maintaining material stream integrity and quality

- Moving forward to implement sustainable strategies

Appendix G

SEQR Determination

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Monroe County Final Local Solid Waste Management Plan (LSWMP)		
Project Location (describe, and attach a general location map): The Monroe County LSWMP is a planning document that is applicable to the entire county.		
Brief Description of Proposed Action (include purpose or need): The purpose of the Monroe County LSWMP is to identify the path to be pursued for managing solid waste and recyclable materials generated in Monroe County during a ten-year planning period in an economical and environmentally sound manner that is consistent with the State's solid waste management policy. The overall intent of Monroe County's LSWMP is to reduce the amount of materials requiring disposal. In the event that new facilities, physical modifications to existing facilities, or regulations new or revised, are proposed in the future, a separate environmental assessment form shall be prepared for such proposals to determine whether any proposal may have a significant adverse impact upon the environment.		
Name of Applicant/Sponsor: Monroe County	Telephone: (585) 753-7600 E-Mail: N/A	
Address: 39 West Main Street		
City/PO: Rochester	State: NY	Zip Code: 14614
Project Contact (if not same as sponsor; give name and title/role): Michael J. Garland, P.E.	Telephone: (585) 753-7600 E-Mail: mgarland@monroecounty.gov	
Address: 39 West Main Street		
City/PO: Rochester	State: NY	Zip Code: 14614
Property Owner (if not same as sponsor): N/A	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Council, Town Board, or Village Board of Trustees ☐Yes☐No		
b. City, Town or Village Planning Board or Commission ☐Yes☐No		
c. City Council, Town or Village Zoning Board of Appeals ☐Yes☐No		
d. Other local agencies ☐Yes☐No		
e. County agencies ☑Yes☐No	Monroe County Legislature; Adoption of LSWMP	
f. Regional agencies ☐Yes☐No		
g. State agencies ☑Yes☐No	New York State Department of Environmental Conservation (NYSDEC)	Approvable letter received May 20, 2015
h. Federal agencies ☐Yes☐No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☐No
Not applicable.
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☐No
iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☐No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☑Yes☐No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes☐No
Not applicable.
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☐No
Not applicable.
If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☐No
Not applicable.
If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☐Yes☐No
If Yes, what is the zoning classification(s) including any applicable overlay district? Not applicable.

b. Is the use permitted or allowed by a special or conditional use permit? Not applicable. ☐Yes☐No

c. Is a zoning change requested as part of the proposed action? ☐Yes☑No
If Yes,
i. What is the proposed new zoning for the site? Not applicable.

C.4. Existing community services.

a. In what school district is the project site located? Not applicable.

b. What police or other public protection forces serve the project site?
Not applicable.

c. Which fire protection and emergency medical services serve the project site?
Not applicable.

d. What parks serve the project site?
Not applicable.

D. Project Details **SECTION D IS NOT APPLICABLE**

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

b. a. Total acreage of the site of the proposed action? _____ acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? ☐Yes☐No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐Yes☐No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐Yes☐No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐Yes☐No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☐No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☐Yes ☐No
If Yes,
i. Total number of structures _____
ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length
iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☐No
If Yes,
i. Purpose of the impoundment: _____
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify: _____
iii. If other than water, identify the type of impounded/contained liquids and their source. _____
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐Yes ☐No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
If Yes:
i. What is the purpose of the excavation or dredging? _____
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____
iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No
If yes, describe. _____
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐Yes ☐No
ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☐No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐Yes☐No

If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☐No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes☐No
- Is the project site in the existing district? ☐Yes☐No
- Is expansion of the district needed? ☐Yes☐No
- Do existing lines serve the project site? ☐Yes☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes☐No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes☐No
- Is the project site in the existing district? ☐Yes☐No
- Is expansion of the district needed? ☐Yes☐No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☐No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

_____

_____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

_____

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

_____

_____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☐Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

_____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

_____

_____

- If to surface waters, identify receiving water bodies or wetlands: _____

_____

_____

- Will stormwater runoff flow to adjacent properties? ☐Yes ☐No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

_____

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

_____

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

_____

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☐No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes☐No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes☐No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

_____

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

_____

_____

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe: _____

_____

n.. Will the proposed action have outdoor lighting? ☐ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

_____

_____

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: _____

_____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☐ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

_____

_____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☐ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

_____

_____

_____

_____

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____

_____

- Operation: _____

_____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____

_____

- Operation: _____

_____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☐ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☐ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action **SECTION E IS NOT APPLICABLE**

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☐No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes ☐No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐Yes ☐No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☐No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☐No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes ☐No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☐No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☐No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☐No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: _____ _____%
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils: ☐ Well Drained: _____% of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes: ☐ 0-10%: _____% of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐Yes ☐No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐Yes ☐No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☐No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☐No

j. Is the project site in the 100 year Floodplain? ☐Yes ☐No

k. Is the project site in the 500 year Floodplain? ☐Yes ☐No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☐No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: _____

n. Does the project site contain a designated significant natural community? ☐Yes ☐No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐Yes ☐No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☐No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☐No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☐No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☐No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☐No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☐No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☐ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☐ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☐ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Monroe County Date 7/23/15

Signature _____ Title Director of Environmental Services

PRINT FORM

Agency Use Only [If applicable]

Project :

Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land

Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)

☑ NO ☐ YES

If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☐	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☐	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☐	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☐	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☐	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☐	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☐	☐
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D,2,h, D.2.g) ☑NO ☐YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑NO ☐YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☑ NO ☐ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____ _____		☐	☐
e. If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recr eation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.

(See Part 1. C.2.c, E.1.c., E.2.q.)

If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____ _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)

If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____ _____		☐	☐

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. (See Part 1. D.2.j) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. (See Part 1. D.2.k) ☑ NO ☐ YES

If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. (See Part 1. D.2.m., n., and o.) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health
The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES
If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [If Applicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:
To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Based on a review of Parts 1 and 2, the adoption of the LSWMP will not result in any large and important adverse environmental impacts and, therefore, will not have a significant adverse impact on the environment.

In the event that new facilities, or physical modifications to existing facilities, are proposed in the future in furtherance of the LSWMP's implementation plan, a separate environmental assessment form shall be prepared for each such proposal to determine whether any such facility or facility modifications may have a significant adverse impact upon the environment.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information
N/A

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the
Monroe County as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Monroe County Final Local Solid Waste Management Plan (LSWMP)

Name of Lead Agency: Monroe County

Name of Responsible Officer in Lead Agency: Maggie Brooks

Title of Responsible Officer: County Executive

Signature of Responsible Officer in Lead Agency: Maggie Brooks Date: 7/23/15

Signature of Preparer (if different from Responsible Officer) Date:

For Further Information:

Contact Person: Michael J. Garland, P.E.

Address: 39 West Main Street, Rochester, NY 14614

Telephone Number: (585) 753-7600

E-mail: mgarland@monroecounty.gov

APPROVED AS TO FORM MON. CO. ATTORNEY

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

The ENB SEQRA Notice Publication Form - *Please check all that apply*

Reset Form

Deadline: Notices must be received by **6 p.m. Wednesday** to appear in the following Wednesday's ENB

✔ Negative Declaration - Type I

____ Conditioned Negative Declaration

____ Draft Negative Declaration

____ Positive Declaration
____ with Public Scoping Session

____ Draft EIS
____ with Public Hearing
____ Generic
____ Supplemental

____ Final EIS
____ Generic
____ Supplemental

DEC Region # 8 County: Monroe Lead Agency: Monroe County

Project Title: Monroe County Local Solid Waste Management Plan

Brief Project Description: The action involves . . .

Monroe County, as lead agency, has determined that the 2015 Monroe County Local Solid Waste Management Plan (LSWMP) will not have a significant adverse environmental impact. The action involves the adoption of a Comprehensive Plan for solid waste management in Monroe County. The purpose of the Monroe County LSWMP is to identify the path to be pursued for managing solid waste and recyclable materials generated in Monroe County during a ten-year planning period in an economical and environmentally sound manner that is consistent with the State's solid waste management policy. The overall intent of Monroe County's LSWMP is to reduce the amount of materials requiring disposal. In the event that new facilities, physical modifications to existing facilities, or regulations new or revised, are proposed in the future, a separate environmental assessment form shall be prepared for such proposals to determine whether any proposal may have a significant adverse impact upon the environment. The project is located throughout Monroe County, New York.

Project Location (include street address/municipality): Monroe County

Contact Person: Michael J. Garland, P.E.

Address: 39 West Main Street City: Rochester State: NY Zip: 14614

Phone: (585) 753-7600 Fax: (585) 324-1207 E-mail: mgarland@monroecounty.gov

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For Draft Negative Declaration / Draft EIS: Public Comment Period ends: ____ / ____ / ____

For Public Hearing or Scoping Session: Date: ____ / ____ / ____ Time: ____:____ am/pm

Location: _____

A hard copy of the DEIS/FEIS is available at the following locations:

_____

The online version of the DEIS/FEIS is available at the following publically accessible web site:

_____

For Conditioned Negative Declaration: In summary, conditions include:

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ENB - Region 8 Notices 8/5/2015

Negative Declaration

Monroe County - The Town of Henrietta, as lead agency, has determined that the proposed Town Center & Dome Redevelopment will not have a significant adverse environmental impact. The action involves the redevelopment of Dome parcel to include 1,600 parking spaces and a 5,000 square foot Restaurant, 122 Market Rate Apartments, (2) 10,000 square foot Commercial Pad Sites, a 30,000 square foot Library and a 40,000 square foot Town Recreation Center. The project is located at 2695 East Henrietta Road, Henrietta, NY.

Contact: Christopher E. Martin, 475 Calkins Road, Henrietta, NY 14467, Phone: (585) 359-7070, E-mail: cmartin@henrietta.org

Monroe County - Monroe County, as lead agency, has determined that the proposed Monroe County Local Solid Waste Management Plan (LSWMP) will not have a significant adverse environmental impact. The action involves the adoption of a Comprehensive Plan for solid waste management in Monroe County. The purpose of the Monroe County LSWMP is to identify the path to be pursued for managing solid waste and recyclable materials generated in Monroe County during a ten-year planning period in an economical and environmentally sound manner that is consistent with the State's solid waste management policy. The overall intent of Monroe County's LSWMP is to reduce the amount of materials requiring disposal. In the event that new facilities, physical modifications to existing facilities, or regulations new or revised, are proposed in the future, a separate environmental assessment form shall be prepared for such proposals to determine whether any proposal may have a significant adverse impact upon the environment. The project is located throughout Monroe County, New York.

Contact: Michael J. Garland, 39 West Main Street, Rochester, NY 14614, Phone: (585) 753-7600, E-mail: mgarland@monroecounty.gov

Ontario County - The Town of Richmond, as lead agency, has determined that the proposed Commodore will not have a significant adverse environmental impact. The action involves the construction of warehouse building. Proposed 124,800 square foot warehouse and resubdivision of four land parcels. The resubdivision will include transfer or lands between the Town of Richmond and Ontario Holdings, LLC. The project is located at 8642 Main Street in the Town of Richmond, New York.

Contact: Gordon DeCillis, 8150 Quayle Road, Honeoye, NY 14471; Phone: (585) 229-5432, E-mail: g.wiz@frontier.com

Notice of Acceptance of Draft EIS and Public Hearing

Yates County - The Town of Middlesex Planning Board, as lead agency, has accepted a Draft Environmental Impact Statement on the proposed Komarek Major Subdivision. **A public hearing on the Draft EIS will be held on September 2, 2015 at 7:00 p.m. at the Town of Middlesex Town Hall, 1216 Route 245, Middlesex, NY 14507.** Written comments on the Draft EIS will be accepted until

September 22, 2015. A hard copy of the DEIS is available at the Town of Middlesex Town Hall, 1216 Route 245, Middlesex, NY 14507 and on line at: www.middlesexny.org.

The action involves a 4 lot major subdivision of a property with steep slopes located within the Lake Residential (LR) District for the creation of four (4) lots for single family residences, along with the construction of a private road to access each of the residences. The project requires major subdivision approval, as well as site plan review, and a special use permit from the Zoning Board of Appeals (ZBA) for the construction of the private road in the LR District. The project is located on East Lake Road in the Town of Middlesex, NY.

Contact: Martin DeVinney, 1216 Route 245, P.O. Box 147, Middlesex, NY 14507, Phone: (585) 554-3607, E-mail: tmiddlesexny@aol.com

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Appendix H

Summary of Public Comments Received and Responses

Public Comments Categorized by Topic
On the Draft Local Solid Waste Management Plan – Monroe County

General Responses Follow Categorized Comments

Pay As You Throw (PAYT) Comments

>As a society people have NO idea how much trash costs. Really. When something is thrown away (let's say, food) it's not just the food that gets tossed. It's the energy it took to grow it, water it, harvest it, haul it, process it, package it, transport it, and cook it. All of that is wasted when food is thrown out. Therefore, I fully support pay-as-you-throw systems. Until people fully realize the cost of throwing something away they will be less motivated to be discerning. It's cheaper not to care than to do the right thing.

>On Page ES-11 and page 102-103, Program Strategy # 12 does not appear to be a definitive action statement, as it only commits to evaluating methods. Is Monroe County going to use the evaluation of methods to encourage Pay as You Throw programs in some way? The discussion of this topic is more a recitation of issues and problems encountered to date and lacks any type of consideration by the County to implement any strategies if effective ones can be found. As undoubtedly Monroe County is aware, PAYT is one of the most effective ways that waste generation can be reduced.

>I fully support a pay as you throw system. The current system requires those who make an effort to divert as much of their waste stream from the landfill as possible to subsidize the cost of others who throw out anything they choose. Further, those trying to behave responsibly are actually financially penalized – i.e. they pay extra for compost, which decreases the materials that their municipality is responsible for (as well as the municipality's costs), thereby further subsidizing their neighbors' waste costs.

>Encouraging the Rochester Mayor and City Council to implement an overhaul of their Environmental Services Division with the goal of enhancing an otherwise dismal recycling rate. Whether it's no container recycling at JazzFest, trucks which were purchased incorrectly (the description of how carts are mishandled at the meeting nearly made me laugh out loud), no volume pricing of MWS (as bad off as Buffalo has been, even they volume price to encourage more recycling).. these and other issues if left unaddressed, will not help the County get to its 60% goal.

>Strategy 12: having been a low-volume customer for quite a number of years, I know first-hand the value of a "PAYT" program. Not only does this incentivize more commodities recycling, it does help save money. To the best of my knowledge, Lilac Disposal, Suburban Disposal, and Waste Management are the only ones offering a low volume program. When one takes into account an aging population as well as more adult persons living alone, the need for this takes on added significance. This is especially true in the City, whose residents pay some of, if not the highest refuse/recycling rates around. Given how bad off they've been, and how badly run their Streets Sanitation Division has been run, even the City of Buffalo has volume pricing in place. I've testified before City Council about this to no avail, so far.

> *Response:* Volume-based pricing strategies can be an important incentive for waste reduction and increased recycling when properly implemented. Monroe County has a full mix of waste collection services from private subscription to municipal collection with no appropriate 'one size fits all' pay-as-you-throw (PAYT) / save money and reduce trash (SMART) strategy. In New York State's Sustainable Materials Management Strategy, the state outlines the well-known benefits and perceived detriments of volume-based pricing. It also sets forth objectives to: "Develop additional resources, tools and information for local governments and planning units relating to volume-based pricing (PAYT/SMART) and promote their use. The resources will, at a minimum, outline the basic elements of effective PAYT/SMART programs, highlight varying programs that can be developed to address the unique characteristics of each municipality and planning unit, and provide model policies for easy adaption." The State also outlines an implementation

schedule for such assistance. Monroe County's Local Solid Waste Management Plan (LSWMP) Program Strategy #12 reflects the State's focus on a series of programmatic and planning activities instead of mandates and intends to explore the potential resources and tools developed by the State as they become available. As the owner of the Monroe County Recycling Center/ Resource Recovery Facility complex and the Mill Seat Landfill, the County has a vested interest in the implementation and promotion of volume-based pricing strategies and will continue encouraging public and private sector PAYT programs in the interim.

Education

>Education should be the top priority and provided by those whose priority and commitment is to environmental/sustainability education. And education should reach every stakeholder in the community in language they understand from CEO's to every "man on the street"

>Okay you told us through education in schools and communities we can increase the diversion rate. Well currently there are tons of education opportunities maybe not in schools but within the community that is really accessible and what it really comes down to is most in the community don't care what happens to their trash and don't care to recycle.

> Program Strategy #9 - Thoughts for implementation stage: Utilize neighborhood watches (or groups like that), community centers, schools, and faith communities to communicate and educate county residents on what it is the county wants them to know about recycling and waste diversion.

>Now I know through research and being a young solid waste expert that high diversion rates can be achieved and economic success can be immense with the jobs created and money that can be derived from valuable materials while running a successful landfill. We need a plan to achieve high diversion rates other than what the county has counted on for 20 plus years now by thinking "education "will work because it hasn't.

> There are indeed a number of centers/organizations promoting product re-use. We need greater public awareness of these entities. The county website is one method but there are no doubt others that could be identified.

>How are we going to increase public education?

> I fully support the idea of a sub-committee to increase recycling at county owned/operated facilities. I also recognize that there are staffing issues. There may be an opportunity to enlist volunteer staff to supplement county staff efforts. With proper county staff training of the individuals the recycling message could be carried forward with greater expediency.

>Was the recycling survey conducted in multiple languages? Will the public education (that is to be rolled out) be available in multiple languages?

> #9 is very well written and contains a great number of methods to educate the public as to recycling opportunities above and beyond the traditional paper, cardboard, plastic and metal. Once again, recognizing that staffing may not enable timely implementation of educational programs, I believe enlisting the aid of the volunteer private sector could do so. Of course, the program format would have to be developed/approved in conjunction with county recycling professionals to ensure consistency across the board when presenting information to the public. With all the social media available today I envision a

multi-media approach to increased/improve recycling/re-use opportunities in Monroe County and it doesn't have to be costly.

>Stakeholder education about recycling and waste reduction should be the responsibility of a group or organization that does not have a direct financial stake in the landfill operations. Assessment/reporting on the effectiveness of the education should be required. Many counties across the US have found success in using a small percentage of their tipping fee revenues to fund an area environmental NGO to provide education and I would encourage the county to consider this approach.

>We encourage the County to consider making stakeholder education the first priority of the plan. Through waste audits conducted annually at RIT, we have found that consumer behavior has the biggest impact on our various waste streams. Changing behavior can be challenging, but it can also have the biggest impact on the county's diversion rates. Targeted stakeholder education for behavior change will likely be the strategy that yields the highest rate of return on the County's investment. This has proven to be the case at RIT.

> The implementation schedule calls for expanding public outreach in the coming years (2016 & beyond), there is no mention of what's being done presently in 2015 other than following up on a grant proposal. I know there is a flyer going out in the water bills, should that and any other plans in place be mentioned in the schedule.

> It's a great idea of a designated person to coordinate and implement plans to increase public outreach. This would allow a focused approach simplifying the best practices to best results process.

>Strategies 5 & 9: the common theme here is Communication - something the County has done a poor job at. Whether it's been TV PSAs that have sent mixed messages; a failure to promote the Western New York Materials Exchange (which has been in existence since 1982), dropping the proverbial ball on promoting "ecopark", not updating the community at large about how their efforts are paying off, or reminding everyone about what to do and how to do it.. in many ways, to go forward, the County is going to have to take a step backwards. How to do this?:

1). "Mikey & Herb": Artisan Media Studios, a San Diego media & marketing firm created a campaign around two roll-carts (Exhibit C). This is treated as any other product or service being advertised. When I last spoke to one of the creators, he indicated the response has been positive.

2). "Blue Box Bulletin": just as OCRRA puts out a quarterly small newspaper, the County needs to bring this back, with it being made available in all municipal buildings, libraries, community centers, etc. (Exhibit "D").

3). Ad Council: for those items not covered in 1 & 2, enlist this organization for assistance.

4). MAT-EX: the County (as an off & on participant), needs to assist the western New York Materials Exchange in getting their brochures into the same places as listed in #2 above, as well as adding information about this to the County's web site. (Exhibit E)

5). Recycling trailer: rotating this throughout the towns & the City at appropriate public events (farmers markets, July 4ths, etc.)

6). Bus wraps: as a part of a coordinated campaign, a few RTS busses can be wrapped, which has been done before.

7). Phone books: along with the Frontier Yellow Pages, the County's recycling page should also appear in the Yellowbook.

> *Response:* As outlined in the LSWMP, the County has used a variety of strategies in promoting the proper management of solid waste via the 'Three R's' Reduce, Reuse, Recycle—with varying degrees of success. Using a combination of budgeted County funds, grant money and revenue from the recycling program, the County has continually upgraded the mandatory recyclables list with voluntary items requiring the frequent re-education of the public. To accomplish this, the County has aggressively pursued recycling education campaigns and opportunities (mass media, buswraps, water billing inserts, 3rd-4th grade recycling calendars, recycling mascot, public service announcements (PSAs), public outreach, facility tours, summer public library education programming, etc.).
>
> The County has produced new single-stream recycling and ecopark cards/bill stuffers, video PSAs, a recycling center virtual tour and is exploring additional public education opportunities. While Monroe County law and regulation sets the minimum standard of what is source separated and collected for recycling, it does not govern how it is collected or where recyclables are processed. The County owns the Monroe County Recycling Center (MCRC), where approximately 70 percent of County residential curbside recyclables are processed, but does not operate a solid waste/recycling collection entity. Many residents and commercially leased residential properties do not contract with solid waste/recycling collectors that patronize the MCRC. This complicates crafting a detailed 'one size fits all' countywide recycling message and single-stream recycling program promotion. One of the larger locally-owned waste/recycling collectors (that does not patronize the MCRC) continues to collect recyclables dual stream and encourages the placement of plastic bags/product wrap in its curbside recycling bins. These materials are prohibited at MCRC (and most recycling centers) for operational reasons.
>
> The County has reworked its implementation schedule to reflect ongoing activities related to Program Strategy #9 and to more specifically address future goals for public education programs.

Organics (Food Waste and Yard Waste)

>Not only advocating for organic composting, both residential and commercial, but creating the opportunities to make it happen. Food waste is a huge issue. Composting can keep it out of the landfill and provide a produce of value. Coordinated efforts with food waste generators (restaurants, for example) to plug them into the services available for collection and beneficial use

>P.52, Epiphergy is no longer a company, but Community Composting is.

>With regards to organics collection, the least expensive option is to focus on (and incentivize) large generators to institute composting programs. For residential generators, back yard composting could be more effectively incentivized if the county offered discounted composting units. In urban areas, static, open pile composting can lead to increased rodent problems. Therefore container systems should be encouraged. Because there is a nontrivial upfront cost, the county should consider offering rebates or discounts on preapproved composting units in addition to education.

Public Comments Categorized by Topic
On the Draft Local Solid Waste Management Plan – Monroe County

General Responses Follow Categorized Comments

>Zero landfill initiatives are becoming commonplace, particularly in the manufacturing sector. We encourage Monroe County to place a greater emphasis on expanding diversion options, in order to be more attractive to businesses that are considering locating in or around the county. Encouraging private sector investment in expanding outlets for new commodities such as organics, while important, will continue to have limited impact, without county leadership and resource commitments.

> At 25 percent of MSW being organics (County-Wide Residential MSW Composition, pg. 73), focusing on Yard Waste Composting (19 percent) would be a highly effective way to make substantial landfill reductions, and piggybacking Food Waste composting (6 percent) would be a natural fit for further reduction improvement.

>Strategies 6 & 7: the proper collection of all yard waste for the creation of mulch & compost is an issue for virtually every municipality in the County, with a couple of exceptions. Consequently, in order to increase the amount of this material that otherwise is being landfilled; a more coordinated approach needs to be adopted. This should include:

1). A County-wide ban on traditional plastic trash/contractor bags for the collection of all organics, unless they are compostable.

2). A County-wide ban on the use of plastic bags for the collection of Christmas trees.

3). Encouraging retailers (as was successfully done in Greece) to carry paper yard waste bags if they're not already doing so.

4). Encourage Waste Management to establish a yard waste area at the Mill Seat Landfill, just as they already have at High Acres.

5). Encourage those commercial entities that generate food waste to invest in food digesters. (exhibit F)

6). In crafting a comprehensive yard waste strategy, all municipalities need to be involved, as well as the commercial haulers - both of which weren't the case in 1993, when yard waste was last addressed by the County (nothing like being up-to-date). (exhibit G)

7). Encouraging residents to either retrofit or replace their lawnmowers with mowers that mulch the clippings, so they're not landfilled.

8). With an increased amount of yard waste source separated, the County could bag & sell the finished product as has been done by the southeast Public Service Authority in Virginia, or by OCRRA in Onondaga County. (exhibit H)

9). Just as the County needs to do a better job reminding residents to rinse out all jars & cans, residents also need to be reminded to rinse out all flower & plant containers from nurseries prior to recycling.

Response: The County recognizes the importance of organic materials management in its long-term goals for solid waste diversion and (as the plan outlines) intends to make more active efforts to promote the proper management of yard waste and other organics including commercial/institutional food waste. While the County does not have the ability to collect organic

material, it does, via intermunicipal agreement, compost Rochester's annual leaf collection material and also promotes private subscription food waste collection.

During the planning period, the County will focus on honing yard waste management programs—the "low hanging fruit" of organic waste management with an already in-place landfill ban, collection element and outlets/end markets. By organizing a public/private coalition of yard waste entities, the County hopes to increase public awareness of, and participation in, proper yard waste management activities via home composting, public collection and private subscription (where municipal collection programs are lacking). The County will additionally continue to promote fat, oil, and grease diversion (via the ecopark and private programs) and increased paper diversion (via recycling).

Inroads for the diversion of institutional/commercial food waste are slowly taking shape in the greater Monroe County area with local private food waste hauling/composting companies operating and managing certain food wastes for local institutions. The County will monitor these programs and promote their successes while gaining knowledge from their challenges. During the planning period, the County plans to put this knowledge and these resources to use at its own facilities (college, jails, airport, hospital, etc.) as appropriate and continually promote the importance of home food/yard waste composting.

Solid Waste/Recycling Law Update and Enforcement

>Monroe County also says that its Mandatory to recycle but we all knew if that were true there would be a penalty for not recycling and a higher overall Diversion rate. I have worked on the back of a trash truck the past two summers for the village of Hilton and I can tell you that not a lot of people recycle, actually there is quite a few that don't. I also know of quite a few people that don't recycle and they tell me that they don't care and to just throw it all in the same place.

>I would like to see mandatory recycling of all clean paper and recyclable containers in businesses, institutions, and industries - not voluntarily or only in food preparation areas. That was not clear to me if that is a goal. Currently only cardboard and high-grade office paper along with containers generated in food preparation areas are required to be recycled.

>What we need is a plan that includes updated legislation that includes both penalty and consequences on the residents, businesses, schools, hospitals, and apartments that don't recycle. Or put accountability on the haulers that includes penalties and consequences for dumping materials that shouldn't be going to the landfills. This can be done in an inexpensive way by having haulers give warnings to customers and eventually resulting in a write up, and fine to the customer or resident which will go to the county. This gives incentive to customers and residents because expensive fines for not recycling will make profit for the county in the short run and in the long run even if the number of fines go down as the profit made from the additional materials will be just as high. It's also an incentive for the haulers because their hauling and disposal fees will go down in the future as well.

>Recycling is not a hard concept or task especially since the new single stream recycling system went into effect. What we need is a plan beyond education to increase diversion rate. Through legislation with penalty and consequence or changing the system in which we process waste before it reaches a landfill we need to figure out this long term solid waste plan problem to achieve a 60 percent or even higher diversion rate.

Public Comments Categorized by Topic
On the Draft Local Solid Waste Management Plan – Monroe County

General Responses Follow Categorized Comments

>The Monroe County Law should make recycling mandatory for the following: Public and Private festivals, C&D, County buildings, Landlords. Do updates to the Recycling Law include updates to ways in which the law will be enforced? If so, what are those methods?

>Identifying and speaking with all area merchants (large & small) who currently aren't engaged in recycling activities, or are not properly placing materials out for recycling - about the need to do so. This would apply to offices and other such institutions.

> Strategy 2 and 13 are interconnected, local laws need to reflect the demand for better reporting of MSW and recycling material flows, for sound planning and best practices to be utilized.

> *Response:* Monroe County Local No. 3 of 1991 (Solid Waste Reuse and Recycling Law) and its associated regulations have not been modified to fully keep pace with current solid waste management practices. However, they do provide the sturdy framework on which local municipal ordinances/codes were crafted and allow for the minimum standards for the required source separation of recyclable material at the curbside (and by businesses) and its collection and delivery to authorized recycling facilities. It provides guidelines to waste/recycling collectors for handling customers that commingle solid waste with recyclables and prohibits the commingling of the materials by collectors. The law and regulations (available on the County website) allow for the enforcement of these requirements (as do local codes) and, while individual households are generally not reported for violations, violation reports by businesses, apartment complexes and collectors are regularly received, investigated and (if necessary) corrected.
>
> It is a Program Strategy for this planning period to revise the law/regulations to reflect current practice and make additions/deletions in keeping with the goals of this plan.

Public Event Recycling

>The County can easily advance public recycling efforts by mandating that any organization that receives county funding (whether sponsorship for a single event or regular financial support) must have a recycling program in place. State and federal funds often have such types of stipulations tied to their funding. Given the number of festivals that occur in this county, it is a missed opportunity for public education that recycling is not required and highly visible.

>I am looking forward to seeing recycling containers at public events, as I have not seen them before!

> *Response:* The County has had much success and failure with public event recycling over the last two (2) decades and continues to see recycling prevalent at most festivals/events at Monroe County parks, and County-operated venues such as Frontier Field and the Greater Rochester International Airport. Prior to the 'Better Bottle Bill,' the County also partnered with radio stations and festival organizers to provide and promote public event recycling containers (created or grant-funded) to 'open street festivals' (Park Ave Fest, Brockport Summer Arts Festival, Fairport Canal Days, Rochester St. Patrick's Day Parade, etc.). The Better Bottle Bill has either allowed festival organizers to make public event recycling a fundraising/educational opportunity for organizations or consolidated deposit containers for non-organized collection leaving only contaminated recycling receptacles behind. The County continues to provide public event recycling equipment for several more restrictive venues (airshow, Buffalo Bills Camp, etc.) with a greater degree of success and to street festivals (such as Greentopia) that have a public education component.

Public Comments Categorized by Topic
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General Responses Follow Categorized Comments

The County will study a public event component to the solid waste/recycling law/regulations during their revision process.

Construction and Demolition Debris & Hard to Process Items

>Opening and maintaining communications with the following groups: American Institute of Architects (AIA)-Rochester Chapter, Rochester Home Builders Association (RHBA), Better Contractors Bureau (BCB), All area commercial property developers, All area C&D processors. The purpose; to educate all of these parties of the need to source separate as much C&D material as possible for recycling & or reuse.

> As part of the permitting process for demolition/deconstruction established contractors should be given a specification for properly segregating demolition debris. They no doubt segregate materials such as metals that have re-sale value and they should be able to extend the segregation process to C& D materials.

>If there are gaps in terms of the C&D materials currently being processed, consider reaching out to Taylor Recycling about opening a facility in the County, which would service all of western N.Y. (exhibit B).

>"Hard to Process Items" (HTPI): along with the other items considered in proposed Plan, the following items also need to be addressed as a part of the County's 60% goal:

1). Glass: as this was discussed at the public meeting, I've enclosed information about a local firm who could be another outlet for this material, as well as a chart outlining the various uses for glass the County needs to pursue. (exhibit J)
2). Carpeting: whether the County processes this itself or partners with an outside firm, the aftermarkets exist for this. (exhibit K)
3). Mattresses/Boxsprings: whether the County processes these items itself or outsources this work, there are post-consumer uses for the component parts. (exhibit L)
4). Ceiling tiles: Armstrong World Industries has and continues to collect these for reprocessing. (exhibit M)
5). Toilets/old bathtubs: the porcelain captured can be used for new sidewalks, curbing, and gutters, as the enclosed article points out. (exhibit N)
6). Styrofoam (EPS): enclosed are a couple of units the County could obtain in order to finally process this material which, from observation, people still put into their recycling bins. Commercial businesses are also looking for a home for this material as well. (exhibit O)
7). Asphalt shingles: with Minnesota's weather conditions are a bit harsher than ours, if using this material for roadwork can work there, it should work here, with more recent data on its success probably available. (exhibit P)

If additional space is available at Avion Drive, that could be used for a drop off location. If that conflicts with the residential drop-off, (it's) all the more reason for that to be re-located to a more centrally located & visible site.

Response: During the planning period, the County will be reaching out to construction and demolition debris management entities during the process of addressing Program Strategy #s 4 and 12. The County will continue to look for ways to improve services at the ecopark facility, which may include more opportunities for C&D debris recycling.

Public Meeting

>I attended the LSWMP meeting the other night and spoke with you personally before the meeting and discussed various topics. I was really disappointed to see the turn out by the community as it was not well attended in my opinion and proves how little most within the county really care about the problem with

solid waste within Monroe County. I also believe the event which was a public informational meeting was poorly advertised by the county as I believe more residents may have showed up if they had known about this event.

>Despite being inconveniently located and starting unnecessarily late, I nonetheless found the public information meeting on the LSWMP to be quite informative. While I also believe many of the program strategies should have already been implemented, I'm pleased that the County is willing to take a more pro-active approach to this most important arena.

> *Response:* The public information meeting was organized, advertised and conducted similar to other public meetings and held in a centrally-located and handicapped-accessible venue with sensitivity to general working hours and no-cost, ample parking.

Order of Strategies

>The first strategy listed in the plan is expansion of Mill Seat landfill. While likely necessary, this should be considered the lowest priority and presented in the plan as the last resort. The first priority should be education with an emphasis on reduction of waste generation and proper recycling to divert more materials from the landfill.

>In 2010 the State of New York shifted its approach to waste from an "end of pipe" issue to a more holistic management strategy with the release of "Beyond Waste: A Sustainable Materials Management Strategy for New York State". The US Environmental Protection Agency has been advocating for this type of systematic approach for almost a decade. The first program strategy detailed in the SWMP includes an expansion of Mill Seat Landfill. Ensuring there is sufficient landfill capacity within the county is clearly a necessary element of the plan. However, listing it as the first strategy is inconsistent with State and Federal plans and suggests that is it the top priority. We therefore encourage the county to consider reorganizing the program strategies in order of priority as listed in New York State's plan.

>I also believe that it's great that the county is working on extending the current spot of Monroe counties main disposal site of waste in Mill Seat Landfill as I think this is vital going into the future as no matter how high the diversion rate is there will always be waste that needs to be disposed of properly, hopefully in smaller amounts going into the future.

> *Response:* As was stated prior to, and at the beginning of, the public meeting, the numbered order of Program Strategies listed in the Monroe County Local Solid Waste Management Plan is in no way reflective of the priority of the elements therein.

Data Gathering / Further Study

>A number of the strategies in the plan are dependent upon the use of surveys to gather additional data. Most organizations receive dozens of survey requests annually, each of which is time consuming to fill in. If stakeholders do not see a direct benefit to their organizations in participating in the survey they will be less likely to participate. The same amount of data, and likely more, could be acquired through the creation of a stakeholder subcommittee of the RAC with representation from all of the major generators, including institutions, manufacturers, hospitals and schools. If the generators are involved in the planning process they will be far more likely to provide data for the county reports. Large generators are far more attuned to the challenges and opportunities available to them within the materials management sector. Further, this type of engagement could reveal opportunities for collaboration and improve the region's ability to compete for state funding for materials management related projects. In the instances where surveys are necessary, we encourage the county to consider partnering with area schools to conduct the research. This will enable the county to provide an additional educational opportunity for its stakeholders.

Public Comments Categorized by Topic
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General Responses Follow Categorized Comments

As surveys can be time consuming to administer and analyze, having classes oversee the surveys could also enable County staff to focus on other priorities.

>Every action item appears to be "further study", with few actionable implementation items that will result in tangible reductions. There are significant costs to hire consultants to conduct studies and they are very often never used. Large generators have likely already conducted studies internally and will be in a better position to guide the county's efforts. For those data points that cannot be acquired through stakeholder engagement, studies could be conducted in partnership with area schools to offer learning opportunities for students. A) The expenditures that would otherwise have gone to consultants could then be better used in providing comprehensive education programs. B) Use an unbiased 3rd party to conduct any surveys/studies that are absolutely necessary. Results from surveys conducted by parties that have an interest in the outcome of the survey are less trustworthy.

> *Response:* The gathering of information/data, and its study, is an important part of the goal progressions outlined in this local solid waste management plan. It is also recognized that these efforts can be cumbersome, biased and inaccurate by nature and are never undertaken lightly or without regard to cost. Almost all of the County's most effective solid waste management programs (all-clean paper recycling, expanded plastics and metal recycling, pharmaceutical collections, leachate conveyance and treatment, biosolids management, the ecopark facility, single-stream recycling, etc.) came after extensive periods of "further study" (useful surveys, existing program studies, data collection, etc.). The County also recognizes that some of its programs were less effective or failed due to insufficient study or relying on technologies that were too cutting-edge (Resource Recovery Facility, Chet the Cheetah recycling outreach). Being able to advance cost-effective and forward-thinking environmental programs with minimum taxpayer risk is always a fine balance.

Single (Uncategorized) Comments & Minor Corrections

Single-Stream -- **>**I am also glad to see that Monroe County has switched over to single stream recycling and that there is a very low residual waste amount that is produced since the switch.

> All good stuff... I did see an interesting article in D & C ... Doubling of recycling and components of plan not going to work until patrons have two (2) big totes... one single (stream) and one refuse.... might be an issue for the committee.

> *Response:* Comments noted.

ecopark -- **>**I was also glad and still am today to see the Eco Park open and operational as a site that can take and recycle hard to recycle items such as bulky plastics, Styrofoam, and e–waste.

> In his introduction to the presentation of the LSWMP on January 8th, at ecopark, Mike Garland expressed excitement as to the plan developed/presented by Barton & Loguidice. I share that excitement. I believe Monroe County has been a leader in recycling development and related matters; e.g., pharmaceutical waste disposal, electronics recycling. Implementation of this plan with constant monitoring and follow-up will enable Monroe County to continue to be in the forefront.

> *Response:* Comments noted.

Public Comments Categorized by Topic
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General Responses Follow Categorized Comments

Lack of Coherent Plan -- **>**The problem with the overall "plan" presented the other night in my opinion and others opinion is there really is no plan. What we saw is the county has and will continue to own and have partnered relationships with other companies in the transfer station, recycling center, Eco Park, and Mill seat Landfill which is all great. We also got to see what the diversion rate currently is with a hypothesized number since it's hard with lack of data to actually see what it could be. You also showed us the amount of waste produced in the different waste streams. Along with what the county would like the diversion rate to be in 10 years. What we did not get is the plan to get to that point.

> *Response:* The County understands that while the diversion goals of its LSWMP are lofty, the plan can help achieve them through its Program Strategies along with the necessary assistance of local municipalities, the NYSDEC, private waste collectors, private facility owners and the County's private solid waste/recycling partners. Concentration on easier attained diversion candidates that have high landfill presence with preexisting and underutilized collection avenues and valid end-markets (yard waste, paper, plastic bags and product wrap, clothing, etc.) with educational and organizational assistance is an important part of the framework. A revision of the County's Solid Waste Reuse and Recycling Law and Regulations and better data collection will be positive steps toward assessing the items with few current collection options and emerging end-markets while providing the flexibility to improve existing programs as opportunities arise.

Dirty MRF -- **>**Another option for the county which would prove more costly would be to open a "dirty MRF" (materials recovery facility). Along with a clean MRF that takes in the regular curbside recyclables, a dirty MRF would take in all the other waste which would then go through a series of sorters including a trommel which will rip open bags and other materials. Then go through a series of optical sorters, screens, disks, magnets, manual sorters, etc. to extract yard waste, food waste, wood waste, metals, Fibers (paper/cardboard), plastics, glass, and other materials to reduce the amount we send to the landfill and increase the diversion rate. A company that specializes in this equipment is BHS (Bulk Handling Systems). Once again this option would be the more costly option but in the long run again it would prove to be profitable and great for economic success. There are many studies and proven success by going to either of these systems around the country.

> *Response:* The dirty municipal recycling facility concept was unsuccessfully piloted by Monroe County at its Resource Recovery Facility in the 1980s and, while the processes at such facilities have advanced with time and technology, the County has chosen to make significant investment in the MCRC. Emerging technologies for solid waste management (many of which are highlighted in Chapter 5) are continually evaluated.

Funding -- **>**Who is funding the 14 program strategies?

> *Response:* As has been the case with the original solid waste management plan, a combination of funding sources (public, private, grant, solid waste/recycling revenue, etc.) will be used as necessary.

Definition -- **>**Is the definition of 'disposal' synonymous with landfilling?

> *Response:* While disposal and landfilling are not defined terms in the plan, disposal of an unwanted material generally means it will be placed in a landfill. There are also, of course, many exceptions to that broad categorization.

Public Comments Categorized by Topic
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General Responses Follow Categorized Comments

Reduce -- **>**How does this overall plan promote waste reduction?

> *Response:* Waste reduction, sometimes called waste minimization, is simply creating less waste. It's shrinking the amount we throw out through changes in the design, manufacture, packaging or use of a product -- and using fewer toxics. Source reduction also includes reusing or extending the life of products and packaging. Program Strategy #11 (Product Stewardship Framework) specifically addresses ongoing efforts toward producer waste reduction.

Inter-County Partnerships -- **>**On Page 3, Table 1-1's discussion of effects of Opportunities or Impacts to Implement the LSWMP from Ontario County is confusing to us. Is Monroe County aware of recycling that is generated in Monroe County that is being handled at the Ontario County Material Recycling Center operated by Casella? Ontario County is well aware that some private haulers serving portions of Ontario County and at least one municipal transfer station sends MSW and recyclables to High Acres Landfill in Monroe County. In regard to opportunities, has Monroe County considered partnerships with adjoining counties in regard to handling hard to recycle materials? In reviewing the list of materials handled at ecopark it seems like there is a great opportunity to provide a regional resource and collaborate with adjoining counties that could reduce costs for all involved counties.

> *Response:* Monroe County knows that a portion of residential, commercial, industrial and institutional recyclables generated within its boundaries is processed elsewhere. It has been a continuing member of Genesee, Livingston and Wyoming (GLoW) counties' materials exchange (MAT-EX) program. A portion of the County's fee-based conditionally exempt small quantity generator chemical waste disposal program comes from out-of-county businesses/institutions/not-for-profits and out-of-county residents are able to take advantage of the household hazardous waste program for a fee. Almost all other ecopark-accepted items have more local recycling alternatives (use of which by residents is heavily encouraged by the facility's Locator search tool).

Agricultural Plastics and Agricultural Data Questions -- **>**On Page 25, Section 1.5 mentions that the number of operating farms within the Planning Unit has decreased since 1988. While a credible data source is cited, data is not presented that evaluates either the magnitude of that change or whether the residual number and type of farms is a significant source of agricultural plastics. Since 1988 the amount of agricultural plastics used on farms has skyrocketed, they are no longer used for containers but for bagging feed, bagging hay, covers for bunker silos, plant bedding, and greenhouse sheeting, to name a few. Thus, it may very well be true that while the number of farms has decreased, the quantity of agricultural plastics used and then discarded within Monroe County has increased. Ontario County and other counties surrounding Monroe have significantly more active farms and issues with agricultural plastics. Agricultural sheet plastics present special challenges, many of which revolve around collecting a large enough weight of material to market. This is another area where collaboration with neighboring planning units may provide an opportunity to improve the success rate each unit has in improving recycling of agricultural plastics.

> *Response:* Monroe County is interested in the progress of Cornell Waste Management Institute's (CWMI) Recycling of Agricultural Plastics Program (RAPP) and (via its RRF complex contract operator) encouraged a similar program for boat wrap plastic (ultimately unsuccessful). As noted, material tonnage is one of many challenges for these programs that will hopefully be overcome as time and recycling technologies advance.

Public Comments Categorized by Topic
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In-Monroe County Disposal Capacity -- **>**On Page 29, information is presented on the average daily amount of Municipal Solid Waste permitted at Mill Seat Landfill. At the same time, no such information is provided for the other MSW landfill operating within the County, High Acres. Since the landfilling of waste is one of the components of the County's Draft Plan, I would suggest that the plan should discuss and consider the combined capacity of both of these facilities and state whether sufficient capacity exists to meet Monroe County's demand during the planning period. A casual review of the approved volume capacity of these two facilities certainly implies they are sufficient to meet demand and indeed meet regional MSW disposal needs. My point here is that the analysis doesn't come right out and document that fact.

> Secondly, corporations are looking for ways to reduce their landfill footprint for environmental reasons. Why then is Monroe County expanding our landfill footprint?

> *Response:* By continuing to provide Disposal Capacity at the Mill Seat Landfill, the County will be able to continue to provide environmental and disposal cost security to the community. The County's ownership and control of its long term environmental infrastructure, which includes the Mill Seat Landfill and its WWTFs, is critical to support a high quality of life and economic development in the County. If additional Disposal Capacity is not provided by the County, then it would be subject to the inherent unreliability and unpredictability associated with a reliance upon others for waste disposal. Tipping fees charged by others would be subject to market fluctuations and the County, and County residents and businesses, would be subject to the variability of the market should the County not provide a secure cost efficient long term disposal option.

Table 2-3 Inaccuracy -- **>**On Page 31, Table 2-3 is not accurate as to the current permit status at the Ontario County Landfill. On July 22, 2014 the New York State Department of Environmental Conservation issued a renewal of the County's existing 360 Permit, effective 1/21/2015 through 1/20/2025. In addition, the facility address is 3555 County Road 49, Stanley, NY 14561 in the Town of Seneca.

> *Response:* Table edited.

Page ES 6 Correction -- **>**I just reviewed your plan that you sent me and there is one error in it that you should be aware of. On Page ES 6, under the bullet Town, Village and School District Yard Waste Composting Facilities – You have the Village of Churchville contracting with private haulers for curbside collection. I believe that they do their own pick up with Village crews.

> *Response:* The bullet on Page ES-6 refers to towns, villages, and school districts that own and operate yard waste composting facilities; however, the paragraph following this bullet refers to curbside collection of solid waste and recycling. The Village of Churchville does not collect solid waste and recycling materials with municipal crews and trucks and instead utilize WMNY as their service provider for these types of materials (as referenced in Table 1-2). The Village of Churchville does conduct municipal pick up of yard waste with their crews and trucks, which is detailed in Table 2-9.

Glass Recycling Greenwashing -- **>**The Federal Trade Commission (FTC) has increased it legal actions against "green washing" claims per the FTC Green Guides. This has increased the importance of accurate and transparent information on waste streams and recycling for producers and consumers. According to the guides a product or package cannot be considered recyclable unless it can be used "in

manufacturing or assembling another item." While we understand that the glass market has changed, the county's current practice of crushing glass and using it as daily cover at the landfill, while claiming it is "recycled" maybe interpreted as "deceptive" according to the FTC. Any company or organization utilizing the county's recycling stream that is making any landfill diversion claims could be subject to FTC legal action.

> *Response:* The County lists glass bottles, jugs and jars as 'accepted' from its waste /recycling collector customers for recycling/recovery at the Monroe County Recycling Center. Until recently, most of this material was recycled. The closure of a regional glass market, however, makes the collection of this material for uses other than engineering applications currently untenable. The NYSDEC in *Beyond Waste* recognizes the issues related to glass recycling and markets (Section 8.3.8 and 8.3.10). Market development is the responsibility of Empire State Development (ESD) which has staff working to develop and expand glass markets; it is aware of the barriers to community recycling and has targeted efforts toward alternative applications that do not require costly sorting or cleaning. The use of glass in civil engineering applications is discussed in Section 8.3.10 and in the recommendation (8.3.14 (a)) to "Encourage local use of processed, mixed glass, chipped tires, and other appropriate recycled materials in engineering applications."
>
> The County is not marketing a product (which would fall under the FTC's Green Guides) nor is it being deceptive in its outreach regarding the glass recovery process at the MCRC.

Meeting Statement Inaccuracy on Recycling's Beginnings -- **>**Recycling's beginnings: it was stated that this began in 1991, when in fact it began in 1988. Residents of Irondequoit have been recycling since 1970, except for the period 1986-1988 (the end of the Town's drop off site, due to Owens-Illinois closing a glass facility, and the beginning of "The Blue Box Program" at curbside.) (Exhibit A)

> *Response:* The origins of the County's formal curbside recycling program began with the passage of Monroe County Local Law #3 of 1991 (Solid Waste Reuse and Recycling Law).

Waste Hauler Group Communications -- **>**Opening & maintaining an on-going dialog with all current and future waste haulers operating in the County (at the moment a challenge as there isn't a viable waste haulers association).

> *Response:* While it is true that communication with waste/recycling collectors is not formalized within an existing organization, collectors are welcome at all meetings of the Monroe County Recycling Advisory Committee and represented by a member thereat. Communications with the public and private collection entities which patronize the MCRC/RRF/Transfer Station complex—which collect from approximately 70% of County households—are regular and productive.

Flow Control -- **>**I kind of thought that the Oneida-Herkimer settled the idea of flow control. The free market should dictate final disposal/processing takes place. Proactivity on the other case where strategies should yield the enhanced diversion the County is looking for.

> *Response:* Comment noted.

Grants & Public/Private Partnership Funding -- **>**As for costs, public-private partnerships, as well as state, federal, and private sector grants need to be the job of the County's grant writer - presuming there is one.

> *Response:* Comment noted.

Public Comments Categorized by Topic
On the Draft Local Solid Waste Management Plan – Monroe County

General Responses Follow Categorized Comments

Waste-to-Energy--**>** Based on our research and experience here at Diamond, I believe that EFW (Energy from Waste) is a significant missing component in the Monroe County SWMP. If even cursory investigation is done, the experience in northern European countries and even in Lancaster County, Pennsylvania will show a balanced approach to waste should include EFW. Lancaster County Solid Waste Authority owns: 1 recycling center, 1 landfill, and 2 EFW facilities. The EFW facilities enabled them to extend the life of their landfill by 15-20 years with no landfill expansion. The energy produced is used to power homes in the county.

> *Response:* Chapter 5 – Alternative Technology Evaluation addresses waste-to-energy facilities under Section 5.1, Disposal Technology Options 'Waste-to-Energy (Combustion/Incineration).' The incorporation of new technologies (on an individual basis) will be evaluated for local feasibility and cost effectiveness during this planning period depending upon staff and resource availability.

Appendix I

Resolution Adopting Plan

Clerk's Office, County Legislature

№ 13315

MONROE COUNTY, N.Y.

Rochester, N.Y. October 23, 2015

To Whom it May Concern:

I Hereby Certify, That at a Session of the County Legislature of the County of Monroe, held in the County Office Building on October 13, 2015

a resolution was adopted, of which the following is a true copy:

By Legislators Marianetti and Terp

Intro. No. 344

RESOLUTION NO. 259 OF 2015

ADOPTING MONROE COUNTY FINAL LOCAL SOLID WASTE MANAGEMENT PLAN, DATED JULY 2015

BE IT RESOLVED BY THE LEGISLATURE OF THE COUNTY OF MONROE, as follows:

Section 1. Adopt the Monroe County Final Local Solid Waste Management Plan, dated July 2015; implement the solid waste management programs, projects and plans as identified; and submit Final Local Solid Waste Management Plan compliance reports, modifications and updates to the New York Sate Department of Conservation when required by applicable regulations.

Section 2. This plan will have no impact on the revenues or expenditures of the current Monroe County budget.

Section 3. This resolution shall take effect in accordance with Section C2-7 of the Monroe County Charter.

Environment and Public Works Committee; September 30, 2015 - CV: 6-0
File No. 15-0282

ADOPTION: Date: October 13, 2015 Vote: 25-0

ACTION BY THE COUNTY EXECUTIVE

APPROVED: X VETOED: _____

SIGNATURE: Maggie Brooks DATE: 10/21/15

EFFECTIVE DATE OF RESOLUTION: 10/21/15

STATE
Cou
City of Rochester
OFFICE CLERK, COUNTY LEGISLATURE } ss

I have compared the preceding with the original thereof on file in this office, and hereby certify that the same is a correct transcript therefrom, and of the whole of said original.

Jamie L. Slocum, Clerk

Clerk.

PLEASE ACKNOWLEDGE RECEIPT OF THIS CERTIFICATION PROMPTLY

Received from the Office of the Clerk of the County Legislature of Monroe County, Certified Copy of Resolution No. 259 of 2015

(Signed) _____

№ 13315

Detach and return to Clerk, County Legislature, County of Monroe, 407 County Office Building, Rochester, N.Y. 14614