

**FINAL  
LOCAL SOLID WASTE MANAGEMENT  
PLAN**

**AUGUST 2010**

**Oneida-Herkimer Solid Waste Authority  
1600 Genesee Street  
Utica, NY 13502**

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## INTRODUCTION

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The Oneida-Herkimer Solid Waste Authority (Authority) provides an integrated solid waste management system which first maximizes reduction, reuse and recycling, is environmentally and economically sound, and is flexible enough to adjust to changing conditions, while at the same time ensuring the proper disposition of all types of solid waste. Our approach to solid waste management has always been consistent with New York State's management hierarchy. The Authority had its initial Final Solid Waste Management Plan (SWMP) approved by the New York State Department of Environmental Conservation (DEC) in 1991. The 1991 SWMP stated:

*“The overall goal of the Oneida-Herkimer Solid Waste Authority is to provide for maximum levels of waste reduction and recycling, coupled with the development of environmentally and economically sound programs and facilities for the remainder of the waste stream. It is the intention of the Authority to continue to increase reduction and recycling programs and to plan all facilities to reflect these maximum feasible recovery levels.”*

The Authority is pleased to report that the goals put forth in 1991 have been met and indeed exceeded. In order to meet those goals we have invested nearly \$100 million in facilities and associated programs. We have consistently evaluated our programs to make improvements and changes when deemed necessary.

The Oneida-Herkimer Recycling Center, the top identified priority of the plan, was completed in 1991 and represented a giant leap forward for area recycling efforts. To complement that facility and increase resource recovery and toxics reduction, a regional Green Waste Compost Facility as well as a permanent Household Hazardous Waste Collection Facility were also built during the planning period.

The Authority also owns three transfer stations located in Webb, Utica and Rome, two land clearing debris facilities located in Utica and Rome, a Wooden Pallet processing facility located in Utica and a Brush Processing facility in Rome. A new state-of-the-art Regional Landfill located in Ava was also sited and constructed to serve the disposal needs of the region. The landfill opened in 2006. Each of the facilities plays a role in the environmentally sound management of the two Counties' waste and recyclables. The Authority strongly supports the principle that the State and its planning units should be self-sufficient with regard to waste disposal. It is in the State's long-term best interest to promote policy that encourages self-sufficiency.

The legal framework for this SWMP is in place. Our local recycling laws are mandatory, progressive, comprehensive, and facilitate the addition of new recyclables. The laws also have enforcement and flow control provisions which have been specifically upheld by the U.S. Supreme Court.

This SWMP has similar goals when compared to the original SWMP. The Authority will continue to provide an integrated solid waste management program which first maximizes reduction and recycling through support of the Product Stewardship initiative, boosting organics recovery, development of a new Single Stream Recycling program, continuing to support the area's Pay-As-You-Throw programs (PAYT) and expanding non-traditional recycling/disposal opportunities (old pharmaceuticals, electronics, paint). Once again this SWMP will be fully consistent with the State's solid waste management hierarchy. Since we have reached many of our stated recycling goals and our successful program is well established it will not be easy to dramatically increase recycling levels or consequently decrease solid waste destined for disposal. For instance, our

residents already have the opportunity to recycle over 30 different items, and our current recycling rate is over 50%. This situation is a challenge we face in the upcoming planning period. This document strives to be realistic and avoids putting forth numbers that are not reachable goals. Our experience also shows that recycling/composting/recovery programs are not economically self-sufficient, making them difficult to implement during poor economic times. However, the Authority is fully committed to evaluating new opportunities and technologies given economic realities, market availabilities, and track records.

We will also continue to operate all our solid waste management facilities with the highest level of environmental protection, while keeping disposal user fees at reasonable rates so as to benefit our region's economy. We will evaluate the feasibility of hooking up to a sewer line for landfill leachate disposal. The Authority has already laid the groundwork for reducing greenhouse gases while at the same time producing energy with its Landfill to Gas Electricity project at the Regional Landfill. Single stream recycling implementation will also reduce greenhouse gas generation.

All of the Authority's programs are supported by extensive public education efforts. We use all types of media to get our message out, target specific audiences and educate the public. The Single Stream Recycling Project will be the subject of a massive public education campaign.

The Authority is a New York public benefit corporation created by the State Legislature at the request of Oneida and Herkimer Counties by passage of Article 8, Title 13-FF of the New York Public Authority Law on September 1, 1988. The Authority was created to address environmental problems, to develop new facilities and programs for waste reduction and recycling, and to address the lack of long-term disposal capacity for non-recyclable waste.

The Authority is governed by a 10-member Board of Directors, owns 9 solid waste management facilities, employs approximately 95 people and has an annual operating budget of about \$22 million.

Our revenue structure is primarily a fee for service system. A system tip fee is charged for all non-recyclable waste delivered to the Authority to cover all expenses. These fees cover the majority of expenses in the Authority budget. The Authority receives the remaining revenue from other sources such as investments, sale of recyclables and grants. The Authority receives no funding from the Counties.

This document generally follows the outline contained in "Preparing a New Local Solid Waste Management Plan", an E-Course developed by the New York State Department of Environmental Conservation (DEC).

Once passed by the Authority Board of Directors this SWMP will serve as a road map to direct our programs, operations and projects for the next 10-year planning period.

# ONEIDA-HERKIMER DRAFT LOCAL SOLID WASTE MANAGEMENT PLAN

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## CHAPTER 1 PLANNING UNIT DESCRIPTION

### 1.1 Size of Planning Unit

The Oneida-Herkimer Solid Waste Planning Unit is 2,708 square miles.

### 1.2 Neighboring Planning Units

The location of the Planning Unit is Central New York in the Western Mohawk Valley. The neighboring Planning Units are Madison County, MOSA, Hamilton County, Fulton County, St. Lawrence County, Lewis County and Oswego County.

### 1.3 Population

The population of the Oneida-Herkimer region according to the 2000 U.S. Census was 299,896. The 2009 projection for the two Counties is 293,280 or a decrease of 6,616 residents or 2% from 2000.

### 1.4 Planning Unit Participants

All town, cities and villages within Oneida and Herkimer Counties participate and are included in the Planning Unit.

### 1.5 Seasonal Variations/Agricultural Use

There are only minor fluctuations in regional seasonal usage of the Authority's solid waste management facilities with the notable exceptions of the Town of Webb and the Village of Sylvan Beach. The months of July and August alone account for 34% of the total annual waste generated in the Town of Webb. The Village of Sylvan Beach is located on the shores of Oneida Lake, the population in the summer swells from 1,119 permanent residents to about 5,500. Waste generated in Sylvan Beach quadruples during the summer. These fluctuations do not hamper solid waste collection, recyclables collection or disposal in these communities.

Agriculture (mainly dairy farming) continues to be a primary economic engine for the region. Agriculture is also the foundation of rural society and the primary green space in much of the area. According to the 2007 USDA Census of Agriculture there are 1,685 farms in the region operating on 332,249 acres. Total market value of agricultural products sold exceeds \$154,702,000.

### 1.6 Planning Unit Description

The Planning Unit's major population centers basically follow the NYS Thruway corridor and include the urban Villages of Herkimer, Ilion, and Mohawk, and Cities of Little Falls, Utica, Rome and Sherrill. The suburban areas surround the Cities of Utica and Rome and include the Towns of New Hartford, Whitestown, Deerfield, Lee and Marcy. The remainder of the Planning Unit is largely rural with a sprinkling of villages such as Clinton, Camden, Boonville, Waterville and Oriskany Falls. The school districts in the region range from very large districts such as Utica, Rome and Whitesboro to very small districts such as Owen D. Young, and Town of Webb.

Large retail centers are located primarily in the corridor stretching from the Town of New Hartford to the Villages of Yorkville and New York Mills. A large mall and newer strip malls

featuring “big box” stores are found in this corridor. There are also retail strips in North Utica, Whitestown – Whitesboro, Marcy and Herkimer.

Delta Lake, Pixley Falls and Verona Beach State Parks as well as the Oriskany Battlefield State Historic Site are located in Oneida County. Alger Island and Nick’s Lake State Campgrounds are located in the Adirondack Park portion of Herkimer County. Hinkley Reservoir and General Herkimer Home are also found in Herkimer County. The Fort Stanwix National Monument is found in Rome.

Besides the two-county prisons there are four medium-security State Prisons located in Rome and Marcy – Mohawk, Oneida, Marcy and Mid-State. Inmate populations are about 6,200 for the four facilities.

Over the last 20 years the Planning Unit has suffered from significant job losses related to our largest employers; the closure of Griffiss Air Force Base in Rome and General Electric in Utica. Since that time employment has shifted. Many residents are now employed by the Oneida Indian Nation Enterprises in Verona, various businesses located at Griffiss Business Park in Rome, Con-Med in Utica, and Remington Arms in Ilion.

The region is home to six private and public higher education institutions with a combined student population of over 12,000.

## **1.7 Changes to Planning Unit**

No members have left the original Planning Unit.



## CHAPTER 2 SOLID WASTE QUANTITY AND TYPES

**Table 2.1**

<u>Material</u>	<u>Established Amount Generated</u>	<u>Amount Recovered*</u>
Paper Newsprint	15,500	14,492
Paper Corrugated	Unknown	16,259
Paper Mixed	Unknown	26,887
Metal	Unknown	113,818
Glass	Unknown	5,081
Plastic	Unknown	3,182
Yard Waste	26,000	25,094
Food Waste	Unknown	13,622
C&D Materials	53,746	2,187
Sewage Sludge	15,000	3,603
Electronics	Unknown	145
Industrial Waste	85,193	64,661
Textiles	Unknown	1,007
Tires	Unknown	755
Auto Batteries	Unknown	33

\* Source: 2009 Authority scale records and results of annual private and institutional entity surveys, all figures in tons.

### Table 2.1 Discussion

The amount generated for newsprint is an estimate based on the theory that newsprint is a non-industrial commodity and the vast majority of it is recycled through our system. The small remainder is likely re-used for packing and cleaning. The amount generated for yard waste, sewage sludge, and industrial waste are estimates the Authority is confident in because material is predominately handled within our system, although additional yard waste is likely generated but managed at the source through backyard composting. For many of the solid waste types listed it is difficult for the Authority to accurately determine the amount generated because the materials are handled outside our system by private entities. We survey private firms and institutions annually in our region for data related to recycling/recovery but we do not obtain complete results. As for the “recoverable amount” category it is also difficult to precisely determine figures due to the unknowns associated with amount generated. However, the Authority is fully committed to recover the maximum amounts of these materials. The programs detailed in this plan represent the Authority’s commitment to this task.

## CHAPTER 3 EXISTING PROGRAM DESCRIPTION

**Table 3.1 Solid Waste Management Facility Inventory (Oneida-Herkimer Region)**

FACILITY NAME	FACILITY TYPE	EXPECTED LIFE	OPERATING STATUS
Oneida-Herkimer Regional Landfill	Landfill	60+ yrs	Active
Oneida-Herkimer Recycling Center	Recycling Handling/Recovery	5 yrs	Active
Andela Products Ltd.	Recycling Handling/Recovery		Active
Spohn's Disposal Service	Recycling Handling/Recovery		Active
Empire Recycling Corp.	Recycling Handling/Recovery		Active
Meyda Tiffany	Recycling Handling/Recovery		Active
Oneida-Herkimer Eastern Transfer Station	Transfer Station		Active
Oneida-Herkimer Western Transfer Station	Transfer Station		Active
Webb Transfer Station	Transfer Station	20 yrs	Active
Manheim Transfer Station	Transfer Station		Active
Salisbury Transfer Station	Transfer Station		Active
Augusta Transfer Station	Transfer Station		Active
Boonville Transfer Station	Transfer Station		Active
Camden Transfer Station	Transfer Station		Not used
Sherrill Transfer Station	Transfer Station		Active
Deerfield Transfer Station	Transfer Station		Active
Floyd Transfer Station	Transfer Station		Active
Forestport Transfer Station	Transfer Station		Active
Kirkland Transfer Station	Transfer Station		Active
New Hartford Transfer Station	Transfer Station		Active
Rome Transfer Station	Transfer Station		Active
Trenton Transfer Station	Transfer Station		Active
Oriskany Falls Transfer Station	Transfer Station		Not used
Oneida-Herkimer HHW Facility	HHW Collection/Storage	15 yrs	Active
Oneida-Herkimer Green Waste Compost Facility	Composting Facility	20 yrs	Active
Oneida-Herkimer Western Green Waste Compost Facility	Composting Facility	10 yrs	Active
New Hartford (T)	Composting Facility		Active
LBD Enterprises	Composting Facility		Closed
Waterville Biosolids Facility	Composting Facility		Active
LBD Enterprises	Land Spreading		Active
Village of Camden	Land Spreading		Active
Village of Waterville	Land Spreading		Active
Heroux Mine	C&D Processors		Active
JoRose Clean Wood Waste Recycling	C&D Processors		Closed
New Hartford (T)	C&D Processors		Active
Oneida-Herkimer Wood Pallet Processing Facility	C&D Processors	10 yrs	Active
Rome Waste Wood Processing Facility	C&D Processors		Active
Crash's Scrap Metals	Scrap Yard		Active
Reding Recycling	Scrap Yard		Active
Empire Recycling Corp.	Scrap Yard		Active
Utica Alloys	Scrap Yard		Active
Oneida-Herkimer Tannery Rd Site	Land Clearing Debris Facility	10 yrs	Active
Oneida-Herkimer Leland Ave. Site	Land Clearing Debris Facility	10 yrs	Active

## **3.2 Existing Efforts to Recover Recyclables**

### **3.2.1(a) Residential Source Separation and Collection**

There are four (4) types of residential recycling collection systems available in Oneida and Herkimer Counties. Curbside collection by private commercial haulers through agreements with individual property owners or generators, curbside collection by private commercial haulers through a contract with a municipality, curbside collection by municipalities and direct drop off by residents or generators to publicly operated transfer stations or Authority operated residential convenience stations.

There are approximately 115,000 households in Oneida and Herkimer Counties. Currently, over 90% of the residential households are serviced with curbside recyclables collection. The remainder, mostly rural residents, drop-off recyclables and waste at the existing system of transfer stations or residential convenience stations.

The Authority in conjunction with the City of Utica was instrumental in launching one of the first Pay-As-You-Throw or PAYT programs in the nation in 1989. Since that pioneer program the Authority has promoted and directly assisted many local municipalities to adopt PAYT programs. Besides Utica, the Villages of Dolgeville, Frankfort, Herkimer, Ilion and Mohawk have PAYT programs directly administered by the Authority. We purchase bags, assist with procurement of contractors, provide customer service and manage accounts for those six communities. Additionally, the Authority has assisted but does not directly administer PAYT programs in the Villages of Clayville, New York Mills, West Winfield, Whitesboro, and Yorkville. The approximate population served by these PAYT programs is over 96,000.

Many local private haulers (eight companies) also offer PAYT programs, some featuring totes instead of bags. When these private PAYT programs are factored in we estimate about 40-50% of the region's population is served by PAYT programs in some form.

These programs make sense because the incentive to recycle is economically emphasized (resident pays for the bag and recycling is free) and we see recycling levels that are generally higher in PAYT communities (over 30% recycling rate). The Authority has and will dedicate considerable resources promoting these PAYT programs, but we will not mandate their use in the region. Our region is diverse and certain communities favor other systems or programs and their local preference must be respected. However, any system whether private collection through individual homeowners or businesses, or municipal collection paid through the tax base must adhere to our local laws and the mandated list of recyclables.

Furthermore, the Authority's entire solid waste management system is based upon a "system" tipping fee on non-recyclable waste, while there is no tip fee for recyclables received at the Recycling Center. Any non-recoverable costs associated with recycling, composting, household hazardous waste management, public education and reuse/reduction are built into the system tip fee since these programs are not self sufficient. The fee structure provides an economic incentive to recycle for all waste generators regardless of collection means.

### **3.2.1(b) Commercial/Industrial Source Separation and Collection**

There are approximately 20,000 operating businesses, industrial enterprises and commercial entities in the two-county region. These commercial enterprises collectively generate approximately 50% of the region's waste. Recycling practices among commercial establishments vary widely from business to business. Businesses usually pay a hauler on an

as needed or contract basis for waste and recyclables transportation to an Authority facility or private recycling center.

Many industries and commercial establishments have been recycling their discards and benefiting financially from it for years. The Authority does not interfere with these activities, and these entities are free to market their own materials. During periods of market down turns the Authority acts as the market of last resort for these generators; this is important because it prevents recyclables from entering the waste stream during such down turns. However, it is important to note that regardless of economic conditions recycling is mandatory for businesses and industries.

The Authority believes that in order to further the goals of its recycling based solid waste management system, programs should be in place to increase the amount of recyclables from industries. As a result, the Authority established a comprehensive “on-site” waste characterization, reduction and recycling evaluation program. There is no charge for this service. The service is provided to establishments so their waste can be minimized, and their reduction and recycling efforts can be maximized. Through a waste assessment/audit the Authority evaluates current solid waste and recycling practices, identifies waste generator points, assesses participation and compliance rates, and determines potential opportunities for increasing recyclable material recovery. For example, the Authority has observed minimal high grade paper and corrugated cardboard separation/collection for recycling at some facilities visited under this program. After the visit this situation was corrected, and the facilities in many cases not only complied with the law, but also saved money by recovering these valuable commodities.

The Authority also has a program in place to reward and encourage industries, commercial establishments, businesses and institutions who have been leaders in furthering the recycling goals of the system. The Authority believes that establishments who are exemplary in their recycling efforts should have the benefit of public recognition as well as the economic benefits from recycling and reduction. Since the beginning of this program several industries have been publicly recognized with the Authority’s Recycling Champion Award for developing a comprehensive recycling and solid waste reduction program.

The Authority has developed an industrial/commercial waste survey that is sent annually to over 300 local businesses in Oneida and Herkimer Counties in order to quantify the private recycling taking place in the two-county region. The survey solicits information on the businesses’ recyclables hauling company, recycling market location and other pertinent information from the private sector regarding their recycling efforts. This survey is done to avoid skewed results from double counting.

To assist local industries, clean pallets are accepted in Utica at the Clean Wood Processing Facility at a reduced fee. Pallets are ground into chips and shipped to market for use as fuel, colored landscape mulch, or as a recyclable component in pressboard. Nearly 600 tons of pallets were processed at the site in 2009.

The Authority now allows western Oneida County commercial business and haulers the convenient opportunity to place recyclable material in roll-off containers located at the Western Transfer Station in Rome. This allows businesses to drop off recyclables at the same time they deliver solid waste at the Western Transfer Station in Rome. Businesses and haulers that use this service are required to hand unload recyclables from their vehicle directly into the proper recycling roll-off container. The Authority delivers the recycling roll-off containers to the Recycling Center in Utica for further processing. This service helps save the western Oneida County businesses both time and money in transportation costs.

The Authority is a member of the Western/Central New York Materials Exchange. The Western/Central New York Materials Exchange is a unique opportunity for businesses to exchange unwanted/unusable products that would otherwise be discarded, and/or locate free/inexpensive materials that can be used in daily business operations. Besides the Authority, members of the Materials Exchange Group include seventeen counties of Western/Central New York (Genesee, Livingston, Wyoming, Allegany, Wyoming, Allegany, Steuben, Chautauqua, Monroe, Seneca, Tompkins, Cattaraugus, Broome, Cayuga, and Tioga), and the Western Finger Lakes Solid Waste Authority (Wayne and Yates Counties).

Private recycling in our area is very substantial, and private reporting of recycling figures is on the up-swing. Over the past twenty years, industries and businesses have recycled 700,000 tons of material.

### **3.2.1(c) Institutional Source Separation and Recovery Efforts**

The Authority has always believed that school recycling was an untapped recycling resource in Oneida and Herkimer Counties. One of the most effective ways of introducing lifelong recycling habits is to begin environmental education at an early age. The Counties are host to 31 public and private school systems, colleges, and other not-for-profit institutions. The K-12 school systems include over 130 individual public and parochial school buildings located throughout the area. Many school districts realize that they can protect the environment and save tax dollars by improving recycling programs. High grade paper and corrugated cardboard, generated at local schools and institutions account for nearly 50% of their solid waste. School districts can achieve a substantial reduction in disposal costs by implementing successful recycling programs.

Unfortunately, the Authority has seen excellent school recycling programs that were established in the early 1990's fail because of lack of support, and staff turn-over. To address this problem, in April 2008, the Authority hired a full time School Recycling Coordinator to develop and address school recycling needs in our region. The Authority's School Recycling Coordinator is dedicated to working with the schools in Oneida and Herkimer Counties to develop, support, and maintain recycling programs in each school through a **GO GREEN** initiative. Green teams are comprised of teachers and students. These teams are responsible for their school's recycling initiative. The program provides educational tools, resources, promotional materials, technical information, recommendations, program training and recycling and waste evaluations to the schools. A *School Recycling Program Guide* assists teachers and educates students on the value and long-term benefits of recycling, conservation and environmental stewardship.

A key component of our **GO GREEN** program is a web site dedicated to this initiative [www.greenteam.ohswa.org](http://www.greenteam.ohswa.org). The Site features informative games for younger children, videos, fast facts, and statistics that students can relate to such as the amount of newspaper we've recycled in our region would be equal to a pile that would stretch from Utica to San Francisco and back to Denver. There are also sign-up areas for teachers and a form to order educational recycling posters. A blog was also developed so that teachers and students can have direct access to the School Recycling Coordinator.

To date, over 65 school district buildings are part of the **GO GREEN** program.

The Herkimer and Oneida County Office Buildings and support facilities have implemented robust recycling programs. Utica City Hall and the State Office Building also participate. The Authority also supports initiatives such as the Town of Marcy Goes Green Program where each resident in the Town was delivered six CFL light bulbs and the Town acts as an old CFL light bulb collection station.

### 3.2.1(d) Composting and Organics Recovery Efforts

The Authority has adopted an aggressive strategy with respect to composting. An immediate need was identified for a yard waste composting facility which would process grass, leaves and brush from municipalities, businesses and individuals. As a result the Authority built the Green Waste Compost Facility which opened in November 1991. The site processes about 11,000 tons of green waste per year from the City of Utica and some of its suburbs. The 13-acre site with its associated equipment (windrow turner, screen, tub grinder) produces high quality compost using the aerated windrow method. The compost is an excellent soil amendment. It may be used in flower or vegetable gardens and also general landscape applications. Finished compost is sold to a variety of customers in bags and bulk form. In 2009 a record 11,188 bags were sold. Our compost customers include landscapers, topsoil producers, orchard owners, schools and homeowners. We are constantly working on improving marketing efforts so as to increase our sales and expand our customer base. For example, we are now selling our bagged product in the Adirondack region through Hamilton County Cooperative Extension. This very successful program is in direct response to the requests of local residents wanting a more convenient way to get compost. Since 1991, over 200,000 tons of grass, leaves and brush have been successfully processed and composted. Diverting a substantial quantity of material from disposal facilities via composting has assisted the Authority in meeting the goals of our recycling based integrated system.

In order to better serve the residents of western Oneida County, the Authority operates a State-Registered Compost/Brush Processing Facility adjacent to the Western Transfer Station in Rome. Over 37 tons of green waste was delivered to the site in 2009.

The New York State Department of Corrections developed a food waste composting facility in Marcy. This facility currently composts organic food waste from over 6,000 inmates located in this region. Finished compost is used for landscaping purposes at the four area State Prisons in the amount of approximately 900 tons per year.

In an effort to further increase waste reduction and organics recovery in the region, the Authority developed pilot food waste composting programs at Herkimer County Community College and Mohawk Valley Community College in the Fall of 2008. The Authority made a commitment to financially assist the colleges by providing food waste composting vessels. Authority staff instructed college personnel on operating the food waste composting units on their respective campuses. A three cubic yard, in vessel "Earth Tub" was set up at Herkimer County Community College, and a 24 cubic foot tumbling unit was set up at Mohawk Valley Community College. The finished compost is used by the schools' on-campus landscaping projects.

New Hartford and Poland schools were also provided compost units for cafeteria waste in 2009. Students from these schools are learning how the compost process works and in turn the school districts are decreasing waste generation.

The benefits to the participating schools include:

- Reduction of solid waste disposal fees.
- Educates students and consumers on the benefits of food waste composting.
- Identifies the school as environmentally conscious.
- Helps close the organic waste loop by returning organics in the form of useful compost back to the campus.
- Conserves landfill space.

Through a grant from the New York State Association for Reduction, Reuse and Recycling (NYSAR<sup>3</sup>) the Authority provided Whitesboro Middle School a classroom worm composting kit. This grant helped students understand the basics of food waste composting. Vermicomposting is the process of using worms and micro-organisms to turn organic waste (such as fruit and vegetable peels) into earthy-smelling, nutrient-rich humus, which is good for the garden.

The school grant program has been very rewarding by providing hands-on experience raising red wiggler worms on lunchroom scraps in the classrooms. The elementary students enjoy seeing the natural processes in action and learn about sustainable practices and environmental issues at the same time.

### **3.2.1(e) Intermediate Processing of Collected Recyclables**

In 1989, Oneida County funded and started the construction of a regional materials recovery facility, now identified as the Oneida-Herkimer Recycling Center. The Authority agreed to take over the construction of the facility and to purchase it. The facility capital cost was over \$10 million and it officially opened in February of 1991.

Several objectives guided the design of the Recycling Center:

- To provide for maximum levels of recycling.
- To provide a capability to process all the recyclable material which, now and in the future, will be separated by residents.
- To provide access to the most stable, highest paying markets by producing high quality material.
- To allow residents to easily and conveniently separate recyclables.
- To provide measures for worker safety and a productive working environment.
- To construct a substantial, durable facility employing heavy-duty reliable equipment.

The Oneida-Herkimer Recycling Center is the materials recovery or intermediate-processing center developed to handle recyclables from throughout the two-county region. The Center provides the capability to recover maximum volumes from the waste stream thereby allowing the region to reduce its dependence on landfills. The Recycling Center is intended primarily to process mixed household recyclables.

All communities in both Counties have established recycling collection programs, both public and private, with mandatory separation and recycling. The Authority received and has marketed over 700,000 tons of recyclables, since the opening of the Recycling Center.

The Recycling Center was built upon a basic separation requirement for all households and businesses/institutions in Oneida and Herkimer Counties. Recyclables are set out for collection in a two-part separation: paper and container items.

Since opening the Recycling Center in 1991, new recycling opportunities have been constantly added, and now residents of Oneida and Herkimer Counties have the opportunity to recycle over 30 different items.

# ONEIDA-HERKIMER SOLID WASTE MANAGEMENT AUTHORITY HOUSEHOLD AND COMMERCIAL RECYCLABLES

## Curbside Collection Household Recyclable Material

(These materials may also be delivered by industrial and commercial generators)

Aluminum Foil Wrap and Foil Plates	Newspaper & Inserts
Boxboard (Cereal Boxes, Tissue Boxes, etc.)	Office Paper and Other High Grade Paper
Brown Glass Containers	Paper Grocery Bags
Clear Glass Containers	Pizza Boxes
Corrugated Cardboard	Plastic Food Containers PET #1
Drink Juice Boxes	Plastic Food Containers HDPE #2
Green Glass Containers	Plastic Food Containers PVC # 3
Magazines, Catalogs, Manuals and Soft Cover Books	Plastic Food Containers LDPE #4
Metal Aerosol Cans	Plastic Food Containers PP #5
Metal Food Cans	Telephone Books
Milk and Orange Juice Cartons	Undeliverable Bulk Business Mail (Junk Mail, Envelopes, etc.)

## Drop-Off Recyclable Material

Computer Components, (CPUs, Circuit Boards, Hard Drives, Printers, etc.)	Motor Vehicle Batteries
Computer Monitors	Major Appliances (Stoves, Washing Machines, Refrigerators, etc.)
Electronics (i.e., CD Players, VCR & DVD Players, Radios, Telephones, Fax Machines, etc.)	Packaging Polystyrene
Fluorescent Light Bulbs	Propane Cylinders (1 pound to 100 pound cylinders)
Hard Cover Books	Rubber Vehicle Tires
Household Batteries (Rechargeable Types)	Used Antifreeze
Household Metals (Pots, Pans, Bicycles, File Cabinets, etc.)	Used Motor Oil
Latex Paints	Used Motor Oil Filters
	Yard and Garden Waste

## Recycling Center Operation

Recyclables are delivered by collection vehicles and received in the tipping floor area.

The recycling inspector checks recyclables on the tipping floor and if necessary removes obvious contaminants. A loader pushes the paper recyclables into a hopper, so the paper-line conveyor can carry them to the second floor sorting line.

The paper sorting lines uses a "negative pick," which means that the largest component of the paper group - newspaper - passes through the sorting line to the end, where it is baled or stored for baling at a later time. Individual sorters cut bundles and bags and remove corrugated cardboard, brown kraft bags, office paper, telephone books, and residue. The newspaper, magazines, lightweight cardboard and bulk business mail are not manually separated because they comprise the highest percentage. This material is presently being marked as a number #6 newsprint.

As the sorters remove each type of paper, they put the material into chutes leading to storage bunkers on the first floor. On a regular basis, a loader removes material from each bunker and places it on a conveyor belt that carries it to one of the balers.



The containers on the tipping floor are also inspected for obvious contaminants. A loader pushes the containers into a hopper on the tipping floor. The conveyor carries the containers to the second-floor processing area.

In the sorting or processing area, the containers first travel under a large rotary magnet which removes the ferrous metal (tin cans and lids) and sends it to a first-floor storage bunker.

The remaining items in the container group then pass over a grate with a one-inch grid, which removes small contaminants such as bottle caps. Next is an air knife classifier which separates the lighter plastic, milk cartons and aluminum from the heavier glass.

Plastic containers then continue along a sorting line where workers separate them by type, again dropping them into storage bunkers on the first floor. Plastics, milk cartons and aluminum are sorted by color and type. Workers also sort deposit plastic bottles and aluminum cans and place them in special containers in the sorting area for redemption.

The storage bunkers holding the separated plastics, milk cartons and aluminum are opened so each material can go by conveyor to the baler. These bales are carried by forklifts to a storage area for reloading into tractor-trailers for transport to markets.

Glass containers go to a separate sorting line where workers separate the glass by color.

The container sorting lines uses a "positive pick," which means that all the recyclable material is removed from the sorting line. Residue and non-recyclable plastics passes through the sorting line to the end, where it is placed into an automatic disposal compactor.

Most of the material is baled and stored in the facility until a trailer can be filled for transport to markets. Glass is crushed and stored in roll-off containers, and then shipped to markets.

### **3.2.1(f) Public Education Efforts/Community Involvement**

In April 1991 the Authority commissioned the Gordon S. Black Corporation to complete a community recycling survey within the region. The survey presented baseline figures on awareness, participation rates and problems experienced with the recycling program in Oneida and Herkimer Counties. The major conclusion of this survey was that the recycling program enjoyed an extremely high level of awareness, participation and satisfaction.

As a result of this survey, the Authority developed a public education effort, which utilized printed material, TV, newspaper ads, billboards and radio spots to promote recycling and waste reduction initiatives of its recycling based solid waste management system. Emphasis was placed on the proper way to recycle and ways to reduce and reuse items. Emphasis was also placed on getting the public not to put out non-recyclable material into recyclables destined for the Recycling Center.

This program was extremely successful and won several regional advertising awards for its effectiveness and originality.

The Authority has developed numerous public information materials costing hundreds of thousands of dollars to assist in the reduction of the amount of solid waste destined for disposal. In February 1991, 1993, 1995, and 2000, the Authority mailed out over 140,000 recycling posters to every household and business in Oneida and Herkimer Counties. Authority information, reduction and reuse tips, Convenience Station information and information on syringes, burn barrels and reducing bulk business mail were included on these posters. In 2006

the Authority redeveloped the Recycling Poster and had the information added to the web site for residents to download directly.

The Authority produced the poster in Spanish, Vietnamese, Russian and Bosnian to make it easier for the recent immigrant community to participate in the recycling program.

A poster was also developed in 1996, which promotes reduction, reuse and recycling on the farm. The Authority felt it important to develop this material since farming is the leading business enterprise in the region.

The Authority also realized that there was a large volume of high quality recyclables generated by businesses that were not being serviced in the early 1990's by the private sector. A Business Recycling program was launched in September of 1993 and targeted over 10,000 individuals businesses, industries, schools, offices and other commercial establishments. Each of these establishments was mailed a business-recycling packet containing information to help them start or enhance their recycling program. The goal was to help them comply with mandatory recycling requirements and recover more material from the waste stream.

Two public information videos were produced in 1992. "Reduce, Reuse, Recycle: The Solid Waste Challenge" was produced to inform area residents about the mandatory recycling program, waste reduction options and the operation of the Oneida-Herkimer Recycling Center. The second video "Our Future Landfill" identified criteria used to rank potential landfill sites and showed the protective liner system required for landfills built in New York State. The videos provided additional public information on recycling and solid waste issues.

In an effort to reduce the amount of food and yard waste, the Authority also developed a home-composting guide, which assists individuals in setting up composting activities. This guide called the "ComPoster", was produced in the form of a poster and is available upon request from the Authority. A "Just Mow It" brochure emphasizing leaving grass clippings on your lawn was also introduced.

Authority staff maintains a strong commitment of outreach to the public through presentations on a wide range of Authority activities and issues including information on waste reduction, reuse of materials, recycling, landfill operations, backyard composting, sludge management, and services provided at Authority facilities. Regular presentations are done at area schools, colleges, businesses, civic groups and other organizations. Recycling Center complex and Landfill tours are also regularly given to school groups, scouts, civic groups and interested individuals.

Each year the Authority partners with area community groups during the month of April to help initiate and facilitate Earth Day Clean-Ups. In 2009, the Authority provided assistance to several community clean-up programs including the Sauquoit Creek, the Oriskany Creek, the Town of Marshal Trail and the Genesis Group – City of Utica Boilermaker Road Race Spring Clean-Up.

In 2009 alone, Authority staff assisted with recycling at several major events throughout Oneida and Herkimer Counties. Recycling services and containers were provided at:

- E.J. Hermann Invitational Cross Country Race (Oneida County)
- Boilermaker Road Race (assisted with week-long activities in Oneida and Herkimer Counties)
- Great American Irish Festival (Herkimer County)
- Woodsmen Field Days (Oneida County)
- Rome Home Show (Oneida County)

- Herkimer County Fair (Herkimer County)
- Boonville/Oneida County Fair
- Turning Stone Casino and Resort PGA Championship (Oneida County)

In addition, informational recycling displays were set-up at the following:

- Galinsky Apartments – Herkimer
- Computer Club – Whitesboro
- Herkimer County Mayors Association – Ilion
- SUNYIT Sustainability Conference – Utica
- NYS Canal Corporation – Utica
- Rome Home Show – Rome
- Rome Rotary – Rome
- Utica Zoo – Utica
- Home Expo 2009 – New Hartford
- Energy Symposium – New Hartford
- Boilermaker Road Race Health Expo – Utica
- Central New York Psychiatric Center – Marcy
- NYSASWM Conference – Lake George
- Adirondack Camp and Home Improvement Show – Old Forge
- Air Force Research Facility Information Directorate – Rome
- Wal-Mart – Herkimer and New Hartford

The Authority provides these services at no cost to these events and organizations. In addition to providing support, these worthy efforts provide us with opportunities to educate our constituents on recycling programs and opportunities.

### **3.2.1(g) Enforcement Efforts**

The Authority's enforcement efforts are based upon Oneida County Local Law No. 1 of 1990 and Herkimer County Local Law No. 1 of 1990. Both laws are in effect, have survived legal challenges, and indeed were upheld by the United States Supreme Court. In general, the laws regulate the collection and disposition of solid waste and recyclables in the two-county area. First and foremost the laws mandate the separation of residential and commercial/industrial recyclable material from the waste stream. Proper disposition of each component of the waste stream including waste destination is addressed. Prohibitions against unauthorized dumping and enforcement penalties for non-compliance are also set forth. In addition, a requirement for all entities engaged in waste and or recyclables collection to obtain an Authority permit is mandated. The permit is another tool (in addition to the local laws) for recycling compliance. The Counties have designated through contracts the Authority as the enforcement agent for their solid waste laws.

The Authority currently administers 644 contracts, each with a disposal permit for solid waste/recyclables collection and disposal. Revocation of the disposal permit is the main deterrent used by the Authority for enforcement. For example, if a permitted waste hauler is repeatedly caught mixing recyclables with solid waste collection privileges may be revoked by voiding their permit.

Although the Authority believes that education is always the best first course of action when dealing with non-compliance with the solid waste laws, fines, permit revocation and law enforcement agency action may become necessary for multiple or repeat violators.

The Authority also has a day-to-day presence on the streets of our largest city, Utica, through the use of solid waste inspectors. Two inspectors are involved in enforcing the solid waste/recycling laws by conducting set out requirement compliance checks, educating the public and issuing citations if needed.

### **3.2.1(h) Customer Convenience Program**

In an effort to provide user-friendly, environmentally-sound disposal options to residents of Oneida and Herkimer Counties, the Authority developed two residential convenience stations. When recycling opportunities are made convenient, recycling levels increase. The convenience stations work in concert with a wide-range of public and private solid waste collections systems by providing convenient disposal options for special or one-time waste, while also providing an option for residents who may not be able to subscribe to a specific collection system.

The convenience stations are located at the Authority's Utica and Rome facilities and are open six days a week, Monday through Saturday. Fees have been established for dropping off solid waste. There are no fees for residents dropping off recyclables, green waste, used oil filters, antifreeze, automobile batteries, computers, televisions and other electronic components, fluorescent lamps and propane tanks.

#### **Convenience Station Acceptable Materials Include**

- Recyclables
- Household Garbage
- Trash/Bulk Items (i.e. furniture, mattresses)
- Appliances
- Construction & Demolition Debris
- Tires
- Yard Waste/Green Waste
- Cooking Oil & Grease
- Household Batteries [Utica Facility]
- Used Motor Oil & Oil Filters
- Automobile Batteries
- Anti-Freeze
- Propane Cylinders (under 100 lbs.)
- Computer & Electronics Equipment [Utica Facility]
- Hardcover Books [Utica Facility]
- Mercury Fluorescent Bulbs
- Kitchen Grease and Oil [Utica Facility]
- Residential Medical Sharps (Needles & Syringes) [Utica Facility]

Residents may also purchase bagged or bulk compost at both convenience stations. From April through September, household hazardous waste (i.e. paints, pesticides and chemicals) is accepted at the Utica site. Salvation Army clothes drop boxes are located at both convenience stations.

Meyda Tiffany, a local lamp manufacturer, accepted packing Styrofoam from the public and the Authority through our Convenience Station. Unfortunately, the Styrofoam received exceeded the needs of Meyda and the program was recently discontinued. If conditions change, the Authority will once again work with Meyda on this innovative project to re-use Styrofoam.

In celebration of Earth Day 2009, the Authority in cooperation with CONFIDATA, a data destruction company, held a free confidential paper shredding event to provide an opportunity

for local residents to properly, safely and securely destroy and at the same time recycle confidential personal papers and other confidential material.

Two times per year the Authority, in cooperation with Rome’s Jervis Public Library, sponsors book recycling and donation events at the Library. Library members are allowed to deliver unwanted books and magazines to the Library for recycling. The event is a huge success with over 100 individuals delivering more than 10 tons of books and magazines. We are considering expanding this event to other libraries if there is interest. Residents may also drop off books for recycling year-round at the Authority’s convenience station in Utica.

### 3.2.2 Impact of the Proposed Recyclables Recovery Effort

A new single stream processing system will have a positive impact on the existing recyclables recovery program. We expect overall recycling levels to increase once single stream is implemented because of user convenience. For a complete discussion of single stream recycling see section 5.4.

### 3.3.1 Markets for Recovered Recyclables

Paper Material - Oneida-Herkimer Solid Waste Authority currently has a five (5) year marketing agreement – 1/1/2008 - 12/31/2012 with two (2) year options beyond that date.

<u>Recyclable Material Type</u>	<u>Contact Information</u>	<u>Processing Needed</u>
<u>Paper - Newsprint</u>	Recycle America - Fiber Group 6255 Sheridan Drive, Suite# 412 Williamsville, NY 14221	Bale
<u>Paper - Corrugated</u>	Recycle America – Fiber Group 6255 Sheridan Drive, Suite# 412 Williamsville, NY 14221	Bale
<u>Paper - Mixed</u>	Recycle America – Fiber Group 6255 Sheridan Drive, Suite# 412 Williamsville, NY 14221	Bale
<u>Metal (Spot Market)</u>	Connecticut Metal Industries Inc. 605 Main Street Monroe, CT 064468	Bale
	AMG Resources Corporation 4100 Grand Avenue Pittsburgh, PA 15225	Bale
	The Conti Group 1870 49 <sup>th</sup> Street Brooklyn, NY 11204	Bale
	CellMark, Inc. 80 Washington Street Norwalk Connecticut 06854	Bale

	Crash's Scrap Metals, Inc. 167 West River Road Frankfort, NY 13340	Bale
	CANUSA – Hershman Recycling Co. 9 Business Park Drive Branford, CT 06405	Bale
	Recycle America – Container Group 6255 Sheridan Drive, Suite# 412 Williamsville, NY 14221	Bale
	Recyclable Materials Marketing 911 Golf Links Rd. Ancaster, ON	Bale
	Haycore Canada, Inc. 3144 Gregoire Road Russell, ON K4R 1E5	Bale
	Empire Recycling Company Edward Street Utica, NY 13502	Bale
	Force Recycling 1622 22 <sup>nd</sup> Ave - East Seattle, WA 98112	Bale
<u>Glass</u> (Spot Market)	Tomara NY Recycling, LLC 6700 Kirkville Road – Suite # 105 East Syracuse, NY 13057	Crush
	Andela Products, Ltd. 493 State Route # 28 Richfield Springs, NY 13439	Crush
	Oneida-Herkimer Solid Waste Authority 1600 Genesee St. Utica, NY 13502 (Civil Engineering Practices)	
<u>Plastic</u> (Spot Market)	K.W. Plastics Sanders Road Troy, Alabama 36081	Bale
	The Conti Group 1870 49 <sup>th</sup> Street Brooklyn, NY 11204	Bale
	Recyclable Materials Marketing 911 Golf Links Rd. Ancaster, ON	Bale

	KC International 1608 Route # 88 West Suite # 301 Brick, NJ 08724	Bale
	CellMark, Inc. 80 Washington Street Norwalk Connecticut 06854	Bale
	Haycore Canada, Inc. 3144 Gregoire Road Russell, ON K4R 1E5	Bale
	Mohawk Industries, Inc. P.O. Box 12069 (30701) 160 South Industrial Road Calhoun, GA 30703	Bale
	Envisions Plastics East Coast Plant 606 B Walters Street Reidsville, NC 27320	Bale
	Plastics Revolutions 1704 Barnes Street Reidsville, NC 27320	Bale
	CANUSA Hershman Recyc. Co. 9 Business Park Drive Branford, CT 06405	Bale
	Recycle America – Container Group 6255 Sheridan Drive, Suite# 412 Williamsville, NY 14221	Bale
	Empire Recycling Company Edward Street Utica, NY 13502	Bale
<u>Yard Waste</u> (Spot Market)	Businesses and Residents of Central NY	Grind, Windrow, Screen, Bag Portion
<u>Food Waste</u> (Kitchen Grease & Oil)	J. C. Rendering Company 201 Jackson Road Frankfort, NY 13340	None
<u>C &amp; D Materials</u> (Select Materials)	Oneida-Herkimer Solid Waste Authority 1600 Genesee Street Utica, NY 13502	None
<u>Sewage Sludge</u>	Composting and Land Spreading	N/A

Done By POTWs

<u>Electronics</u>	SunnKing Associates, LLC 122-130 Central Ave. Lancaster, NY 14086	Shrink Wrap or Box
<u>Fluorescent Bulbs</u>	Complete Recycling Solution, LL 1075 Airport Road Fall River, MA 02720	Box
<u>Alkaline, Nickel Cadmium &amp; Lithium Batteries</u>	Complete Recycling Solution, LL 1075 Airport Road Fall River, MA 02720	Box
<u>Lead Acid Batteries</u>	Yorkville Battery 126 Whitesboro Street Yorkville, NY 13495	Place on a Pallet
<u>Propane Cylinders</u>	AERO Energy 149 Bowman Road York, PA 17404	Shrink Wrap on a Pallet
<u>Motor Oil &amp; Filters</u>	Solvents & Petroleum Service 1405 Brewerton Road Syracuse, NY 13208	None
<u>Antifreeze</u>	Solvents & Petroleum Service 1405 Brewerton Road Syracuse, NY 13208	None
<u>Processable Paint</u>	Clean Harbors Env. Services 6057 Corporate Circle East Syracuse, NY 13057	Bulk or Loose Cans in Special Container
<u>Vehicle Tires</u>	Casing Inc. P. O. Box # 731 Catskill, NY 12414	Loose
	American Tire Removal, Inc. P.O. Box # 3061 Saratoga Springs, NY 12866	Loose
<u>Industrial Waste</u>	MAT-EX Western/Central Material Exchange Member	Varies

### 3.3.2 Current and Future Restrictions to Market Development

As a supplier of raw materials (recyclables) the Authority is subject to the fluctuations of the market and material processors. This is the case now and it will be in the future. We have made



a conscious effort to enter into contracts when possible and also to supply high quality materials to as many processors as possible so as to provide us stability and to minimize reliance on one or two outlets. The Authority is also closely monitoring market conditions as they relate to specifications and end use availability for single stream products, this is obviously an important consideration as we move forward on that project.

## CHAPTER 4 FUTURE PLANNING UNIT PROJECTIONS/CHANGES

**Table 4.1**

### FUTURE SOLID WASTE PROJECTIONS

YEAR	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
POPULATION ESTIMATE	291,524	290,941	290,359	289,778	289,199	288,620	288,043	287,467	286,892	286,318
MSW GENERATED	178,476	175,775	175,173	167,316	165,001	162,693	160,394	158,101	154,146	151,338
C&D GENERATED	54,294	53,615	53,257	52,899	52,041	51,683	50,076	47,969	46,862	44,755
SEWAGE SLUDGE GENERATED	13,951	13,907	13,879	13,851	13,824	13,796	13,768	13,741	13,713	13,686
INDUSTRIAL WASTE GENERATED	11,959	11,929	11,905	11,881	11,857	11,833	11,810	11,786	11,763	11,739
TOTAL GENERATED	258,680	255,231	254,213	245,947	242,723	240,006	236,048	231,597	226,484	221,519
RECYCLABLES RECOVERED	278,432	279,078	279,973	286,248	287,498	288,998	290,748	292,748	295,248	298,248
RECYCLING RATE	52%	52%	52%	54%	54%	55%	55%	56%	57%	57%

#### Assumptions

1. Population estimate based on 2009 US Census projection, baseline 2011 tonnage figures are averages of 2007, 2008, and 2009.
2. MSW, C&D, Sewage Sludge decrease 0.2% per year (population decrease).
3. Single Stream Recycling implemented in 2013 (5,247 tons MSW decrease).
4. Organics recovery increases 280 tons per year over the planning period for a total of 14,250 tons.
5. Waste Reduction 1% per year.
6. C&D decreases 1,050 tons per year on average.

**Note: Actual tons of waste generated/disposed and recyclables recovered will be greatly determined by factors outside of the Authority's control, such as: local and national economic conditions; change in technology; changes in law; changes in product packaging; changes in consumer goods and habits.**

Table 4.1 A

**RECYCLABLE COMPONENT PROJECTIONS**

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
NEWSPAPER	13,858	13,858	13,858	16,546	16,546	16,546	16,546	16,546	16,546	16,546
CORRUGATED CARDBOARD	17,967	17,967	17,967	19,497	19,497	19,497	19,497	19,497	19,497	19,497
OFFICE PAPER	3,827	3,827	3,827	3,932	3,932	3,932	3,932	3,932	3,932	3,932
OTHER PAPER	23,104	23,104	23,104	23,104	23,104	23,104	23,104	23,104	23,104	23,104
MIXED GLASS CONTAINERS	3,675	3,675	3,675	4,097	4,097	4,097	4,097	4,097	4,097	4,097
INDUSTRIAL SCRAP GLASS	2,756	2,756	2,756	2,756	2,756	2,756	2,756	2,756	2,756	2,756
TIN/ALUMINUM CONTAINERS	1,232	1,232	1,232	1,443	1,443	1,443	1,443	1,443	1,443	1,443
ALUMINUM FOIL/TRAYS	53	53	53	79	79	79	79	79	79	79
WHITE GOODS	263	263	263	263	263	263	263	263	263	263
INDUSTRIAL SCRAP METAL	112,584	112,584	112,584	112,584	112,584	112,584	112,584	112,584	112,584	112,584
PET	588	588	588	693	693	693	693	693	693	693
HDPE	787	787	787	945	945	945	945	945	945	945
OTHER RIGID PLASTIC #3-#7	10	10	10	40	40	40	40	40	40	40
INDUSTRIAL SCRAP PLASTIC	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768
PLASTIC FILM/BAGS	133	133	133	133	133	133	133	133	133	133
MIXED GREEN WASTE	17,185	17,185	17,185	17,185	17,185	17,185	17,185	17,185	17,185	17,185
BIO-SOLIDS	3,123	3,123	3,123	3,123	3,123	3,123	3,123	3,123	3,123	3,123
FOOD PROCESSING WASTE	13,393	13,893	14,643	15,643	16,893	18,393	20,143	22,143	24,643	27,643
TEXTILES	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
ELECTRONICS	437	583	728	728	728	728	728	728	728	728
TIRES	753	753	753	753	753	753	753	753	753	753
WOOD PALLETS	848	848	848	848	848	848	848	848	848	848
AUTO BATTERIES	36	36	36	36	36	36	36	36	36	36
PETROLEUM CONT. SOIL	52,334	52,334	52,334	52,334	52,334	52,334	52,334	52,334	52,334	52,334
LAND CLEARING DEBRIS	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280
BUD MATERIALS	5,338	5,338	5,338	5,338	5,338	5,338	5,338	5,338	5,338	5,338
<b>TOTAL</b>	<b>278,432</b>	<b>279,078</b>	<b>279,973</b>	<b>286,248</b>	<b>287,498</b>	<b>288,998</b>	<b>290,748</b>	<b>292,748</b>	<b>295,248</b>	<b>298,248</b>

- All figures in tons.
- Baseline 2011 figures are averages of 2007, 2008 and 2009.

## **4.2 Anticipated Changes to the Planning Unit**

### **4.2.1 Expected Residential Development**

The region is experiencing an overall downsizing in population which is reflected in residential development. There are pockets of suburban residential development primarily in the towns surrounding Utica & Rome. However, major widespread residential development is lacking, and likely will be lacking for the planning period.

### **4.2.2 Planned Commercial Development**

As with residential development there are no current major plans for commercial development in the area. Once again new commercial development is a result of population increase, or increased demand for services such as shopping. It appears that the existing New Hartford commercial corridor will be adequate for the region.

### **4.2.3 Proposed Industrial Development**

As with much of Upstate New York, the Oneida-Herkimer region has seen a decrease in industrial activity and development. Many major industries, such as General Electric, have closed their doors. Area officials are diligently working to protect our industrial base while at the same time trying to secure additional industrial jobs. It is anticipated that our industrial sector jobs will remain at about current levels. However, this situation could change in the future if the proposed SUNY IT nanotech project in Marcy creates significant research, academic and spin-off company jobs with associated impacts such as housing demand. This situation warrants monitoring.

Griffiss Utility Services Corporation (GUSC) is a utility that provides steam and electricity to Griffiss Business and Technology Park, formerly Griffiss Air Force Base, located in Rome, NY. GUSC is presently engaged in developing a commercial bio-mass based combined heat and power project at the Park. Low-cost bio-mass in the form of wood chips is planned to be converted to low-cost thermal/electrical energy for the Park. The project is not yet final, and is subject to energy market considerations. The Authority will also monitor this project and evaluate the feasibility of providing clean wood waste to GUSC for use as fuel. Initially we understand that GUSC will utilize green/virgin wood chips for fuel and, therefore, would not impact our waste management scenarios.

The Authority does not expect development or lack thereof to have a major impact in our solid waste planning efforts.

## **4.3 Projections of Changes to the Waste Stream**

The area's waste stream projection is directly related to its population projection. According to US Census figures the area has seen a slight population decrease and this decrease is expected to continue during the planning period at a modest rate of 0.2% per annum.

As shown in Table 4.1, baseline, or 2011 figures for MSW (municipal solid waste), C&D (construction and demolition debris), Sewage Sludge, Industrial Waste and Recyclables are actual averages of 2007, 2008, and 2009. Before any discussion of projected changes to the waste stream can occur it is critically important to recognize that the Authority's integrated waste management system was established over 20 years ago and the recycling/composting component has been aggressively and consistently expanded during the past planning period. A very successful, yet mature program like the Authority's makes further reductions in MSW

through recycling difficult because the Authority already recovers a plethora of both traditional and non-traditional materials. As markets become available a modest decrease in MSW generation from new recycling efforts is still possible but the vast majority of a projected MSW decrease attributed to recycling will be from the implementation of single-stream recycling in 2013.

MSW projections shown in Table 4.1 are based on assumptions with regard to three factors - population trends, waste reduction efforts that are largely out of the Authority's control and future recyclables/organics recovery. We have already established the population trend for the region as a slight decrease. Table 4.1 shows MSW decreasing year-to-year by a per capita percentage rooted in population decrease figures. The Authority plans to focus efforts on two additional fronts to decrease the amount of MSW destined for the landfill. Organics recovery should effect MSW generated figures by an average decrease of about 280 tons per year over the planning period. In addition, in 2014 a sharp decrease in MSW generated (5247 tons/year) will be attributed to the implementation in 2013 of the single stream recycling facility, and that decrease will be sustained year-to-year. We have also conservatively reduced the MSW amount by 1% per year attributable to waste reduction. This percentage could change significantly depending on the degree of success of Federal (if any) and NYSPSC efforts. From 2011 the baseline year, to 2020 the end date of the planning period the Authority projects a decrease in MSW generation of 27,138 tons or 15%.

Construction and demolition debris (C&D) are also projected to decrease at the per capita rate associated with the slight population decline plus an anticipated decline related to the rate of demolition of old structures. Much of the regions' old housing stock has been demolished, or will likely be demolished in the next five years. This will probably result in fairly significant declines in C&D generation (especially in 2018-2020). As illustrated in Table 4.1, for the planning period the Authority projects an 18% decline in C& D generation.

The projection of sewage sludge quantities for the planning period should remain relatively stable with just a small decline (0.2%) related to reduced population. The Authority has evaluated the composting of bio-solids during the last planning period. Since Oneida County's Treatment Plant incinerates their sludge and other local POTWs landspread or have their sludge composted at out-of-region facilities, the remainder is difficult to compost economically and practically due to logistics and industrial effluent components which potentially impact marketing. There is a possibility of one of the local treatment plants, a consortium thereof, or the private sector to put forth a plan or project entailing bio-solids composting. The Authority would certainly support such efforts if the project is done in an environmentally sound manner with viable end-use markets. Obviously, if such a project becomes a reality the sewage sludge generation quantities would drop to some degree.

Water treatment plants in the region produce some treatment wastes, primarily alum sludges. The largest treatment system is operated by the Mohawk Valley Water Authority; their alum sludge is currently used as alternate daily cover at the Regional Landfill under a BUD determination. The City of Rome has also been granted a BUD for their treatment sludge which is mixed with mulch and used in City landscaping projects. The remainder of the treatment plants produce little, if any, treatment waste.

Industrial waste is a very difficult waste category to predict because it is subject to an ever changing economy. It is projected that the region will not lose any more major industries, but will see a slight decrease in industrial waste (0.2%) output. Of course this trend could reverse if the area lands a major employer, or area businesses expand due to a major up-tick in the state and/or national economy.

Table 4.1 shows total waste generated declining 37,161 tons or 14% over the planning period due to the overall decrease in the waste stream components described above.

The baseline in Table 4.1 (2011) for recyclables generated 278,432 tons is 52% of the total waste stream. Due to increased recycling levels primarily attributed to more focused efforts on organics recovery, and the implementation of single stream recycling the recycling rate should improve from 52% to 57% in 9 years. That percentage increase represents 19,816 tons which is a significant number considering the maturity of the Authority's recycling/recovery program. It also represents a realistic figure that should be obtained even with market fluctuations/availability.

Table 4.1.A attempts to further define projections of our recyclables stream over the planning period. The 2011 baseline figures are averages of 2007, 2008 and 2009 totals. We opted to be conservative (and not increase or decrease quantities) in this chart for recyclable categories that we do not directly control, including: other paper, industrial scrap glass, industrial scrap plastic, plastic film/bags, biosolids and textiles. We also do not see significant changes for white goods, mixed green waste, tires, wood pallets and auto batteries. There are permit limits related to BUD material and petroleum contaminated soil, resulting in no change in quantity projections. For single stream components: newspaper, corrugated cardboard, office paper, mixed glass containers, tin/aluminum containers, aluminum foil/trays, PET, HDPE and other rigid plastic, we show percentage increases per component totaling 5,247 tons in 2014, the first year single stream is on-line. The table also illustrates the year-to-year increases for food processing waste attributed to our emphasis on organics recovery discussed herein. Finally, under electronics, the tonnages listed are projected figures related to goals of the new "Electronic Equipment Recycling and Reuse Act".

While projections are important in any plan, actual tons of waste disposed and recyclables recovered will be greatly determined by factors outside of the Authority's control, such as local and national economic conditions; changes in technology; changes in law; changes in product packaging; changes in consumer goods and habits.

#### **4.3.1 Waste Reduction/Reuse**

MSW projections and recyclable amounts may also be influenced by waste reduction efforts. We are already seeing waste reduction that is simply the effect of technology; with the dawn of the consumer electronic information age newspapers are becoming more and more obsolete. It's quite possible that recoverable newspaper amounts could drop significantly during the planning period. A similar case can be made for glass as more and more consumer packaging shifts to plastic.

While the Authority through the initiatives and programs outlined herein can have some effect on waste reduction, true waste reduction is beyond the means of the Authority. The Authority fully supports the work of the New York Product Stewardship Council (NYPSC). NYPSC seeks to enact legislation that requires manufacturer responsibility for reuse/recycling of their old discarded merchandise. For example, under NYPSC initiatives the burden of electronics recycling would fall to the manufacturer of the product instead of public agencies such as the Authority. The idea of product stewardship is to create incentive for producers to make product and packaging improvements that facilitate recycling and reuse as well as decrease packaging and toxicity. A significant decrease in packaging should have a dramatic impact on waste quantities generated. It is also important for the Federal government to become directly involved in product stewardship. Without Federal action, we will encounter a patchwork of different State programs that will hinder overall waste reduction efforts and may place the State at a business disadvantage.

Unfortunately, it is very difficult to accurately quantify amounts of MSW decreased due to waste reduction efforts. For planning purposes we have assumed a 1% per year reduction in MSW levels due to waste reduction.

The Authority has also taken a very active role in internal waste reuse projects. We utilize ground tire chips as pipe bedding and crushed glass (over 1800 tons in 2009) for an aggregate substitute at our landfill. Our experience shows that civil engineering applications are a great way to reuse large quantities of these materials locally.

#### **4.4 Anticipated Effects of the Changes on Management Practices**

The Authority has done a great deal of planning as it designs facilities and implements solid waste management programs for the region. We have purposely made the system flexible. The decreases in waste volumes, and increases in recycling levels should not have any real effect on our system because we have the ability to shift resources. Facilities, funding, personnel and programs are in place and adequate. Future programs such as single stream recycling will actually improve our ability to manage solid waste and recyclables by making our system more efficient.

## CHAPTER 5 SOLID WASTE DISPOSAL

### 5.1 New Processing Technology Evaluation

The Authority's responsibility to the citizens of Oneida and Herkimer Counties is to take a hard and practical look at any technology to make sure that any commitment or investment is sound both fiscally and environmentally. Although the Authority wants to see waste processing systems be successful, it would not be in the best interest of the region to be the experimental laboratory for unproven, untested, unseen technology. In the future, if new technology can dispose of municipal solid waste without endangering the health of our citizens or jeopardizing our environmental and economic well being, the Authority is committed to making such technology a part of the region's long term solid waste management plan.

It is the goal of the Authority to minimize the volume of waste which must be landfilled. Accordingly, the Authority favors any proven, reliable, environmentally sound and cost effective technology to achieve resource recovery and waste reduction.

The Authority has clearly stated its waste processing technology policy in the LSWMP adopted in 1991; "...the Authority finds that technology should be continually evaluated as it is advanced and improved. New waste processing technologies will continue to receive consideration as part of the overall system plan." This policy will be continued for the next planning period.

As a general approach, the Authority will consider the following factors in evaluating technology options for each component of the system.

- Ability to meet environmental protection, public health and safety standards.
- Operating experience and reliability.
- Capital cost.
- Operating cost.
- Other pertinent factors (i.e., waste type limitations, assessment of product characteristics, residue, air emissions, etc.).

In order to seriously consider whether a technology or a proposal is merely conceptual in nature or potentially may offer a realistic waste processing alternative, the following information will be examined by the Authority:

- Identify the specific waste streams that the technology can process and specific waste streams that are incompatible with the proposed technology including tons per year received, processed, recycled, bypassed and disposed of as residue.
- Process proposed must have a minimum of one full scale operating reference facility within the U.S. that processes the same type and quantity of waste as contained in the proposal. If the reference facility is not in the U.S., then documentation of how compliance for the host community translates into compliance with U.S. and New York State standards would have to be provided.
- Operating facility(ies) must be in full, continuous operation for a minimum of one year, and be available for tour by Authority if requested.
- Operating facility(ies) must be permitted in compliance with all applicable regulations.
- The technology or proposal must provide all applicable reference facility records for the previous one year of full and continuous operation including: annual environmental compliance reports, residue analysis, mass balance, and copies of permits.
- Person submitting proposal must be an authorized representative of the firm.



- Names of regulatory contracts for facility(ies) must be submitted for consideration by the Authority.
- Proof must be submitted that the firm has sufficient resources to finance and/or complete construction/operation of the project as proposed.

The Authority has used the criteria above to formally evaluate a number of conceptual gasification, digestion, pyrolysis, and vermiculture projects. None of the projects met the criteria.

In keeping with its goal to minimize the amount of waste disposed in its regional landfill, the Authority completed a report in 2007 on the feasibility of waste-to-energy (WTE) facility for our region.

That report is one in a series of evaluations on waste processing technologies that the Authority periodically conducts. To date, the findings of these evaluations of emerging technologies have determined that the most reliable and environmentally sound system for waste processing is a traditional mass burn waste to energy facility.

- A 750 ton per day WTE facility would cost approximately \$164,000,000 to construct.
- The annual cost for debt service and maintenance would be \$18-\$28 million.
- The siting and permitting of a new WTE facility is estimated to take ten years and would cost approximately \$13 million, not including construction costs.

Based on the above findings the cost for disposal through a new WTE facility would be two to three times higher than the current cost of disposal at the Authority's regional landfill.

The Authority will continue to evaluate technologies in the planning period that may provide reliable, environmentally sound and cost effective methods to achieve further recovery and waste reduction.

## **5.2 Residuals Management**

The Authority owns and operates two transfer stations; the Eastern Transfer Station in Utica and the Western Transfer Station in Rome. The facilities receive municipal solid waste, industrial/commercial waste, and construction and demolition debris from Oneida and Herkimer Counties only. The transfer stations provide the means to efficiently receive, inspect, and aggregate waste for transport to the Authority's Regional Landfill.

Inspection at the transfer stations provides a means to ensure the public's exposure to environmental liability is controlled. At each transfer station waste is inspected to first insure that no dangerous or hazardous materials are received. If they are, actions are taken immediately for safe and legal disposition. Inspections are also utilized to verify compliance with state and local recycling laws.

Certain industrial waste can also be delivered to the transfer stations. To insure compliance with regulations, all industries are inventoried and special waste is profiled, reviewed and approved prior to disposal. Authority staff continuously identifies and visits manufacturers in Oneida and Herkimer Counties in order to provide free assistance to these businesses with regard to recycling, reduction and solid waste disposal.

Waste from both the Eastern and Western Transfer Stations is hauled to the Authority's Regional Landfill by a contract hauler. All trucks have Authority GPS systems which are used to track movement, speed and fuel use.

The Authority also designed and constructed a transfer station in the Town of Webb. The Town operates the facility and transports the collected materials. The facility, which opened in June 1994, provides solid waste services for the northern portion of Herkimer County including the tourist destination of Old Forge. The transfer station is designed to process approximately 2,500 tons per year of municipal solid waste and recyclables. Waste from the facility is transferred by the Town to the Authority's Regional Landfill for disposal. Bulk metals are marketed to local scrap metal dealers.

The Oneida-Herkimer Regional Landfill opened on October 24, 2006. The landfill, by law accepts only waste generated within Oneida and Herkimer Counties. The landfill's approved design capacity is 1,000 tons per day. The facility holds a DEC Part 360 Operating and Construction permit, Title V Air Permit, and an Army Corps of Engineers Wetland permit.

The landfill is an important part of the environmental infrastructure that serves Oneida and Herkimer Counties, and a pivotal part of the system operated by the Authority. There will always be a need for a disposal facility for the remainder of waste than cannot be recycled. The landfill affords all waste generators with the highest level of environmental security thereby guarding against significant liability for the long-term. The landfill site was selected because of highly favorable hydrogeologic conditions. The facility employs the best available engineering systems to protect the environment.

Additionally, the landfill provides a cost-effective and financially stable means of disposal, representing a reduction in disposal costs when compared to exportation of waste.

The landfill permit authorizes development of a total of 19 landfill cells covering a 150-acre footprint. Initial construction of the landfill was phased over 3 years with multiple contracts being awarded following competitive bidding. Construction was completed in 2006.

The landfill was sized only after consultation with DEC and over 40 public meetings. The permitted capacity of 1,000 tons per day is adequate for our region according to waste tonnages recorded since 2006. It is important to note that the Authority is prohibited by law from accepting waste from outside the region. It is anticipated that the approved capacity will be adequate throughout the planning period because it is reserved for our region alone. In addition, the Authority has complete flexibility with regard to cell construction, for example if waste levels fall due to reduction/recycling activities then new cell construction may simply be delayed.

In 2008 the Authority continued to expand its passive landfill gas collection system adding more passive flares. The Authority has implemented active gas collection and control in 2010 through the use of a blower skid and flare. In 2008, the Authority Board of Directors authorized a study to determine the most beneficial utilization of landfill gas collected. Engineer estimates predict that in 2011 there will be an adequate volume of landfill gas produced to begin energy recovery. Initially it is estimated that one generator could be installed which will produce about 1.6 megawatts of power, or enough to provide about 2,100 average homes with power. Over the next 20 years of operations, the number of generator sets is projected to grow to 7 with a total facility power output of 6.2 megawatts, capable of powering over 8,500 homes. The heating needs of the facility will also be met. To accomplish this task the Authority has entered into a contract with Waste Management Renewable Energy to build and operate a landfill gas to electricity facility.

The release of methane from landfills is a contributor to green house gas generation. The Authority's Landfill Gas to Electricity project represents a significant commitment by the Authority to dramatically reduce our carbon footprint by capturing methane from our landfill and

converting it to green energy. This project is a win-win for the environment, the Authority and energy consumers. This project is scheduled to be completed in 2011. Significantly, there will also be substantial excess heat produced in the electricity production process that can be recovered. Heat recovery is often an attractive feature in establishing aquaculture, horticultural, or agricultural industries.

Hook-up to an existing sewer line will be evaluated during the upcoming planning period. A sewer line interconnect would eliminate the trucking of leachate to treatment facilities as currently occurs. This project would save the Authority money in the long run, and benefit the environment by taking the leachate truck trips off the road, thereby reducing fuel consumption and air pollution including greenhouse gas emissions.

The Authority has committed to the highest level of environmental protection standards at the landfill. Extensive environmental monitoring occurs regularly. Monitoring activities include wetland, air, groundwater, surface water, macroinvertebrate, fish and amphibians. We have created a network of on-site wetlands as part of our mitigation responsibilities, and manage our land through sound forest management techniques. In addition, we allow access to portions of our land for recreational purposes such as bow hunting and snowmobiling.

Authority surveys have shown that landfill air space is being consumed at a rate less than original engineer estimates. The lower consumption is a result of higher compaction efficiency than originally estimated. The Authority's use of Global Positioning Systems (GPS) to aid compaction operation has contributed to higher compaction and more efficient use of landfill space. Based upon actual landfill utilization and fill progression projections, our engineers predict the need for the availability of an additional cell in late 2011, necessitating the construction of that cell in 2010. This cell construction project is currently in progress.

The Authority continued the routine maintenance monitoring and testing of the Authority's Ash Landfill (ALF) located on Tannery Road, Rome. This landfill was closed and capped in 1997 in compliance with NYSDEC Part 360 regulations. The ALF is fully lined with both primary and secondary leachate collection systems. Leachate is pumped to the City of Rome Water Pollution Control Facility for treatment. This monitoring and testing of the ALF is performed as part of the 30-year post closure requirements of the NYSDEC approved Closure and Environmental Monitoring Plan. The landfill has a fully funded reserve that will cover the post-closure for a 30-year period.

### **5.3 Special Waste Management**

The Authority has made toxics reduction a policy priority. It simply makes sense to keep this toxic material out of the landfill. The Oneida-Herkimer Household Hazardous Waste (HHW) Collection Facility is one of the first permanent facilities in the northeast to recycle paint and to accept a full-range of household hazardous waste. When compared to previous one-day events, the permanent facility offers a higher level of environmental protection at a lower cost.

In 2009, 45,324 gallons of hazardous waste from 6,602 households were collected and shipped for disposal. This included 12,114 gallons of paint that was recycled into sealer for dry wall or concrete blocks. Other materials collected include: motor oil, oil filters, recycled paint, non-recyclable paint, resins/adhesives and small paints, pesticides and chemicals, anti-freeze, thinners, solvents and paint sludge, cooking oil/grease, cleaning solutions and waxes, automobile batteries, fluorescent lamps (257,067 linear feet), aerosol waste, recyclable batteries, computers and electronics.

Motor oil, anti-freeze, oil filters and automobile batteries are accepted at the facility year-round. Residents are also allowed to drop-off motor oil and antifreeze year-round at the Western Transfer Station in Rome.

Conditionally-exempt small quantity generators (small businesses) and universal waste generators are allowed to drop-off waste only after obtaining approval from the Authority. Under this program, small businesses are charged a fee for disposal costs.

As part of the Household Hazardous Waste management program, the Authority began its computer recycling program in 2000 and in 2003 expanded the program to include electronics equipment. The program allows residents, institutions and businesses to deliver computer and electronics equipment to the Authority for recycling and proper disposal.

In 2009, 146 tons of computers and electronics equipment were accepted. The material, which includes computers, monitors, CPUs, keyboards, computer components, televisions and other electronics (i.e. video equipment, CD/DVD players, desktop copiers/fax machines, microwaves, electronic games, printer toner cartridges, cellular phones, battery chargers, calculators, answering machines) is sent to an electronics de-manufacturer for recycling, reuse or proper disposal. It is estimated that over 50,000 individual items were recycled.

The program also addresses special concerns, such as lead solder, silver, mercury switches, batteries and other components present in almost all electronics in this ever-growing electronic waste stream. Through the program, equipment is either repaired and reused or properly processed to recover not only heavy metals, but high value material, such as gold and silver along with more common metals and plastics.

Residents can bring computers and electronics equipment for recycling at no charge. Businesses are required to set up an appointment with the Authority prior to delivery and may be charged for costs associated with recycling.

On April 1, 2011 the “Electronic Equipment and Recycling Act” will become law in New York. The law assigns responsibility to manufacturers for the collection, recycling or reuse of discarded electronics. Manufacturers would be prohibited from charging a fee to consumers for such recycling services. With the passage of this law, we expect to see a dramatic increase in the tonnage figures for electronics recycled. See Table 4.1.A. It will be very important to access figures for recycled electronics from retail outlets because many consumers will choose to discard old electronics when purchasing replacements.

Compact fluorescent light bulbs (CFLs) contain mercury material and must be disposed of in an environmentally safe manner. In an effort to assist residents with proper and safe disposal of bulbs containing mercury, the Authority expanded the CFL drop-off capability for residents in 2009 by adding new drop-off locations. In addition to the Authority’s Household Hazardous Waste Facility, residents may bring CFLs to Jay-K Lumber (New Hartford), Marcy Town Offices, Ace Hardware Company (Rome) and Carpenter’s Paint and Hardware Store (Camden).

The Authority in cooperation with DEC and the Mohawk Valley Pharmacist Society held an annual Unused and Expired Medications Collection event in 2009 and 2010. These events are held in an effort to reduce the amount of household medications that have turned up in our nation’s waterways and the associated public health concerns for improperly disposed pharmaceutical waste. Nearly 400 pounds of unused and expired medications were collected at two past events. In accordance with the requirements of the United States Drug Enforcement Agency controlled substances were passed from the individual to the control and custody of a law enforcement official. All collection activity was performed under the direct supervision and

control of on-site local law enforcement officers. All household pharmaceutical waste collected at these events was directly transported by local law enforcement officers for safe and secure same day incineration at the Oswego County Energy Recovery Facility. The Authority intends to work with local pharmacies to increase public education and participation at future events during the upcoming planning period.

In 2007 the Authority started a pilot program to help local governments with their efforts to clean up dilapidated and abandoned structures. This regional demolition program was offered again in 2009. Under the program, the Authority provides a demolition crew (including equipment) to demolish abandoned structures owned by local municipalities. This program is being offered in recognition of the burden on local governments left by abandoned structures.

In 2009, the Authority assisted with demolitions in Westmoreland, Barneveld, Herkimer and the Town of Webb.

The program is limited to the period December through March when waste volumes are the lowest. There is no charge for the Authority's demolition services, but municipalities are required to pay the disposal costs.

#### **5.4 Alternative Recycling Programs**

The Authority recognizes that the recycling industry is dynamic, and new technologies to make processing more effective and efficient are constantly being developed. The Authority wishes to take advantage of such developments. Our current recycling facility is 19 years old and is in need of a major retrofit. Much of the original recycling equipment is in need of replacement. After visiting single stream recycling plants, and considering the age/condition of our current recycling system, the decision was made to move forward, and remove much of the existing processing equipment and replace it with a more efficient single stream recycling system that will make recycling more convenient for our residents, and therefore increase our recycling levels.

The proposed Oneida-Herkimer Single Stream Recycling Facility will be installed within the existing Utica Recycling Center building. The Single Stream Facility will feature a highly automated, high tech system that will process up to 200 tons per day of mixed recyclables (no separation of paper and containers needed) from the residents and businesses of the two-county region.

The Single Stream Recycling System is composed of the following equipment: drum feeder, two star screens, banana screen, magnetic conveyor, Eddy current, glass crusher/screen, two optical sorters, two balers and various sorting stations and commodity bunkers. After being weighed recyclable collection trucks will back into the Single Stream Recycling Center and dump their loads of mixed recyclables onto the tipping floor (concrete pad), their loads will then be placed into the drum feeder by a loader. The drum feeder ensures a consistent amount of mixed recyclables. If material on the sort line is too deep, it will not be sorted properly. Conveyor belts carry the recyclable material throughout the processing system. It is best to separate large items such as corrugated cardboard first in the process. Thus, the corrugated cardboard screen separates large corrugated cardboard from the single stream of recyclables first. The screens employed in the single stream system utilize different geometric shapes, configurations and rotating discs to allow target material to float and other material to fall through to a conveyor. Next, a double newspaper screen separates newspaper from the single stream using the same screening process. In turn, the banana screen does the final sort for paper products before the single stream is conveyed to the magnet for the beginning of the container sort. The magnet removes ferrous metal (i.e., cans) from the single stream. The glass crusher then handles the

glass component. Next the two optical sorters read properties such as shape, structure, color, density, and spectral behavior to determine the type of plastic container. The pre-defined target materials (HDPE, PET plastics) are then pneumatically sorted out at the end of the conveyor. The final automated step in the single stream process will be the use of an Eddy current which removes non-ferrous metals (i.e., aluminum) through the use of a force field.

Manual sorts are also employed as a quality control aspect throughout the process; a pre-sort prior to the cardboard screen, prior to the newspaper screen, and after the banana screen. The manual sorts remove residue and in the case of the banana screen additional paper is removed. Once each recyclable commodity is properly sorted it is either baled or temporarily stored in a bunker. The two balers densify a recyclable commodity such as newspaper into a shippable container or bale ready for transportation to market.

The intent of the single stream project is to maximize community recycling participation, and thereby recovery rates and recycling tonnages. Typically, after implementation of a single stream recycling system increase in quantities of recyclables materials collected is as high as 15% above dual stream levels. This will result in conservation of valuable landfill space at our regional landfill. Also, our intent is to conserve natural resources by increasing recycling rates/tonnages which decreases the need for virgin materials to make new products. Furthermore, implementation of the single stream system will save energy by decreasing the consumption of fuel associated with curbside collection of recyclables. Less trucks are needed because single stream recyclables may be compacted, and do not need to be separated into two compartments within the truck. Route size is maximized due to fewer trips, and in turn this decreases the carbon footprint associated with the recyclable collection trucks. A smaller number of trucks are also more aesthetically pleasing for neighborhoods.

The Authority has also recently entered into a 3-year contract with a neighboring county (Otsego) to accept, process, and market its 3,000 tons of recyclable material. With the completion of this single stream project it may afford additional opportunities for collaboration with other local governments for recycling processing by the Authority.

The Authority anticipates having the single stream in operation in 2013.

The primary project measure for the single stream recycling system is more recycling capability. Other U.S. single stream recycling systems typically see around a 15% increase in recycling levels over dual stream recycling systems. The increase in recycling levels is mainly attributed to greater convenience for the resident (no need to make two separations before setout to curb). Table 5.4.1 below illustrates the 15% increase over our current recycling level average. The new recycling capability (5,247 tons) will be easily measured and verified because each incoming load of recyclables is weighed then totaled on a quarterly and yearly basis. Totals can then be compared pre and post single stream implementation.

**Table 5.4.1**

<b>NEW RECYCLING CAPABILITY</b>					
<b>Recyclable Material</b>	<b>Average TPY 2005-2009</b>		<b>New Single Stream System</b>		
	<b>% of Total Recyclables</b>	<b>Tons/Year Received</b>	<b>% Increase in Tons/Year Received</b>	<b>Tons/Year Increase</b>	<b>Tons/Year Received</b>
Aluminum Cans	0.19%	66	15%	10	76
HDPE/LDPE	3.22%	1,126	15%	169	1,295
PET Plastic	2.15%	752	15%	113	865
Steel Cans	4.84%	1,693	15%	254	1,947
Newsprint/Phone Books	51.80%	18,121	15%	2,717	20,839
Corrugated	29.72%	10,397	15%	1,560	11,956
Office Paper	1.46%	511	15%	77	587
Aggregate Glass	6.62%	2,316	15%	347	2,663
	<b>TOTAL</b>	<b>34,982</b>	<b>TOTAL</b>	<b>5,247</b>	<b>40,228</b>

Also, the single stream system will save energy and reduce greenhouse gas emissions. According to the Container Recycling Institution data source: US EPA, 2006 "...when a product is made from recycled material, the use of virgin material is not required. Therefore, all the upstream energy and associated environmental impacts from the transport and processing of those virgin materials are not required." The tables below detail the environmental benefits of single stream recycling for our two-county region. Energy saved equals 722,959 MBTUs (one million British thermal units) including 94,299 new MBTUs associated with the increases from single stream. Greenhouse gas (GHG) emissions avoided increases 3,759 MCTEs (metric tons carbon equivalent) under a single stream system, and will total 28,816 MCTEs. Using the EPA's Waste Reduction Model (WARM) with the new single stream system in place our recycling program will avoid as much greenhouse emissions as removing 19,348 cars from the road, or conserving 11,993,019 gallons of gasoline, or conserving 555 rail cars of coal.

**Table 5.4.2**

<b>BASELINE ENERGY AND EMISSION ANALYSIS EMISSION DATA SOURCE: US EPA 2006</b>						
<b>Recyclable Material</b>	<b>Energy Saving (MBTUs /Ton)</b>	<b>Avoided GHG Emissions (MCTE/ton of Recovered Material)</b>	<b>Baseline Average TPY 2005-2009</b>			
			<b>% of Total Recyclables Received</b>	<b>Tons/Year Recycled Received</b>	<b>Energy Saving (MBTUs)</b>	<b>Avoided GHG Emissions (MCTE)</b>
Aluminum Cans	207.00	3.70	0.19%	66	13,759	246
HDPE/LDPE	53.50	0.42	3.22%	1,126	60,265	473
PET Plastic	53.00	0.42	2.15%	752	39,863	316
Steel Cans	20.00	0.49	4.84%	1,693	33,864	830
Newsprint/Phone Books	17.00	0.76	51.80%	18,121	308,060	13,772
Corrugated	16.00	0.85	29.72%	10,397	166,351	8,837
Office Paper	10.00	0.78	1.46%	511	5,108	398
Aggregate Glass	0.60	0.08	6.62%	2,316	1,390	185
	<b>TOTAL</b>		<b>100.00%</b>	<b>34,982</b>	<b>628,660</b>	<b>25,057</b>

**Table 5.4.3**

<b>SINGLE-STREAM ENERGY AND EMISSION ANALYSIS EMISSION DATA SOURCE: US EPA 2006</b>							
Recyclable Material	Energy Saving (MBTUs /Ton)	Avoided GHG emissions (MCTE/ton of Recovered Material)	New Single-Stream System				
			% Increase in Tons/Year Recycled Received	Ton/Year Increase	Tons/Year Recycled Received	Energy Saving (MBTUs)	Avoided GHG Emissions (MCTE)
Aluminum Cans	207.00	3.70	15%	10	76	15,823	283
HDPE/LDPE	53.50	0.42	15%	169	1,295	69,305	544
PET Plastic	53.00	0.42	15%	113	865	45,843	363
Steel Cans	20.00	0.49	15%	254	1,947	38,943	954
Newsprint/Phone Books	17.00	0.76	15%	2,717	20,839	354,269	15,838
Corrugated	16.00	0.85	15%	1,560	11,956	191,304	10,163
Office Paper	10.00	0.78	15%	77	587	5,874	458
Aggregate Glass	0.60	0.08	15%	347	2,663	1,598	213
<b>TOTAL</b>				<b>5,247</b>	<b>40,228</b>	<b>722,959</b>	<b>28,816</b>
New Single-Stream GHG Reduction (MCTE)				*3,759			
New Single-Stream Energy Saving (MBTUs)				*94,299			

\* New Single Stream GHG Reduction in MCTE is calculated as follows: The difference between New Single Stream Avoided GHG emissions Total and Baseline Average Total or 28,816 – 25,057 = 3,759 MCTEs.

\* New Single Stream Energy Savings in MBTU is calculated as follows: The difference between New Single Stream Energy Savings Total and Baseline Average Total or 722,959 – 628,660 = 94,299 MBTUs

Additionally, the table below shows reductions in greenhouse gas emissions resulting from the reduction in the number of collection trucks that will be needed to pick-up the region's recyclables due to single stream implementation. We have data for our two largest municipalities – the cities of Utica and Rome that allow us to calculate the reduction in MCTE. The calculation is done through an analysis of the respective route miles, collection frequency and truck information. Using the Utica and Rome data which represent a short haul (Utica) and long haul (Rome) one may extrapolate that data to the rest of the region by averaging the two data sets, and multiplying by single stream recyclable material totals resulting in a region-wide reduction estimate of 1,078 MCTEs associated with single stream recyclables collection vehicles. It is also possible to estimate the fuel savings associated with the reduction in the number of collection trucks. Averaging the fuel savings between the cities (2.64 gal/ton) and multiplying by the region's recycling tonnage (40,230 tons) results in 106,207 of gallons of fuel saved.

A key element of this program is public education. We plan to develop and implement a comprehensive public education blitz related to single stream recycling. It is anticipated that direct mailing, TV and radio spots, billboards, press releases, web updates and tours will be used to inform people about the new convenience of single stream set-out requirements.



**Table 5.4.4**

<b>SINGLE-STREAM COLLECTION GHG REDUCTION</b>			
City of Utica	Reduction in GHG per Ton of Recyclables Collected with New Single Stream System	0.00349409	MCTE
City of Rome	Reduction in GHG per Ton of Recyclables Collected with New Single Stream System	0.0496627	MCTE
Average	Reduction in GHG per Ton of Recyclables Collected with New Single Stream System	0.0268018	MCTE
New Single Stream	Annual Quantity of Recyclables Collected	40,230	Tons
New Single Stream	Total Annual Reduction in GHG with New Single Stream Collection	1,078	MCTE

### 5.4.5 New Organics Recovery Opportunities

The Authority is continuing to investigate the concept of collecting and composting source separated organics. One of the obstacles for a potential source separated organic system could be the willingness of generators both residential and commercial to sort and store their organic wastes separately from the remainder of the waste stream. For sanitary reasons, the organic food waste once separated from the waste stream should be collected frequently. This would require separate collection containers and vehicles to service organic food waste generators. There are additional costs associated with handling, collection and composting of this material. The Authority will continue to assess the feasibility of widespread organics collection for composting in the future and is open to a pilot food waste composting plan at our Green Waste Compost Facility. However, the State and private industry must do their part if widespread organics recovery is to take hold in New York; viable markets must be developed.

The Authority is currently working with the Masonic Home Health Care Facility, Turning Stone Casino and Resort, Professional Golf Association and the Utica Boilermaker 15 K Road Race in developing pilot food waste composting programs at these major facilities and annual events. For example crates of Boilermaker orange peels are now composted instead of landfilled.

The Authority is also in the process of developing a 2011 one day truck load sale of backyard compost bins with a private vendor. The planned annual event will allow residents to purchase backyard compost bins for their kitchen and yard waste. Backyard composting has many benefits; its educational, reduces waste, conserves landfill space and produces a useful product – compost. It also eliminates the need for organics collection for participants. We expect this program which will be heavily advertised to have a positive impact on our waste reduction figures. If participation rates are high the program may be expanded to multiple sites each year.

Another key component for our future organics recovery program is the expansion of our school, college and institution compost program. Hamilton College and Waterville School have expressed interest in composting cafeteria waste in the near future. Area grocers have also expressed a willingness to provide their pre-consumer vegetable/fruit waste as compost feed-stock.

Grease and oil from homeowners that use deep fryers or turkey fryers may also be rendered. Residents may drop-off grease and cooking oil at our Residential Convenience Center for recycling. This popular program will be continued during the planning period.

The Authority currently assists the City of Rome and Towns of Westmoreland, Vernon, New Hartford, Lee, Trenton and Kirkland grind their brush and limbs. These communities give back this organic product (wood chips) to the residents for landscaping use or utilize the chips themselves. This program may be expanded to other communities in the future.

#### **5.4.6 PAYT**

PAYT programs are firmly established in our region see program description in section 3.2.1a. The Authority plans to increase the number of communities implementing PAYT by educating them on the merits of the program and the potential cost savings.

#### **5.4.7 Future Construction and Demolition Debris Recovery**

The Authority believes that C&D recycling/processing flourishes in areas where construction activities are prevalent. As stated previously, our region is a demolition dominated area with limited new construction. It is simply much easier from a separation stand point and more economical for C&D recycling to occur when the feed stock is construction driven. This activity should be a private sector endeavor, and the Authority will support such an endeavor provided that environmental safeguards and regulations are met.

### **5.5 Costs of the Solid Waste System**

The Authority manages the region's solid waste through its integrated system. This integrated system is funded primarily through tip fees for disposal of non-recyclable waste. Other revenue sources include sales of recyclables and compost, grants, surplus equipment sales, interest earnings and other fees. Future revenues will come from the sale of carbon credits resulting from the reduction of greenhouse gas emissions at the regional landfill, as well as the future sale of electricity from the proposed landfill gas to energy facility. The operating budget of the Authority is about \$22 million per year, and is projected to grow at an annual rate of 3-5% over the planning period. Insurance, operations, maintenance and administration are funded through the operating budget. Collection programs in the City of Utica and five area villages are administered by the Authority. There is a separate local government budget for these programs. Revenue sources for that budget are totter revenues, PAYT bag sales and user fees. All administrative fees are covered by these revenues. The annual budget for the local government function is about \$5 million per year. This budget will likely grow from year to year as more communities are added.

Some major capital costs are financed through the issuance of revenue bonds. When the Authority identifies a needed capital project, a cost assessment is conducted, and the Authority comptroller begins the process to secure the most favorable terms for a bond issuance. The process entails selection of an underwriter and bond counsel as well as working with the Authority's financial advisor to secure the best interest rates for the financing.

### **5.6 Neighboring Jurisdiction Impacts**

The neighboring planning units are Madison County, MOSA, Hamilton County, Fulton County, St. Lawrence County, Lewis County and Oswego County.

The Authority has positive relations with neighboring planning units. In the past the Authority has participated in joint projects with Madison County, Fulton County, Otsego County, St. Lawrence County and Oswego County for disposal services, recyclables processing, the receipt of household hazardous waste and information exchanges. We currently accept recyclables

from Otsego County. When projects are mutually beneficial the Authority will continue co-operative efforts with planning units across the State.

Since the Authority is limited by State law to accepting only waste generated within the Planning Unit, and practices flow control, the implementation of this LSWMP will have no impact on the neighboring jurisdictions solid waste management programs. Nevertheless, we stand ready to help other planning units if it makes sense to both parties.

The effects of including another jurisdiction in the SWMP are positive. For example if we accept recyclables for processing at our Recycling Center we receive revenue, and the other planning unit finds an economic outlet for its recyclables. We are generally not dependent on any other planning units for solid waste management programs.

## **CHAPTER 6**

### **6.1 Integrated System Selection**

#### **6.1.1 Program Selected**

The program selected for this SWMP varies little from the current integrated system. First, we will emphasize recycling, reuse, reduction, organics recovery and toxics reduction programs. The remainder of the waste stream will be disposed of in the most environmentally sound manner. We will also prioritize minimization of greenhouse gas generation through the capture and beneficial use of landfill gas. Finally, we will continue to implement innovative cutting edge programs that benefit the environment and provide needed service for our citizens such as electronics recycling and pharmaceutical drop-off days. New or modified facilities and programs will continue to be considered for implementation following a careful consideration of cost effectiveness, long-term environmental benefits, and technical feasibility.

#### **6.1.2 Reasons for Selection**

The integrated system described herein was chosen by the Authority because it has a proven track record, is popular with our residents, is environmentally sound, makes economic sense and is forward thinking.

#### **6.1.3 Size/Capacity of Operation**

The size and capacity of our recycling and disposal facilities reflect our commitment to an integrated plan that emphasizes recycling and waste reduction while ensuring reliable disposal capacity for the long term.

### **6.2 Procedures for Program Implementation**

#### **6.2.1 Scope of Operation**

Since our two-county area is large and diverse the scope of operation must match its size and complexity. Our planning is conducted on a broad level with widespread consideration of stakeholder needs and wants. Every resident, business and community is taken into consideration in this plan since they are all part of our service area. We partner with municipalities, citizen groups, businesses and local waste haulers to make our programs accessible, productive and successful.

#### **6.2.2 Equipment**

Most of the equipment necessary to implement this plan is already purchased (landfill compactors, tub grinders, windrow turner, compost screen, compost bagger, wheel loaders, skid steer loaders, bulldozers, excavators and various trucks). Equipment is regularly maintained by Authority staff, evaluated for replacement, and replaced if needed. New equipment is purchased if a need arises, or a new program is implemented. For example, the new processing equipment that is identified in detail in section 5.4 for the Single Stream Recycling Project, and the Landfill-Gas-To-Electricity Project equipment, has not yet been purchased. We will also evaluate the feasibility of providing totes or standard recycling containers for all area residents as part of the Single Stream Recycling project implementation phase.

### **6.2.3 Collection Arrangements**

Collection arrangements will change for the better with implementation of this LSWMP. Single Stream will lessen truck trips to our Recycling Center. Collection truck modifications may be necessary for Single Stream requirements and possibly future organics collection. We do not expect a dramatic change in the number of private waste haulers in the area since the intense consolidation of the mid-90's has already taken place. There are currently 20 permitted private solid waste collection and hauling companies in addition to 9 municipal collection entities and 16 municipalities that contract with private haulers for collection.

## CHAPTER 7 IMPLEMENTATION SCHEDULE & SEQRA COMPLIANCE

### 7.1 Implementation Schedule

<u>YEAR/PERIOD</u>	<u>PROJECT/TASK/MILESTONE</u>	<u>RESPONSIBLE PARTY</u>
2013	Implement Single Stream Recycling	OHSWA
2012, 2013	Evaluate feasibility of providing recycling containers to each household in the region	OHSWA
2011	Complete Landfill Gas to Electricity Project	OHSWA
Ongoing	Expand/Continue PAYT Program	OHSWA/Municipalities
2011 – 2015	Expand/Continue School Recycling & Go Green Projects	OHSWA/Schools
2011 – 2015	Expand/Continue School Organics Recovery Projects	OHSWA/Schools
2011 – 2015	Implement backyard compost unit sales event	OHSWA
Ongoing	Support NYSPSC Waste Reduction Efforts	OHSWA
2012 - 2013	Evaluate/Implement Pilot Food Waste Compost Project	OHSWA
Ongoing	Support Private Sector Biosolids Recycling Efforts	OHSWA/Private Sector
Ongoing	Continue waste assessments/audits	OHSWA
Ongoing	Continue and expand Public Education Efforts	OHSWA
Ongoing	Continue and expand Public Outreach Programs	OHSWA
Ongoing	Evaluate new processing technology	OHSWA
Ongoing	Continue and expand reuse of Materials in civil engineering practices	OHSWA
2013	Evaluate and implement, if feasible an alternative energy project (such as a greenhouse) that could utilize excess thermal energy from the landfill gas to energy facility	OHSWA

2013 – 2017	Evaluate, and implement if feasible, sewer line hook-up for Landfill leachate	OHSWA
2014 – 2015, 2019 – 2020	Build New Cells at Landfill	OHSWA
Ongoing	Support Private Sector C&D Recycling Efforts	OHSWA
Ongoing	Hold pharmaceutical collection days	OHSWA/Pharmacists
Ongoing	Continue and evaluate municipal Demolition assistance program	OHSWA/Municipalities
Ongoing	Continue and evaluate library location Book recycling program	OHSWA/Libraries
Ongoing	Continue confidential paper shredding Events	OHSWA
Ongoing	Add any feasible material to recyclable List	OHSWA

## 7.2 SEQRA Compliance

The SWMP will undergo the SEQRA review process prior to final adoption by the Authority's Board of Directors.

## CHAPTER 8 NEW LAWS & REGULATIONS/LEGAL INSTITUTIONAL ANALYSIS

### 8.1 Laws, Rules, Regulations That Could Constrain the Recovery Program

There are no current laws, rules, regulations or ordinances which would cause constraints to any of the Authority's solid waste management programs. However, the Authority is concerned that potential State regulations could cause our region real economic harm, and consequently force us to pull back from our progressive integrated waste management system. Recycling, reduction and recovery programs are primarily funded through disposal revenue since most of these operations are not self-sufficient.

### 8.2 Local Law Schedule

The Authority does not need a new local law or ordinance to implement our recovery program or develop and enhance markets. Our existing laws Oneida County Local Law #1 of 1990, and Herkimer County Local Law #1 of 1990 should suffice as we go forward during this planning period.

### 8.3 Hauler Licensing

For administrative purposes the Authority requires all commercial waste haulers and contractors /businesses that transport their waste to register with the Authority and obtain a permit. The permit allows the permittee to use any of our facilities for disposal or recycling the permit is good for five years. We also offer permittees the opportunity to sign a contract with us; the contract guarantees the lowest rates in our system and is in effect for eight years.

The Authority has considered the districting of our region for solid waste/recyclables collection. A meeting with our local haulers was held, but most haulers were not supportive of the concept preferring the contract method outlined above. Flow control has reduced the need and motivation to form collection districts in our region.

### 8.4 Flow Control

The Authority has been at the forefront of the fight to restore flow control following the Carbone case. Considerable funds and time commitment were made by the Authority over a 13-year period to vigorously defend our local laws.

The County Solid Waste Management Laws were upheld by the United States Supreme Court in a Decision issued April 30, 2007. The Decision written by Chief Justice John Roberts validates the integrated solid waste management system owned and operated by the Oneida-Herkimer Solid Waste Authority.

The Court recognized that local communities are entitled to develop the kinds of facilities and programs that meet their unique needs and that local communities can realize significant environmental and public benefits from a fee structure that encourages waste reduction, recycling and detoxification. The Supreme Court Decision said:

*“The ordinances give the Counties a convenient and effective way to finance their integrated package of waste disposal services. While “revenue generation is not a local interest that can justify discrimination against interstate commerce,” we think it is cognizable benefit for purposes of the Pike test. At the same time, the ordinances are more than financing tools. They increase recycling in at least two ways, conferring significant health and environmental benefits upon the*



*citizens of the Counties. First, they create enhanced incentives for recycling and proper disposal of other kinds of waste. Solid waste disposal is expensive in Oneida-Herkimer, but the Counties accept recyclables and many forms of hazardous waste for free, effectively encouraging their citizens to sort their own trash. Second, by requiring all waste to be deposited at Authority facilities, the Counties have markedly increased their ability to enforce recycling laws. If the haulers could take waste to any disposal site, achieving an equal level of enforcement would be much more costly, if not impossible. For these reasons, any arguable burden the ordinances impose on interstate commerce does not exceed their public benefits.”*

The Decision by the Supreme Court tracked closely with the decisions by the Second Circuit Court of Appeals which affirmed the constitutionality of the Oneida-Herkimer system. At the heart of the Authority system is environmental protection. Residents of Oneida-Herkimer have been stung by improper disposal practices that resulted in huge clean up costs at polluting private disposal facilities. In response, the public demanded accountability – they wanted a system that would recycle as much as possible, detoxify the waste stream, and then dispose of the remaining non-recyclable waste in the most environmentally sound manner.

The Supreme Court recognized and validated these public purposes in further defining the public-private distinction:

*“Unlike private enterprise, government is vested with the responsibility of protecting the health, safety and welfare of its citizens...Here the flow control ordinances enable the Counties to pursue particular policies with respect to the handling and treatment of waste generated in the Counties, while allocating the costs of the policies on citizens and businesses according to the volume of waste they generate.*

*The contrary approach of treating public and private entities the same under the dormant Commerce Clause would lead to unprecedented and unbound interference by the courts with state and local government. The dormant Commerce Clause is not a roving license for federal courts to decide what activities are appropriate for state and local government to undertake, and what activities must be the province of private market competition. In this case, the citizens of Oneida and Herkimer Counties have chosen the government to provide waste management services, with a limited role for the government to arrange for transport of waste from the curb to the public facilities. The citizens could have left the entire matter for the private sector, in which case any regulation they undertook could not discriminate against interstate commerce. But it was also open to them to vest responsibility for the matter with their government, and to adopt flow control ordinances to support the governmental effort. It is not the office of the Commerce Clause to control the decision of the voters on whether government or the private sector should provide waste management services. “The Commerce Clause significantly limits the ability of States and localities to regulate or otherwise burden the flow of interstate commerce, but it does not elevate free trade above all other values.”*

*We should be particularly hesitant to interfere with the Counties’ efforts under the guise of the Commerce Clause because “[w]aste disposal is both typically and traditionally a local government function.”*

This landmark Decision resolves any doubts that were created by the 1994 Carbone v. Clarkstown Decision. In the Decision the distinction between Clarkstown and Oneida-Herkimer was clearly established:

*“The only salient difference is that the laws at issue here require haulers to bring waste to facilities owned and operated by a state-created public benefit corporation. We find this difference constitutionally significant. Disposing of trash has been a traditional government activity for years, and laws that favor the government in such areas – but treat every private business, whether in-state or out-of-state, exactly the same – do not discriminate against interstate commerce for purposes of the Commerce Clause. Applying the Commerce Clause test reserved for regulations that do not discriminate against Interstate commerce, we uphold these ordinances because any Incidental burden they may have on interstate commerce does not outweigh the benefits they confer on the citizens of Oneida and Herkimer Counties.”*

The Supreme Court recognized that solid waste management is a traditional local government function and the Court established a clear and concise finding that can serve as a foundation for public systems:

*“We hold that the Counties’ flow control ordinances, which treat in-state private business interests exactly the same as out-of-state ones, do not “discriminate against interstate commerce” for purposes of the dormant Commerce Clause.”*

The lawsuit started in 1995 with a small group of disgruntled haulers prompted by the National Solid Waste Management Association, a Washington, D.C. based lobbyist. By 2001 NSWMA had taken over the case and directed the litigation through the Supreme Court Decision. NSWMA’s attempt to characterize all local public solid waste management systems as being identical to Clarkstown (and therefore unconstitutional) was rejected by the Supreme Court. NSWMA’s appeal to judicial policy making was forcefully rejected.

*“The haulers nevertheless ask us to hold that laws favoring public entities while treating all private businesses the same are subject to an almost per se rule of invalidity, because of asserted discrimination. In the alternative, they maintain that the Counties’ laws cannot survive the more permissive Pike test, because of asserted burdens on commerce. There is a common tread to these arguments: They are invitations to rigorously scrutinize economic legislation passed under the auspices of the police power. There was a time when this court presumed to make such binding judgments for society, under the guise of interpreting the Due Process Clause. Lochner v. New York). We should not seek to reclaim that ground for judicial supremacy under the banner of the dormant Commerce Clause.”*

Contrary to the public relations statements by NSWMA, the Oneida-Herkimer system is strongly supported by the business community. The regional development agency EDGE and 10 local private haulers filed an Amicus Brief in support of the Authority position. The Authority’s fees are 18% lower than in 1995. Support also came from the environmental community in an Amicus Brief filed by Environmental Defense, a leading national environmental group. Amici were also filed by New York State, 25 other states, other New York Counties, the National Conference of State Legislatures, and over 20 waste organizations from across the Country.

Flow Control is a valuable tool that the Authority will continue to use to the benefit of our service area.

## **CHAPTER 9 INTERIM SOLID WASTE MANAGEMENT MEASURES**

Interim solid waste management measures are not applicable to our Planning Unit because our integrated management system is well established. All components of our waste stream have the requisite programs and/or permitted facilities for proper management. We do not anticipate any changes in this regard.

## **CHAPTER 10 EXPORT CERTIFICATION**

Since waste export from our planning unit is not and will not be part of our LSWMP an export certification is not required.

## **CHAPTER 11 ADMINISTRATIVE STRUCTURE**

The Authority has the necessary administrative structure in place to implement the components of the Local Solid Waste Management Plan.

The Authority is governed by a ten person Board of Directors. The primary responsibility of the Board is to make policy and formally adopt or approve major policy decisions or directions. For example, the Board will formally adopt by resolution the SWMP. Usually, the Board authorizes the Executive Director to take a particular action that implements Board Policy such as making the necessary management decisions or allocating the warranted resources (personnel, equipment, funds) to implement the SWMP.

The Executive Director assigns various components of the integrated system to Department Heads for actual operational activities. Recycling Center and Transfer Station operations fall under the Recycling Center Plant manager, while waste reduction, organics recovery, reuse, recycling market management, PAYT and recycling education are the responsibility of the Director of Recycling. The Director of Engineering manages facility development, procurement and new technology evaluation. The Environmental Coordinator is responsible for system wide environmental/ecological monitoring and regulatory compliance. The Landfill Facility Manager takes care of day-to-day operations at the landfill. The Superintendent of Waste Collection oversees the City of Utica collection waste and the operation of the Household Hazardous Waste Facility. The Comptroller manages Authority finances so that the integrated system is properly funded.

## **CHAPTER 12 ADOPTION AND DISTRIBUTION OF THIS SWMP**

The Authority's Board of Directors will be responsible for consideration and enactment of a resolution to adopt this SWMP. A copy of this resolution will be forwarded to NYSDEC subsequent to its adoption by the Authority.

The Draft and Final SWMP will be posted on the Authority's web site ([www.ohswa.org](http://www.ohswa.org)) for public review and information. Notices regarding the availability of the SWMP and public comment opportunities will be distributed as outlined in Appendix A.

## CHAPTER 13 CONCLUSION

By approving this SWMP the Oneida-Herkimer Solid Waste Authority plans to continue, evaluate or implement the following items:

- Implement Single Stream Recycling region wide.
- Continue to implement a comprehensive public education campaign.
- Evaluate the provision of new recycling containers to each household in the region.
- Expand the school/college organics recovery projects.
- Implement one day truck load sales of back yard composting units and associated public education.
- Evaluate and implement if feasible pilot food waste compost project at Green Waste Compost facility.
- Continue the Go Green initiative and School Recycling program.
- Support NYSPSC waste reduction efforts including product stewardship.
- Support private sector biosolids recycling efforts.
- Expand marketing efforts for our compost products produced at the Green Waste Compost Facility.
- Continue to assist communities through administration of existing PAYT programs; expand PAYT programs through emphasizing benefits of the program.
- Complete the Landfill Gas to Electricity Project and expand when feasible.
- Evaluate and implement if feasible an alternative energy project that utilizes thermal energy from the landfill gas to electricity facility.
- Continue to operate all of our existing facilities to the benefit of the region.
- Continue waste assessments/audits of local industries, businesses, institutions.
- Continue public education efforts.
- Continue our public outreach programs.
- Continue our strong enforcement of local laws related to recycling compliance, and proper disposal.
- Continue to aggressively seek out recyclable material markets.
- Continue to evaluate new processing technologies based on the criteria identified herein.

- Continue to reuse materials in civil engineering practices.
- Evaluate hook-up to sewer line for landfill leachate.
- Build new landfill cells as needed.
- Support private sector C&D recycling efforts.
- Continue our hauler permit system.
- Continue to hold annual pharmaceutical waste disposal days.
- Continue the Municipal Demolition Assistance Program.
- Expand our library location book recycling events.
- Continue to hold annual confidential paper shredding events.

## **APPENDIX A**

### **PUBLIC COMMENT**

- A.1 Public Input Opportunities – The Authority encouraged comment on the draft LSWMP. The draft LSWMP was specifically addressed and discussed at a local Waste Hauler Informational Meeting held on August 3, 2010. All substantive comments received were addressed.
- A.1.1 Internet Access – The draft LSWMP was posted on the internet for viewing on August 2, 2010. The Authority’s website address is [www.ohswa.org](http://www.ohswa.org).
- A.1.2 Public Notification – A notice referring to the Authority’s web site posting of the draft LSWMP was forwarded to the Oneida County Executive, Herkimer County Administrator, County elected officials and the Chief Executive Officer of each municipality in Oneida and Herkimer Counties. The notice was also sent to State elected officials and the Counties’ Planning Department. Additionally, a legal notice was posted in area newspapers on August 2, 2010 indicating that the draft LSWMP may be viewed through our website and that hard copies will be available upon request. Hard copies were sent to the Utica Public Library, Basloe Library (Herkimer) and Jervis Library (Rome), and neighboring planning units. Copies of the notices are attached.
- A.1.3 A public information meeting was held on August 12, 2010 at Mohawk Valley Community College, Information Technology Building, Room 225, 1101 Sherman Drive, Utica, NY at 6:30 PM. The public meeting was advertised in local newspapers. Authority staff was in attendance; no one was present from the general public.
- A.1.4 The time period for public comment on the draft LSWMP was from August 2, 2010 through August 30, 2010.

Comments were received from NYSDEC Region 6 and Central Office staff and addressed in the final LSWMP.