



Ontario County



Final Solid Waste  
Management Plan

*March 2014*



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Final Local Solid Waste Management Plan

March 2014

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## EXECUTIVE SUMMARY

The purpose of the Ontario County Solid Waste Management Plan is to identify the path to be pursued for managing solid waste generated in Ontario 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 initial year of this ten-year planning period will commence following approval of this Plan by the New York State Department of Environmental Conservation (DEC).

During the 1980s, Ontario County joined in a cooperative effort with Yates County, Wayne County and Seneca County to develop an integrated regional approach to evaluate the existing and projected solid waste stream generated within the four counties and to examine techniques for controlling and reducing the sizes of that waste stream through the administration of the Western Finger Lakes Solid Waste Management Authority (WFL). The original WFL LSWMP included Ontario County as a member of the planning unit. In 1987, the County reevaluated its administrative, financial, and managerial involvement with the WFL. A resolution was passed by the Ontario County Board of Supervisors in February 1988 severing all ties with the WFL. Legislatively, however, Ontario County remains a member of the WFL Planning Unit. With the preparation of this Plan, Ontario County has elected to prepare a LSWMP reflecting Ontario County as its own Planning Unit.

Solid waste management in Ontario County is de-centralized, with municipalities at the local level (cities, towns and villages) making solid waste related decisions. This has resulted in a wide variety of management practices throughout the County. These existing practices are described in Chapter 3. While Ontario County is initiating this ten-year solid waste management plan by taking on the solid waste planning unit role established by the DEC, except as noted below the primary responsibility for the day-to-day management of solid waste and recyclable materials is intended to remain with the local governments and businesses that are involved with such activities. Currently, Ontario County is tied to the solid waste practices in Ontario County through three major avenues, which include:

- 1) Ontario County, as the owner of the Ontario County Landfill, maintains a contract with Casella Waste Systems, the operator of the landfill. Ontario County Landfill receives more than 50% of the waste generated within Ontario County.
- 2) As one of the largest employers within Ontario County, the County manages the waste streams at all county owned facilities. The County will strive to lead by example by exploring opportunities to reduce and reuse at county owned facilities.

- 3) Ontario County, through existing county entities such as the Industrial Development Agency and the Department of Economic Development, is in a position to bring together businesses, organizations and other entities to encourage environmentally sound practices that promote waste reduction and reuse. Several county supported projects have already been successful, which are discussed in further detail below.
- a) Tomra Recycling - Ontario County Industrial Development Agency (IDA) assisted in the attraction of this 40,000 sq. ft. collection, processing and recycling operation to Farmington. This operation processes thousands of tons of glass and aluminum beverage containers each year. Ontario County is currently working with them to establish a rail spur off the Ontario Central main line. The utilization of rail to move product to various customers in the east (beverage companies like Owens Illinois that will take the recycled material and make it into containers again) will help to cut down on truck traffic through Ontario County.
  - b) Finger Lake RR (FLRR) - Ontario County IDA owns the railroad right of ways throughout Ontario County and is a major advocate for rail use by the County's manufacturers and distributors. The County's operator, Finger Lakes RR, provides daily service to manufacturers throughout the county. In the absence of this service, there would be a huge increase in truck traffic throughout the county. It is doubtful that several of the County's large rail users would even survive here without the rail service. In general, one RR hopper car can carry 4 times that of a regular truck trailer.
  - c) Eagle Mountain - Based in Bristol, Eagle Mountain provides technical and engineering services targeted towards energy conservation and alternative energy use. They are experts in geo-thermal energy. Eagle Mountain was assisted in their recent expansion by both the Ontario County IDA and Ontario Economic Development.
  - d) Zotos International - One of the County's largest manufacturers and the single largest manufacturer of hair care products in the US. The Geneva based Zotos is striving to become the standard for "green" sustainable production of hair care products in the world. Ontario County IDA has assisted Zotos many times over the years. The County's last major assistance was to help induce the company to move towards alternative energy. That resulted in the construction of twin 1650kw wind turbines that eventually will provide much of their electric energy.
  - e) New Energy Works - This Farmington based company is the national leader in timber frame post and beam construction. Ontario County IDA and Ontario Economic Development have provided substantial assistance to help retain and grow this company. They are 100% committed to

sustainable business practices. The timber used in their commercial and residential projects comes from demolished old buildings. It is harvested, stripped, cleaned and recycled for their post and beam buildings.

- f) HALCO - This is a Phelps based plumbing, HVAC, company that has embraced energy conservation as a line of business. Ontario County IDA and Ontario Economic Development provided substantial assistance in helping them develop an on-site training center for HVAC technicians where they become skilled in home energy conservation. Also, HALCO has developed a line of high energy efficient home energy products with assistance from Ontario County IDA and Ontario Economic Development.
- g) Future Forest – Ontario County has provided assistance for employee upgrades at this Richmond based business. They are premier forest managers that provide technical forest management services throughout the northeast.
- h) Cornell Ag and Food Technology Park (Tech Farm) - Ontario County was instrumental in the development of the Tech Farm to provide a facility for new and expanding enterprises that meld agriculture and technology. A 75 acre parcel, formerly a research orchard, was acquired thru a 99 year lease from Cornell University. There are several Tech Farm tenants and associates turning agricultural wastes into other products, for example grape seeds used by Seneca Bio Energy and squash seeds by Stoneybrook Company; Mooseberry Soaps uses filtered organic wastes in production of soap.

Ontario County intends to continue to support these types of private sector market responses and initiatives; however, there will be challenges that the County expects to face during this solid waste planning effort, such as: different collection and hauling practices throughout the county, each municipality's level of involvement or interest, lack of financial resources available, and varying levels of public support. However with each challenge there is an opportunity, which is where the implementation items in Chapter 6 provide a blueprint for a ten year period of solid waste management planning within the County.

Ontario County's solid waste stream has four primary components: municipal solid waste (MSW), non-hazardous industrial waste (e.g., waste from industrial processes), construction and demolition debris, and municipal sewage treatment plant sludge. For the purposes of this study, MSW consists of waste generated in homes, businesses, institutions, and the commercial portion of waste discarded by industries.

In 2011, Ontario County residents and businesses generated approximately 130,151 tons of waste. The majority of the waste is landfilled (115,245 tons or 88.5 percent) while the remainder is recycled or composted (14,906 tons or 11.5 percent).

Details related to the breakdown of these materials are summarized in Table 4-5 in Chapter 4.0. Ontario County's residents and other waste generators have various outlets to divert their waste from disposal to recycling and reuse. Consequently, Ontario County's current diversion rate is estimated at 11.5%.

Based on the data gathered, the County has identified various initiatives to evaluate and work toward during a ten-year LSWMP planning period. The initiatives set forth below were identified with the goal of further enhancing the reuse and recycling of materials to reduce the quantity of materials being landfilled. Each initiative will be evaluated for feasibility and cost effectiveness on an individual basis according to the implementation schedule, with the understanding that the availability of sufficient funds and resources to implement any new initiatives is an ongoing challenge for the County.

#### Proposed Implementation Items

- Continue Landfilling as Primary Disposal Option
- Support Recycling at County Owned Facilities
- Encourage Yard Waste Composting
- Promote Backyard Composting
- Provide Household Hazardous Waste Opportunities
- Support Local Municipalities
- Enhance C&D Debris Recycling
- Encourage Product Reuse
- Encourage Proper Disposal of Unique Wastes
- Encourage Public Outreach and Education
- Encourage Agricultural Plastics Research
- Encourage and Monitor Pay-As-You-Throw Programs
- Amend County Solid Waste Management and Recycling Local Law
- Monitor Management of Animal Mortalities
- Support Organics Management
- Perform Biennial Recycling Surveys

## CHAPTER 1 - Introduction

### I. PURPOSE OF ONTARIO COUNTY LOCAL SOLID WASTE MANAGEMENT PLAN

The purpose of the Ontario County Solid Waste Management Plan is to identify the path to be pursued for managing solid waste generated in Ontario County during a ten-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-year planning period will commence following approval of this Plan by the New York State Department of Environmental Conservation (DEC).

The residents, businesses, industries, and institutions in Ontario County currently produce hundreds of tons of solid waste every day. The question about how to increase recovery, to decrease disposal or incineration, and to reduce waste generation, now and in the future, creates the need for a plan such as this one.

The purpose of the Local Solid Waste Management Plan (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 state law requiring the development of a waste reduction plan for the County.

This LSWMP provides Ontario County with policy and program direction for the next decade. This LSWMP also recognizes that local municipalities, the New York State Department of Environmental Conservation (NYSDEC), private waste haulers, and private facility owners all play important roles in the current and future management of solid waste and recycling within Ontario County.

#### A. Scope of the Plan

This LSWMP addresses municipal solid waste (MSW), non-hazardous industrial waste, construction and demolition debris (C&D), processed scrap metal, public space/events, and municipal sewage treatment plant sludge (i.e., biosolids). It does not address hazardous waste from large-quantity generators.

The Planning Unit addressed by this Plan is Ontario County, including its cities, towns, villages, residents, businesses, and operations therein. This Plan also includes programs and facilities that in some cases are located outside of the Ontario County boundaries, which may impact activities inside the County. All of the programs, services, and facilities related to solid waste management and disposal are addressed by this Plan, including waste reduction, transfer, disposal, and collection.

## II. NEW YORK STATE REGULATORY FRAMEWORK

### A. New York State Solid Waste Management Policy

The Solid Waste Management Act of 1988 established a State Solid Waste Management Policy. The policy defines the following solid waste management priorities in New York State (see Chart 1-1):

- first, to reduce the amount of solid waste generated;
- second, to reuse material for the purpose for which it was originally intended or to recycle material that cannot be reused;
- third, to recover, in an environmentally acceptable manner, energy from solid waste that cannot be economically and technically reused or recycled; and
- 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 Department (from New York State Environmental Conservation Law (ECL) 27-0106.1).

#### CHART 1- 1: NEW YORK STATE HIERARCHY FOR WASTE MANAGEMENT



Source: NYSDEC

In accordance with the New York State Department of Environmental Conservation (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.

### **III. BEYOND WASTE: THE NYSDEC SOLID WASTE MANAGEMENT PLAN**

NYSDEC recently (December 2010) issued a statewide SWMP, *Beyond Waste: A Sustainable Materials Management Strategy for New York*. 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. This Plan 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 will require the engagement of manufacturers through product and packaging stewardship and the development of additional reuse and recycling infrastructure, as well as a strong partnership with other states and the United States Environmental Protection Agency (EPA).

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

#### **IV. ONTARIO COUNTY REGULATORY FRAMEWORK**

##### **A. Ontario County Recycling Plan**

The first comprehensive planning effort in and around Ontario County was made in connection with area recycling efforts. In 1989, the *Ontario County Recycling Plan* was adopted. The Plan analyzed the waste streams and recycling efforts within the County, recommended available markets and alternative recycling systems, and provided a financial analysis of the alternatives. Consequently, in 1992, Ontario County adopted its *Solid Waste Management and Recycling Local Law*.

##### **B. Integrated Solid Waste Management Plan**

Also in 1992, Ontario County adopted its first *Integrated Solid Waste Management Plan*, which was ultimately included in the WFL LSWMP. It provided a historical benchmark and analysis of the planning unit's solid waste practices and recycling options.

## CHAPTER 2 - Planning Unit History & Description

This chapter outlines the baseline and background conditions on which the plan was developed, including a brief overview of past solid waste management practices and planning efforts.

### I. HISTORY OF THE PLANNING UNIT AND ONTARIO COUNTY'S INVOLVEMENT IN SOLID WASTE

At the March 27, 1969 Board of Supervisors meeting, Chairman Philip Rowley made a presentation to the Board noting that “the problem of Solid Waste Management for many, and in fact, most of the municipalities of our county is growing into an acute state.” He observed the “immediate and pressing countywide need, the disappearance of sanitary landfill sites and the magnitude of the problem in an attempt to comply with the laws of NYS” and requested and received the Board’s support to form a county committee to study and report to the Board on this issue. In 1971 the Board took action by purchase of the land which is the present location of the County Landfill. Waste hauling continued to be the responsibility of each municipality or private haulers. In 1974, after several years of laying out a course of action for solid waste management within the County, Ontario County obtained a permit for Phase 1 of the landfill located in Flint. The first Phase of the landfill development (Phase 1) commenced in 1974 and was completed in 1979. Phase II was started in 1979 and closed in 1981. Phase II-A commenced in 1981 and was built contiguous to the existing Phase II landfill. Utilizing height increases and modifications to Ontario County’s Landfill permit waste placement continued in Phase II-A through 1991, and was closed in 1992.

In 1981, in an effort to find alternatives to continued landfilling in Ontario County, the Towns of East Bloomfield, Farmington, Victor, and West Bloomfield, along with the Finger Lakes Race Track, cooperated in a study performed by RIT Research Corporation to evaluate the feasibility of waste incineration. This study was expanded in 1982 to include all of Ontario County. The study concluded that an incinerator project was feasible, but would require a strong commitment by the County.

During this same period Yates County and Wayne County were experiencing problems with their landfills. Wayne County conducted its own solid waste study during this period. Both Wayne and Yates Counties ultimately expressed interest in joining Ontario County in a cooperative effort to solve the region’s solid waste problem. Shortly afterward, Seneca County also joined the group. In 1985, the four counties created an inter-municipal committee composed of supervisors, legislators, and planners to evaluate the existing and projected solid waste stream generated within the four counties and to examine techniques for controlling and reducing the sizes of that waste stream.

A consultant team was engaged to conduct a Phase I Feasibility Study for the four counties. The Phase I study, completed in 1986, recommended that the counties develop an integrated regional approach to collection and disposal of their municipal solid waste. It stated that the counties' goals of reducing reliance upon landfilling while disposing of waste in an environmentally safe and cost-effective manner could be accomplished through the cooperative development of an energy recovery facility, together with an effective source-separation/recycling system.

Based on these recommendations, each county voted to move forward with the development and implementation phase of the project. The project would require the construction of a Materials Recycling Center (MRC) and an Energy Recovery Facility (ERF). In 1986 the New York State Legislature established the Western Finger Lakes Solid Waste Management Authority (WFL) thereby authorizing the counties of Ontario, Seneca, Wayne, and Yates to use the WFL to develop the regional project. In the fall of 1986, the WFL assumed responsibility for the four-county committee and continued the project development.

A siting study was performed as part of the permit application process for construction of the MRC and ERF. Six sites, all within Ontario County, were determined to be the most favorable locations for siting of these facilities. Eventually a site in the Town of Seneca, adjacent to Phase I of the Ontario County Landfill and owned by Ontario County was chosen as the most favorable location.

Selection of the six potential sites was made public in March 1987, with the release of the Draft GEIS. Disclosure of these sites generated such intense public and political opposition, Ontario County refused permission to the WFL to construct the facilities at the Town of Seneca site. Furthermore, the County reevaluated its administrative, financial, and managerial involvement with the WFL. A resolution was passed by the Ontario County Board of Supervisors in February 1988 severing all ties with the WFL. Legislatively, however, Ontario County remains a member of the WFL Planning Unit. WFL subsequently ceased operation in 2012.

Throughout this process, landfilling operations continued at the Ontario County Landfill. Consequently, Phase III of the landfill was constructed in 1991. In 1991, Stage I was constructed consisting of approximately 13 acres. Stage II was divided into two parts with Stage IIA being constructed in 1995 consisting of 7.7 acres and Stage IIB consisting of 8.7 acres being constructed in 1997. Stage III consisted of approximately 9.7 acres was also built in two sections, but at the same time in 1999-2000. The Phase III permit was modified in 2001 which increased the footprint acreage and modified the grading plan for future stages. The permit was then modified again in 2005 to reconfigure the cells and modify subgrade to capture additional airspace.

In 2003, Ontario County reevaluated its role in solid waste management and determined that contracting for private operation of the landfill was the most ideal option for the County. Through a request for proposals process, Ontario County received several proposals from private solid waste management companies. Casella Waste Services provided the most beneficial proposal. Casella Waste Services of Ontario assumed operations of the landfill in November 2003 under a 25 year operation and management lease agreement (OML) with Ontario County. Following the decision to contract out operations and management of the landfill and recycling center through a lease agreement, Ontario County took the position of relying on the private sector to manage the County's solid waste and recyclables. The County continues to be removed from the primary role as a solid waste manager.

The OML agreement provided the following to Ontario County and its residents.

- Lump sum payment (\$15,000,000)
- Lease payments (\$2,000,000 per year)
- Revenue Sharing (25% of Gross Revenue in excess of \$34.00/ton)
- Household Hazardous Waste Disposal (Free – one collection day per year)
- Reserved capacity for In-County Waste (100,000 tons per year)
- Ontario County Waste Disposal at Landfill (\$29/ton excluding Town of Seneca given that they had their own agreement for free waste disposal to residents of the Town of Seneca)
- Planned Business Development District (\$3,800,000)

The revenue received by Ontario County pursuant to this OML has helped the County keep taxes lower than they would otherwise been, which not only provides a direct benefit to county residents and businesses but also helps the County in its efforts to comply with the state's two percent tax cap requirement.

Phase III Stages IV, V-A, V-B, VI-A, VI-B, VII-A, and VII-B have been constructed since Casella took over operations. As a condition of the OML, Casella will provide disposal capacity for the County's waste for the duration of the agreement (i.e., until it expires in 2028). The existing Phase III permitted landfill footprint encompasses approximately 84.6 acres of lined area, which is the extent of the currently permitted landfill acreage at the site. Based on the landfill's current 6 NYCRR Part 360 permit, the landfill has an approved design capacity of 2,999 tons of municipal solid waste per day, which is not inclusive of materials that are approved as beneficial use determination (BUD) materials. Based on the annual report for the facility, the remaining constructed site capacity was estimated to be approximately 3,373,000 cubic yards as of January 1, 2013. Based on historical waste acceptance rates and in-place waste densities, it was

projected that the site had roughly 3 years and 3 months of capacity remaining as of that date.

As part of the OML agreement, Casella Waste Services of Ontario is to pursue additional capacity for the landfill. The proposed Stage VIII “Wrap-Around” and Stage IX “Eastern Expansion” as proposed in the lease agreement is in the process of completing the State Environmental Quality Review (SEQR) process. The expansions outlined as the Wrap Around and Eastern Expansions will provide approximately an additional 5 million cubic yards and 6.5 million cubic yards of disposal capacity, respectively. An overall site plan of the facility is included in Appendix B.

The County operated a Materials Recycling Facility (MRF) at the landfill site prior to the agreement with Casella in 2003. The County’s original MRF was a timber framed barn type structure which is now dormant. The structure is currently used for storage.

In 2005, Casella constructed a new state of the art single stream recycling facility to the east of the County’s original operation. The facility, operated by Casella Recycling, utilizes mechanical sorting of recyclables for eventual redistribution of the sorted materials back into the market for re-use. The approximately 68,000 sf facility handles many types of commingled recyclables including paper, cardboard, aluminum cans, plastic bottles, metal containers, and glass bottles.

The active MRF facility is operated as a centralized recycling facility where recyclables from the County as well as outside Ontario County are hauled to the MRF for sorting and distribution.

## **II. LOCATION AND GEOGRAPHY OF THE PLANNING UNIT**

Ontario County is located in west central New York, midway between Lake Ontario and the Pennsylvania State line and in between Rochester and Syracuse. Largely rural and agricultural in character, the County encompasses 662 square miles, or 423,795 acres across two major physiographic regions: the Central Lowlands for the northern two-thirds of the County and the Allegheny Plateau to the south. Located in the heart of the Finger Lakes Region of New York State, five of the lakes are found within or at the boundaries of Ontario County.

The New York State Thruway (I-90), Route 96 and Routes 5 & 20 traverse the northern and central portions of the county connecting the area with Syracuse to the East and Monroe County to the West. Adjacent to Monroe County, Ontario County is experiencing significant new development in its northwest along the Route 96 corridor with growth pressures beginning to ripple into its central region as well.

Major north-south highways include Route 64, which connects the northern and southern regions of the County to Monroe County and the greater Rochester Metropolitan Area; Route 332 connecting the New York State Thruway to the center of the County; Route 14 connects the northern and southern parts of the County to Wayne County to the north and Yates County to the south; and scenic Route 21 which runs from the north portion of the County to its southernmost communities.

### **III. TOWNS, CITIES, AND VILLAGES INCLUDED IN PLANNING UNIT**

Ontario County was founded in 1789. The City of Canandaigua as the County Seat, governed by a Board of Supervisors and utilizing a Board-Administrator system with a County Administrator, Ontario County includes two cities, sixteen towns, and eight villages. The Board of Supervisors has twenty-one members, one from each town, two from the City of Canandaigua, and three from the City of Geneva.

The Planning Unit has all the powers granted to a county in New York State. As such, the county is authorized – but not required – by section 226-b of NYS County Law to provide solid waste management facilities and services. Policy decisions are made by the County’s Board of Supervisors, subsequent to review and discussion by various legislative committees. The Board’s policies are carried out by county departments.

The County has the power to borrow money for capital improvements, if deemed appropriate. The primary source of revenue is sales and property taxes; however, there is a state mandated 2% cap on annual property tax increases, which has the effect of imposing tight financial constraints on any new County initiatives and spending levels. Currently, mandated program expenses represent 89.9% of the County’s tax levy. Additional details related to the revenues received from the operation of the Ontario County landfill are discussed in the section above.

The twenty-six municipalities (see *Figure 2-1: Municipalities in Ontario County*) comprising Ontario County are listed below. These municipalities (i.e., members of the Planning Unit) have provided useful information, which has been provided in Appendix A, to Ontario County during the preparation of this Plan as it relates to their solid waste and recycling practices within each locale. Additionally, the Board of Supervisors, which includes the Supervisor from each Town, took on an active role in the preparation of this Plan and provided their perspective as it related to each locale’s current practices and their future needs. An overall summary of the Planning Unit members is provided in the table below:

Planning Unit Membership		
Municipal Member	General Description	Unique Conditions /Issues
City of Canandaigua	Generally urban with industrial, commercial and residential aspects. Municipal residential collection program in place. State Route 332 and conjoined US Route 20 and State Route 5 bisect the City of Canandaigua.	Located on Canandaigua Lake, which makes it a tourist hot spot. Additionally, the City includes industries, a sewer treatment plant, commercial entities (restaurants, gift shops, grocery stores, drug stores), and residential dwellings. Tree limbs, leaves, grass clippings are accepted at transfer station and ultimately mulched one time per year.
City of Geneva	Generally urban with industrial, commercial and residential aspects. Solid waste and recyclables collection is privately contracted. US Route 20 is an east-west highway, and NY Routes 14 and 14A are north-south through the city.	Located on Seneca Lake, a Finger Lakes attraction, and home of Hobart William Smith Colleges. The lower and higher ends of the socioeconomic scale are both represented in Geneva. The City of Geneva operates a wastewater treatment plant and the sludge is currently landfilled off-site.
<b><u>Towns:</u></b> Bristol	Rural. US Route 20A passes across town.	Private collection or transfer station option to residents. A yard waste program is available at the transfer station; however, most residents manage their yard waste on their property due to the rural nature of the community. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
Canadice	Rural. East town line is partly defined by Honeoye Lake, the west town line by Hemlock Lake, and Canadice Lake is entirely within the town.	Private collection or transfer station option to residents. No yard waste program available at this time; however, the Town is considering implementing one in the future. Implementation Task #3 will address the implementation of a future yard waste program.
Canandaigua	Suburban and Rural. Located at the northwest end of Canandaigua Lake. Conjoined US Route 20 and New York State Route 5 cross the north part of the Town of Canandaigua. New York State Route 21 and New York State Route 332 are north-south highways.	Private collection or transfer station option to residents. No curbside yard waste program available. Yard waste can be brought to the transfer station and eventually is mulched.

<b>Planning Unit Membership</b>		
<b>Municipal Member</b>	<b>General Description</b>	<b>Unique Conditions /Issues</b>
East Bloomfield	Rural. U.S. Route 20-New York State Route 5 pass across the north part of the town.	Town shares transfer/recycling station with the Town of Bristol, which is located in the Town of Bristol. Solid waste, recyclables and brush can be brought to the transfer station. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
Farmington	Suburban, Rural. Route 96 and Route 332 corridor maintains a higher concentration of commercial entities. In recent years, the residential population has expanded from the Victor area into the Town of Farmington.	Solid waste and recyclables are privately contracted. An annual spring cleanup event provides an outlet for residential yard waste and bulky debris. Yard waste is composted. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
Geneva	Rural. Part of town is on the northwest shore of Seneca Lake. US Route 20 is an east-west highway, and NY Routes 14 and 14A are north-south through the town.	No municipally operated curbside collection program. Transfer station available to residents where yard waste can be dropped off for free. Leaves and grass can also be brought to the County landfill. Large brush is taken to a local landscape supply store (Sensenig's). Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
Gorham	Rural. East town line is defined by Canandaigua Lake.	Municipally operated transfer station for all disposal or recycling. Yard waste is also accepted at the transfer station where it is mulched and given back to residents for their use.
Hopewell	Rural. Near the northeast end of Canandaigua Lake.	Pay as you throw transfer station system. Limited transfer stations hours operated by municipality. Brush may be brought by residents for free to the transfer station. Brush is sent to Casella to be used beneficially (road bulking material). No program for leaves. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed. Additionally, municipalities will be encouraged to implement more robust yard waste programs.

<b>Planning Unit Membership</b>		
<b>Municipal Member</b>	<b>General Description</b>	<b>Unique Conditions /Issues</b>
Manchester	Rural. NYS Thruway passes through the center of the town. NYS Route 96 and Route 21 intersect in the Village of Manchester.	Pay as you throw transfer station system. Combination of private haulers and transfer station drop off. Residents may bring yard waste to the transfer station. Currently, yard waste materials are dropped off at the DL Ram facility who uses the materials to make wood pellets, bedding, etc. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
Naples	Rural. Very hilly at the southern part of Ontario County.	No yard waste program. Combination of transfer station and private hauler pick up for solid waste and recyclables. Transfer station is privately operated through a lease with the Village of Naples. Implementation Task #3 will address the implementation of a future yard waste program.
Phelps	Rural. NYS Thruway and Route 96 pass through the north part of the town.	Pay as you throw transfer station system, which has been successful. Partnership with Cayuga County Soil and Water Conservation to grind yard waste. The ground yard waste is then available to residents to use at their discretion for free. Home of the annual sauerkraut festival.
Richmond	Rural. Most of Honeoye Lake is inside the town.	Town Hall parking lot used as a transfer location by K&D Disposal on a limited basis. Some private collectors, but Town has no involvement with collection or disposal. There is no yard waste curbside collection program, but residents can drop off brush, leaves, lake weeds, and other yard waste at a town owned property. The brush and wood are ground into wood chips and provided to residents for their use.
Seneca	Rural. Conjoined US Route 20 and New York State Route 5 cross east-west through the town.	Ontario County Landfill located within its borders. Solid waste, recycling and yard waste services are free to Town residents. Yard waste is ground up and beneficially used at the landfill facility (roads, etc.).
South Bristol	Rural. East town line marked by Canandaigua Lake.	Town operated transfer station open on Saturday and Sunday. Yard waste is not accepted at the transfer station. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.

<b>Planning Unit Membership</b>		
<b>Municipal Member</b>	<b>General Description</b>	<b>Unique Conditions /Issues</b>
Victor	Rural/Suburban. The west and north borders Monroe County. Major roadways such as NYS Thruway, Interstate 490, NYS Route 96, NYS Route 251 and NYS Route 444 run through the town.	Town operates a Recycle Center that is open to Victor residents. It accepts household garbage, lawn clippings, leaves, and recyclables. Town also operates a Swap Shop for residents to promote reuse. Home of Eastview Mall. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
West Bloomfield	Rural. Second smallest town in the County by area.	Leaves and mulch are not accepted at the drop off site. Large branches are ground/chipped and returned to residents for their use. Need to include in future surveys to gather additional data.
<b>Villages:</b> Manchester	New York State Route 21 passes through community, and Route 96 and the New York State Thruway are located immediately north.	Yard waste is ground or chipped while some is composted with sewage sludge from the local treatment plant. Other material is distributed to residents or other users. Need to include in future surveys to gather additional data.
Naples	Rural. Center of important grape growing region.	Either transfer station or private haulers handle solid waste and or recyclables. Transfer station monitors quantities of recyclables and their destinations. The village conducts brush pick up during the spring and summer months and leaf pickup in the fall. Leaves and brush are composted/chipped and made available to residents.
Phelps	Rural. NYS Thruway and Route 96 pass through the north part of the town.	Pay as you throw transfer station system, which has been successful. Partnership with Cayuga County Soil and Water Conservation to grind yard waste, which is available to residents for their use. Home of the annual sauerkraut festival.
Rushville	Rural. Located on the border of Ontario and Yates County.	Programs through Town of Middlesex or Town of Gorham.
Shortsville	Rural. New York State Route 21 passes through the community, and the New York State Thruway is located to the north.	No public recycling or solid waste program. Residents can contract with a private company for curbside collection or utilize the transfer station in Clifton Springs. Brush (large sticks) is taken to Clifton Springs for an operation that makes wood pellets. Leaves, grass, small sticks are removed by a vendor for a fee and brought to the village. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.

<b>Planning Unit Membership</b>		
<b>Municipal Member</b>	<b>General Description</b>	<b>Unique Conditions /Issues</b>
Bloomfield	Rural. U.S. Route 20-New York State Route 5 passes through the village.	No solid waste programs were reported. Brush is collected once in the spring and once in the fall and chipped. The chipped mulch is provided to residents for free for their use.
Clifton Springs	Rural. County Road 13 bisects the Village of Clifton Springs. Route 96 does not travel through the village.	Solid waste and recyclables collection is privately operated/contracted. Yard waste is reportedly sent to a C&D landfill for their use. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed.
Victor	Suburban. Major roadways such as NYS Route 96 and NYS Route 444 bisect the village.	Populated village with various commercial entities lining Main Street. The Village of Victor collects solid waste and recycling. The Village recently implemented a new single stream toter system for recyclables. Yard waste curbside pick-up occurs once per month or once per week in the fall. Materials are composted and provided to residents.

The intensity of development and settlement patterns varies widely among different regions of the County. While much of the southwestern and eastern portions of the County are rural or agricultural in nature with population densities at less than 100 people per square mile, the northwest—particularly the Towns of Farmington, Victor, and Manchester—is quite suburban, dominated by single-family residential development, strip commercial, and a few apartment complexes. The two densest areas of the County are the Cities of Canandaigua and Geneva, which have population densities of 2,311 and 3,129 people per square mile respectively. These two urban areas contain the majority of multi-family housing in the County and have the most commercial development exclusive of Victor.

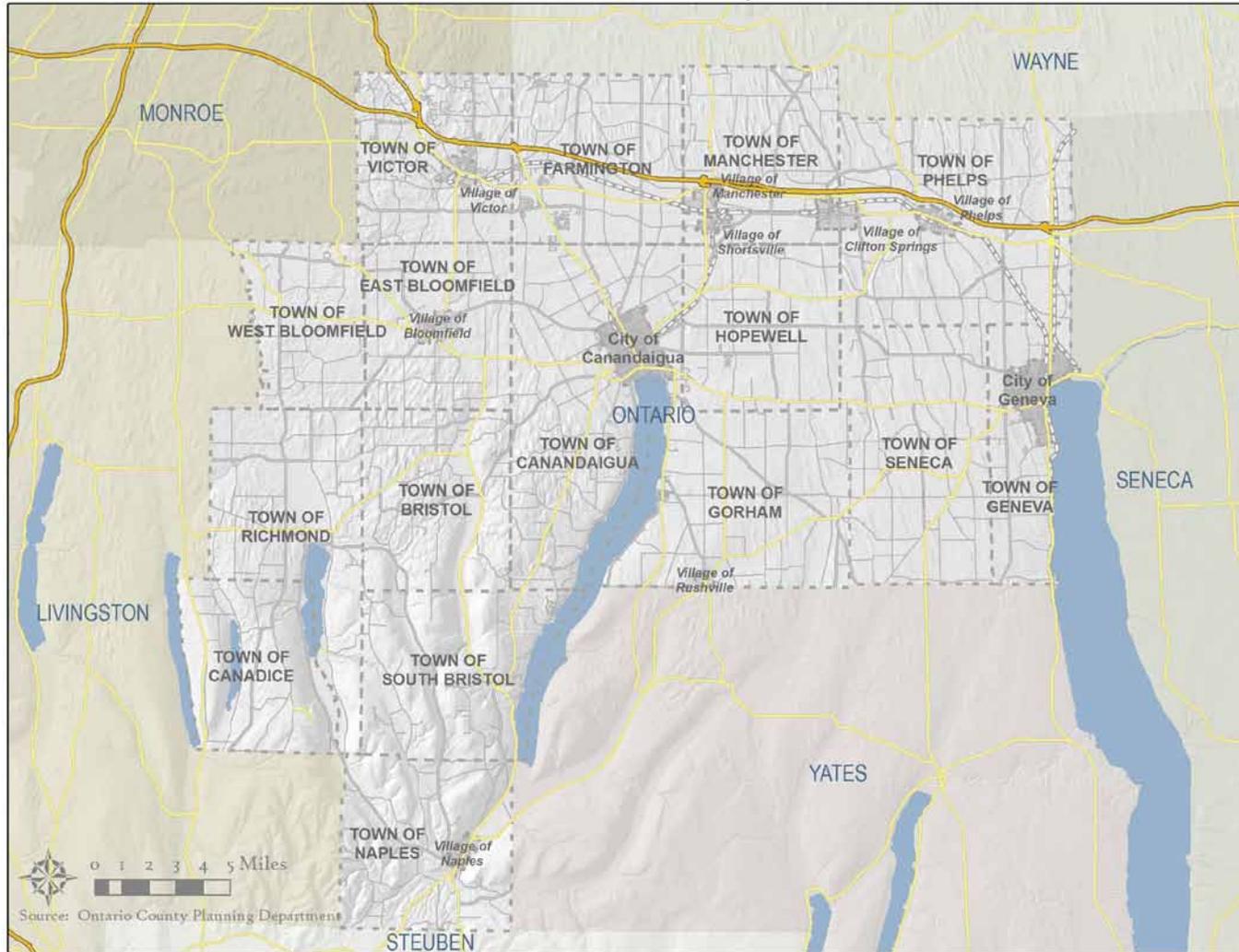
Neighboring counties include Wayne County, Seneca County, Yates County, Steuben County, Monroe County, and Livingston. These counties and/or planning units, as well as the Western Finger Lakes Solid Waste Management Authority were provided notice of the issuance of the draft LSWMP and none of the units provided any feedback or comments related to the draft plan. These counties and/or planning units have had their own local solid waste management plans that discuss their individual characteristics. As discussed previously in Chapter 2 Section I, Ontario County was part of the Western Finger Lakes (WFL) Planning Unit decades ago, but passed a resolution to sever all ties with WFL in 1988. Legislatively, however, Ontario County remains a member of the WFL Planning Unit. It is also understood that the Western Finger Lakes Solid Waste Authority ceased operating any facilities and providing services to residents

in 2012, although it still exists on paper. Ontario County Landfill, as a regional landfill, is available to provide disposal services to these neighboring areas as needed. Chapter 4 provides information on wastes generated within these planning units that have been disposed of at the Ontario County Landfill, and vice versa, wastes generated within Ontario County that are exported to for disposal to locations outside of the County borders.

Currently Ontario County does not have a method for obtaining solid waste and recycling quantity reports from local governments within Ontario County or from neighboring Planning Units; however, as referenced in Chapter 6 – Implementation Task #16, these municipalities will be recipients of future waste generator surveys.

**FIGURE 2- 1: MUNICIPALITIES IN ONTARIO COUNTY**

Source: Ontario County Planning Department



#### IV. DEMOGRAPHICS

According to the U.S. Census Bureau 2010 Demographic Profile Data released May 12, 2011, in 2010 there were 107,931 people and 43,019 households residing in Ontario County. Total Housing Units are estimated at 48,193.

The New York State Data Center published the following population estimates for 2010.

**TABLE 2- 1: POPULATION BY MUNICIPALITY, 2000 AND 2010**

Municipality	2000 (Census)	2010 (Census)	Change 2000 - 2010		% of County Population in 2010	Population Density in 2010 (people/sq mi)
			Number	Percent		
Bristol	2,421	2,315	-106	-4.38%	2.14%	62.9
Canadice	1,846	1,664	-182	-9.86%	1.54%	51.6
Canandaigua (city)	11,264	10,545	-719	-6.38%	9.77%	2,292.4
Canandaigua (town)	7,649	10,020	2371	31.00%	9.28%	160.0
East Bloomfield	3,361	3,634	273	8.12%	3.37%	113.6
Farmington	10,585	11,825	1240	11.71%	10.96%	299.7
Geneva (city)	13,617	13,261	-356	-2.61%	12.29%	3,142.4
Geneva (town)	3,289	3,291	2	0.06%	3.05%	169.9
Gorham	3,776	4,247	471	12.47%	3.93%	80.3
Hopewell	3,346	3,747	401	11.98%	3.47%	104.4
Manchester	9,258	9,395	137	1.48%	8.70%	267.0
Naples	2,441	2,502	61	2.50%	2.32%	64.2
Phelps	7,017	7,072	55	0.78%	6.55%	111.3
Richmond	3,452	3,361	-91	-2.64%	3.11%	75.6
Seneca	2,731	2,721	-10	-0.37%	2.52%	54.4
South Bristol	1,645	1,590	-55	-3.34%	1.47%	38.0
Victor	9,977	14,275	4,298	43.08%	13.22%	411.5
West Bloomfield	2,549	2,466	-83	-3.26%	2.28%	97.5
<b>Ontario County</b>	<b>100,224</b>	<b>107,931</b>	<b>7,707</b>	<b>7.7%</b>	<b>100.00%</b>	<b>167.5</b>

Sources: 2000, 2010 United States Census, New York State Data Center, Ontario County GIS

The median household income in the County is \$52,162. The per capita income for the county is \$28,536 with 10.8% of the population and 6.9% of families having incomes below the poverty line. 14.9% of people under the age of 18 and 4.8% 65 or older live in poverty. While the percentage of families in poverty in Ontario County steadily decreased between 1950 and 2000, there was an upswing between 2000 and 2011.<sup>1</sup>

<sup>1</sup> 2011 American Community Survey. United States Census.

## V. POPULATION TRENDS

Over the past thirty (30) years, the population of Ontario County increased from 79,000 people in 1970 to over 107,000 in the year 2010 making the county the fastest growing in the nine-county Genesee/Finger Lakes planning region. However, growth is expected to taper off over the next 25 years as depicted in Table 2-2.LSWMP<sup>2</sup>

**TABLE 2- 2: POPULATION PROJECTIONS IN ONTARIO COUNTY**

	Population (Projected)	Change in Population	
		#	%
1990	95,101	-	-
2000	100,224	5,123	5.4%
2010	107,931	7,707	7.7%
2015	109,618	1,687	1.6%
2020	111,494	1,876	1.7%
2025	113,164	1,670	1.5%

Source: Cornell Program on Applied Demographics data

In addition to population, another predictive and influential measure of residential solid waste generation and collection is housing type. In Ontario County, many single family developments are served by curbside pick-up—public or private, or transfer stations. In most cases, residential developments with more than four units are considered to be a ‘commercial’ use in terms of solid waste management services, meaning that they are not eligible for publicly operated curbside pickup or disposal at transfer stations, but rather must contract with a private waste hauler to collect and dispose of residents’ waste and recyclables. According to the 2000 US Census, these types of units were overwhelmingly found in the cities, followed by Towns in the northwest corner of the County.

<sup>2</sup> Cornell Program on Applied Demographics.

## VI. LAND USE/DEVELOPMENT

Ontario County encompasses 423,970 acres and 662.2 square miles. Reflecting its historic farming roots, the County's land use distribution remains predominantly agricultural with 41.1% of acreage being categorized as such; 30.1% residential; 16.8% vacant private land; 3.2% conservation; 1.9% commercial; 1.9% institutional; 1.6% public service; 1.2% industrial; 1.6% recreational. A figure depicting the county's land uses is provided in Appendix B.

The County is served by the following institutional and community services.

### **School Districts -**

**City** - Canandaigua City; Geneva City

**Central School Districts** - East Bloomfield; Gorham-Middlesex; Honeoye; Honeoye Falls-Lima; Livonia; Lyons; Manchester-Shortsville; Naples; Newark; Palmyra-Macedon; Penn Yan; Phelps-Clifton; Pittsford; Victor; Wayland

### **Colleges -**

Finger Lakes Community College

Hobart and William Smith

### **Hospitals -**

Canandaigua Veterans Administration Medical Center

Clifton Springs Hospital

FF Thompson Hospital

Geneva General Hospital

### **Jails -**

Ontario County Jail

### **Public Recreational Areas -**

**County Parks** - Atwater Park; Canandaigua Inn Park; Deep Run Beach; Gannett Hill; Grimes Glen; Ontario Beach Park; Pickle Park; Three Mills Park

**State** - Harriett Hollister Spencer State Recreation Area; Ganondagan State Historic Site, Hemlock-Canadice State Forest

Currently Ontario County does not have a method for obtaining solid waste and recycling quantity reports from these facilities; however, as referenced in Chapter 6 – Implementation Task #16, these educational and institutional facilities will be recipients of future waste generator surveys.

Industrial and commercial activity in Ontario County tends to cluster. The northeast part of Victor has a concentration of retail and other types of commercial services in and around Eastview Mall. The Fishers area has a concentration of high tech industries. The Route 332 Corridor between Victor/Farmington and the City of Canandaigua contains retail services and a collection of motor vehicle services. The City of Canandaigua has two large hospitals, office space and many retail and multi-use services along Main Street. Route 5 & 20 in the City of Canandaigua and the western edge of Hopewell also has significant strip retail, as well as many dining and food establishments. The Villages of Manchester, Shortsville, Clifton Springs and Phelps also contain clusters of commercial and industrial uses, namely some high tech, heavy and light manufacturing, recreation/entertainment, and services in the Manchester/Clifton Springs area; retail services, recreation/entertainment, high tech manufacturing, office space and a hospital in Clifton Springs, and services and recreation/entertainment in Phelps. Route 5 & 20 approaching the City of Geneva is a major commercial corridor with strip retail, motor vehicle services, and dining establishments. The City itself contains significant office space, retail and multi-use services, recreation/entertainment, dining establishments and grocery stores, and a hospital.

While a business' number of employees is not necessarily correlated with the volume of waste it generates, it is one metric by which to gauge a business' size. A listing of the largest employers within Ontario County is provided in Appendix B. Based on the 2007 U.S. Bureau of the Census Economic Census, the type of industry within Ontario County that employs the most individuals is retail trade followed by manufacturing and healthcare and social assistance.

The County is experiencing a progressive displacement of agricultural land consistent with the growth and development of its communities, but particularly in communities in the northwest region of the county and to a lesser extent those in the Central region. Not surprisingly, this displacement is occurring along and/or because of major transportation corridors to Monroe County and the City of Rochester. Between 1992 and 1999, the total acreage on agricultural parcels decreased from 50% to 46%.<sup>3</sup> Subsequent analyses indicate that, since 1999, another 5% of agricultural land has been displaced. A figure depicting agriculture in Ontario County is provided in Appendix B.

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<sup>3</sup> Ontario County Agricultural Enhancement Plan, September 2000

Implementation Task #16 includes subtasks to collect and evaluate waste generation and recovery data and information regarding wastes generated, recovered, and how managed, from unique, seasonal or large generators such as the public spaces/events, agricultural properties, industries, parks and tourist attractions, malls, and institutions such as schools and medical facilities. This data and information is to be evaluated to assess the effectiveness and/or needs of programs and facilities for managing these materials and Ontario 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.

## **CHAPTER 3 - Overview of Ontario County's Current Solid Waste Management System**

### **I. CURRENT SOLID WASTE MANAGEMENT SYSTEM**

Solid waste management in Ontario County is de-centralized. Municipalities at the town and village level make solid waste related decisions with regard to their levels of involvement. This has resulted in a wide variety of management practices through the County. Detailed information about waste disposal, by municipality, can be found in Appendix A, but a summary of activities by waste type follows.

### **II. SOLID WASTE MANAGEMENT FACILITIES AND RECOVERY EFFORTS**

Tasks are included in the Implementation Task #16 to begin collecting and evaluating data and information regarding capacity/expected life, service areas, operating status, and other issues to resolve and to identify areas for potential improvement including data collection, education, outreach and enforcement needs, etc., for every facility / program that manages MSW, biosolids, C&D, processed scrap metal, public space/events and/or industrial waste generated in Ontario County. The evaluations are to assess the effectiveness and/or needs of these facilities and programs and Ontario 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.

#### **A. Landfills**

Most MSW is taken directly to the Ontario County Landfill near Flint, New York. Details regarding the operation and management of the Ontario County Landfill were previously discussed in Chapter 2. Specific quantities are discussed in Chapter 4. All waste facilities permitted at Ontario County Landfill are done in accordance with NYSDEC Part 360 regulations and any special conditions set forth in the Operating Permit issued by the NYSDEC. Municipal Solid Waste, special waste, and commercial/industrial waste are accepted.

Additionally, other landfills, outside of Ontario County, are available for the disposal of MSW. These out-of-County landfills may include:

- High Acres Landfill
- Seneca Meadows Landfill
- Albany Rapp Road Landfill
- Allied Waste Niagara Falls Landfill

- Waste Management Chaffee Landfill CID
- Mill Seat Landfill

A private industrial waste landfill is also located within the boundaries of Ontario County. This landfill is located at the Victor Insulators facility in Victor, NY. This landfill is limited to receiving waste from the industrial process at the facility, which includes the disposal of porcelain scraps.

## B. Transfer Stations

Most residents that are either not served by or elect not to use a curbside collection system dispose of waste at a municipally or privately operated transfer station. A listing of the transfer station facilities in Ontario County is presented in the following Table 3-1.

**TABLE 3- 1: REGISTERED TRANSFER STATIONS IN ONTARIO COUNTY**

TRANSFER STATION NAME	FACILITY ADDRESS	PERMITTED USERS (RESIDENTS OF...)
Bristol Rural Transfer Station	3901 County Road 2	Towns of Bristol, East Bloomfield
Canandaigua Transfer Station #1	5440 State Route 5 & 20	Town of Canandaigua
Canandaigua Transfer	4620 County Road 46	Unrestricted
Geneva Rural Transfer	32 White Springs Road	Town of Geneva
Town of Gorham	3478 Lake to Lake Road	Town of Gorham, Village of Rushville
Hopewell Rural Transfer	2716 County Road 47	Town of Hopewell
Manchester Transfer	1272 County Road 7	Town of Manchester, V. of Shortsville
Naples Rural Transfer	6614 Co. Road 21	Unrestricted
Phelps Transfer	1342 State Route 96	Town, Village Phelps
Richmond Transfer Station	8690 Main Street, Honeoye	Unrestricted
Seneca Transfer Station	3671 County Road 5	Town of Seneca
S. Bristol Rural Transfer Station	Middlebrook Road	Town of South Bristol
Victor Transfer Station	60 Rawson Road	Town, Village Victor

*Source: Ontario County Planning Department (2010)*

The City of Canandaigua and the Village of Victor are the only municipalities that provide curbside collection services to their residents. These municipalities directly transport their waste to the Ontario County Landfill. Other municipalities within the County that operate their own transfer stations also transport the waste disposed of at the transfer stations to the Ontario County Landfill.

The materials accepted at each transfer station and their pricing mechanisms are provided below in Table 3-2.

**TABLE 3-2: TRANSFER STATION BY TYPES OF WASTE ACCEPTED & PRICING**

NAME	MATERIALS ACCEPTED*								OPERATOR
	MSW	Recyclables	Yard Waste	Bulk Items	Scrap Metal	C & D	Tires	Sludge	
Bristol Rural Transfer Station	V	F			F				Pratt Disposal
Canandaigua Transfer Station #1	F, C	F	F	C	F				T. Canandaigua
Canandaigua Transfer	W	F		W					Comm. Waste Services
Farmington Rural Transfer			F	C			C		T. Farmington
Geneva Composting			F	F				V	C. Geneva
Geneva Rural Transfer	C	F	F						T. Geneva
Town of Gorham	U	F		F	F	V			T. Gorham
Hopewell Rural Transfer	C	F	F	C, F			C		T. Hopewell
Manchester Transfer	C	F	C		F		C		T. Manchester
Naples Rural Transfer		F		C					Finger Lakes Disposal
Phelps Transfer	W	F	F	F					T./V. Phelps
Richmond Transfer Station		F		W	F				K&D Disposal
Seneca Transfer Station	F	F	F	F	F				Casella
S. Bristol Rural Transfer Station	C	F							T. South Bristol
Victor Transfer Station	U	U	U	U					T. Victor

\* The pricing mechanisms used by transfer stations vary widely from charging by weight, by volume, by item type, and by annual pass.

- C Coupon System or Priced by Item Type
- W By weight (i.e., price per pound)
- V By volume (e.g., per bag, regardless of weight)
- F Free
- U Unlimited with Annual Permit

Source: Ontario County Planning Department (2010)

**C. Recycling Facilities**

Table 3-2, above, provides a summary of the transfer stations that accept recyclables. Because most transfer stations in Ontario County send their recyclables to Casella Recycling, which has sophisticated material sorting technology, they do not require facility users to drop-off recyclable materials in separate storage areas. Instead sorting is completed at the Casella Recycling facility through a single stream recycling process.

The Casella recycling facility is operated by a subsidiary of New England Waste Services of NY, Inc., Casella Recycling, under a 25 year operation and management lease agreement that was initiated with the County in 2003. The Casella recycling facility was built in 2005. It is a fully enclosed steel frame structure with a life expectancy in excess of 25 years. The facility is able to process up to 80,000 tons per year of recyclables, through a single stream zero sort process. Upon processing the materials, Casella Recycling distributes the product, by type, to a variety of facilities throughout the United States and Canada.

The following materials are accepted at the Casella Recycling facility:

- Cardboard
- Clean boxboard (shoe boxes; cereal boxes)
- Office paper
- Magazines
- Newspapers
- Junk Mail
- Envelopes (manila and regular)
- File folders
- Soft cover books
- Hard cover books (remove covers)
- Card stock paper
- Aluminum cans
- Tin cans
- Glass bottles and jars
- Plastic bottles #1-#7

The following materials are currently not accepted at the Casella Recycling facility:

- Food waste
- Styrofoam
- Plastic bags
- Printer cartridges (toner or inkjet)
- Cell phones
- Batteries
- Computers or other electronics
- Glassware
- Ceramics

The Casella recycling facility accepts materials from throughout New York including Cayuga, Chemung, Chautauqua, Cattaraugus, Jefferson, Livingston, Monroe, Onondaga, Ontario, Seneca, Steuben, Schuyler, St. Lawrence, Tompkins, Wayne, and Yates Counties and from Canada. An educational video related to single stream recycling is currently available on Ontario County's website to inform the public about the Casella Recycling facility and the acceptable recyclables in Ontario County. This video will continue to be utilized as an educational tool.

Additional recycling facilities that accept materials from Ontario County include:

- TOMRA Recycling, LLC
- Trilogy Glass (Casella Waste Systems)
- Alpco Recycling, Inc.
- Becks Recycling
- Monroe County Materials Recovery Facility (MRF)
- Metalico, Inc.
- Bronstein Container
- Superior Pallet
- Bakers Commodity
- Genesee Scrap Metal
- Phelps Recycling
- Waste Management's Recycle America facility
- Shanks Ent., Inc.
- Certified Document Destruction and Recycling, Inc.
- Sunnking
- Regional Computer Recycling & Recovery

Quantities reportedly accepted at these facilities are discussed in Chapter 4.

#### E- Waste Recycling

The New York State Electronics Recycling and Reuse Act requires electronic manufacturers who currently sell "Covered Electronics Equipment" in New York State to provide for a free, convenient and environmentally compliant electronic recycling program for all consumers throughout the state.

By law, the following "Covered Electronics Equipment" can be recycled for free: Computers/Laptops/CRT Monitors/LCD Monitors/Televisions/Keyboards & Mice / Fax Machines/Scanners/Small Copiers and Printers/VCRs/Portable Digital

Music Players / DVD Players/Digital Converter Boxes/Cable or Satellite Receivers/Electronic or Video Game Consoles/Cell Phones and Small Scale Servers (weighing less than 100 lbs). A summary of locations that accept CEEs is provided below. This list is currently accessible online through the E-Waste Alliance Network; however, Ontario County may provide a link on its website to promote these available outlets. Discussion of public outreach is discussed in the tasks in the implementation schedule in Chapters 6 and 7.

County	Company	Site Address	City	State	Zip	Site Hours	Acceptables
Ontario	ACE COMPUTER & DESIGN	1431 Route 5 & 20	Geneva	NY	14456	M 10-3, T-F 9-5	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	FINGER LAKES REFUSE DISPOSAL - CANANDAIGUA	54 Green St	Canandaigua	NY	14424	CALL FOR APPOINTMENT	ALL CEE ACCEPTED
Ontario	HARVEST GATHERING	County Road 36 at Route 20A	Honeoye	NY	14471	M, W 7-3	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	LASER GENESIS	34 West Main Street	Shortsville	NY	14548	M-F 8-5	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	LONE WOLF COMPUTERS INC.	2375 Rochester Rd.	Canandaigua	NY	14424	M-F 9-5:30, Sat. 9-1	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	METRO CARTRIDGE-GENEVA	122 North Genesee St.	Geneva	NY	14456	M-F 8-5	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	METRO CARTRIDGE-VICTOR	202 Highpoint Way.	Victor	NY	14564	M-F 9-7, Sat. 10-6, Sun 12-4	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	PC & WIRELESS SHOP	699 S Main St	Canandaigua	NY	14424	M-F 9-8, Sat. 10-8, Sun. 12-5	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	PC-PEOPLE LLC	29 South Main Street	Canandagauia	NY	14424	M-F 8-6 Sat 10-2	ALL CEE ACCEPTED EXCEPT TV'S
Ontario	REGIONAL COMPUTER RECYCLING & RECOVERY	7318 Victor-Mendon Rd.Rt. 251	Victor	NY	14564	M-F 8-5	ALL CEE ACCEPTED
Ontario	TOWN OF BRISTOL	3901 County Rd #2 just north of Tilton Rd	Bristol	NY	14424	Sat. 8-2	ALL CEE ACCEPTED
Ontario	TOWN OF CANANDAIGUA	5440 Routes 5 & 20	Canandaigua	NY	14424	W 4:30-8, Sat-Sun 8-12, RESIDENTS ONLY	ALL CEE ACCEPTED
Ontario	TOWN OF GORHAM	4498 Yautzy Road	Gorham	NY	14461	M & Th 4-8, Sat. 8-4	ALL CEE ACCEPTED
Ontario	TOWN OF HOPEWELL	2716 Cnty. Rd. 47	Canandaigua	NY	14424	W 5-7, Sat. 8-12	ALL CEE ACCEPTED
Ontario	TOWN OF MANCHESTER	1272 County Road 7	Clifton Springs	NY	14432	M,W 4-7, Sat 9-4	ALL CEE ACCEPTED
Ontario	TOWN OF SOUTH BRISTOL	Middlebrook Rd off Rt 64	Naples	NY	14512	Sat 9-4,Sun 9-2	ALL CEE ACCEPTED
Ontario	TOWN OF VICTOR	60 Rawson Rd.	Victor	NY	14564	RESIDENTS ONLY, CALL FOR DETAILS	ALL CEE ACCEPTED
Ontario	VILLAGE OF PHELPS	1342 State Route 96	Phelps	NY	14532	W 12-7,Sat 8-4:30	ALL CEE ACCEPTED

Source: E-Waste Alliance Network (<http://www.ewaste.com/partners.php>)

## D. Yard Waste Facilities

Yard wastes are prohibited in the Ontario County Landfill. Some municipalities manage them within Ontario County. Some towns provide for seasonal leaf and tree limb pick-up, while others allow their separate disposal at the local transfer station. Some facilities compost or chip/grind the materials at the transfer station or work with other entities to handle their yard waste. Implementation Task #3 in Chapter 6 proposes to gather additional information from municipalities to determine how yard wastes are ultimately managed. Transfer station availability is provided in Table 3-2 above; however, a brief summary of the yard waste programs by municipality are also summarized below in Table 3-3. For future consideration, Ontario County is proposing an Implementation Task #3 to develop an integrated approach to yard waste composting. Further details are provided in Chapter 6.

**Table 3- 3: Summary of Yard Waste Programs**

Yard Waste Programs	Urban (U), Suburban (S), Rural (R)	Municipal Pick Up?	Free to Residents?	Destination
Canandaigua (C)	U/S	Yes	Yes	Can be dropped off at the transfer station. Ground/Chipped/Composted Available for residents to pick up for their use.
Geneva (C)	U	Yes	Yes	Ground/Chipped into mulch. Available to residents.
Bristol (T)	R	No	Yes	Accepted at transfer station. Ground/Chipped into mulch for public reuse. Many residents compost their own yard waste on their properties.
Canadice (T)	R	No Program		
Canandaigua (T)	S/R	No	Yes	No curbside collection program at this time. Yard waste brought to transfer station and mulched.
East Bloomfield (T)	R	No	Yes	Brush is accepted at the transfer station. No3 grass or leaves are accepted.
Farmington (T)	S/R	No	Yes	Residential yard waste can be brought to the transfer station where it is composted.

Yard Waste Programs	Urban (U), Suburban (S), Rural (R)	Municipal Pick Up?	Free to Residents?	Destination
Geneva (T)	S/R	No	Yes	Drop off site for leaves and grass clippings at County landfill. Large brush is taken to a local landscape supply store (Sensenig's)
Gorham (T)	R	Yes	Yes	Ground/Chipped and given back to residents.
Hopewell (T)	R	No	Yes	No program for leaves. Brush is sent to Casella to be used for beneficial uses (road bulking material)
Manchester (T)	S/R	No	No - Fee	Materials are currently dropped off at the DL Ram facility where they are used to make wood pellets, bedding, etc.
Naples (T)	R	No Program		
Phelps (T)	R	No	Yes	Ground/Chipped and given back to residents.*
Richmond (T)	R	No	Yes	Ground/Chipped and given back to residents
Seneca (T)	R	No	Yes	Sent to Casella to be used for beneficial uses (road bulking material)
South Bristol (T)	R	No Program		
Victor (T)	S/R	No	Yes	Victor Recycle Center, returned to residents for their use after composting or mulching.
West Bloomfield (T)	R	No	Yes	Leaves and mulch not accepted at drop off site. Large branches are Ground/Chipped and returned to residents for their use.
Bloomfield (V)	S	Yes	Yes	Ground/Chipped and returned to residents for their use.
Clifton Springs (V)	S	Yes	No	Reportedly sent to C&D Landfill (owned by Richard Wellman) for their use.
Manchester (V)	S	yes	free	Ground and Chipped – Some is composted with sewage sludge from the

Yard Waste Programs	Urban (U), Suburban (S), Rural (R)	Municipal Pick Up?	Free to Residents?	Destination
				local treatment plant. Other is distributed to residents and other users
Naples (V)	S	Yes	Yes	Ground/Chipped and returned to residents for their use.
Phelps (V)	S	Yes	Yes	Ground/Chipped* and provided to residents for their use.
Rushville (V)	S	No Program		
Shortsville (V)	S	Yes	Yes	Brush (large sticks) is taken to Clifton for an operation that makes wood pellets.  Leaves, grass small sticks are removed by a vendor for a fee to the Village
Victor (V)	S	Yes	Yes	Yard waste curbside pickup occurs once per month or once per week in the fall. Composted and returned to residents for their use.
	*Yard waste ground/chipped through agreement with Cayuga			
	County Soil and Water Conservation			

Source: Ontario County Planning Department (2010 and 2013)

As identified in the table above, the urban or suburban areas are more likely to have yard waste programs due to the public need in these types of areas. Residents in the rural areas are less likely to need yard waste programs because they manage the yard waste on their properties as opposed to needing to transport it somewhere else to be managed. Chapter 6 Implementation Task #3 will discuss the Planning Unit's approach to yard waste composting programs during this planning period. In general, the County plans to gather additional details related to the existing programs (i.e., who manages, what happens to the end product, besides municipalities what other programs are available to residents/businesses, how can these programs be expanded) to make them more readily available to other parties.

**E. Sewage Sludge Handling**

Ontario County has ten municipal sewage treatment plants (STPs). Details related to sewage sludge handling within the County are provided in Table 4-1: Municipal Sewage Sludge Generation and Disposal Summary.

**F. Construction & Demolition Debris**

Collection of C&D debris for processing is not provided by the County and collection must be contracted for independently with private haulers or contractors. Implementation Task #7 in Chapter 6 looks at evaluating the need of these facilities and programs in Ontario County to determine what partnerships, or other alternatives should be evaluated for implementation and what the resulting future recovery goals could be.

### **III. SOLID WASTE COLLECTION PRACTICES**

#### **A. MSW**

Curbside collection of non-recyclable municipal solid waste is available in most areas of the county. Only the City of Canandaigua and the Village of Victor currently provide curbside collection services to their residents. Curbside service in other areas is provided by private haulers, who are hired individually by residents or neighborhood associations. Residents who elect not to hire a private hauler typically send their recyclables to their local transfer station where they are recycled.

Private haulers' service boundaries overlap and change frequently. The pricing rates for private collection of non-recyclables vary from one municipality to another and from hauler to hauler. Like rates, pricing mechanisms vary and include per bag charges, annual household fees, and monthly charges. Presumably due to the competitive nature of the business, private haulers are reluctant to share detailed information about rates, customers, or service areas. A partial list of private haulers serving Ontario County includes Alpco Recycling, Inc.; Casella; Heberle Disposal; Phelps Recycling, Inc.; Document ReProcessors; Metalico Transfer, Inc.; Shanks Ent., Inc.; Feher Rubbish Disposal; Suburban Disposal Corp.; Finger Lakes Refuse Disposal; K&D Disposal; Lyons Road Trash; Palmer Pratt Disposal; and Waste Management of NY, Inc.

#### **B. Yard Waste**

As mentioned above, some towns provide for seasonal leaf and tree limb pick-up, while others allow their residents to drop off their yard waste at the local transfer station. Six (6) municipalities (City of Geneva, Village of Bloomfield, Village of Naples, Village of Phelps, Village of Shortsville, and Village of Victor) currently offer curbside pickup; however, most programs are seasonal with a limited number of dates in the fall and spring. Additionally, residents of 17 municipalities are able to drop off yard waste at their respective transfer station at no charge where it may be chipped, mulched, grinded or composted and offered back to residents for their use.

#### **C. Construction and Demolition Debris**

There are no known construction and demolition (C&D) debris waste collection programs within Ontario County; however, there are markets available

to Ontario County residents and businesses to recycle C&D materials. These markets are discussed in further detail in Chapter 6.

## **D. Recyclables**

### Residential Sector

Two basic systems currently exist in Ontario County for the collection of recyclables: curbside collection and residential drop off sites (i.e. transfer stations). As with non-recyclable materials, the City of Canandaigua and the Village of Victor offer the only municipal curbside pick-up in the County; elsewhere, it is available only through private haulers. Residents who elect not to hire a private hauler typically drop off their recyclables at their local transfer station where they are managed to ultimately be sent for recycling. Transfer stations that are publicly owned and operated tend to be restricted to residents of the municipality in which the facility is located, unless there is a formal inter-municipal agreement. Privately operated transfer stations, such as the ones in the City of Canandaigua, Richmond, Seneca, and Bristol, tend not to restrict who may use the facility. Transfer stations do not charge for the acceptance of recyclables.

### Commercial Sector

On the commercial front, shopping malls, hospitals, and medical office buildings are establishments that generate large volumes of waste. These establishments generally contract directly with a private hauler to collect and manage their recyclables. A method for obtaining additional information related to the commercial sector's recycling practices is being proposed in this Plan in Implementation Task 16.

### Institutional Recycling Efforts

Large educational institutions, such as the City School Districts of Canandaigua and Geneva, Finger Lakes Community College and Hobart William Smith Colleges tend to produce large quantities of paper wastes. For the most part, these institutions contract directly with a private hauler to collect and manage their recyclables. A method for obtaining additional information related to institutional recycling efforts is being proposed in this Plan in Implementation Task 16.

## **E. Food Waste**

Currently, Ontario County does not have the resources available to conduct a food scraps program county-wide; however, the County is supportive of other organizations such as Finger Lakes Institute at Hobart William Smith (FLI), Hobart William Smith (HWS), Cornell Cooperative Extension, and Finger Lakes Community College (FLCC) implementing food scrap composting programs.

Existing programs at HWS include:

- Tray-less Dining at HWS – The Colleges reduced a third of their waste during their tray-less experiment.
- Institutional Composting at HWS – The colleges main dining facility composts approximately 1.2 tons of food waste each week. HWS has also reduced its environmental impact by using compostable flatware that is made from the cellulose found in potatoes, corn and sugar cane.

FLCC composts kitchen food waste through a partnership with the Wegman's Organic Research Farm. Kitchen staff separate compostable waste and place it in receptacles that are collected every week by the farm. The farm adds the waste to its compost pile, which serves as organic fertilizer for crops.

Additionally, other companies in Ontario County are exploring various opportunities with organic composting. These entities include Vermi-Green, LLC, out of Farmington and founded in Shortsville; and L&D Acquisitions, LLC, associated with Hazlitt Wineries. Both facilities are registered with the DEC to compost source separated organic waste. During this planning period, more information will be gathered from these companies and what they are doing to expand their organic composting activities.

## **F. Bulk Items and Scrap Metal**

Bulk Items, which includes larger items such as appliances, are handled at the Town and Village level. In most cases, scrap metal collection is free and collected in a separate container from other bulk items. Metal is one of the more highly valued recyclable materials. In Ontario County, Union Processing currently provides the metal bin and empties it at no cost at most of the transfer stations. Items are also brought to the Ontario County Landfill and AlpcO for recovery.

## **G. Industrial Waste**

Industrial wastes generated by businesses located within Ontario County are handled by each individual company, generally through contracts with waste and recycling operators. Ontario County maintains a database of the businesses located within the County; however, at this time there is no method for requesting and obtaining a description of the waste and recyclables management programs at these industries. However, a method for obtaining this information is being proposed in this Plan in Implementation Task 16.

## CHAPTER 4 - Solid Waste Types and Quantities

This chapter provides information on the waste streams generated in Ontario County from the best available data as of the date this LSWMP was prepared. Ontario County acknowledges that there are data gaps; therefore, tasks have been included in the implementation schedule for collecting data and information regarding solid waste types and quantities generated and managed in Ontario County.

### I. WASTE TYPES

Ontario County's solid waste stream has four primary components: municipal solid waste (MSW), non-hazardous industrial waste, construction and demolition debris, and municipal sewage treatment plant sludge.

For the purposes of this study, 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 Casella recycling facility 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. A subtask of the data collection task (Implementation Task #16) in the Implementation Schedule will be to collect data and estimate MSW by material type, including estimating residential yard waste generation and recovery.

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 sludge, 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. A subtask of the data collection task (Implementation Task #16) in the Implementation Schedule will be to collect data and estimate industrial waste generation and recovery, considering these circumstances.

Construction and demolition debris (C&D) 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 as a separate disposal stream, and therefore, the quantity disposed of from Ontario 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. A subtask of the data collection task (Implementation Task #16) in the Implementation Schedule will be to collect data and estimate C&D generation and recovery, considering these circumstances.

Municipal treatment plant sludge is generated by a variety of facilities within the County. Much of this material is disposed of in area landfills and the data is readily available from the annual reports to NYSDEC.

## II. AVAILABILITY OF GENERATION AND RECOVERY ESTIMATES

### A. Data Sources and Methodology

As discussed above, much of the following waste generation estimates were derived from available reports provided to the NYSDEC by permitted landfills, sewage treatment plants, and recycling centers. Limitations associated with the data are as follows:

- **Incomplete data:** Data on the public sector solid waste management is often incomplete.
- **Inconsistent data:** Where data exists, different methods have been used from year to year and facility to facility to collect and categorize it.
- **Unavailable data:** Data on privately managed waste is generally unavailable.

Ontario County's residents and commercial, industrial and institutional waste generators have various 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). Private businesses within the County are not currently required to report the destinations of their recyclables. Tasks are included in the Implementation Task #16 to investigate the implementation of a survey and reporting program as well as any other programs that might be useful and necessary to collect waste generation and recovery data.

## **B. Results of Waste Hauler Questionnaire**

As indicated above, commercial, industrial and institutional waste is typically collected by the private sector, therefore to further determine if additional recovery efforts or other recovery programs were being conducted by the private sector waste haulers, Waste Hauler Information Surveys were distributed to 28 haulers that service Ontario County to gather metrics related to their services and the destination of their waste materials or recyclables. A copy of the survey is included in Appendix C. Of the 28 haulers that received the survey, 13 surveys were returned, which is a response rate of 46%. As shown in Table 4-1, based on hauler responses regarding service area and specialty collection services the majority of municipalities have haulers that will provide them with services such as electronic waste pickup, bulky waste pickup (appliances, furniture, etc.), tire pick up, and some sort of pay-as-you-throw program. These Waste Hauler surveys have been determined to be useful tools along with the waste generator surveys. The County is proposing as an Implementation Task (#16) in Chapter 6 to continue issuing these surveys on a biennial basis to monitor the private and municipal sectors solid waste management initiatives. This task has been included in the Implementation Schedule for the implementation of a survey and reporting program as well as any other programs that might be useful and necessary to collect waste generation and recovery data.

**TABLE 4- 1: WASTE HAULER SERVICES AVAILABLE**  
**(IN NUMBER OF HAULERS PROVIDING SERVICE)**

From survey's received in March and April of 2011

	<b>Bulky Waste</b>	<b>E-Waste</b>	<b>Tires</b>	<b>PAYT Options*</b>
Bristol (T)				
Bloomfield (V)	3	1	1	3
Canadice (T)	1			
Canandaigua (C)	2	1	1	4
Canandaigua (T)	4	2	1	5
Clifton Springs (V)	2	2	1	3
East Bloomfield (T)	3	1	1	3
Farmington (T)	5	3	2	5
Geneva (C)	2	1		3
Geneva (T)	1			2
Gorham (T)	1	1	1	1
Hopewell (T)	2	1	1	3
Manchester (V)	2	2	1	3
Manchester (T)	2	2	1	3
Naples (V)	2	1	1	1
Naples (T)	2	1	1	1
Phelps (V)	2	2	1	3
Phelps (T)	3	2	1	3
Richmond (T)	2	1		2
Rushville (V)				2
Seneca (T)	1	1	1	1
Shortsville (V)	3	2	1	4
South Bristol (T)				
Victor (V)	4	3	2	5
Victor (T)	3	2	1	5
West Bloomfield (T)	3	1	1	3
<b>Percentage of Municipalities with:</b>	<b>Bulky Waste Pickup Available: 91%</b>	<b>E- Waste Pickup Available: 64%</b>	<b>Tire Pickup Available: 79%</b>	<b>PAYT Available: 91%</b>

\* Pay-As-You-Throw Programs include traditional pay-by-weight programs, as well as reduced rates for less frequent collection or smaller collection containers. The waste hauler survey information from each responder is provided in Appendix C, which provides details related to their waste reduction incentives (i.e., PAYT or similar program). The forms also provide the services areas where these services are available.

Source: Waste Hauler Surveys conducted by Ontario County Planning Department, March/April 2011

### C. Results of Generator Questionnaire

As a means to determine if additional recovery efforts were being conducted by the Commercial/Industrial/Institutional (CII) entities within the County, Generator Information Surveys were distributed to 346 businesses within Ontario County to gather metrics related to their waste reduction and/or reuse activities. A copy of the survey is included in Appendix C. Of the 346 businesses that received the survey only 22 surveys were returned, which is too low of a response rate (6%) to draw any statistically meaningful conclusions from; therefore, the results of this survey are not relied upon in this analysis.

Additional information obtained during the survey of the generators included their responses to the questions below in Table 4-2.

**TABLE 4- 2: WASTE GENERATOR DATA SUMMARY**

From survey's received in March and April of 2011

	Currently Implemented	Interested in Implementing	Not Answered*
Recycling Receptacles Provided for Employees	14	6	2
Recycling Receptacles Provided for Customers	6	4	12
Recycling Education for Employees	10	6	6
Material Reuse (replacement of a one-time product with a durable reusable one)	7	9	8
Use of a "waste" as an input to a Process or Service	5	6	9

\*Not answered includes all not applicable situations.

### D. Discussion of Markets

Ontario County's existing solid waste management practices are discussed in Chapter 3.0 of this LSWMP. Given that Casella Recycling and other private recyclers are determining the end markets for recyclable materials, Ontario County does not conduct independent market analyses to determine other available markets for potential recyclables. However, Ontario County maintains communication with Casella Recycling to understand the available end

markets for recyclable materials, and will continue to do so during this planning period. The County has compiled a list of available markets for recyclable materials, which is included in Appendix D.

### E. Regional Perspective on Landfills and Solid Waste Flow

The Ontario County Landfill is the only active MSW landfill in Ontario County. Nearby MSW landfills in adjacent counties to Ontario include: High Acres Western Expansion and Mill Seat (Monroe County), Seneca Meadows (Seneca County), and Steuben Sanitary (Steuben County).

There is a regional component to the flow of waste, which is not confined to one county. The Ontario County Landfill, along with many other county landfills, accepts waste from outside Ontario County. Ontario County waste, in turn, is also accepted by other landfills outside of Ontario County. Table 4-3 displays the top ten geographic origins to the Ontario County Landfill in 2011. As indicated in the table, Ontario County waste accounts for 8.8 percent of the total amount of waste accepted at the Ontario County Landfill. While Ontario County is a significant contributor of waste, other solid waste planning units rely on the Ontario County Landfill for the responsible disposal of solid waste remaining after reduction, reuse and recycling. These percentages do not take into account BUD material.

**TABLE 4- 3: TOP TEN GEOGRAPHIC ORIGINS OF WASTE DELIVERED**

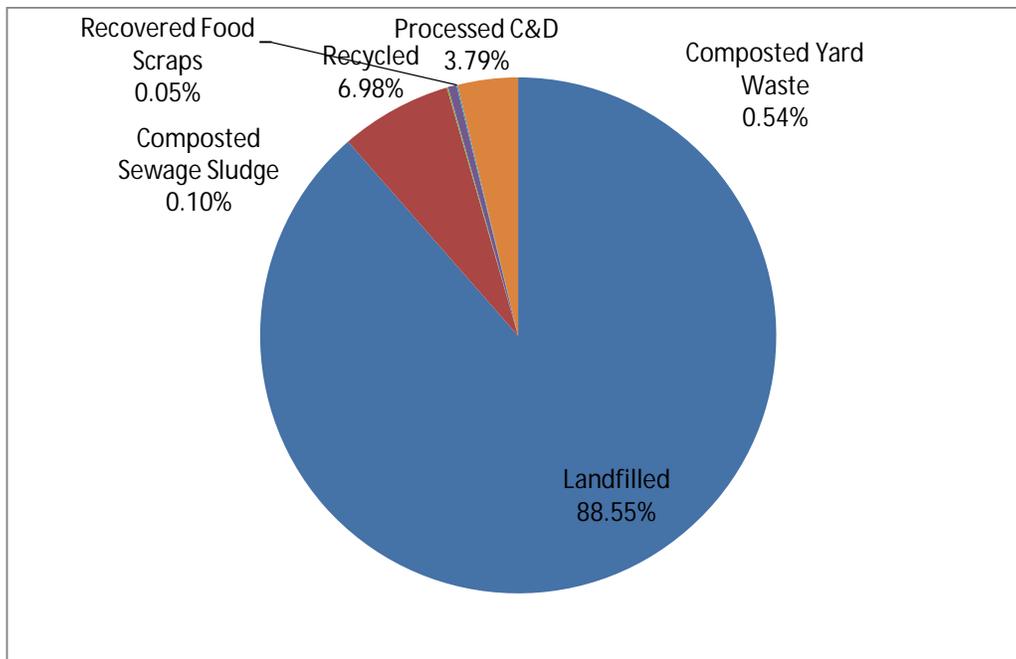
<b>Geographic Origins</b>	<b>Percentage</b>
Rockland County, NY	27.6
Monroe County, NY	11.5
Ontario County, NY	8.8
Rensselaer County, NY	6.7
Dutchess County, NY	5.6
Greene County, NY	4.8
Tompkins County, NY	4.5
Canada	3.7
Orange County, NY	2.7
Suffolk County, NY	2.7
<b>Total</b>	<b>78.6</b>

*Source: NYSDEC, Facility Annual Reports, 2011*

**III. ESTIMATION OF TOTAL WASTE GENERATION IN ONTARIO COUNTY**

In 2011, Ontario County residents and businesses generated approximately 129,432 tons of waste based on available data. Figure 4-1 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 Ontario County. As shown in Table 4-5, the majority of the waste is landfilled (115,245 tons or 89 percent) while the remainder is, recycled (8,366 tons or 6.5 percent), processed (4,929 tons or 3.8 percent), or composted (892 tons or 0.69 percent).

**FIGURE 4- 1: ESTIMATED WASTE MANAGEMENT METHODS IN ONTARIO COUNTY IN 2011**



Source: NYSDEC, Facility Annual Reports, 2011, NYSDEC report, Biosolids Management in New York State, 2011 and Self Reporting

Ontario County has ten municipal sewage treatment plants (STPs). Five of the plants treat sludge prior to final disposal in the Ontario County Landfill. Two of the plants (Gorham and Honeoye Lake) send their liquid sludge to the Canandaigua STP for processing prior to disposal. The remaining two plants compost their sludge on-site (these facilities are known as Biosolids Beneficial Use Facilities). Table 4-4 shows the method of sludge management utilized.

TABLE 4- 4: MUNICIPAL SEWAGE SLUDGE GENERATION AND MANAGEMENT

Treatment Plant	Treatment Method	Dewatering Device	Dry Tons/Year	Use/Disposal Method	Location
Bloomfield (V)	Imhoff Tank	Drying Beds	28	Landfill	Ontario County LF
Canandaigua (C)	Anaerobic Digestion	Belt Filter Press	585	Landfill	Ontario County LF
Farmington (T)	Anaerobic Digestion	Belt Filter Press	260	Landfill	Ontario County LF
Marsh Creek (Geneva)	Anaerobic Digestion	Belt Filter Press	600	Landfill	Ontario County LF
Victor (V)	Anaerobic Digestion	Belt Press/Drying Beds (Covered)	25	Landfill	Ontario County LF
<b>Total</b>			<b>1,498</b>		
Gorham (T) <sup>1</sup>	Septic tank	None	2	Landfill	Thru Canandaigua STP
Honeoye Lake <sup>1</sup>	Aerobic Digestion	None	40	Landfill	Thru Canandaigua STP
<b>Total</b>			<b>42</b>		
Clifton Springs (V) <sup>2</sup>	Aerobic Digestion	Belt Filter Press	47	Compost	On-site
Manchester-Shortsville <sup>2</sup>	Aerobic Digestion	Belt Filter Press	63	Compost	On-site
Phelps (V)	Aerobic Digestion	Drying Beds	20	Store on-site	On-site
<b>Total</b>			<b>130</b>		
<b>Total Sewage Sludge Landfilled</b>			<b>1,498<sup>3</sup></b>		
<b>Total Sewage Sludge Composted</b>			<b>130</b>		
<b>Total Municipal Sewage Sludge Generated</b>			<b>1,628</b>		

Source: NYSDEC, *Biosolids Management in New York State, June 2011*

- <sup>1</sup> Because the Town of Gorham STP and the Honeoye Lake County WWTP send liquid sludge to the City of Canandaigua WWTP for treatment, their total tonnage (42) was not added to the total sewage sludge landfilled in order to avoid double counting.
- <sup>2</sup> The Village of Clifton Springs WWTP and Manchester-Shortsville Joint STP are considered to be Biosolids Beneficial Use Facilities.
- <sup>3</sup> This table is a summary of the Biosolids Management in NYS report, which does not reflect the total quantities landfilled in 2011. Table 4-3 provides the total sludge generated within Ontario County in 2011 that was landfilled.

Table 4-5 provides further detail on the types of waste managed through each method; however, a complete breakdown of waste generated as a whole for Ontario County is not available due to the lack of comprehensive data available at this time. Tasks are included in the 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 4-5 provides a waste generation baseline, which will be expanded as data becomes more readily available and can be incorporated into future waste generation analysis.

**TABLE 4- 5: ESTIMATION OF TOTAL 2011 WASTE TONNAGE BY FACILITY**

	Amount (Tons)	Percentage	% of Total Generation
<b>Landfilled<sup>1</sup></b>			
<i>Ontario County, High Acres, Seneca Meadows, Mill Seat Landfills</i>			
MSW	63,963	55.5	49.4
Construction and Demolition Debris	13,045	11.3	10.1
Sewage Sludge	8,664	7.5	6.7
Industrial	6,605	5.7	5.1
Construction and Demolition Debris Alternative Daily Cover/Beneficial Use Determination Material	22,968	19.9	17.7
<b>Total</b>	<b>115,245</b>	<b>100.0</b>	<b>89.0</b>
<b>Diverted</b>			
Composted Sewage Sludge <sup>2</sup>	130	0.9	0.1
Composted Yard Waste <sup>3</sup>	700	4.7	0.5
Recovered Food Scraps <sup>4</sup>	62	0.4	0.0
Recycled <sup>5</sup>	9,085	60.9	7.0
Processed Construction & Demolition Material <sup>6</sup>	4,929	33.1	3.8
<b>Total</b>	<b>14,906</b>	<b>100.0</b>	<b>11.5</b>
<b>Total Waste Generation</b>	<b>130,151</b>		

1. The NYSDEC 2011 Facility Annual Reports provided the tonnages landfilled at the various landfills.
2. The NYSDEC report, *Biosolids Management in New York State, 2011* provided the most recent data for STPs. Refer to Table 4-4.
3. Quantity based on self-reported volume composted at the City of Geneva site.
4. Quantity based on self-reported recovery of 1.2 tons of food scraps from the Hobart William Smith College per week.
5. The NYSDEC 2011 Recyclables Handling and Recovery Facility Reports provided the tonnages recycled at the various recovery facilities. The following recovery facilities received materials from Ontario County: Alpco Recycling, Casella Recycling, and eCullet.
6. The following facilities processed C&D materials from Ontario County in 2011: Dolomite-Manchester Quarry, R.A. Morris Enterprise, Geneva DPW.
7. Shaded categories are considered to be part of the MSW category, and will be utilized in the MSW composition analysis and projections (72,610 tons) later in this report in Table 4-6.

#### IV. 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; therefore, with the assistance of the DEC's waste composition and recovery projection tool, the following section provides Ontario County with an estimated MSW waste composition for future planning purposes. The complete tables are provided in Appendix I. MSW composition includes residential, commercial and institutional waste generators; consequently, for the purposes of this analysis, we have excluded the following from the MSW composition estimates: separately managed C&D debris, several organics streams (biosolids, septage, agricultural materials, etc.), industrial waste, medical and biohazardous materials, and scrap metal managed outside of the MSW management structures.

The following table provides an estimate based on the total tons of MSW generated in Table 4-5 within the County that could be recovered or diverted from a waste disposal location if the appropriate programs were in place.

**TABLE 4- 6: ESTIMATED MSW RECOVERABLE MATERIALS IN ONTARIO COUNTY**

Material	Estimate of Tons Generated Per DEC Model	% of Total	Tons Diverted Per 2011 Data Obtained	
			Tons Diverted	% Diverted
Newspaper	2,705	3.73%	1,719	63.54%
Corrugated Cardboard	7,085	9.76%	1,897	26.78%
Other Recyclable Paper				
Paperboard	1,667	2.30%	607	36.43%
Office Paper	1,595	2.20%	604	37.88%
Junk Mail	1,489	2.05%	497	33.38%
Other Commercial Printing	1,437	1.98%	495	34.44%
Magazines	705	0.97%	276	39.12%
Books	300	0.41%	34	11.47%
Bags	269	0.37%	20	7.48%
Phone Books	218	0.30%	51	23.52%
Poly-Coated	163	0.22%	23	14.22%
Other Recyclable Paper (Total)	7,843	10.80%	2,608	33.25%
Other Compostable Paper	4,815	6.63%	0	0.00%
<b>Total Paper</b>	<b>22,449</b>	<b>30.92%</b>	<b>6,224</b>	<b>27.73%</b>

Material	Estimate of Tons Generated Per DEC Model	% of Total	Tons Diverted Per 2011 Data Obtained	
			Tons Diverted	% Diverted
<b>Ferrous/Aluminum Containers</b>				
Ferrous Containers	938	1.29%	199	21.18%
Aluminum Containers	383	0.53%	206	53.68%
<b>Ferrous/Aluminum Containers (Total)</b>	<b>1,321</b>	<b>1.82%</b>	<b>404</b>	<b>30.61%</b>
<b>Other Ferrous Metals</b>	<b>3,860</b>	<b>5.32%</b>	<b>82</b>	<b>2.13%</b>
<b>Other Non-Ferrous Metals</b>				
Other aluminum	177	0.24%	8	4.69%
Automotive batteries	456	0.63%	0	0.00%
Other non-aluminum	280	0.39%	0	0.00%
<b>Other Non-Ferrous Metals (Total)</b>	<b>913</b>	<b>1.26%</b>	<b>8</b>	<b>0.91%</b>
<b>Total Metals</b>	<b>6,095</b>	<b>8.39%</b>	<b>495</b>	<b>8.12%</b>
<b>PET Containers</b>	<b>671</b>	<b>0.92%</b>	<b>418</b>	<b>62.33%</b>
<b>HDPE Containers</b>	<b>622</b>	<b>0.86%</b>	<b>232</b>	<b>37.27%</b>
<b>Other Plastic (3-7) Containers</b>	<b>128</b>	<b>0.18%</b>	<b>45</b>	<b>34.91%</b>
<b>Film Plastic</b>	<b>4,154</b>	<b>5.72%</b>	<b>0</b>	<b>0.00%</b>
<b>Other Plastic</b>				
Durables	2,266	3.12%	0	0.00%
Non-Durables	1,225	1.69%	0	0.00%
Packaging	922	1.27%	0	0.00%
<b>Other Plastic (Total)</b>	<b>4,412</b>	<b>6.08%</b>	<b>0</b>	<b>0.00%</b>
<b>Total Plastics</b>	<b>9,987</b>	<b>13.75%</b>	<b>694</b>	<b>6.95%</b>
<b>Glass Containers</b>	<b>2,849</b>	<b>3.92%</b>	<b>1,668</b>	<b>58.55%</b>
<b>Other Glass</b>	<b>298</b>	<b>0.41%</b>	<b>0</b>	<b>0.00%</b>
<b>Total Glass</b>	<b>3,147</b>	<b>4.33%</b>	<b>1,668</b>	<b>53.01%</b>
<b>Food Scraps</b>	<b>9,746</b>	<b>13.42%</b>	<b>62</b>	<b>0.64%</b>
<b>Yard Trimmings</b>	<b>4,101</b>	<b>5.65%</b>	<b>700</b>	<b>17.07%</b>
<b>Total Organics</b>	<b>13,847</b>	<b>19.07%</b>	<b>762</b>	<b>5.51%</b>
<b>Clothing Footwear,</b>	<b>2,831</b>	<b>3.90%</b>	<b>0</b>	<b>0.00%</b>

Material	Estimate of Tons Generated Per DEC Model	% of Total	Tons Diverted Per 2011 Data Obtained	
			Tons Diverted	% Diverted
Towels, Sheets				
Carpet	1,049	1.45%	0	0.00%
<b>Total Textiles</b>	<b>3,881</b>	<b>5.34%</b>	<b>0</b>	<b>0.00%</b>
<b>Total Wood</b>	<b>3,641</b>	<b>5.01%</b>	<b>0</b>	<b>0.00%</b>
C&D Materials	4,304	5.93%	0	0.00%
Other Durables	1,239	1.71%	0	0.00%
Diapers	1,176	1.62%	0	0.00%
Electronics	1,067	1.47%	0	0.00%
Tires	1,235	1.70%	3	0.21%
HHW	247	0.34%	0	0.00%
Fines	297	0.41%	0	0.00%
<b>Total Miscellaneous</b>	<b>9,564</b>	<b>13.17%</b>	<b>3</b>	<b>0.03%</b>
<b>Total</b>	<b>72,610</b>	<b>100%</b>	<b>9,847</b>	<b>13.56%</b>

Source: DEC MSW Combined Analysis and Projections and Appendix I

Based on the quantities of diverted materials that were reported, Ontario County diverted approximately 9,847 tons of material (13.6 percent) in 2011. The table above indicates that 72,610 tons of materials could potentially be available for diversion from residential, commercial and institutional generators. Several materials identified above are collected and recovered at the recycling centers or other similar facilities in Ontario County; however, there are no mechanisms for gathering data for the individual materials at this time. A task has been added to the Implementation Schedule to evaluate and implement data collection efforts. Chapters 3 and 6 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.

## V. ESTIMATION OF POTENTIAL C&D DEBRIS RECOVERY

Construction and demolition (C&D) debris can be assessed separately from MSW or industrial wastes. By utilizing the DEC's C&D composition and recovery projection tool, the following section provides Ontario County with an estimated C&D debris composition for future planning purposes. The complete tables are included in Appendix I. According to DEC, 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 generating 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 DEC annual reports, the following table provides an overview of the tons of C&D debris that could be recovered or diverted from a waste disposal location if the appropriate programs were in place.

**TABLE 4- 7: ESTIMATED C&D DEBRIS RECOVERABLE IN ONTARIO COUNTY**

Material	Estimate of Tons Generated per DEC Model	% of Total	Tons Diverted per 2011 Data Obtained	
			Tons Diverted	% Diverted
Concrete/Asphalt/Rock/Brick	8,425	35.39%	3,789	44.97%
Wood	3,522	14.80%	1,140	32.36%
Roofing	1,173	4.93%	0	0.00%
Drywall	604	2.54%	0	0.00%
Soil/Gravel	6,478	27.22%	0	0.00%
Metal	1,407	5.91%	0	0.00%
Plastic	94	0.40%	0	0.00%
Corrugated/Paper	476	2.00%	0	0.00%
Other	1,624	6.82%	0	0.00%
<b>Total</b>	<b>23,804</b>	<b>100.00%</b>	<b>4,929</b>	<b>20.70%</b>

*Source: DEC MSW Combined Composition Analysis and Projections, 2011 DEC Facility Annual Reports and Appendix I.*

Based on the quantities of diverted C&D materials that were reported to the DEC, Ontario County diverted approximately 4,929 tons of material (20.7 percent) in 2011. The table above indicates that 23,804 tons of C&D materials could potentially be available for diversion from residential and non-residential construction, renovation or demolition projects. Not all the categories are populated for the 2011 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 C&D processing facilities in Ontario County; however, there are no mechanisms for gathering data for the individual materials at this time. A task has been added to the Implementation Schedule to evaluate and implement data collection efforts. Chapters 3 and 6 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.

## **VI. FUTURE WASTE GENERATION PROJECTIONS**

Previous sections of this report discussed the quantities of waste generated, disposed and diverted from the waste stream. This section will present the projected municipal solid waste (MSW) diversion rates as well as the projected construction and demolition (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 I.

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

## CHAPTER 5 - Alternative Technology Evaluation

The objective of the alternatives technology evaluation is to provide an overall summary of the alternatives available to Ontario County related to waste disposal and recycling technologies. Typically this section is reserved for evaluations of different disposal technologies; however, as with most local planning units, Ontario County will continue to rely on the traditional solid waste disposal technology of land burial. Consequently, DEC 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. 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

#### *Gasification*

A subsidiary of Casella Waste, Casella Renewable Energy, LLC, has previously proposed to construct and operate a pilot facility at the Ontario County Landfill to test and develop an advanced technology system for converting municipal solid waste into liquid motor-vehicle fuels. The main feedstock was planned to be post recycling waste, or components of municipal solid waste which is remaining after recycling. Upon success of a pilot project, the potential would exist for development of a full-scale commercial facility for diverting waste from landfilling to beneficial use, thus conserving remaining landfill capacity.

Recent discussions with Casella Renewable Energy indicate that current plans are not to develop the project at the Ontario County Landfill site.

#### *Waste to Energy (Combustion/Incineration)*

A Waste-to-Energy (WTE) facility is a solid waste management facility that combusts wastes to generate steam or electricity and reduces the volume of municipal solid waste (MSW) that would otherwise need to be disposed of by approximately 80-90 percent. These facilities are also sometimes referred to as resource recovery facilities, Municipal Waste Combustors (MWC) or solid waste incinerators with energy recovery. Newer technology allows higher efficiency heat recovery from the combustors, increasing energy production potential.

Although WTE facilities result in a reduction in waste for disposal, a secondary disposal method, such as landfilling would still be required in conjunction with the facility. This, coupled with very high initial construction costs, high operations and maintenance costs, and the uncertainty of revenues associated with energy sales make the disposal cost per ton for this method higher than that for landfilling.

There are currently 10 active WTE facilities in New York State; however, none have been permitted or constructed in the state in the past 20 years.

### ***Mixed Municipal Solid Waste 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 to four 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 month to allow biological decomposition to occur.

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 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.

As mentioned above, Delaware County operates a mixed MSW composting facility, which has been successful as it relates to their needs. Their facility met the need of extending the life of their 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, which serves a rural population of about 47,000 people. This facility handles approximately 100 tons per day of waste. The mixed MSW composting facility is one part of Delaware County's integrated solid waste management system.

### ***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 10 plasma arc gasification facilities in operation in Japan and Taiwan, but only one that operates on a large scale (all others are < 50 TPD) and uses mixed MSW as its only feedstock. A small MSW facility (85 TPD) is in operation in Canada. In the United States, St. Lucie County in Florida has obtained a permit to construct a large scale MSW plasma arc gasification facility, but as of this date, has not commenced construction due to vendor and funding issues.

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 (MBT) 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, or RDF. RDF can be used in place of fossil fuel products, such as a replacement for coal in electricity production. There are currently over 70 active MBT systems in operation across Europe, with a majority of these facilities operating as pilot scale projects (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, 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 CO<sub>2</sub>. 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 (H<sup>2</sup>) and CO<sub>2</sub>. A third group of bacteria, the methane producers or methanogens, produce a medium-Btu biogas consisting of 50-70% methane, as well as CO<sub>2</sub>. This biogas can be collected and used for a variety of purposes including electricity production or converted to high BTU natural gas. 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 such facilities in operation in Canada, each in the Toronto, Ontario area.

Currently, four (4) anaerobic digestion facilities are located within Ontario County specifically for stabilizing sewage sludge. These facilities handle fairly small quantities (25 – 600 dry tons per year) and are used primarily for stabilization where they eventually are disposed of at the Ontario County Landfill.

According to the DEC Environmental Notice Bulletin for completed applications dated January 2, 2013, Lawnhurst Energy, LLC located on County Road 5 in Stanley (Town of Seneca), applied to the DEC for a Part 360 permit for a proposed anaerobic digester, which would digest manure, waste corn silage, and fats, oils, and greases (FOGs) to create biogas, which would be used a fuel for a combined heat and power unit. The facility was brought online in October 2013. Ontario County will continue to stay informed of the status of this project and will continue to report on the progress in the compliance reports.

In addition, two 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 NYSEG.

### **Ethanol Production**

Ethanol production from a mixed MSW waste 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 CO<sub>2</sub>. 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, and 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, but 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.

As discussed in Chapter 6, advances in alternative waste disposal options will be evaluated and should these technologies become viable for Ontario County, the County will reassess these opportunities.

## **5.2 ALTERNATIVE PROGRAMS FOR RECYCLABLES, ORGANICS, WASTE REDUCTION AND REUSE**

Chapter 6 will provide an overview of the subtasks anticipated to be undertaken during the course of this planning period to improve the County's waste diversion rate.

## CHAPTER 6 - Solid Waste Management Plan Implementation Tasks

Based on the data gathered and discussed in the preceding Chapters, the County has identified milestones to work toward during a ten-year LSWMP planning period. The milestones set forth below were identified with the goal of further enhancing the reuse and recycling of materials generated in Ontario County to reduce the quantity of materials being landfilled. Each milestone will be evaluated for feasibility and cost effectiveness on an individual basis according to the implementation schedule included in Chapter 7.0. Implementation tasks that require a new budgetary allocation or the commitment of County resources will require legislative and budgetary approval from the Ontario County Board of Supervisors, through the regular deliberative process of decision-making employed by the County as it strives to achieve a balance of competing public interests and priorities with limited resources on behalf of the residents and businesses of Ontario County.

Where indicated, staff proposed to be utilized to complete the implementation tasks and subtasks may mean existing County staff or contracted services. Estimated costs for each implementation task will be customized based on program specifics throughout this planning period.

### I. ESTABLISH A 10-YEAR PLANNING PERIOD

The NYSDEC's rules and regulations for Comprehensive Solid Waste Management Planning (Subpart 360-15 of 6NYCRR Part 360) require that all solid waste management plans provide for the management of solid waste within the planning unit for a minimum of a ten-year period. Since the County does not have a current LSWMP in place, this LSWMP will be considered a new document. The LSWMP planning period will be for a 10-year period ending December 31, 2023.

The County can address and report any changes to their solid waste planning efforts that take place over the 10-year planning period to the Department as part of the solid waste management plan compliance reports that Ontario County is required to prepare and submit to the Department every two years.

The following sections provide a summary of the implementation tasks, subtasks, required resources, milestones and project completion dates (if appropriate) proposed to be undertaken during the planning period.

## II. IMPLEMENTATION TASK #1 - CONTINUE LANDFILLING AS PRIMARY DISPOSAL FOR ALL NON-RECYCLABLE/RECOVERABLE WASTE

The Ontario County Landfill is operated by Casella Waste Systems (Casella) under a 25 year operation and management lease agreement (OML) with Ontario County that was initiated in 2003. As a condition of the OML, Casella will provide disposal capacity at the landfill through the expiration of the agreement in 2028. The existing Phase III permitted landfill footprint encompasses approximately 84.6 acres of lined area, of which 80.1 acres have been constructed through the end of 2010.

Based on the landfill's current 6 NYCRR Part 360 permit, the landfill has an approved design capacity of 2,999 tons of municipal solid waste per day, which is not inclusive of materials that are approved as beneficial use determination (BUD) materials.

Based on the annual report for the facility, the remaining constructed site capacity was estimated to be approximately 3,373,000 cubic yards as of January 1, 2013. Based on historical waste acceptance rates and in-place waste densities, it was projected that the site had roughly 3 years and 3 months of capacity remaining as of that date.

As part of the OML agreement, Casella is to pursue additional capacity for the landfill. The expansions include the Wrap Around and Eastern Expansions. These proposed developments will provide an additional 5 million cubic yards and 6.5 million cubic yards of disposal capacity, respectively.

The Stage VIII Wrap Around Expansion area encompasses approximately 16 acres immediately west of the existing Phase III landfill between the Tributary to Flint Creek and the existing landfill boundary. The proposed expansion would yield approximately 5 million cubic yards of airspace. The *Stage IX (Eastern) Expansion* area encompasses approximately 27.5 acres immediately east of the existing Phase III landfill in the area currently permitted as the eastern borrow area. The development of this proposed eastern expansion area would yield over 6 million cubic yards of airspace. The landfill expansion project would have minimal impacts to the surrounding community as no wetlands or historical areas would be impacted. Additionally, it would be a development of an area that is currently utilized in landfill related activities. The development of the expansion would, however, require the relocation of the maintenance facility.

Ontario County Landfill is currently an important disposal resource for the residents of Ontario County as well as the municipalities within the County that rely on the landfill for biosolids disposal. Additionally, the landfill is an important resource for the region in adhering to their solid waste management efforts. The Part 360 Permit recently submitted to the NYSDEC would allow for construction of additional cells within the existing landfill property and is an integral part of this LSWMP.

Casella will continue to operate the landfill through the 10 year planning period proposed for this LSWMP and continue to use the landfill as the primary disposal location for all non-recyclable/recoverable waste. However, alternative waste disposal technologies that are available to the solid waste disposal markets were previously discussed in further detail in Chapter 5. Based upon specific constraints for each evaluated technology and the economic limitations of Ontario County and the current capacity available at the County Landfill, these technologies will not be pursued further at this time. Ontario County undertook an extensive analysis of alternatives in the 1980s (previously discussed in Chapter 2), and was used as the prime alternative evaluation basis of this plan supplemented with the information in Chapter 5. However, Ontario County will review alternative waste disposal technologies during the 10 year planning period through the biennial compliance reports to determine if the implementation of any technological advances by similar planning units warrant consideration by the County.

Table 6-1 provides an outline of the implementation tasks associated with continuing to utilize the Ontario County Landfill as the primary method for disposing of wastes requiring disposal during the planning period. This implementation task is consistent with planning goals. The Implementation Schedule in Chapter 7 also provides a year by year breakdown of the steps necessary to complete this goal.

**TABLE 6- 1: IMPLEMENTATION TASK #1**

<b>Continue Landfilling as Primary Disposal for all Non-Recyclable/Recoverable Waste</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Casella Waste Systems through the OML and Ontario County
Resources Required:	Existing resources.
Milestones:	See Chapter 7 – Implementation Schedule.

### III. IMPLEMENTATION TASK #2 – INCREASE RECYCLING AT COUNTY FACILITIES

Ontario County is interested in taking the initiative to promote recycling at county owned facilities. This implementation task is consistent with the intent of Ontario County's local law that was passed in June 1992 regarding the source separation of recyclable materials. Table 6-2 and the implementation schedule in Chapter 7 provides an outline of the resources and subtasks necessary to increase recycling at county owned facilities.

**TABLE 6- 2: IMPLEMENTATION TASK #2**

<b>Increase Recycling at County Owned Facilities</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County, with assistance from Casella Recycling (Casella Waste Systems) and Municipalities
Resources Required:	Staff and/or contracted services that can perform duties of a recycling coordinator.
Milestones:	See Chapter 7 – Implementation Schedule

#### **IV. IMPLEMENTATION TASK #3 – SUPPORT YARD WASTE COMPOSTING EFFORTS**

Decisions about yard waste disposal and collection are made separately by each municipality within Ontario County. Some towns provide for seasonal leaf and tree limb pick-up, while others provide drop off options at the local transfer station. The different programs available within the County are described in Chapter 3 and Appendix A. It is anticipated that initially the County will implement a program that would gather information from existing programs so that an accurate analysis of the existing yard waste composting program can be made.

Ontario County encourages, as the first step in the hierarchy of yard waste management, that residents and businesses implement grass-cycling (leaving their grass clippings on the lawn), and/or backyard composting for yard waste disposal. As a second option, many municipalities and a few private companies operate yard waste compost facilities that are available to 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. Ontario County will support existing educational partners, such as, Soil and Water Conservation and Cornell Cooperative Extension, as well as potential new partners like Finger Lakes Institute, to bolster yard waste composting education in the County.

In an effort to streamline the composting process and make it more cost effective, the County will encourage the development of local yard waste composting facilities by offering the shared use of specialized compost processing equipment (i.e., tub grinder and/or wood chipper) either free of charge or for a small hourly rate, to reduce the capital and operating costs of such a facility to each municipality to the extent that sufficient funds and resources are available. The first step will be to determine if the municipalities can share equipment that is already available. If new equipment would be needed then this would require a capital investment at the outset to cover the cost of the equipment, but these costs could potentially be recouped through usage fees. Alternately, another entity (i.e., Ontario County Soil and Water Conservation) may be willing to partner with the County to operate a similar program to loan out equipment to municipalities. This could also reduce the environmental impacts of relying on larger, centralized facilities, which require multiple trips with transfer trailers to bring yard waste from throughout the County to central locations.

The implementation schedule in Chapter 7 provides a year by year breakdown of the different steps necessary to undertake this task.

**TABLE 6- 3: IMPLEMENTATION TASK #3**

<b>Support Yard Waste Composting Efforts</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County (with possible partners)
Resources Required:	Existing staff member or contracted services to implement tasks specified above.
Milestones:	See Chapter 7 – Implementation Schedule

## V. IMPLEMENTATION TASK #4 – PROMOTE BACKYARD COMPOSTING THROUGH EDUCATION AND TRAINING PROGRAMS

While composting of all organic waste can be an effective method of low technology recycling that can significantly reduce the stream of landfilled waste, collection of these materials on a household basis can prove both difficult and expensive. Another method for removal of these wastes from the waste stream is to implement a backyard composting program, through which residents are provided information regarding the methods of backyard composting. It is anticipated that many residents are already participating in a backyard composting program of their own; however, this task would allow for the program to become more formalized and allow residents to share information amongst themselves. The County would like to explore entering into a partnership with local organizations, such as Cooperative Extension office or Finger Lakes Institute, to provide compost training courses with master composters. As part of the training courses, the County could offer the location for these educational events.

Based on the estimates calculated for this plan, there is a potential to divert several thousand tons of organics from the MSW waste stream on an annual basis by increasing backyard composting efforts. In 2011, only about 5.5% of organics were reportedly diverted, but with the implementation of this task primarily in Year 4 through Year 7, it is anticipated that the diversion rates will increase. Additionally, with the gathering of data proposed as part of Implementation Task #16, the diversion percentages are expected to increase based on better reporting. Table 6-4 and the implementation schedule in Chapter 7 provide an outline of this implementation task.

**TABLE 6- 4: IMPLEMENTATION TASK #4**

<b>Promote Backyard Composting of Food and Yard Waste Through Education and Training Programs</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County, Identified Partners
Resources Required:	<ol style="list-style-type: none"> <li>1. County staff or contracted services.</li> <li>2. County facility for use as training location.</li> <li>3. Partners.</li> </ol>
Milestones:	See Chapter 7 – Implementation Schedule.

## **VI. IMPLEMENTATION TASK #5 – COUNTY WIDE HOUSEHOLD HAZARDOUS WASTE COLLECTION**

Although specific household hazardous waste (HHW) generation data for the County is not easily obtainable, it is generally estimated that HHW makes up an average of 0.34% of the MSW waste stream. While this equates to a fairly minimal amount of material, the toxicity of this material makes it an important target for removal from the landfilled waste stream. As a requirement of its lease agreement, Casella currently provides one HHW collection event/year. This program provides County residents an opportunity to safely and properly dispose of their wastes. The event is open to residents of Ontario County only, and is not open to businesses. Preregistration is required for the event; verification that the resident lives in Ontario County is completed during the sign-in period. Public notification for the event includes advertising in newspaper publications one month prior to the scheduled date. Posters advertising the event are also posted at Transfer Stations.

Ontario County will work with Casella to examine the demand by residents to see if expanding the program to include additional HHW collection events is needed. Recent events operated by Casella for Ontario County have cost in the range of \$50,000 to \$80,000 and have collected approximately 50 to 100 tons of HHW. If an additional event was added within the County, it is estimated that approximately 50 to 100 additional tons of material could potentially be removed from the landfilled waste stream based on the quantity collected at recent events. If an additional event were to be added, it is estimated that over time the recovery rate for each event would decrease as the “supply” of collection events begins to catch up with the demand for disposal.

This implementation task is intended to evaluate the current HHW system and determine what additional practices could be implemented to increase the collection rates and to divert more HHW materials from the landfill. Given the rural nature of the county, it has not been practical to have a central collection location. Alternatively, moving the collection events around the county to provide the service to different communities may be more helpful. However, it may become desirable for the County to have a permanent facility and therefore the evaluation could include a permanent facility during this planning period. Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

**Table 6- 5: Implementation Task #5**

<b>Goal #5: Provide Additional HHW Collection Opportunities To County Residents</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Casella Waste Systems and Ontario County
Resources Required:	Partnership with Casella
Milestones:	See Chapter 7 – Implementation Schedule

## VII. IMPLEMENTATION TASK #6 – SUPPORT LOCAL MUNICIPALITIES

Ontario County is made up of a variety of municipalities with varying levels of local codes, ordinances, and laws developed by each individual local government. This is necessary in order for each municipality to meet the specific needs of their constituents; however, some local regulations may inadvertently hinder the goals for diversion and recovery within the County. An example of such a hindrance would be limitations on the number or size of waste receptacles outside residences or businesses, which might deter the use of separate containers for waste and various recycling streams. Another might be the lack of regulation of waste disposal and recycling services for multi-tenant or public buildings.

Ontario County offers each of its municipalities 30 hours of Planning Department staff time annually for the purpose of professional planning technical assistance. With the approval of the chief elected officer, the municipality may request to use some of this time reviewing or developing zoning and other local land use regulations, such as related to waste disposal for multi-tenant buildings. The cities of Geneva and Canandaigua, as well as the Towns of Victor, Manchester, and Farmington appear to be the municipalities that would most benefit from review of their local laws/ordinances regarding the availability of recycling services in multi-tenant housing facilities. Additionally, these same municipalities have a high concentration of business and commercial property. These are the types of properties that may be affected by zoning and ordinances limiting disposal containers and could therefore be another area of focus.

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

**TABLE 6- 6: IMPLEMENTATION TASK #6**

<b>Goal #6: Support Local Municipalities</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County, Municipalities
Resources Required:	Existing staff
Milestones:	See Chapter 7 – Implementation Schedule

## VIII. IMPLEMENTATION TASK #7 – CONSTRUCTION & DEMOLITION DEBRIS RECYCLING

A Habitat for Humanity ReStore recently opened in Ontario County. A Habitat ReStore is a thrift style store that accepts donations of lumber, building supplies, doors, windows, appliances, furniture and cabinets from individuals, remodeler's, builders and builder supply stores. The donations are then sold to others through the ReStore. This program provides an outlet to divert construction and household materials from landfills and help protect the environment as well as to raise money for Habitat for Humanity projects. Ontario County proposes to work with Habitat for Humanity to promote this program and encourage individuals and businesses to divert their excess construction materials to this store for reuse.

An additional highlight worth mentioning as it relates to Implementation Task #7, is that more than 50% of the construction and demolition debris from the construction of the FLCC's Student Center was diverted from the landfill.

During this planning period, Ontario County will set a C&D material recycling goal for County funded projects. While this goal would likely not be mandatory, it would encourage contractors performing construction and demolition work for Ontario County to commit to meeting the diversion goal, or provide documentation as to why the goal could not be met. This would set an example for other municipally funded work in the County, as well as providing a way to jump-start the coordination of C&D recycling options between waste handlers and contractors.

Currently, landfilling C&D waste is more economical than recycling it in most cases. As of the preparation of this LSWMP, there are no known full scale mixed C&D waste recycling facilities in operation in the vicinity of Ontario County. One method the County will explore as a means to encourage C&D waste diversion, without incurring costs that would be associated with developing new infrastructure, would be to encourage the separation of portions of the waste stream at the source. Wood and masonry materials can be recycled if properly separated from other materials.

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

**TABLE 6- 7: IMPLEMENTATION TASK #7**

<b>Goal #7 – Enhance Construction &amp; Demolition Debris Recycling</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County, Other Identified Partners
Resources Required:	Potential partners' support.
Milestones:	See Chapter 7 – Implementation Schedule.

## **IX. IMPLEMENTATION TASK #8 – PRODUCT REUSE PROGRAMS**

Product reuse is one of the most efficient forms of recycling. Ontario County proposes to encourage the private sector to provide additional systems by which residents can drop off used, but still usable items free of charge. Items would also be salvaged from the existing recycling streams, such as bulk metal, book recycling, and used electronics recycling. These items would then be made available to residents for a fee. This would be similar to the current “Swap Shop” located at the Town of Victor Recycling Center. The “Swap Shop’s” intent is to divert good useable items away from the waste stream and extending the useful life of products. A flyer from Victor’s Swap Shop is included in Appendix F as a model for other municipalities to consider. Additional reuse centers are available to Ontario County residents, such as, Salvation Army, Goodwill, and Habitat for Humanity ReStore. Ontario County will encourage these types of reuse centers throughout the county.

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 facilities foster waste reduction efforts through the reuse of materials, thus eliminating the need to process the materials for recovery or disposal. These facilities are not regulated by the DEC. Through economic development, the County would be supportive of a private or public entity developing a similar program within Ontario County.

Finger Lakes Community College’s (FLCC) Student Center will be the first public building in Ontario County to be certified under the Leadership in Energy and Environmental Design (LEED) rating system of the U.S. Green Building Council. One of the categories that the building is rated on is the use of materials and resources. According to the FLCC’s website, the building contained the following sustainable building materials.

*All building materials were evaluated for criteria such as recycled content, regional availability, sustainable forestry practices and long life. The building consists of 95 percent recycled structural steel, stone quarried in New York, and wood that is Forestry Stewardship Council certified to be sustainably harvested. Cherry is used as a veneer because the thin panels cover a large area with less wood. Materials such as carpet, drywall and ceiling tiles were selected for high recycled content and low volatile organic compounds, or VOC's, reducing air contamination and the associated health problems.*

Table 6-8 provides an overview of this implementation task. Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

**TABLE 6- 8: IMPLEMENTATION TASK #8**

<b>Goal #8 – Encourage Product Reuse Programs</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County; Municipalities; Private Entities
Resources Required:	Existing staff.
Milestones:	See Chapter 7 – Implementation Schedule

**X. IMPLEMENTATION TASK #9 – ENCOURAGE PROPER MANAGEMENT OF UNIQUE WASTES****A. Pharmaceutical Wastes**

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

The Drug Enforcement Administration has held nationwide take back initiative programs and is expected to hold them on an annual basis. Ontario County intends to track collection events within the County and nearby counties and promote them around the County through educational activities. The NYSDEC's website also maintains a Household Drug Collection Schedule that can be referenced for nearby collection sites or programs.

Seneca Lake Pure Waters Association Pharmaceutical Disposal Committee has been instrumental in organizing events since 2010. Information related to these events is included in Appendix G. The following partners were involved with these events and as indicated, Ontario County entities were prominent partners.

- Ontario County Sheriff,
- The Partnership for Ontario County and Wegmans,
- Thompson Health,
- Ontario County Office for the Aging,
- Ontario County Public Health,
- Finger Lakes Visiting Nurse Service,
- Seneca Lake Pure Water Association,
- Lifetime Care Home Health,
- Turnings,
- Canandaigua Police, and
- Town of Hopewell.

Additionally, The Partnership for Ontario County, Inc., a community-based substance abuse prevention coalition with representation from all sectors of the community, has initiated medication drop off events within the County. During 2011, events have occurred in Naples and Phelps, which have been reportedly

extremely successful. This organization intends to continue to hold additional drop off events.

The following events were held in 2013 and similar events are expected to continue through the planning period.

- 4/27/13 – Canandaigua Wegmans
- 6/15/13 – Clifton Springs Hospital
- September DEA Take Back Day – Geneva
- 10/5/13 - Victor

## **B. E-Wastes**

Presently the County has a limited E-Waste Recycling program, which relies on other entities such as Casella Waste Systems and Finger Lakes Institute to sponsor E-waste collection days. The New York State Electronic Equipment Recycling and Reuse Act was signed into law on May 28, 2010. It requires manufacturers to set up and fund programs for the collection and recycling of electronic waste in New York State. This relatively new law relieves New York local municipalities, such as Ontario County, of the costly burden of managing e-waste, and provides free and convenient recycling of electronics to consumers and businesses in New York State.

The County's list of mandatory recycled items does not include computers, computer monitors, and televisions. As the technology in consumer electronics evolves, the quantity of electronic waste, or E-waste, entering the waste stream will continue to grow. While some municipalities within the County currently accept E-waste for recycling at their transfer stations, the County will evaluate expanding the list of mandatory recycled items to include E-wastes such as computers, computer monitors, televisions, cell phones and digital cameras. This would require the adoption of a local law to include these items as mandatory recyclables.

## **C. Medical Wastes**

Sharps are not allowed at the Landfill or Transfer Stations, as they pose a serious health and safety risk to employees who would come in contact with them. However, local pharmacies, healthcare facilities, etc. have programs in place that provide for the proper disposal of these sharps. All hospitals in New York State (except for federal facilities) are required to collect sharps from

households. The County's role is to help make sure that residents are aware that these programs are in place.

#### **D. Universal Wastes**

##### *Mercury*

Mercury is used in some consumer products; examples include thermometers, thermostats, and automotive switches. Residents may dispose of these and other mercury containing materials for free at the Casella sponsored household hazardous waste day, which is usually held once a year.

It is well known that mercury is an extremely toxic substance that does not break down easily once released to the environment, and therefore its disposal needs to be controlled. The County will assess the feasibility of developing a permanent program for the collection and proper disposal of mercury containing products such as thermometers and thermostats. The goal of such a collection program is to provide residents with a convenient and safe method of disposal of these items and reduce the instances of improper disposal.

##### *Compact Fluorescent Lamps (CFLs)*

Compact fluorescent lamps (CFLs) contain a small amount of mercury; approximately 3-5 milligrams. Expended CFL's should be managed properly, in the same manner as other household hazardous waste products like paint, batteries and non-digital thermostats. Ontario County residents can dispose of expended or broken CFLs at the local Household Hazardous Waste (HHW) Collection Site. Additionally, many CFL retail outlets, such as Home Depot, offer safe disposal or recycling.

##### *Batteries*

Many residents use and discard batteries into the waste stream. Although waste batteries are a small amount of the solid waste stream, they are a concentrated source of some types of heavy metals. The main constituents of concern for human health and the environment include: cadmium, lead and mercury.

Reusable/rechargeable batteries are preferred over single-use batteries provided the rechargeable batteries are recycled after their useful life is over. As of June 8, 2011, New York retail locations that sell rechargeable batteries are

required to accept used batteries of the same type for recycling. Additionally, as of December 15, 2011, it is against the law for New Yorkers to knowingly dispose of rechargeable batteries in the garbage.

#### **E. Pesticides**

CleanSweepNY was initiated as an Environmental Benefit Project by the New York State Department of Environmental Conservation's Bureau of Pest Management and it describes in one word an effort to safely and economically dispose of canceled, unwanted, unusable, or otherwise obsolete pesticides and other chemicals from agricultural or non-agricultural business activities. CleanSweepNY also provides for the disposal of elemental mercury, mercury containing devices such as thermometers, manometers, etc. from schools and other entities.

CleanSweepNY collection events do not target the general public since home and garden pesticides are accepted in Household Hazardous Waste (HHW) collections. Commercially applied or larger quantities of pesticides are usually excluded from local HHW collections. In New York State this fact has created a backlog of demand for safe, legal, and affordable disposal of obsolete pesticide products and other chemicals.

CleanSweepNY is administered by DEC in collaboration with the New York State Department of Transportation, which provides sites for the collection of these unwanted chemical materials. The program is supported by Cornell Cooperative Extension, the Agricultural Container Recycling Council, NYS Green Industry, Soil and Water Conservation districts, the New York Farm Bureau, and related grower associations. To date, CleanSweepNY has collected and managed over 850,000 pounds of hazardous chemicals and more than 500 pounds of elemental mercury. The program has also collected over 3,000 plastic pesticide containers for recycling that would have otherwise ended up in landfills.

Throughout the planning period, Ontario County will evaluate promoting these existing programs to residents. It is not Ontario County's goal to organize separate programs when other private and public entities are managing this need. Table 6-9 provides a framework for encouraging proper disposal of the mentioned wastes.

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

**TABLE 6- 9: IMPLEMENTATION TASK #9**

<b>Goal #9 – Encourage Proper Disposal of Unique Wastes</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County; Seneca Lake Pure Water Association, The Partnership for Ontario County, Inc., Other Ontario County Entities; Private Entities (i.e., Wegmans, Hospitals, Home Depot, Sheriff Dept., etc.).
Resources Required:	Existing staff.
Milestones:	Ongoing – See Chapter 7 – Implementation Schedule

## **XI. IMPLEMENTATION TASK #10 – PUBLIC OUTREACH AND EDUCATION**

Public outreach and education regarding waste diversion programs and responsible disposal of special wastes has been identified as a key component of the solid waste management program in Ontario County. As presented in Chapter 4, paper, plastics, and food waste are the waste streams with the potential for the greatest future diversion quantities. A majority of these paper and plastic items are materials that are currently included in the recycling stream accepted at Casella Recycling and other recyclables handlers in the vicinity of the County. Additionally, a portion of the food waste currently disposed of at landfills is generated by residents, which could be managed through back yard composting.

Ontario County is dedicated to education and believes that this is best accomplished, and provides the greatest benefit, when practiced in partnership with the community, since impacts and benefits of management decisions reach across property boundaries. Waste streams that could experience higher diversion rates through further public education efforts have been identified in many of the discussions presented above. Specifically, the waste handling areas that should receive the most focus initially are:

- Recycling
- Yard Waste Composting Facilities
- Backyard Composting
- HHW Collection Events
- C&D Debris Diversion Opportunities
- Unique Waste Disposal Options

During this planning period, the County will evaluate its current and potential education methods for promoting reuse and the County's recycling law. The County will evaluate the feasibility of adding recycling education at public events, specifically in the areas where they can team with local companies and not for profit agencies to encourage the recycling of specific waste streams.

To the extent that sufficient funds and resources are available, much of the education will be focused in local public schools as well as colleges and universities and public events. This will provide the most exposure to the maximum quantity of people for each effort. Additionally, the County and their partners will likely employ local media in an effort to promote specific collection and education events.

The results of the waste generator survey indicated that 75% of businesses and industries that do not currently offer recycling to their employees would be interested in implementing such a program. Additionally, 50% of those same businesses and

industries would be interested in providing some sort of recycling education to their employees. Providing information to these generators regarding options for implementing recycling programs, as well as providing resources for in-house training programs, may also offer a valuable method for increasing diversion rates in these types of facilities. Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

**TABLE 6- 10: IMPLEMENTATION TASK #10**

<b>Goal #10 – Encourage Public Outreach and Education Program</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Cornell Cooperative Extension, Finger Lakes Community College (FLCC), Finger Lakes Institute at Hobart William Smith (FLI), etc.
Resources Required:	<ol style="list-style-type: none"> <li>1. Staff or contracted services that can perform duties of a Recycling Coordinator</li> <li>2. Partnerships</li> </ol>
Milestones:	See Chapter 7 – Implementation Schedule

## **XII. IMPLEMENTATION TASK #11 – ENCOURAGE AGRICULTURAL PLASTICS RECYCLING**

With over 200,000 acres of farmland within its borders, agricultural plastics represent a significant waste stream produced within the County. The agricultural plastics that farmers use, such as plastic baling twine, greenhouse plastics, hay bale wraps, mulch film, and pesticide containers are not currently accepted for recycling in Ontario County. As such, many of these materials end up in the County landfill or buried at their point of origin. One challenge to recycling these products is that many of them are bulky and difficult to transport, as well as the concern that many of them may be contaminated with pesticides, mold, and soil. Recently a handful of agricultural plastics recyclers have begun to emerge across the country, along with new concepts in the handling of these materials to enhance the ability to recycle them.

The Ag Container Recycling Council (ACRC) is a non-profit organization that safely collects and recycles plastic crop protection product, or pesticide, containers. It is fully funded by member companies and affiliates that formulate, produce, package, and distribute crop protection and other pesticide products. The ACRC contracts with various vendors to provide container recycling programs to the agricultural community that are convenient and free of charge. USAg Recycling is the designated ACRC vendor for the northeastern United States. As outlined in the program management plan in Table 6-11, one option for the handling of this portion of the agricultural plastics waste stream is to work with USAg to provide recycling services in Ontario County. Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

Cornell's Recycling Agricultural Plastics Project (RAPP) is working to establish programs for other hard to recycle agricultural plastic products. At the present time, some collection schemes and best management practices have been established, however, a viable outlet for end use of the material has not been found.

Ontario County intends to support existing agricultural plastics recycling programs and their program administrators. Should these entities be interested in implementing a program in Ontario County, the County would be supportive. Information related to existing programs is provided in Appendix I.

**TABLE 6- 11: IMPLEMENTATION TASK #11**

<b>Goal #11 – Encourage Agricultural Plastics Recycling Programs</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County Planning Department; Ontario County Soil and Water Conservation District; Ontario County USDA; Local Agriculturalists
Resources Required:	Partnerships (i.e., RAPP, USAg)
Milestones:	See Chapter 7 – Implementation Schedule.

### **XIII. IMPLEMENTATION TASK #12 – PAY AS YOU THROW PROGRAMS**

In areas where Pay-As-You-Throw (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 Environmental Protection Agency (EPA), 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 disposal if they recycle more and throw away less waste.

There are many variations to the PAYT program. The program allows customers to select the appropriate number or size of containers for their standard weekly disposal amount. The bag program allows customers to purchase bags, often printed with special logos for different haulers, and dispose of waste in these specially marked bags. The price of each bag incorporates the cost of collection, transportation and disposal of the waste. The more bags customers use the more they are paying for waste collection and vice versa. The tag and sticker program allows customers to purchase tags or stickers, which are often specially marked for different haulers, and place these tags or stickers on their garbage bags. This program is similar to the bag program, only using tags and stickers instead of specialty bags.

Hybrid PAYT programs vary greatly from community to community. An example of a hybrid program would be offering residents a limited collection, i.e., a limit of five bags per week, with any additional bags being bought at a per bag fee from the municipality, hauler, etc. In this type of program, the initial cost of service is often billed to the residents in the form of taxes or quarterly bills through the municipality or hauler. Weight based programs use a modified scale located on the waste collection trucks and charge customers based on the actual pounds of garbage set out for disposal. On board computers record weights by household and customers are billed on this basis.

As with any program, there are advantages and disadvantages. Some of the advantages and disadvantages of the PAYT programs are listed below:

*Advantages:*

- PAYT programs are a fair way to charge customers. Customers who dispose of more waste pay a higher cost than those who recycle more and dispose of less waste.

- PAYT programs do not place restrictions on customer choices. Customers are not prohibited from putting out additional garbage, but those who want to dispose of more garbage will pay a higher fee.
- PAYT programs are generally inexpensive to implement. They may also help prevent overuse of solid waste services.
- PAYT programs encourage waste reduction in the form of recycling, composting, and source reduction.
- PAYT programs can be implemented in a variety of sizes and types of communities, with a broad range of collection methods.
- PAYT programs offer environmental benefits by reducing the amount of waste sent to a landfill and recycling more of the products used by residents.

*Disadvantages:*

- PAYT programs may raise concerns regarding illegal dumping.
- PAYT programs can be a concern for large poor families who cannot afford to pay for the amount of waste they dispose.
- PAYT programs can be hard to implement at first if communities are unwilling to embrace the change that the program requires.
- Implementing PAYT programs, i.e., purchasing of stickers, cans, bags, etc, retrofitting waste trucks, employee reassignment, etc., can prove challenging.

Since Ontario County is not responsible for collection of residential waste, the PAYT program would need to be implemented through the local 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 of the waste hauling companies that operate within the County. The results of the survey, summarized in Chapter 5, indicate that PAYT programs are available within 91% of the municipalities, but not all haulers offer these services to their customers and many of the programs are variations of PAYT. Typically haulers indicate 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 be able to offer their customers much reduction in cost for smaller quantities of waste especially in a rural area.

Table 6-12 supports the County's approach to allowing the private sector to manage the market needs for PAYT programs. However, given that PAYT has been proven to be successful in many parts of the state, Ontario County will continue to monitor the availability and public need for this type of service. Should the public demand become greater than the private sector can manage, Ontario County will work with the haulers to determine if incentivized waste reduction programs can be made

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

**TABLE 6- 12: IMPLEMENTATION TASK #12**

<b>Goal #12 – Encourage and Monitor PAYT Programs</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Haulers
Resources Required:	<ol style="list-style-type: none"> <li>1. Haulers</li> <li>2. Transfer Station operators (municipalities)</li> </ol>
Milestones:	See Chapter 7 – Implementation Schedule.

**XIV. IMPLEMENTATION TASK #13 – AMENDMENTS TO COUNTY LOCAL SOLID WASTE MANAGEMENT AND RECYCLING LAW**

The County is evaluating areas in which its existing SWM and recycling law could be strengthened in order to more adequately ensure that wastes are managed according to plan. During this planning period, the County intends to conduct an internal review of its law, as well as consult with outside sources, in order to ensure its local solid waste law is up to date. Specific items that the County intends to address include, but are not limited to:

- Mandatory source separation for all waste generators
- Update to administrative structure referenced in current local law
- Modifications to existing mandatory recycling list
- Recycling at county owned facilities
- Pay-As-You-Throw incentives
- Commercial Recycling
- Recycling Compliance

These items, among others, will be considered during the law review process.

**TABLE 6- 13: IMPLEMENTATION TASK #13**

<b>Goal #13 – Amendments to County Local Solid Waste Management and Recycling Law</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County, Municipalities
Resources Required:	Outside sources
Milestones:	See Chapter 7 – Implementation Schedule

**XV. IMPLEMENTATION TASK #14 – MONITOR MANAGEMENT OF ANIMAL MORTALITIES**

According to the Cornell Waste Management Institute (CWMI), over 25,000 dead deer carcasses are managed annually by the New York State Department of Transportation (NYSDOT). Disposal options are limited and appropriate disposal is expensive. Current NYSDOT practices include contracting 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.

Ontario County currently does not have a compost management plan for road kill, slaughter waste or other non-farm related animal mortalities. CWMI 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. More examples of this type of management method need to be carried out before Ontario County would be in a position to consider instituting a county operated animal carcass composting program. However, Ontario County supports the efforts that CWMI and NYSDOT has 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.

**TABLE 6- 14: IMPLEMENTATION TASK #14**

<b>Goal #14 – Monitor Management of Animal Mortalities</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	NYSDOT
Resources Required:	Existing staff.
Milestones:	See Chapter 7 – Implementation Schedule

**XVI. IMPLEMENTATION TASK #15 – MANAGEMENT OF ORGANICS**

According to the estimates derived from the NYSDEC's waste composition tool, food scraps comprise approximately 13% of the MSW stream in Ontario County. Many community organizations and institutions are taking the initiative to research options for the management of these materials. Currently, Ontario County does not have the resources available to conduct a food scraps program county-wide; however, the County is supportive of other organizations such as Finger Lakes Institute at Hobart William Smith (FLI), Hobart William Smith (HWS), Cornell Cooperative Extension, and Finger Lakes Community College (FLCC) implementing food scrap composting programs.

Existing programs at HWS include:

- Tray-less Dining at HWS – The Colleges reduced a third of their waste during their tray-less experiment.
- Institutional Composting at HWS – The colleges main dining facility composts approximately 1.2 tons of food waste each week. HWS has also reduced its environmental impact by using compostable flatware that is made from the cellulose found in potatoes, corn and sugar cane.

FLCC composts kitchen food waste through a partnership with the Wegmans Organic Research Farm. Kitchen staff separate compostable waste and place it in receptacles that are collected every week by the farm. The farm adds the waste to its compost pile, which serves as organic fertilizer for crops.

Additionally, other companies in Ontario County are exploring various opportunities with organic composting. These entities include Vermi-Green, LLC, out of Farmington and founded in Shortsville; and L&D Acquisitions, LLC, associated with Hazlitt Wineries. Both facilities are registered with the DEC to compost source separated organic waste. During this planning period, more information will be gathered from these companies and what they are doing to expand their organic composting activities.

Ontario County is receptive to linking farmers, institutions and businesses together to share valuable information related to managing organics. However, Ontario County is not equipped to track institutional food waste generation or commercial food waste generation. Based on the examples provided above, it is clear that the institutions within Ontario County are taking an active role in organics management, which Ontario County supports and would be willing to promote. Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

**TABLE 6- 15: IMPLEMENTATION TASK #15**

<b>Goal #15 – Support Organics Management</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	HWS, Cornell Cooperative Extension, FLCC, Wegmans, Tops
Resources Required:	<ol style="list-style-type: none"> <li>1. Staff member or contracted service that performs duties of a Recycling Coordinator</li> <li>2. Partnerships</li> </ol>
Milestones:	See Chapter 7 – Implementation Schedule.

## **XVII. IMPLEMENTATION TASK #16 - RECYCLING SURVEYS AND REPORTING**

While the County offers various recycling options, no current monitoring mechanism is in place to determine quantities of recyclables for commercial, institutional, and industrial (CII) generators. Based upon estimates presented in this LSWMP, approximately 13.5% of the MSW waste stream in Ontario County was diverted for recycling in 2011. It is the County's belief that the reported recycling numbers are low since they are based solely on the results reported by local recycling companies on their NYSDEC annual reports. While all solid waste is required to be handled through this 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 materials directly to the end user, bypassing the county-located recycling facilities. As a result, an unknown amount of these recycled materials are not included in the recycling numbers compiled for this LSWMP.

As part of this LSWMP, recycling surveys were distributed to all CII generators within Ontario County to seek information regarding their recycling activities and participation rates. Results of these surveys were previously summarized in Chapter 5. The County will continue to undertake biennial recycling data surveys, which would be distributed to various sectors of the County in order to compile more complete recycling data. Schools, colleges, hospitals and jails, and other institutional generators would be included as recipients of the surveys as well as businesses and industries. These surveys will be used to help assess what materials could be available for use in potential new programs such as organics composting pilot projects and construction and demolition (C&D) material recycling. It is anticipated that the survey would be conducted in stages, with the largest waste producers being contacted first. While the number of employees does not necessarily reflect the quantity of waste generated, it is anticipated that those business and industries with many employees generate the types of waste materials most easily diverted towards recycling and reuse through current programs.

Survey recipients will 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 Ontario County. This information will be compiled to help the County 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.

Although the County's Solid Waste Management and Recycling Law (Local Law #6 of 1992) authorizes the development of a hauler permitting and reporting program, Ontario County proposes to include the haulers in this survey activity because the reports from the haulers would contain useful data that could be utilized for future solid waste planning opportunities. At this time, Ontario County is choosing not to implement mandatory hauler permitting due to the difficulty of enforcing this type of program. Should the survey responses decrease or lack vital information, Ontario County will reconsider hauler licensing. The previous hauler surveys that were conducted and were previously discussed assisted the County in gathering metrics related to their services and the destination of their waste materials and recyclables. Should these surveys be successful during this planning period, the County will consider expanding this program during future planning period activities.

Table 6-16 provides an overview of a management plan that outlines the resources necessary to implement such a program. Chapter 7 – Implementation Schedule provides the milestones through the planning period that are anticipated to evaluate this task.

**TABLE 6- 16: IMPLEMENTATION TASK #16**

<b>Goal #16 – Perform Biennial Recycling Surveys</b>	
<b>Management Plan</b>	<b>Details for Implementation</b>
Party Responsible for Implementation:	Ontario County Planning Department
Resources Required:	An existing staff member or contracted service to prepare, distribute, and record surveys.
Milestones:	See Chapter 7 – Implementation Schedule

## **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 below. 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 2 years per NYSDEC requirements.

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	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.
	Maintain OML between Ontario County and Casella Waste Systems; apply for landfill expansion permits as necessary to provide for uninterrupted landfill disposal capacity at the Ontario County Landfill throughout the ten year planning period. If an alternative waste disposal technology is determined to be successful at other locations, the County would work with Casella to explore the feasibility of the technology further within Ontario County to the extent that sufficient funds and resources are available.									

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
2.) Increase Recycling at County-Owned Facilities	Apply for NYSDEC 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.	Coordinate with Casella Recycling to provide recycling outlets at county operated 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.	Update and modify the Plan to reflect successes and challenges.	Update tasks for remainder of the planning period depending on progress.	Update tasks for new 10 year planning period depending on progress.

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
3.) Support Yard Waste Composting Efforts	Apply for NYSDEC Grant to cover 50% of the salary for a recycling coordinator.	Include a survey component associated with existing yard waste composting programs or initiatives as discussed in Implementation Task #16 to strengthen and increase the data available to the County. Inventory existing yard waste and organics management programs (public and private) within Ontario County.	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.	Set diversion goals as a method of tracking the success of the program.	Develop a scope for a feasibility study related to a yard waste processing equipment sharing program.	Survey all municipalities in the County to gauge interest in such a program (e.g., is there equipment available that could be shared among some municipalities?) and determine if funds are available for the program.	Use input from local municipalities and other counties with similar programs to determine type of program that would be feasible.	Implement an equipment sharing program (if feasible). If resources are unavailable identify potential funding sources.	Update and modify the Plan to reflect successes and challenges.	Update tasks for new 10 year planning period depending on progress.

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
4.) Promote Backyard Composting through Education and Training Programs	Apply for NYSDEC Grant to cover 50% of the salary for a recycling coordinator.			Identify training materials available on the NYSDEC and Cornell Cooperative Extension, Finger Lakes Institute websites for assistance in developing training courses or locating backyard composting demonstration sites. Place links on Ontario County's website for these training course materials.	Enhance backyard composting by developing partnerships with outside organizations (Soil and Water Conservation District, Cornell Cooperative Extension, Finger Lakes Institute) and by providing (or funding) backyard demonstration sites or educational events. If partner(s) are receptive, the County could provide the location for the training events. Alternatively, if external organization(s) are interested in constructing a Backyard Composting Education Demonstration Site, the County may be receptive to providing county owned land for placement of this site.			Update and modify the Plan to reflect successes and challenges.	Update tasks for remainder of the planning period depending on progress.	Update tasks for new 10 year planning period depending on progress.
					Monitor backyard composting demonstration site(s) for successes and failures.					

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
5.) Provide Additional HHW Collection Opportunities to County Residents				Assess four (4) years of costs and conduct cost-benefit analysis on HHW collection events.	Determine if additional HHW collection events are necessary or a permanent facility is needed. Would implement to the extent sufficient funding and resources are available.	Determine tasks for remainder of the planning period depending on progress.	Update and modify the Plan to reflect successes and challenges.	Update and modify the Plan to reflect successes and challenges.	Update and modify the Plan to reflect successes and challenges.	Update and modify the Plan to reflect successes and challenges.
	Gather cost-benefit analysis data from annual HHW collection events.									
	Provide at least one (1) HHW Collection Event per year.									

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
6.) Support Local Municipalities	As necessary; potential tasks include gathering copies of local zoning ordinances, local laws and codes for review of current status, developing list of potential hindrances to diversion identified during review process, developing list of potential catalysts for diversion to be suggested for inclusion in model documents, and finalizing model ordinance/guidance and distribute to local municipal leaders for use.									
7.) Enhance Construction and Demolition Debris Recycling		Gather data related to C&D generation and diversion from Implementation Task #16.	Gather data related to C&D generation and diversion from Implementation Task #16.	Gather data related to C&D generation and diversion from Implementation Task #16.	Establish a C&D waste diversion and recycling goal. Initially focus on County funded projects.	Identify other municipalities with C&D recycling programs, and determine if the programs could be adapted to Ontario 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, 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 existing Habitat for Humanity ReStore program and encourage individuals and businesses to divert their excess construction materials to this store for reuse.										

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
8.) Encourage Product Reuse 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.	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. 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.									
9.) Encourage Proper Management of Unique Wastes	Ongoing promotion of existing programs through the County's public outreach and education programs; consider the feasibility of sponsoring additional events for the disposal of pharmaceutical wastes, e-wastes, medical wastes, universal wastes, and/or pesticides.									

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
10.) Encourage Public Outreach and Education Program	Apply for NYSDEC Grant to cover 50% of the salary for a recycling coordinator.	Draft a preliminary education plan regarding waste diversion and responsible waste disposal.	Negotiate contract with local environmental institute or organization to assist with public outreach efforts.	Partner with local environmental institute, organization, college, or university to assist with the completion of the public outreach and education plan.	Partner with local environmental institute, organization, college, or university to implement the public outreach and education plan.			Determine tasks for remainder of the planning period depending on progress.		Update tasks for new 10 year planning period depending on progress.
	Continue to utilize the existing recycling education video on Ontario County's website as an educational tool.									
11.) Encourage Agricultural Plastics Recycling Program	Monitor the progress of Cornell's Recycling Agricultural Plastics Project (RAPP) – RAPP is a collaboration of Cornell University with organizations, agencies, and businesses in support of agriculture, environmental protection, economic development and recycling		Reach out to USAg to evaluate the need for a plastic container collection event.	Identify avenues for County to share successes with the Ag community.	Support and promote an USAg collection event, if deemed appropriate.			Update tasks for new 10 year planning period depending on progress.		
	Monitor existing and potential recycling outlets through RAPP and USAg.									

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
12.) Encourage and 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.
13.) Update Local Solid Waste Management Law				Conduct internal review of Local Solid Waste Management Law.		Update Local Solid Waste Management Law.	Monitor and gather data related to modification of Local Solid Waste Management Law.			
14.) Manage 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.

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
15.) Support Organics Management	Apply for NYSDEC Grant to cover 50% of the salary for a recycling coordinator.	Inventory existing yard waste and organics management programs (public and private) within Ontario 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 County or continue as a source to share information among generators.	Promote successful organics management programs via Ontario County's website.		Continue to be advised of organics management programs within Ontario County and provide any additional future support as deemed necessary.	
16.) Perform Biennial Recycling Surveys	Apply for NYSDEC Grant to cover 50% of the salary for a recycling coordinator.	Determine haulers and generators to survey. Prepare a template survey utilizing existing surveys used in this LSWMP.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange.		Tabulate and interpret data from surveys. Utilize to implement other tasks. Follow up with interested CII generators to improve their waste diversion programs.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange.	Tabulate and interpret data from surveys. Utilize to implement other tasks. Follow up with interested CII generators to improve their waste diversion programs.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange.	Tabulate and interpret data from surveys. Utilize to implement other tasks. Follow up with interested CII generators to improve their waste diversion programs.	Prepare and distribute biennial recycling survey, including survey of interest in product reuse or exchange.

## Ontario County - Implementation Schedule

Implementation Task	Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	1	2	3	4	5	6	7	8	9	10
Optimal MSW Recycling Diversion Goals	19%	23%	27%	31%	35%	38%	42%	47%	51%	59%
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. 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 - State Environmental Quality Review (SEQR) Determination**

A SEQRA review for the LSWMP will be undertaken prior to the adoption of the final plan. All required SEQRA documents will be maintained in a file at the County Office Building as well as in Appendix K of this plan

## CHAPTER 9 - Public Participation/Notification to Neighboring Jurisdictions

The draft LSWMP was presented to the Environmental Quality Committee (EQC) several times between June 1, 2011 and August 2011. The draft plan was issued to all neighboring counties or Planning Units, including Monroe, Wayne, Seneca, Yates, Steuben, Livingston and Western Finger Lakes Solid Waste Management Authority and local libraries during the public comment period between September 30, 2011 and December 1, 2011. Concurrently, the draft plan was available on the County's website. Several comments were received from the public during the public comment review period. The comments received were taken into consideration and were incorporated into the modifications to the Plan.

The DEC provided comments on the draft LSWMP in a letter dated February 27, 2013. Two meetings were held with the DEC to discuss the comments and the necessary revisions to the draft LSWMP. The first meeting to discuss the DEC's comments was held on April 18, 2013. Subsequently, the EQC and the Board of Supervisors reviewed and commented on a revised version of the draft plan in May 2013. DEC was sent the revised draft LSWMP on June 20, 2013. A follow-up meeting with DEC to discuss the revised draft LSWMP was held on November 21, 2013. Several suggestions that came out of the meeting were considered and a revised draft LSWMP was prepared.

## **CHAPTER 10 - Plans for LSWMP Distribution**

As this is the original LSWMP for Ontario County, the County will provide public notice regarding the completion of the Final LSWMP on the county website. The website posting will indicate that the plan can be viewed through the county website and that hard copies are available for public review at local libraries and the county office building.

Each neighboring county will be notified in writing of the completion of the plan and its availability.

## **CHAPTER 11 - Resolution Adopting the LSWMP**

The Ontario County Board of Supervisors will enact a resolution adopting the Final Solid Waste Management Plan upon its completion, and a copy of the resolution will be included in Appendix L in the final LSWMP.