Otsego County
Local Solid Waste Management Plan
2018-2027

ADOPTED BY THE OTSEGO COUNTY BOARD OF REPRESENTATIVES ON JUNE 6, 2018
RESOLUTION #193-20180606

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Otsego County Local Solid Waste Management Plan
Executive Summary

The Local Solid Waste Management Plan or LSWMP is a document which covers a ten-year planning period with regards to solid waste management in Otsego County. As required by New York State Department of Environmental Conservation (NYSDEC), the LSWMP describes the current solid waste and recycling programs in Otsego County along with statistic and totals to accompany those program descriptions. Using available data, the LSWMP projects solid waste and recycling totals over the planning period and identifies alternatives with the goal of increased the amount of material diverted from the waste stream, thereby decreasing the amount of material going to landfills. The NYSDEC has approved an initial draft of the plan, which will span the planning period of 2018 to 2027.

Purpose of plan:

Otsego County's transitioned from a 25 year service agreement with the three county MOSA (Montgomery-Otsego-Schoharie Authority) in 2014 was one of the key reasons to prepare the County's solid waste management plan. Following the dissolution of MOSA, the three counties, Montgomery, Otsego and Schoharie separated and implemented their own solid waste and recycling programs.

Otsego County recognizes the important role local communities, private haulers, businesses, educational institutions, non-profits, neighboring solid waste managing facilities and the general public play in developing policies. Prior to the dissolution of MOSA, decisions and policies were developed by the MOSA board of directors and not necessarily from local participation.

Otsego County's solid waste management plan will provide a county-wide structure for the coordination of solid waste management. The plan includes goals for waste reduction, increased recycling efforts, private –public partnerships and continual participation with other local agencies and businesses to address the solid waste and recycling needs of the county. The County will be the catalyst in monitoring progress and satisfying the NYSDEC requirements.

Regulatory Policy:
The 1988 NYS Solid Waste Management Act established a state wide solid waste management policy with the following priorities:

- Reduce the amount of solid waste being generated
- Reuse material for its original use or recycle material that cannot be reused
- Recovery energy from waste in an environmentally sound manner
- Dispose of waste not being reused, recycled or recovered for use as energy, through land burial or others methods approved by NYSDEC Conservation Law (ECL)27-0106-1)/

In 2010, NYSDEC's "*Beyond Waste": A Sustainable Materials Management Strategy for New York,* was released. The plan's goal is to reduce the amount of waste being disposed by NYS residents by:

- Preventing waste generation and increasing reuse, recycling and composting

Current Solid Waste and Recycling Program Information:

- In 2016, Otsego County generated over 37,000 tons of municipal solid waste (MSW) and over 9,800 tons of construction and demolition debris (C&D).
- 11% of waste material generated in Otsego County is diverted into single stream recycling when compared with MSW.
- Other programs in Otsego County include: electronic waste recycling, agricultural plastic recycling, household hazardous waste collection, and mattress recycling.
- Over the ten-year planning period, Otsego County is expected to have a moderate increase in waste diversion.

NYSDEC maintains a list of fifteen alternatives which must be considered by Otsego County over the LSWMP planning period. These alternatives are listed in the full document, but the County is considering the following, in particular:

- Polystyrene recycling
- Locate mattress recycling in-county
- Plastic bag ban
- Support existing programs like the Otsego ReUse Center and the Otsego County Regional Composting Facility
- Form local partnerships for the collection of yard waste
- Expand department's media presence
- Establish position or program for solid waste coordination and education
- Conduct waste assessments
- Facilitate data-sharing with neighboring counties
- Local Hauler Registration
- C&D Recycling
- MSW and Biosolids Co-composting

Each alternative listed above was evaluated based on both its likelihood and anticipated time-span over the ten-year planning period.

Outreach for the Local Solid Waste Management Plan

Responsiveness Summary

Outreach Timeline:

January 2017 – January 2018: Site Visits to Otsego County and Other Facilities
Department staff, along with a Solid Waste Intern, visited several facilities in and around Otsego County as part of the County's education and information-gathering efforts for the plan. These include:

Evolution Recycling – Johnstown, NY
Ontario County Landfill – Stanley, NY
Delaware County Solid Waste Management Center – Walton, NY
Triad Recycling and Energy Corporation – Tonawanda, NY
Otsego ReUse Center – Oneonta, NY
Otsego County Transfer Stations – Oneonta and Cooperstown, NY (A Solid Waste Intern was stationed at these transfer stations to interview residents)

January 31, 2018: Local Solid Waste Hauler Meeting, Meadows Office Complex, Cooperstown
Four haulers were in attendance. An outline of the plan was presented. No direct comments on the plan were provided, but haulers expressed concerns over changes to Part 364 regulations and offered ways to improve the local transfer stations.

February 14, 2018: Public Meeting, 10:00am – 11:00am, Meadows Office Complex, Cooperstown
No members of the public were in attendance at this meeting.

February 15, 2018: Public Meeting, 3:30pm – 4:30pm, Huntington Library, Oneonta
One member of the public was in attendance. Comments offered were in regards to a typographical error in the plan.

February 1 – March 18, 2018: Public Comment Period
During the public comment period, the County received one set of comments from the Otsego County Conservation Association (OCCA), which are included as an appendix at the end of the plan. The County had specifically reached out to OCCA, among other organizations, for their input and expertise on the draft of the plan. The comments can be summarized below with the County responses immediately following each comment:

> **1. The Plan could benefit from organizational changes ensuring a better flow of information to readers**
> The County has confirmed with NYSDEC that the order of chapters can vary from the regulation guidance as presented. Chapters will be shuffled to reflect OCCA's specific comments regarding the flow of the document.
> **2. The Plan lacks supporting information justifying the data presented in the document.**
> Language has been added to the beginning of the chapter titled "Waste Generation and Materials Recovered Data" which notes the purpose for collecting and sharing these data in the plan.

3. The Plan could be strengthened by additional explanation surrounding the alternatives identified in Section 5.

Chapter 5 titled “Alternatives Evaluation and Selection”, now has additional language generally indicating how the alternatives were selected. The department attempted to support the content with outside sources whenever possible, which are indicated in the footnotes.

4. The Outreach Component of the Plan is missing.

The County’s current outreach efforts and the need for additional outreach are both documented in the Plan. The County has added the section which contains this text to document the specific outreach efforts made in the preparation of this plan, also known as the “Responsiveness Summary.”

Table of Contents

List of Acronyms

AER: Annual Engineering Report

C&D: Construction Debris

HHW: Household Hazardous Waste

IMA: Intermunicipal Agreement

LSWMP: Local Solid Waste Management Plan

MOSA: Montgomery-Otsego-Schoharie Authority

MRF: Materials Recovery Facility

MSW: Municipal Solid Waste

NTS: Northern Cooperstown Transfer Station

NFP: Not for Profit

OCCA: Otsego County Conservation Association

OSWCD: Otsego Soil & Water Conservation District

STS: Southern Transfer Station

PCA: Post Closure Agreement

RAPP: Cornell Recycling Agricultural Plastics Program

RFP: Request for proposals

Chapter 1. Description of the Planning Unit

1.1 Planning Unit

1.1.1 Geography and Environment

Otsego County is one of the six counties in the Mohawk Valley Region created under the 2010 State's 10 regional economic plan. Otsego County is centrally located between Binghamton, Albany, and Syracuse. The county is approximately 60 miles west of Albany at its eastern-most borders and 45 miles east of Binghamton at its western-most borders. The southern portion of the county contains Interstate 88 and State Highway 7, which parallels the Susquehanna River. State Highway 28 connects the northern and southern parts of the county, intersecting with State Highway 80 which runs along the northern part of the county. U.S. Highway 20 runs east to west between Cherry Valley and Plainfield. State Highway 23 connects western parts of the county to the Town and City of Oneonta, and Delaware County.

Otsego County is generally rural in nature and is comprised of 24 towns, 9 villages, and 1 city. The City of Oneonta, consisting of approximately 4.36 square miles, has the largest concentration of residents (13,901) and households (4,372) in the county. Otsego County is 1,016 mi^2 and has a population of 62,259[1], which represents a 9% increase from the 2000 census and a total of 24,620 households. The county is situated in the Upper Susquehanna River Watershed with Otsego Lake being the primary tributary to the Susquehanna River and Chesapeake Bay Watershed. The Susquehanna River travels south into Goodyear Lake and continues west along the southern border of the county. The Unadilla River forms the western boundary of the county, eventually meeting the Susquehanna River at the county's most southwest point in the Town of Unadilla. The county is also home to Wharton Creek, Butternut Creek, Otego Creek, Oaks Creek, Cherry Valley Creek, and Schenevus Creek. There are four state parks in the county (Betty and Wilbur Davis, Gilbert Lake, Glimmerglass, and Robert V. Riddell) and several acres of state forests.

Otsego County's environmental assets are well-protected. Otsego Lake, Goodyear Lake, Arnold Lake, and Canadarago Lake each have lake associations which are dedicated to maintaining the integrity of their lake's community and environmental quality. SUNY Oneonta maintains a biological field station at Otsego Lake. The Otsego County Conservation Association carries out several programs with a rich network of member volunteers to improve and protect air, land, and water quality in Otsego County. Otsego Land Trust has protected over 10,000 acres through conservation easements in Otsego, Southern Herkimer, Schoharie, and Delaware Counties and manages over 500 acres of land for public access, referred to as the Blueway Trail.

These organizations, along with other stakeholders, meet periodically as the Otsego County Water Quality Coordinating Committee, a committee of the local Soil and Water Conservation District. One of the primary responsibilities of this committee is to maintain the Otsego Lake Management Plan. The Otsego County Planning & Solid Waste Department is a member and regularly attends the committee's business meetings.

[1] 2010 Population Census Data

Figure 1.1

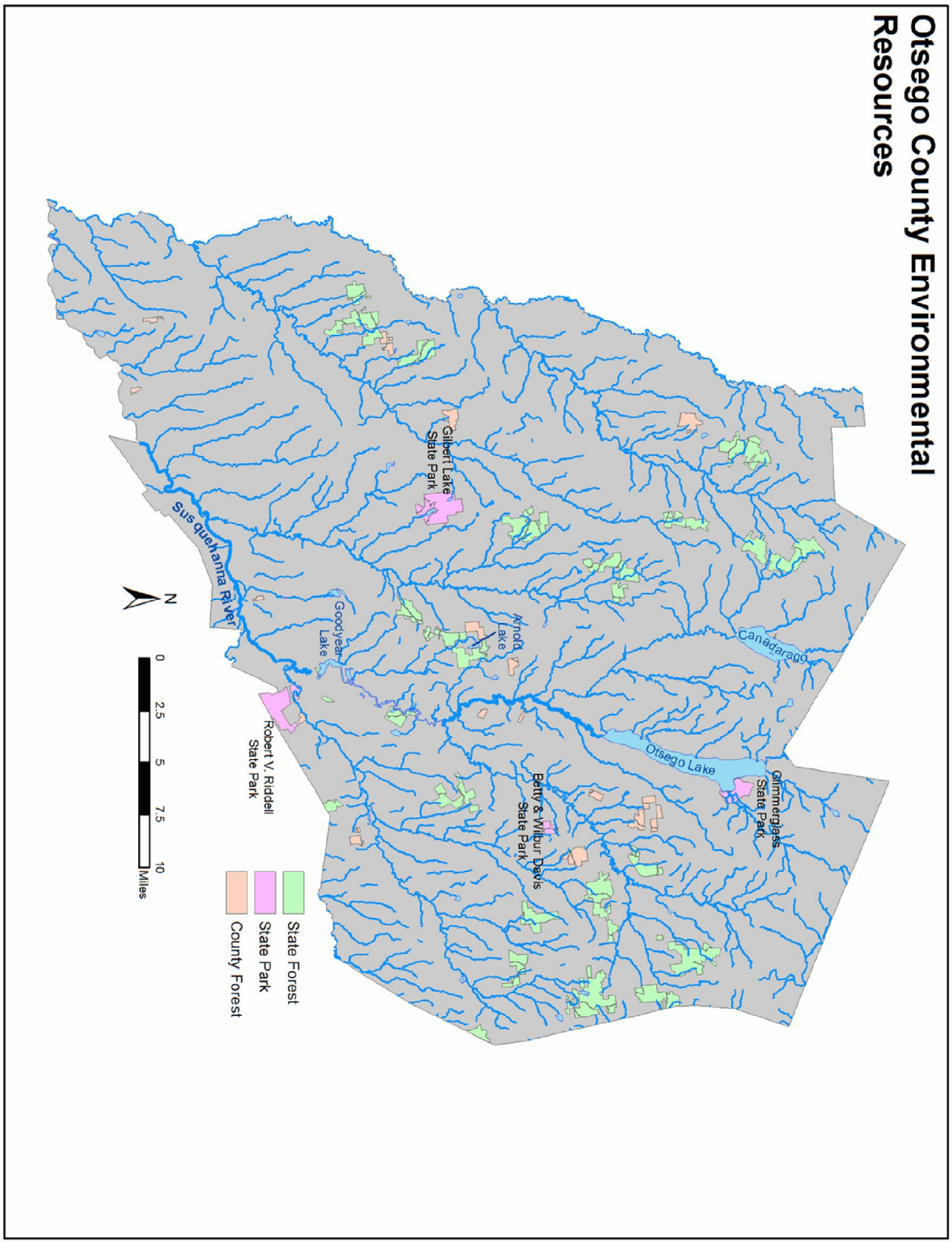

Otsego County Environmental Resources
Susquehanna River
Gilbert Lake State Park
Goodyear Lake
Arnold Lake
Canadarago
Otsego Lake
Glimmerglass State Park
Betty & Wilbur Davis State Park
Robert V. Riddell State Park
N
0
2.5
5
7.5
10
Miles
State Forest
State Park
County Forest

Figure 1.2

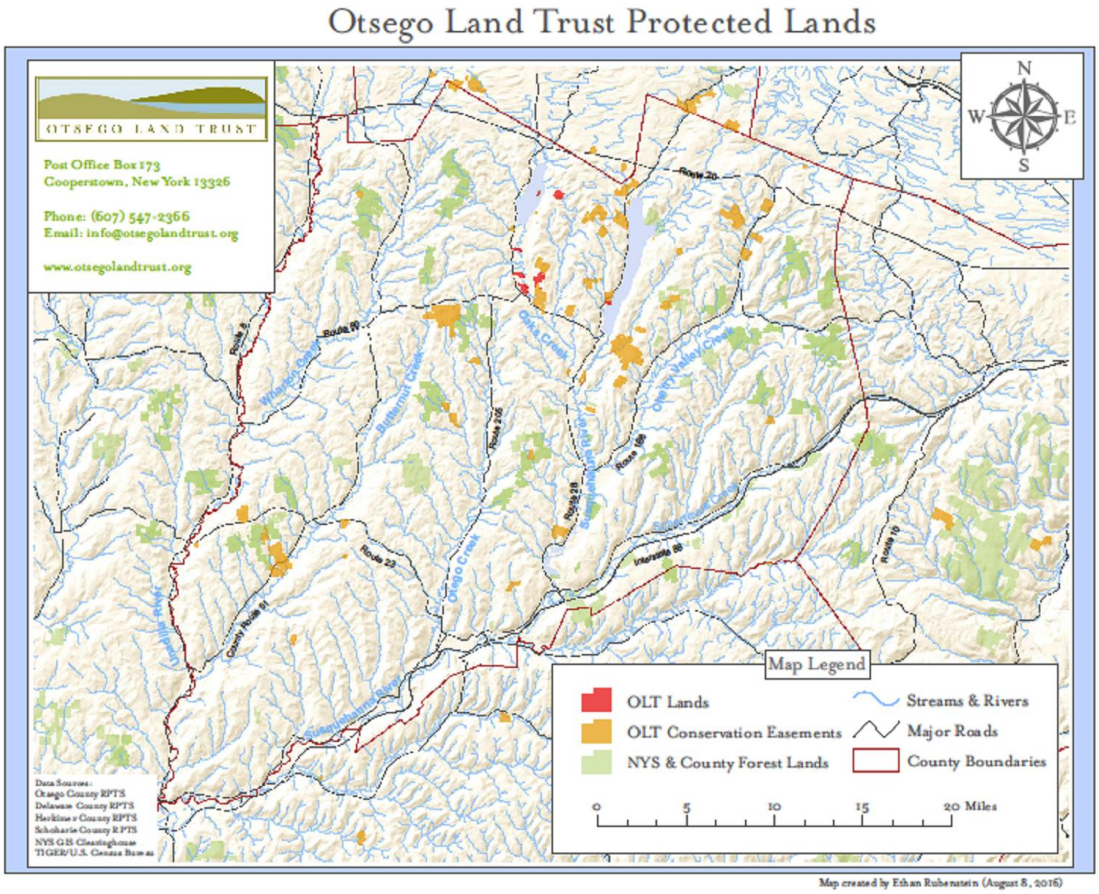
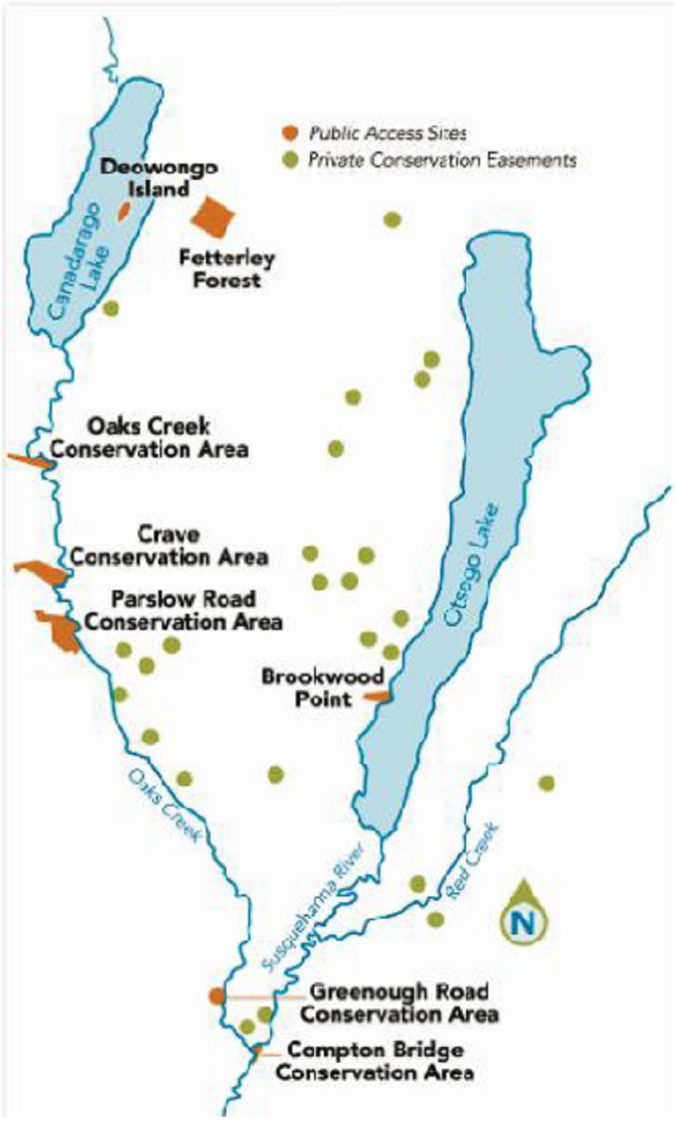

Otsego Land Trust Protected Lands
OTSEGO LAND TRUST
Post Office Box 173
Cooperstown, New York 13326
Phone: (607) 547-2366
Email: info@otsegolandtrust.org
www.otsegolandtrust.org
N
W
E
S
Map Legend
OLT Lands
OLT Conservation Easements
NYS & County Forest Lands
Streams & Rivers
Major Roads
County Boundaries
0 5 10 15 20 Miles
Data Sources:
Otsego County RPTS
Delaware County RPTS
Herkimer County RPTS
Schoharie County RPTS
NYS GIS Clearinghouse
TIGER/U.S. Census Bureau
Map created by Ethan Rubenstein (August 8, 2016)

Figure 1.3

OTSEGO LAND TRUST

Blueway Map



1.1.2 Population

Otsego County's total population for the 2010 Census was 62,259. 2015 estimates by the bureau show a small population decline to 60,636 residents. Projected population statistics for 2020, 2030 and 2040, according to the *2013 Cornell Program on Applied Demographics*, all show an anticipated average yearly decrease in population of -1.3%.[2] According to 2010-2014 American Community Survey estimates by the Census Bureau, the county's median age is 41.2 and the median household income is $47,884 with a poverty rate at 16.4%.

Historic and projected

Table 1.1

Change since previous Census
Total population

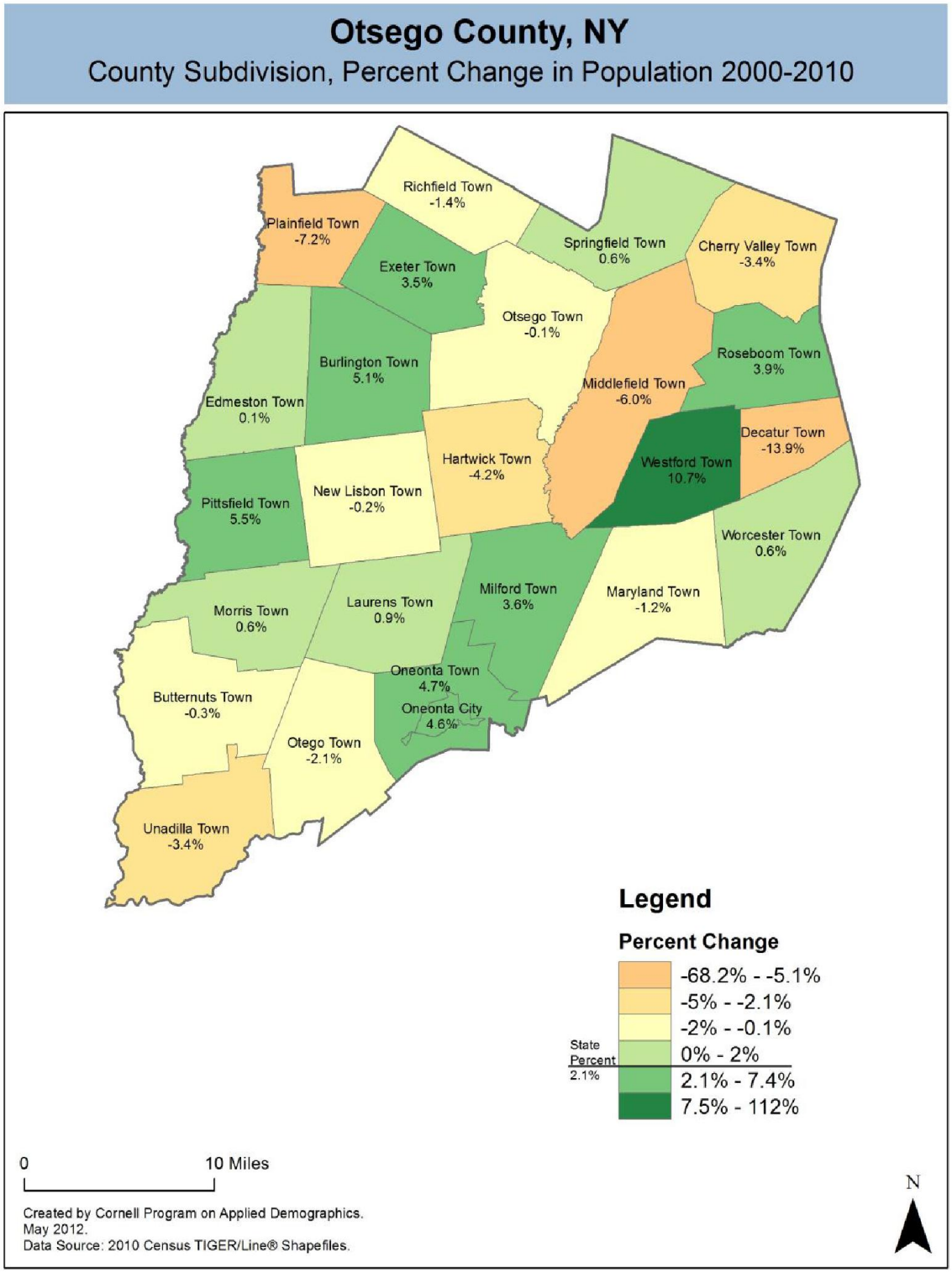
Decennial Census	Total Population	Number Change	Percent Change
1940	46,082		
1950	50,763	4,681	10.2%
1960	51,942	1,179	2.3%
1970	56,350	4,408	8.5%
1980	59,075	2,725	4.8%
1990	60,517	1,442	2.4%
2000	61,676	1,159	1.9%
2010	62,259	583	0.9%
2020	62,094	-165	-0.3%
2030	61,343	-751	-1.2%
2040	59,637	-1706	-2.8%

Source: 1940-2010 Decennial Census and projections by Cornell Program on Applied Demographics

The following map shows the percent change (2000-2010) in population by municipality.

[2] Otsego County Profile 2013 – Cornell Program on Applied Demographics

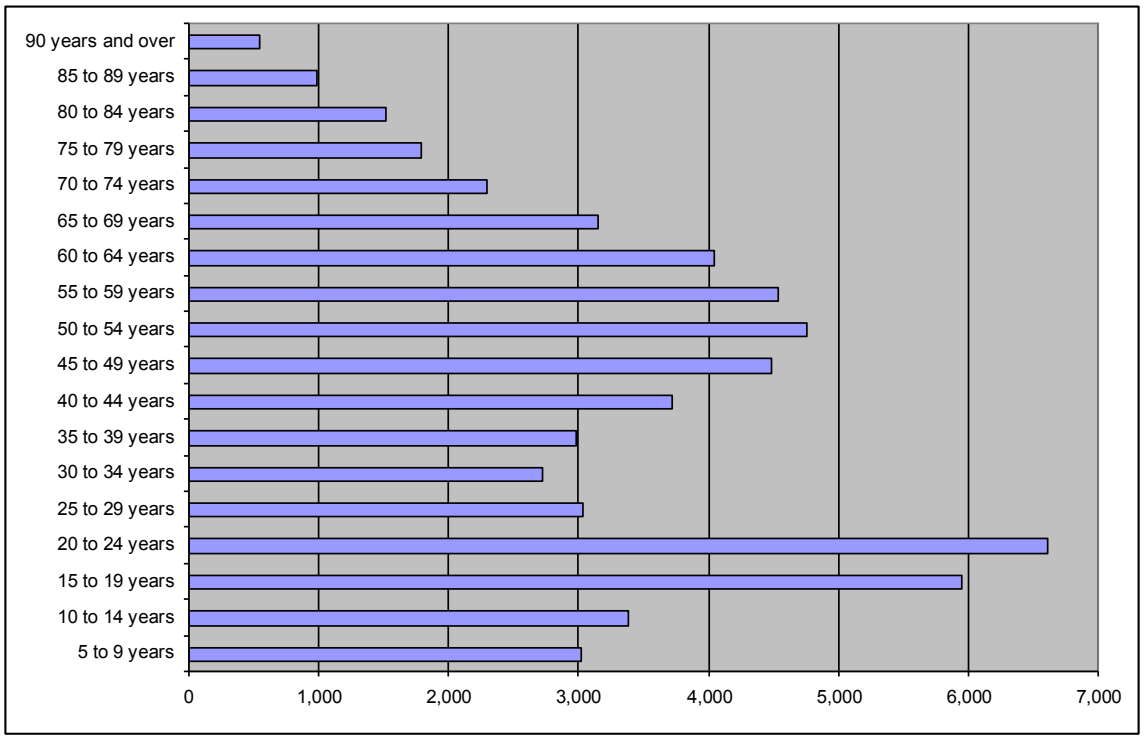
Figure 1.4


Otsego County, NY
County Subdivision, Percent Change in Population 2000-2010
Richfield Town
-1.4%
Plainfield Town
-7.2%
Springfield Town
0.6%
Cherry Valley Town
-3.4%
Exeter Town
3.5%
Otsego Town
-0.1%
Burlington Town
5.1%
Roseboom Town
3.9%
Middlefield Town
-6.0%
Edmeston Town
0.1%
Decatur Town
-13.9%
Hartwick Town
-4.2%
Westford Town
10.7%
Pittsfield Town
5.5%
New Lisbon Town
-0.2%
Worcester Town
0.6%
Milford Town
3.6%
Maryland Town
-1.2%
Morris Town
0.6%
Laurens Town
0.9%
Oneonta Town
4.7%
Butternuts Town
-0.3%
Oneonta City
4.6%
Otego Town
-2.1%
Unadilla Town
-3.4%
Legend
Percent Change
-68.2% - -5.1%
-5% - -2.1%
-2% - -0.1%
State Percent 2.1%
0% - 2%
2.1% - 7.4%
7.5% - 112%
0
10 Miles
Created by Cornell Program on Applied Demographics.
May 2012.
Data Source: 2010 Census TIGER/Line® Shapefiles.
N

Age

The figure below shows a breakdown of the county's 2010 population by age with individuals 20 to 24 years as the single highest age group and individuals 15 to 19 years as the second highest age group. This trend is likely indicative of the Oneonta's two institutions of higher learning: SUNY Oneonta and Hartwick College. Another important trend to note is that a large share of the county is aging and will become senior citizens in the coming years.

Figure 1.5



Otsego County Population by Age, 2010; Source: U.S. Census

Population Density

While the average population density for the county is below 500 people per square mile, the City of Oneonta, including the Town are the most densely populated areas. The first map is a good indication of the concentrations of populations in Otsego County. The second map is a good indication of the breakdown in urban, rural, and suburban zones in Otsego County. As the maps will indicate, the County is very rural in nature, with a handful of Villages containing suburban style development. Our single urban area is the City of Oneonta, with some pockets of suburban development near the City.

Figure 1.6

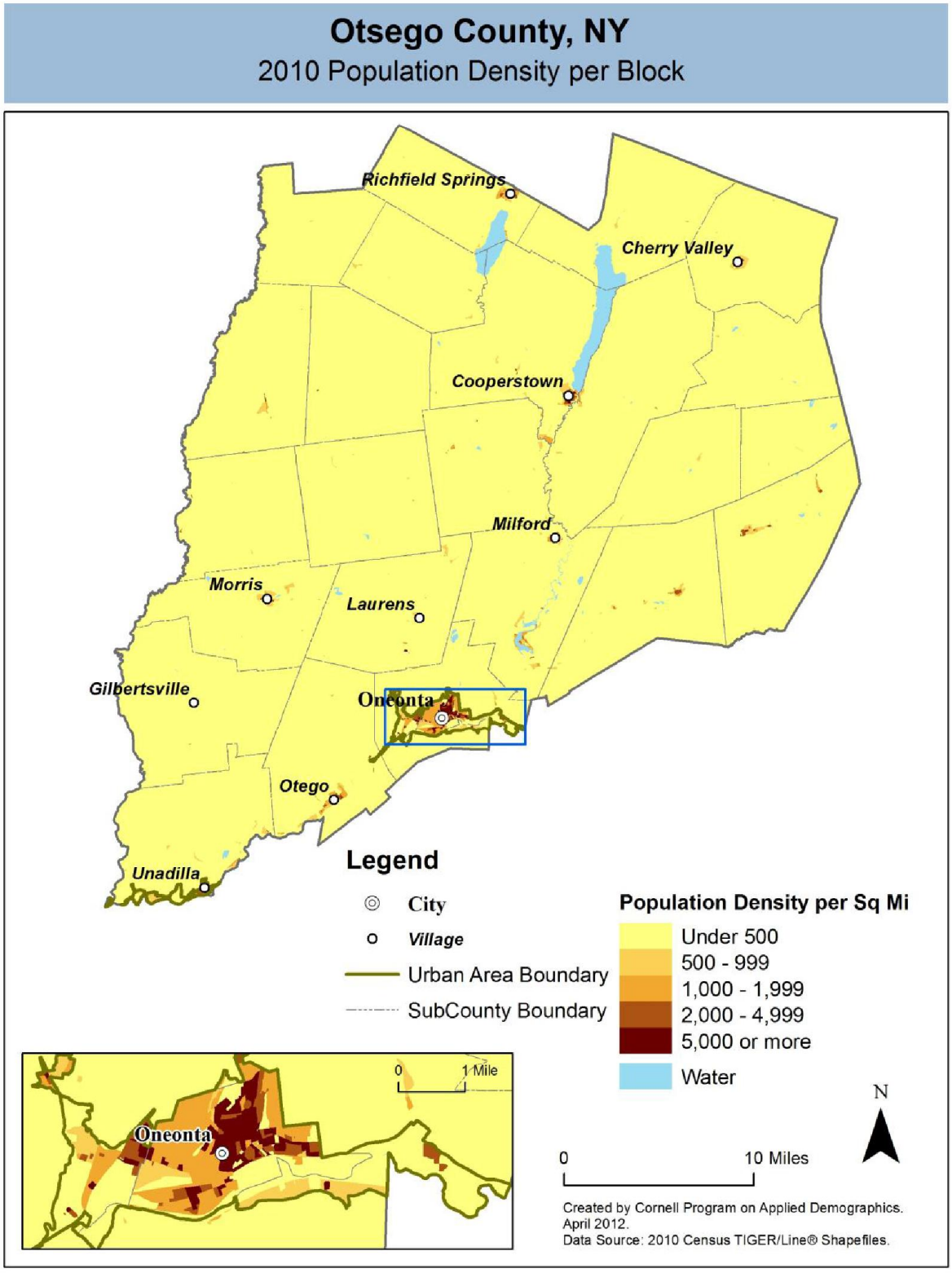
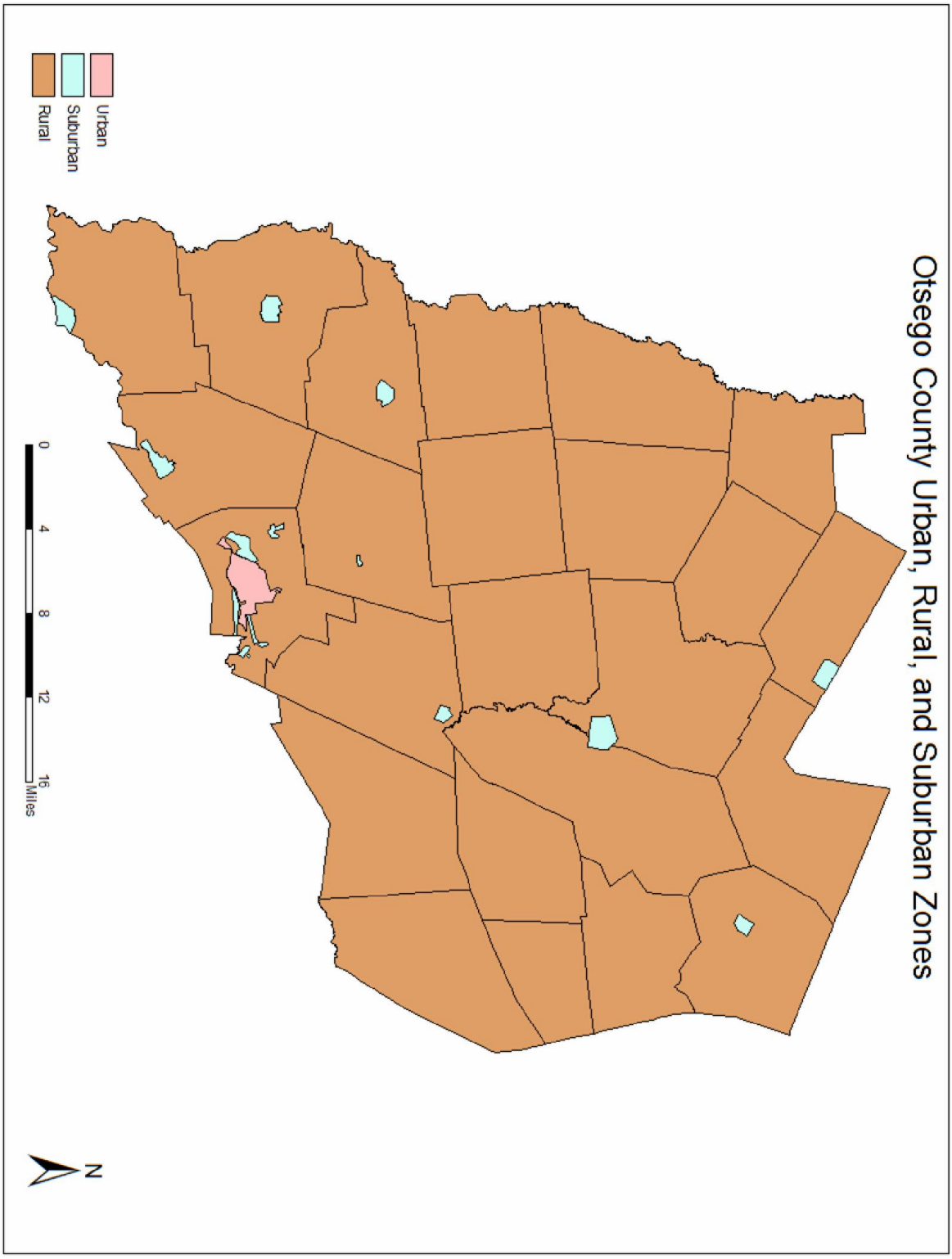

Otsego County, NY
2010 Population Density per Block
Richfield Springs
Cherry Valley
Cooperstown
Milford
Morris
Laurens
Gilbertsville
Oneonta
Otego
Unadilla
Legend
City
Village
Urban Area Boundary
SubCounty Boundary
Population Density per Sq Mi
Under 500
500 - 999
1,000 - 1,999
2,000 - 4,999
5,000 or more
Water
0
1 Mile
Oneonta
N
0
10 Miles
Created by Cornell Program on Applied Demographics.
April 2012.
Data Source: 2010 Census TIGER/Line® Shapefiles.

Figure 1.7


Otsego County Urban, Rural, and Suburban Zones
Urban
Suburban
Rural
0
4
8
12
16
Miles
N

1.1.3 Seasonal Variations of Population and Land Use

Otsego County's population is impacted by two major factors: the influx of tourism and community host of two colleges. The tourism season begins in late May through October-November, and the college terms begin in August through June in most instances.

Tourism:

- According to an article in *AllOtsego* published on July 26, 2016 "The percentage of local taxes generated from Otsego County Tourism industry nearly doubled in 2015. Local tourism taxes, sales, occupancy and property totaled $13,604,697, up 7.4% from 2014." "Visitor spending in Otsego County increased 5.4 percent to $184,976 million. Lodging represents the largest segment of visitor spending ($56,833 million), followed by Food & Beverage ($52,247). Recreation; Retail & Service Stations; Transportation; and Second Homes are other segments included in visitor spending."
- Approximately 500,000 visitors travel each year to the Cooperstown Dreams Park located in the Town of Hartwick.
- Cooperstown Hall of Fame – According to the Hall of Fame (2012 staff directory), approximately 300,000 visitors enter the museum each year, surpassing the running total of 14 million.

Institutions:

- Hartwick College's student population is 1,500 per year on average.
- The State University of New York at Oneonta has a total undergraduate enrollment of 5,850. According to US News 2016 College Ranking Report, 58% of the students live in college owned, operated or affiliated housing and 42% of students live off campus.

1.1.4 Planning Units

The following table contains a list of the planning unit members in Otsego County. The county has twenty four (24) towns, nine (9) villages, and one (1) city. While the county operates two transfer stations (Northern Transfer Station in Cooperstown and Southern Transfer Station in Oneonta), there are twelve (12) additional municipal recycling drop-off locations that are services by the county's recycling contract and monitored by the local municipality. As indicated in the table below, many of these drop-off locations offer other services to municipal or county residents in addition to recycling. The municipalities with transfer stations are highlighted in Yellow and their locations are indicated on the following map.

An alternative to municipal transfer stations residents, businesses, and institutions have the option to hire a private hauling company. Private hauler services cover the entire county.

Table 1.2

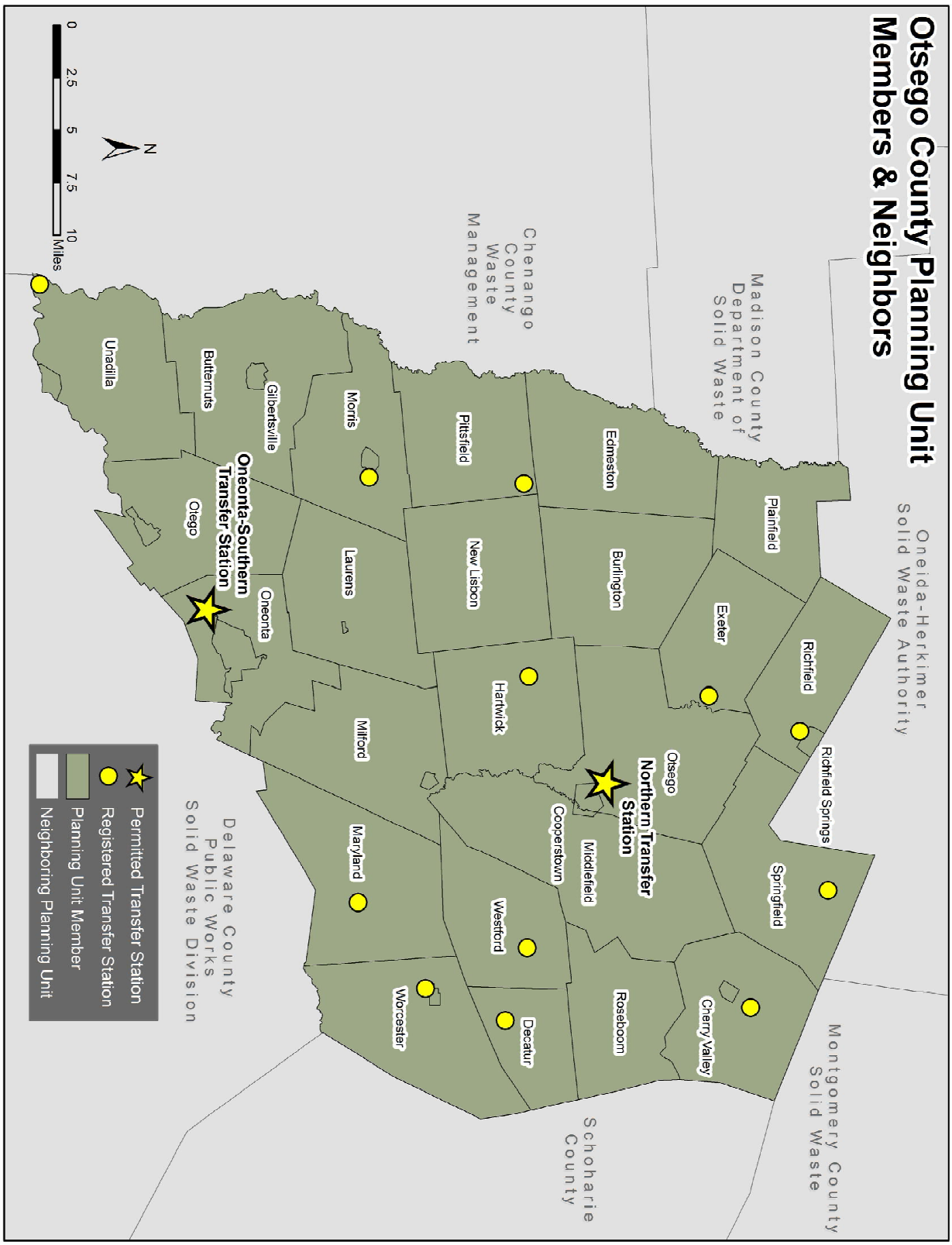
Municipality	Area	Population (2010)	Transfer Station	Days & Times	Additional Details
Towns					
Burlington	44.98 mi^2	1,140	N/A	N/A	N/A
Butternuts	54.09 mi^2	1,786	N/A	N/A	N/A
Cherry Valley	40.08 mi^2	1,223	Registered Transfer Station, Rt. 166, North of the Village next to Town Hall	Saturdays 8 – 11 AM	Trash collected from any county resident for a fee. Scrap metal is not accepted.
Decatur	20.77 mi^2	353	Registered Transfer Station, Ivan Mereness Rd., Near the hamlet	Saturdays 7 AM – 2 PM Wednesdays 4:30 – 6:30 PM (June – August only)	Trash collected from Town of Decatur residents only with no fee. Scrap metal is accepted from anyone.
Edmeston	44.59 mi^2	1,826	N/A	N/A	N/A
Exeter	32.66 mi^2	987	Registered Transfer Station, Town barn, north of Schuyler Lake hamlet	Saturdays 10 AM – 2 PM	Trash collected from any county resident for a fee. Scrap metal is not accepted.
Hartwick	40.31 mi^2	2,110	Registered Transfer Station, Town Barn, in the hamlet	7 days a week, 24 hours	No trash. Scrap metal is accepted from anyone.
Laurens	42.7 mi^2	2,424	N/A	N/A	N/A
Maryland	51.85 mi^2	1,897	Registered Transfer Station, Tannery St. South of Hamlet	Mon & Sat 7am-1 pm	Trash,Scrap, from town residents only.
Middlefield	65.91 mi^2	2,114	N/A	N/A	N/A

Municipality	Area	Population (2010)	Transfer Station	Days & Times	Additional Details
Milford	47.2 mi^2	3,044	N/A	N/A	N/A
Morris	39.1 mi^2	1,878	Registered Transfer Station, Card Rd, east of village	Thursdays 8 AM – 12 PM Saturdays 8 AM – 12 PM	Trash, brush, and scrap metal accepted from town and village residents only with no fee.
New Lisbon	44.67 mi^2	1,114	N/A	N/A	N/A
Oneonta-Southern Transfer Station	33.6 mi^2	5,229	Permitted Transfer Station, 75 Silas Lane	Monday – Friday 7 AM – 3 PM Saturdays 8 AM – 12 PM	Trash and tires accepted from any county resident for a fee. Scrap metal accepted without a fee.
Otego	44.9 mi^2	3,115	N/A	N/A	N/A
Otsego – Northern Transfer Station	57.76 mi^2	3,900	Permitted Transfer Station, NYS 28/80 1 mile North of Cooperstown	M,W,F & Sat 7-12, Sat 8-Noon July-Aug 8-2 pm	Trash, Recyclables, Scrap Metal, tires. No electronics or mattresses
Pittsfield	37.76 mi^2	1,366	Registered Transfer Station, Mumbalo Rd, off Co Rt 49	Saturdays 9 AM – 3 PM	Trash and scrap metal accepted from Pittsfield residents only without a fee.
Plainfield	29.46 mi^2	915	N/A	N/A	N/A
Richfield	32.39 mi^2	2,388	Registered Transfer Station, Elm St Ext, east of Richfield Springs Village	Saturdays 7 AM – 1 PM	Trash is accepted from any county resident for a fee. Scrap metal is accepted without a fee. Brush is accepted from Richfield and Richfield Springs residents only.
Roseboom	33.05 mi^2	711	N/A	N/A	N/A

Municipality	Area	Population (2010)	Transfer Station	Days & Times	Additional Details
Springfield	45.44 mi^2	1,358	Registered Transfer Station, Rt 80, 2 miles north of Rt 20	Saturdays 8 AM – 12 PM	Trash is accepted from Springfield residents only for a fee. Brush is accepted from Springfield residents only. Scrap metal is accepted from anyone.
Unadilla	46.6 mi^2	4,392	Registered Transfer Station, 122 Valley View Rd	Monday – Friday 7 AM – 4:30 PM Saturdays 8 AM – 12 PM	Trash is not accepted. Scrap metal is accepted from anyone without a fee.
Westford	33.78 mi^2	868	Registered Transfer Station, Strong Hill Rd, north of hamlet	Tuesdays & Saturdays 6 AM – 2 PM	Trash is accepted from Westford residents only without a fee. Clean lumber is accepted from Westford residents only. Scrap metal is accepted from anyone.
Worcester	46.87 mi^2	2,220	Registered Transfer Station, Town barn, in the hamlet	Tuesdays & Saturdays 7 – 11 AM; Trash accepted Saturdays 8 AM – 11 AM only	Trash is accepted from any county resident for a fee. Scrap metal is not accepted.
Villages					
Cherry Valley	0.6 mi^2	520	N/A	N/A	N/A
Cooperstown	1.82 mi^2	1,852	Northern Transfer Station 5802 St Hwy 28	Mondays, Wednesdays, Fridays 7 AM – 12 PM Saturdays 8 AM – 12 PM	Trash and tires accepted from any county resident for a fee. Scrap metal accepted without a fee.
Gilbertsville	1.00 mi^2	399	N/A	N/A	N/A

Municipality	Area	Population (2010)	Transfer Station	Days & Times	Additional Details
Laurens	0.12 mi^2	263	N/A	N/A	N/A
Milford	0.46 mi^2	415	N/A	N/A	N/A
Morris	0.70 mi^2	583	See Town of Morris	See Town of Morris	See Town of Morris
Otego	1.08 mi^2	1,010	N/A	N/A	N/A
Richfield Springs	1.00 mi^2	1,264	See Town of Richfield	See Town of Richfield	See Town of Richfield
Unadilla	1.08 mi^2	1,128	N/A	N/A	N/A
City					
Oneonta	4.36 mi^2	13,901	N/A	N/A	N/A

Figure 1.8


Otsego County Planning Unit
Members & Neighbors
Madison County Department of Solid Waste
Chenango County Waste Management
Oneida-Herkimer Solid Waste Authority
Montgomery County Solid Waste
Schoharie County
Delaware County Public Works Solid Waste Division
Unadilla
Butternuts
Gilbertsville
Morris
Pittsfield
Edmeston
Plainfield
Richfield
Exeter
Burlington
New Lisbon
Laurens
Oneonta
Otego
Oneonta-Southern Transfer Station
Hartwick
Milford
Otsego Northern Transfer Station
Richfield Springs
Springfield
Cherry Valley
Roseboom
Middlefield
Cooperstown
Westford
Decatur
Worcester
Maryland
N
0
2.5
5
7.5
10
Miles
Permitted Transfer Station
Registered Transfer Station
Planning Unit Member
Neighboring Planning Unit

1.1.5 Other Planning Unit Characteristics

Listed below, by category, are some of the major employers and waste generators in Otsego County.

Colleges and Universities:
- State University at Oneonta
- Hartwick College

School Districts (See Map Exhibit B)
The local school districts in Otsego County are:
- Cooperstown – Elementary- Jr. Sr. High School
- Cherry Valley-Springfield
- Edmeston
- Gilbertsville-Mount Upton
- Morris Central
- Unadilla Valley Elementary
- Laurens Central
- Milford Central
- Morris Central
- Oneonta
- Richfield Springs
- Unatego
- Schenevus
- Middlefield
- Worcester

According to newyorkschools.com, the following 2016 statistics represent the number of schools, student population and staff related information:

Table 1.3

Otsego County School Statistics	
Number of Public Schools:	23
Number of Students:	8,970
Full Time Principals:	23
Full Time Assistant Principals:	3
Other Full Time Professional Staff:	65
Full Time Teachers:	762
Part Time Teachers:	0
Part Time Assistant Principals:	0
Other Part Time Professional Staff	3

Hospitals:
- A.O. Fox Auriel Memorial Hospital – City of Oneonta
- Bassett Hospital – Cooperstown and surround area

Large Skilled Nursing Facilities:
- A.O. Fox Nursing Home – Oneonta, NY
- Chestnut Street Nursing Home – Oneonta, NY

Focus Nursing Home – Town of Otsego

Correctional Facilities:
Otsego County Public Safety – Co. Highway 33W Town of Middlefield

Major Government Employers
County of Otsego County – Cooperstown and (T)Middlefield
City of Oneonta

Other Community Facilities:
Doubleday Field - Cooperstown
Baseball Hall of Fame – Cooperstown
Cooperstown Dreams Park – Town of Hartwick
Cooperstown All Star Village – Town of Oneonta
Farmers Museum and Fenimore House – Cooperstown
Foothills Performing Arts – City of Oneonta

Grocery/Convenience/Retail
Walmart – Town of Oneonta

Major Employers: (figures obtained from local website of employers, ny.gov, and 2013 Hazardous Mitigation Plan, County Personnel Office)

Bassett Hospital – Cooperstown 2,615 +- employees- Not for Profit Acute care teaching hospital

New York Central Mutual (NYCAM) Insurance- Edmeston- 1,000 +- employees

SUNY Oneonta – Oneonta - 1,181+- employees (423 full and part time faclty)- Public 4 year college

A.O.Fox Hospital – Oneonta – 967 +- employees – NFP- Community Hospital

County of Otsego – Cooperstown and Oneonta – 479 employees

WalMart – Oneonta – 470 – Big Box Retail Store

Hartwick College – Oneonta - 356 employees – Private College

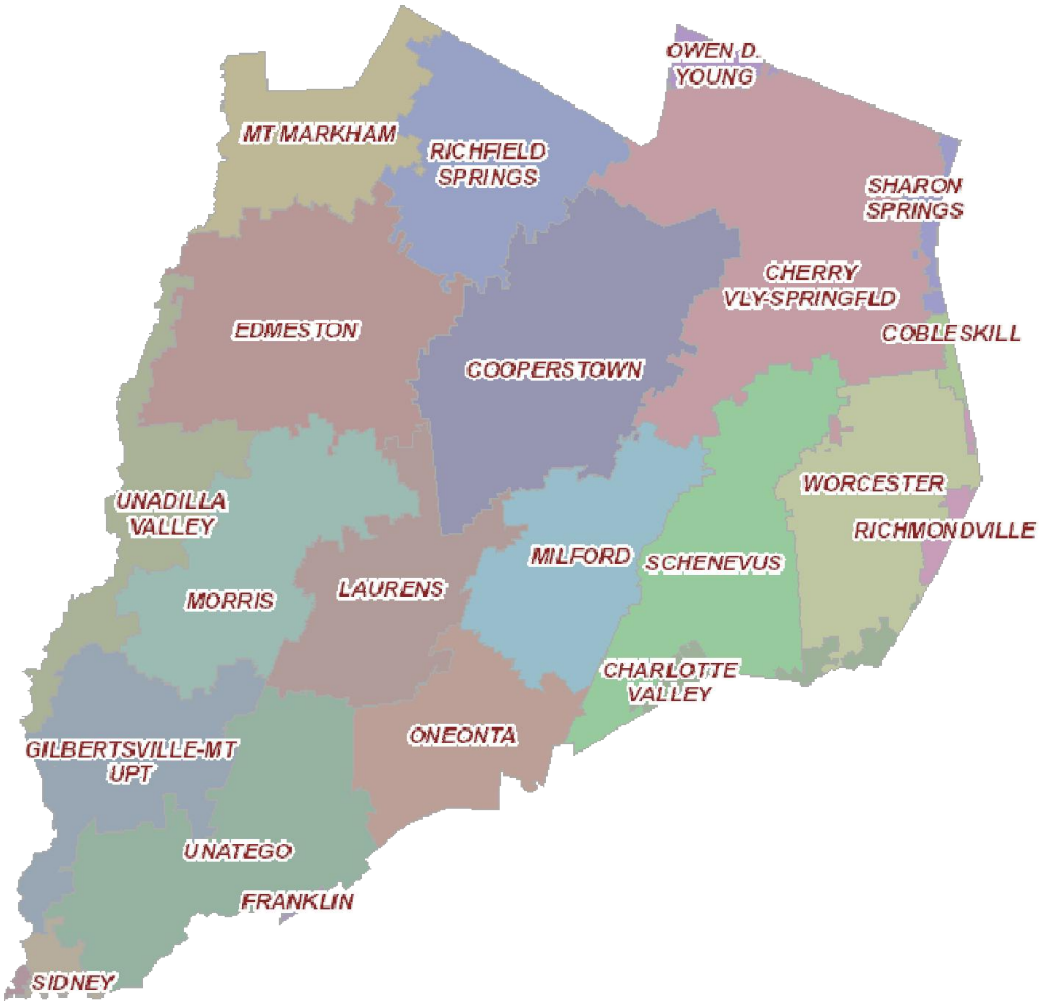
Community Bank – Oneonta – 279 +- employees – Local bank

Corning Glass – Oneonta - 210 employees – Manufacturer

Note: Number of employees may include full and/or part time, temporary or seasonal.

Figure 1.9

OTSEGO COUNTY SCHOOL DISTRICTS



1.1.6 Membership Changes Since Last Approved LSWMP

Otsego County participated as member of the Montgomery-Otsego-Schoharie Solid Waste Management Authority, a New York public benefit corporation ("MOSA") from 1987 to 2014. On April 31, 2014, MOSA was officially dissolved and each municipality took ownership and operational responsibilities of their respective transfer stations.

Otsego County was formerly included in the MOSA Solid Waste Management Plan and now with the dissolution, is responsible to prepare a new LSWMP for Otsego County. The last report entitled "Long Term Solid Waste Management Plan" for Otsego County was prepared in November of 2009 by Gerhardt LLC. The report was the catalyst to the dissolution.

Since May 1, 2014, Otsego County, independently, has provided solid waste and recycling services through contractual agreements with procured vendors.

This LSWMP was prepared in-house through the efforts of the Otsego County Planning/Solid Waste Department with an intern from SUNY Oneonta.

1.1.7 Municipalities and Entities within Otsego County Not Participating in the LSWMP

Included in the LSWMP are the 24 Towns, Nine (9) Villages and 1 City. Each of the towns, villages and City deliver their municipal solid waste to one of the two transfer stations. The material is collected, transported and delivered to the Ontario County Landfill which is operated by Casella Waste of NY. There is no County Wide Hauling Service. Collection of solid waste is through private hauling companies or local municipalities that provide the collection service to their municipal residents. The City of Oneonta does not collect on a city wide basis. City of Oneonta residents contract independently with local hauling contractors. All the collected municipal solid waste is generally delivered to either the Cooperstown Northern Transfer Station (NTS) or the Oneonta Transfer Station (OTS).

There are 12 townships that sponsor a transfer station collection point for recyclables. Each municipality hosting a recycling transfer site is responsible to maintain and provide supervision at their site. The county in their agreement with the municipality, under a procured contract, services each of the 12 sites to bring all collected material to the Oneonta Transfer Station where it is then packed for shipping and transported to a Materials Recovery Facility (MRF).

Towns, villages, and cities are not directly assisting with the development of the LSWMP, but have contributed indirectly by providing data and information upon request.

1.1.8 Neighboring Planning Units to Otsego County

Otsego County has worked with neighboring planning units in the past and will continue to work with neighboring planning units in the future. A few examples are listed below.

- Agricultural Plastic recycling with Delaware County (2017)
- Joint RFP for HHW with Delaware, Chenango, Schoharie, and other nearby counties
- Potentially coordinate mattress recycling with nearby counties if we can establish an in-county facility.

The following is a table listing the neighboring solid waste planning units.

Table 1.4

Neighboring Planning Unit	Facilities	Programs

Chenango County Waste Management	Pharsalia Landfill
	439 County Rd 47
	Norwich, NY 13815
	
	Brisben Transfer Station
	Countermarsh Rd
	Greene, NY 13778
	
	North Norwich Transfer Station
	6701 NYS Hwy 12
	Norwich, NY 13815
		• Recycling
		  ○ Batteries
		  ○ Yard waste & brush
		  ○ Used motor oil & anti-freeze
		  ○ Plastic grocery bags
		  ○ Electronics
		  ○ Fluorescent bulbs
		• Free to Dispose:
		  ○ Insulin needles
		  ○ White goods without freon
		• Latex paint exchange
		• Biannual household hazardous waste day

Delaware County Public Works Solid Waste Division	Solid Waste Management Center & Compost Facility
	32230 State Hwy 10
	Walton, NY 13856
	
	Municipal Transfer Stations:
	Andes, Bovina, Colchester, Davenport, Hancock, Harpersfield, Middletown, Roxbury
		• Recycling
		• Free to Dispose:
		  ○ Garbage & municipal waste (county residents)
		  ○ Motor oil & anti-freeze
		  ○ Batteries
		  ○ Electronics
		  ○ Used clothes & shoes
		  ○ Propane tanks
		  ○ Brush
		  ○ Box springs clean of fabric & wood
		  ○ Appliances
		  ○ Tires
		• Annual Clean Sweep hazardous waste collection
		• Composting

Neighboring Planning Unit	Facilities	Programs

Madison County Department of Solid Waste	Buyea Road Residential Station & Scalehouse
	6663 Buyea Rd
	Canastota, NY 13032
	
	Cazenovia Transfer Station
	3422 Constine Bridge Rd
	Cazenovia, NY 13035
	
	Hamilton Transfer Station
	7638 Cranston Rd
	Hamilton, NY 13346
	
	Sullivan Transfer Station
	7480 Bolivar Rd
	Chittenango, NY 13037
	
	ReUse Store
	6663 Buyea Rd
	Canastota, NY 13032
		• Punch-card system
		• Recycling
		  ○ Plastic retail bags
		  ○ Yard waste & other composted material
		  ○ Cooking oil
		  ○ Metal cookware
		  ○ Electronics
		  ○ Agricultural Plastics
		  ○ Propane tanks
		• Free to Dispose:
		  ○ Mercury-based products
		  ○ Syringes
		  ○ Motor oil & anti-freeze
		  ○ Cell phones
		  ○ Ink jet cartridges
		  ○ Textiles
		  ○ White goods
		• Rescue Mission ReUse Store
		• Continuous collection of household hazardous waste
		• Working towards implementing foam recycling

Montgomery County Solid Waste	Amsterdam Transfer Station
	1247 Route 5S
	Amsterdam, NY 12010
	
	Western Transfer Station
	4583 Route 5S
	Sprakers, NY 12166
		• Recycling
		  ○ Electronics
		  ○ Batteries
		  ○ Fluorescent bulbs
		  ○ Textiles
		  ○ Tires
		  ○ Motor oil
		• Free to Dispose:
		  ○ Appliances without freon
		• Annual household hazardous waste event

Neighboring Planning Unit	Facilities	Programs

Oneida-Herkimer Solid Waste Authority	Recycling Center
	1600 Genesee St
	Utica, NY 13502
	
	Regional Landfill
	7044 State Route 294
	Boonville, NY 13309
	
	Eastern Residential Convenience Station, Transfer Station, & Compost Site
	80 Leland Ave Extension
	Utica, NY 13502
	
	Western Residential Convenience Station & Transfer Station
	575 Perimeter Rd
	Rome, NY 13440
	
	Stump Disposal Site
	Tannery Rd
	Rome, NY 13440
		• Recycling
		  ○ Cooking oil
		  ○ Hardcover books
		  ○ Electronics
		• Free to Dispose for Residents:
		  ○ Small loads of green waste
		  ○ White goods without freon
		  ○ Propane tanks
		  ○ Fluorescent bulbs
		• Waste Exchange Program
		• Clothing drop-off
		• Continuous collection of household hazardous waste

Schoharie County	Schoharie County Transfer Station 2805 Route 7 Howes Cave, NY 12092 Municipal Drop-Off Locations: Blenheim, Conesville, Gilboa, Richmondville, Schoharie County Highway Department	• Recycling ○ Electronics • Annual household hazardous waste event

1.2 Solid Waste Generators

1.2.1 Residents

Otsego County is generally rural in nature and is comprised of 24 towns, 9 villages, and 1 city. Otsego County is 1,016 mi^2 and has a population of 62,259[3], which represents a 9% increase from the 2000 census and a total of 24,620 households. The City of Oneonta, consisting of approximately 4.36 square miles, has the largest concentration of residents (13,901) and households (4,372) in the county. This represents just under 18% of the total households in the county. There are four state parks in the county (Betty and Wilbur Davis, Gilbert Lake, Glimmerglass, and Robert V. Riddell) and several acres of state forests. There are no Federal Preserves or National Forests in Otsego County

The table below shows the list of municipalities and number of households in each with average number of persons per household. Currently the members are not directly involved in the preparation of the LSWMP but it is our intention to gather further details related to MSW and recyclables collected and the methodology in place. For the purpose of estimating each member's impact we used a standard average of MSW per household.

A summary of each townships, its population and number of households is below can be used as a basis of calculating an average Lbs/ per household of MSW per year per municipality. Source: www.factfinder.census.gov

Table 1.5

Population by Municipality

Municipality	Population 2010	# of Households	Average # per household	Average lbs trash/year
Burlington	1085	500	2.17 persons/household	800,000 l
Butternuts (includes Village of Gilbertsville)	1792	902	1.98 persons/household	1,443.200
Cherry Valley (includes Village of CV)	1266	629	2.0 persons/household	1,006,400
Decatur	410	281	1.46 persons/household	449,600
Edmeston	1824	821	2.22 persons/household	1,313,600
Exeter	954	542	1.76 persons/household	867,200
Hartwick	2203	1098	2.00 persons/household	1,756,800
Laurens (includes Village)	2402	1145	2.09 persons/household	1,832,000
Maryland	1920	1035	1.85 per/household	1,656,000

[3] 2010 Population Census Data

Middlefield (includes part of Village of Cooperstown)	2249	1058	2.13 persons/household	1,692,800
Milford (Includes Village of Milford)	2938	1575	1.86 persons/household	2,520,000
Morris (Includes Village of Morris)	1867	859	2.17 persons/household	1,374,400
New Lisbon	1116	586	1.9 person/household	937,600
Oneonta (City)	13,292	4574	2.9 persons/household	7,318,400
Oneonta (Town)	4994	2117	2.35 person/household	3,387,200
Otego (Includes Village of Otego)	3183	1383	2.3 persons/household	2,212,800
Otsego (Includes part of Village of Cooperstown)	3904	2193	1.78 persons/household	3,508,800
Pittsfield	1295	605	2.14 person/household	968,000
Plainfield	986	406	2.43 persons/household	649,600
Richfield (includes Village of Richfield Springs)	2423	1296	1.86 persons/household	2,073,600
Roseboom	684	416	1.64 persons/household	665,600
Springfield	1350	712	1.89 persons/household	1,139,200
Unadilla (Includes Village of Unadilla)	4548	2101	2.16 persons/household	1,139,200
Westford	784	446	1.75 persons/household	713,600
Worcester	2207	1201	1.83 persons/household	1,921,600
TOTAL	**61,676**	**28,481 households**		**41,105,443 lbs or 20,552.72 tons**

The Average number of persons per household in Otsego County is 2.02. According to the Environmental Protection Agency, the average American produces about 4.4 pounds of garbage a day or a total of 29 lbs per week and 1,600 lbs per year. This figure does not take into account industrial waste or commercial trash. Using the average of 1,600 lbs per household per year, we can surmise an estimated number of pounds of MSW per household by municipality. As indicated by the estimates, the City of Oneonta produces the largest concentration of MSW in the county. There are no figures available to demonstrate the MSW by resident vs. non-resident due to the fact that County residents bring and/or cause to have delivered their MSW in one of two methods, by self delivery or by curb side pick up. Even though the county can document the number of bags delivered to the NTS or STS by individuals, we do not have statistics for bags collected curb side by each hauler.

Otsego County residents have two options available for them to dispose of their solid waste and recyclables. The first being the option to establish a contract with one of the local haulers in the county to have curb side pick up at their homes. Curb site pickup is not readily available for all rural residents, but most areas are currently being serviced. The second being the ability to dispose of their solid waste and recyclables at one of the transfer stations in the county. Of the twelve perimeter transfer stations, not including the Cooperstown and the Oneonta Station, ten (10) of the twelve (12) perimeter transfer stations will host a collection of municipal solid waste, in addition to servicing recyclables. A local hauler will position themselves at the transfer stations during their collection day and provide residents the ability to dispose of their bagged garbage into their compactor for a fee of $2 or $3 dollars per bag. Recyclables are accepted free of charge at all transfer stations.

Residents can dispose of their recyclable and bagged household garbage at the Oneonta or Cooperstown Transfer station for a fee of $3/bag up to 30 gallon or $65/ton for deliveries by weight. Disposal of any other material that is not bagged or recyclables is charged at a minimum of $20 up to 615 lbs and $65 per ton at the scale house.

1.2.2 Large Retailers and Commercial Centers

Many of the MSW estimates made in this section and the following sections are based on the User Fee assigned to the property. See Chapter 2 for an explanation of the User Fee calculations.

Town and City of Oneonta NYS 23 and 205 Corridor

The largest retailers and commercial centers are generally located in the City and Town of Oneonta along NYS Highway 23, otherwise known as Southside Oneonta, and NYS Highway 205. The following are recognized as big-box stores located along these thoroughfares.

NYS 23	Wal-Mart	Retail – Grocery and Automotive
	Lowes	Retail – Home Improvement
	Home Depot	Retail – Home Improvement
	Hannaford	Grocery
	Bed Bath and Beyond	Retail
	Dicks Sporting	Retail
	JC Penny's	Retail
NYS 7	Price Chopper	Grocery
NYS 205	Cooperstown All Star Village	Recreation – Baseball Camp

Cooperstown Route NYS 28 Corridor and Village of Cooperstown

	Cooperstown Dreams Park	Recreation – Baseball Camp
	Otesaga Hotel Resort	Hotel in Village of Cooperstown
	Milford Commons	Hotel and retail establishments

Table 1.6

Large Retailers and Commercial Centers

Sources of Waste	Sq Footage	Location	Current recycling efforts in place	Amt. of MSW per year
Wal-Mart	+/- 187,914.50 sq. ft. (county online GIS mapper)	Town of Oneonta State Hwy. #23	Plastic bags, cardboard, Bottle Redemption	~190 tons (2016)
Lowes	+/- 164,636.29 sq. ft. (county online GIS mapper)	Town of Oneonta State Hwy. #23	Batteries, Light Bulbs, Cardboard, Plastic Bags	~101 tons (2016)
Home Depot	+/- 98,374.87 sq. ft. (county online GIS mapper)	Town of Oneonta State Hwy. #23	Batteries, Light Bulbs, Cardboard, Plastic Bags	~246 tons (2016)
Hannaford Grocery Store	+/- 53,033.84 sq. ft. (county online GIS mapper)	Town of Oneonta State Hwy. #23	Cardboard, Bottle Redemption	~85 tons (2016)
Southside Mall JC Penny Dicks Sporting Bed Bath & Beyond	+/- 303,385.91 sq. ft (county online GIS mapper)	Town of Oneonta State Hwy. #23	~40 tons (2016)	~63 tons (2016)
Price Chopper Grocery store complex	+/- 83,241.78 sq. ft. (GIS estimate)	NYS Highway #7	Cardboard, Bottle Redemption, Plastic Bags	~193 tons (2016)
Milford Commons Tops Grocery And misc other retailers	+/- 57,781.45 sq. ft. (GIS estimate)	NYS Highway 28 Town of Hartwick	Cardboard, Bottle Redemption, Plastic Bags	~19 tons (2016)

1.2.3 Major Population Centers

The major population center in Otsego County is recognized as the City and Town of Oneonta. The total population of the City of Oneonta according to the 2010 census was

13,292. The Town of Oneonta was 4,994. The major contributor to the population center is the two colleges that are both located in the City and are a major employer to the area. The next most population areas in Otsego County include:

Town of Unadilla (Including Village) = 4,548
Town of Otsego (Including parts of Village of Cooperstown) = 3,904
Town of Otego (Including the Village of Otego) = 3,183

1.2.4 Municipal Buidings

Each individual municipality in the county has a Town or Village Hall with Highway building for road services etc. The two largest concentrated municipal buildings are those found at the county and city seat. The county seat is located in the Village of Cooperstown.

The County Seat:

The county's main office building is located at 197 Main Street in the Village of Cooperstown, NY. The County also houses their highway department in a building located on Linden Avenue, just off State Highway #28, in the Village of Cooperstown. In 2008, the county moved into what was formerly known as the Otsego County Meadows. The building is located on county highway 33W and approximately 5 miles west of the Village of Cooperstown. Next to the County's Meadows Office complex, is the public safety building or the Cooperstown Jail.

183 and 197 Main Street Cooperstown NY:

Board of Representatives
Department of Social Services
County Treasurers
County IT
Department of Motor Vehicles
Real Property Tax Office
County Attorney
Building Services
Personnel
County Clerk
County Security
Family Court
Public Defender
Youth Bureau
County Auditor
County Court
District Attorney
Probation Dept.
Surrogate Court

County Highway 33W:

Department of Health
Office of the Aging
Department of Social Services
Code Enforcement
Emergency Services
Planning and Solid Waste
Otsego Rural Housing
Board of Elections
Chemical Dependency
Children with Special Needs
E-911
Stop DWI
Veterans Services
Weights and Measures

Otsego County Public Safety Building (County Jail)

242 Main Street Oneonta NY:

Department of Mental Health Chemical Dependency

The Solid Waste Transfer Stations owned by Otsego County are located at 75 Silas Lane in the City of Oneonta and County Highway 80 1 mile outside of the Village of Cooperstown in the Town of Otsego.

Linden Avenue Cooperstown, NY

Otsego County Highway Building 20 Linden Avenue

City Of Oneonta:

258 Main Street Oneonta NY:

The City of Oneonta's main office building is located at 258 Main Street Oneonta. Departments located at 258 Main Street include:

Code Enforcement	City Clerk	City Assessor
Community Development	Engineering	Finance
Personnel	City Clerk	Mayor's Office
Public Transit (104 Main)		

79 and 81 Main Street Oneonta NY:

City Court	Fire Department	Police Dept.
Public Safety		

Silas Lane:

Wastewater Treatment Transportation Garage

East Street – Oneonta

Water Treatment Plant

Table 1.7

Municipal Buildings and Prisons

Sources of Waste	Number of Employees (approx.)	Location	Amt. of MSW per year (in tons)
Otsego County Main Offices	174	183 and 197 Main St. Cooperstown NY	~10.73 (2016)
Otsego County Oneonta Offices	53	242 Main Street Oneonta, NY	*

Sources of Waste	Number of Employees (approx.)	Location	Amt. of MSW per year (in tons)
Otsego County Meadows Office Complex	142	County Highway 33W, Town of Middlefield	~25.32 (2016)
Otsego County Public Safety Building (County Jail)	93	County Highway 33W, Town of Middlefield	~19.47 (2016)
Otsego County Highway Department	56	20 Linden Avenue Cooperstown, NY	~10.51 (2016)
City of Oneonta City Hall	25	258 Main Street Oneonta, NY	~1.995
City of Oneonta Public Safety-Fire Dept	64	79-81 Main Street Oneonta, NY	~5.19
City of Oneonta Sewage Treatment Plant, Bus Garage, Public Service	31	Silas Lane City of Oneonta	~3.45

* Attempts to obtain this information from this establishment were unsuccessful.

1.2.5 Institutions

Colleges and Universities:

There are two colleges located in Otsego County; Hartwick College and the State University at Oneonta. Both Colleges are located in the City of Oneonta. As mentioned earlier, Hartwick College's student population is 1,500 per year on average. The State University of New York at Oneonta has a total undergraduate enrollment of 5,850.

The Oneonta Job Corps located on West Street and near SUNY Oneonta is a non-traditional education and career technical training program administered by the U.S.Department of Labor that helps young people between the ages of 16 and 24 improve the quality of their lives through career technical and academic training. The facility can house 210 male and 160 female residents. Typical programs include:

Automotive and Light Repair	Electrical
Cement Masonry	Medical Administrative Assistant
Certified Nursing Assistant	Tile Setting

School Districts:

The County's educational system consists of two colleges, SUNY Oneonta and Hartwick college, both located in Oneonta; public and private schools and the Milford BOCES which serves the surrounding school districts. The table below lists the school districts and conditions and impacts relative to the LSWMP. It summarizes each district, the student population and staff and current MSW practices with an estimate of material collected and programs in place. The information presented was based on information provided at www.newyorkschools.com.

A few of the larger school districts were contacted for additional information on their solid waste and recycling efforts:

Richfield Springs Central School District uses a local hauler for their solid waste and single stream recycling. They also recycle light bulbs and metal.
Oneonta City School District also contracts with a local hauler for their solid waste and single stream recycling. They work with E-waste+ in Rochester to recycle their computers, light bulbs, and batteries. Car batteries are taken to a local Interstate Battery dealer.

Table 1.8

Local Elementary, Junior & Senior High Schools

Sources of Waste	Number of Students and Staff	Location
Cherry Valley Springfield PreK – 12th Jr & Sr. High	Elem: 322 Students 21 Staff Jr&Sr: 303 Students 24 Staff	597 Co. Highway 54 Cherry Valley NY

Sources of Waste	Number of Students and Staff	Location
Cooperstown Elementary-K-5 Middle 6-8 High 9-12	Cooperstown Elementary-K-5 Middle 6-8 High 9-12	39 Linden Avenue Cooperstown, NY
Edmeston Central K-12	K-12: 556 Students 56 Staff	11 North Street Edmeston, NY
Gilbertsville Mt. Upton Elementary K-6 Jr &Sr. High	Elem: 256 Students 21 Staff Jr&Sr:285 Students 27 Staff	693 St. Highway 51 Gilbertsville, NY
Laurens Central K-12	K-12: 435 Students 44 Staff	55 Main St. Laurens, NY
Milford Central K-12	K-12: 469 Students 52 Staff	42 West Main Street Milford NY
Morris Central PreK-12	PK-12:473 Students 47 Staff	65 Main St. Morris NY
Oneonta Elem: Greater Plains-GP Riverside -RS Valleyview -VV	GP:303 Students 29 Staff RS: 242 Students 20 Staff VV: 251 Students 25 Staff	GP:60 W.EndAve RS: 39 House St VV: 40 Valleyview St.
Oneonta Mid 7-8 Oneonta Sr 9-12	Middle: 353 Students 37 Staff High: 736 Students 67 Staff	130 East St Oneonta, NY
Otsego Northern Catskill ONC BOCES		1914 Co. Highway 35 Milford, NY
Otego Elem:	Elem: 208 Students	353 Main St. Otego
Unadilla Elem:	Elem: 275 Students 33 Staff	265 Main St. Unadilla

Sources of Waste	Number of Students and Staff	Location
Unatego Jr.Sr	Jr&Sr: 717 Students 60 Staff	2641 St. Highway 7, Otego
Richfield Springs K-12	K-12: 686 Students 64 Staff	93 Main St. Richfield Springs
Schenevus Central K-12	K-12:402 Students 44 Staff	159 Main St. Schenevus NY
Worcester Central K-12	K-12: 415 Students 45 Staff	198 Main St. Worcester, NY

Table 1.9

Colleges, Universities, and Institutions

Sources of Waste	Students and Staff	Location	Current recycling efforts in place	Amt. of MSW per year (In Tons)
SUNY Oneonta State	Students: 6,119 Staff: 423	108 Revine Parkway Oneonta	Single-stream recycling through Casella, E-waste recycling	~815.81
Hartwick College Private	Students: 1,400-1500 Staff: 104	West St. Oneonta NY	Single-stream recycling through Casella, E-waste recycling	~361.32
Oneonta Job Corps	Students: 300-370 Staff:	21 Homer Folks Avenue Oneonta, NY	*	~155.625

* Attempts to obtain this information from this establishment were unsuccessful.

1.2.6 Nursing Homes and Hospitals

Table 1.10

Nursing Homes

Sources of Waste	Location
Aurelia Osborn Fox Memorial Hospial	1 Norton Avenue Oneonta, NY
FOCUS Nursing home	128 Phoenix Mills Rd. Cooperstown, NY
Robynwood	43 Walnut Street Oneonta, NY
Clara Welch Thanksgiving Home	48 Grove Street Cooperstown, NY
Chestnut Street Nursing Home	332 Chestnut Street Oneonta NY
Hampshire House Adult Home	1846 Co. Highway 48 Oneonta, NY
Heritage at the Plains at Parish Homes	163 Heritage Circle Oneonta, NY

1.2.7 Museums

The major museums visited in Otsego County are centered around the Village of Cooperstown. The National Baseball Hall of Fame, Fenimore Art Museum, The Farmers Museum and Hyde Hall are all located within the Village or a few miles outside of the Village limits.
Museums of smaller size and less visited include the Oneonta Historical Society, located on Main Street in the City of Oneonta, the Cherry Valley Museum located in the Village of Cherry Valley, the Old Middlefield Schoolhouse Museum located in Cooperstown, the Richfield Springs Historic Association and Museum in Richfield Springs. For the purpose of this document, the emphasis will be on those museums that generate a significant numbers of visitors on an annual basis.

Table 1.11

Museums

Sources of Waste	Number of Visitors each year	Location	Amt. of MSW per year (In tons)
The National Baseball Hall of Fame	*	Main Street Village of Cooperstown NY	~6.975
Doubleday Field	~45,000	Main Street Village of Cooperstown	*
Fenimore Art Museum	*	5798 State Highway 80 Cooperstown, NY	~1.875
Farmers Museum	*	5775 State Highway 80 Cooperstown, NY	~23.175

* Attempts to obtain this information from this establishment were unsuccessful.

1.2.8 Recreational Entertainment Venues

Otsego County is fortunate to be a center of tourism focused around the National Baseball Hall of Fame and Double Day Park in the Village of Cooperstown. Two major baseball parks, The Cooperstown Dreams Park in Hartwick and the Cooperstown All Star Village in the Town of Oneonta contribute to the influx of visitors to the County. Surrounding amenities include the beautiful Otsego Lake, Glimmerglass State Park, Glimmerglass Opera House, Fly Creek Cider Mill in Fly Creek, The Brewery Ommegang. The County is host to four state parks: Glimmerglass, Gilbert Lake, Betty and Wilbur Davis State Park and the Robert V. Riddell State Park. None of the recreational facilities are directly or actively involved in the development of the LSWMP, but research into their contribution of MSW to our waste stream was collected with their assistance.

Table 1.12

Recreational and Entertainment Venues

Sources of Waste	Number of Visitors each year	Location	Camping units and/or area	Amt. of MSW per year (In tons)
Glimmerglass State Park	~153,882	1527 Co. Highway 31 Cooperstown NY	42 RV sites and 42 Tent sites; 593 acres located 8 miles north of Cooperstown	**~2.4**
National Baseball Hall of Fame Induction Weekend	Annual Event held in the summer in the Village of Cooperstown, ~50,000 (2016)	Village of Cooperstown	Average annual attraction can be anywhere from 10,000 to 75,000 people	*
Snommegang Invitational Beer Festival	~1,100 attendees (2015)	194 Main St. Muller Plaza Main Street Oneonta	Annual Invitational Beer Festival with food and beverages	*
Glimmerglass Festival Alice Burch Opera Theater	*	7300 State Highway 80 Cooperstown, NY	Summer opera schedule during the months of July and August	**~11.925**
Cooperstown Dreams Park	Approximately 500,000 visitors each year[4]	NYS Highway 28 Town of Hartwick	Baseball tournament for 12 and under 22 fields with tournaments beginning the first week in June through Labor Day	**~261.75**
Cooperstown All Star Village	*	NYS Higway 205 Town of Oneonta	Baseball tournament for 10U and 12U Nine Fields June 3 through Aug 25	**~192.28**

* Attempts to obtain this information from this establishment were unsuccessful.

[4] www.cooperstowndreamspark.com

1.2.9 Industries Located in Otsego County

The three main industries in Otsego County include agriculture, health care, and tourism. The county as a whole remains rural with the agriculture industry dominating. Another industry in the county is healthcare with Bassett Healthcare and A.O. Fox Memorial Hospital, now an affiliate of the Bassett network. Stericycle located in Oneonta handles the medical waste produced from in-county hospitals and other Bassett Network buildings. Tourism is also a contributing industry. Baseball dominates the tourism industry with the Cooperstown Dreams Park, and Cooperstown All Star Village, both located within the county.

1.2.10 Waste Water Treatment Facilities

There are three municipal waste water treatment facilities in Otsego County. The largest being the city of Oneonta treatment plant located on Silas Lane in the City of Oneonta servicing the City and parts of the town of Oneonta. The other two plants are located in the Village of Richfield Springs and the Village of Cooperstown, each servicing their village residents.

Table 1.13

Waste Water Treatment Plants

Sources of Waste	Location	Material delivered to transfer stations. Eq. Grit. Amt per year
City of Oneonta Waste Water Treatment Facility	Silas Lane City of Oneonta	38.15 Tons
Village of Cooperstown Waste Water Treatment Facility	Linden Avenue Village of Cooperstown	Unknown, Out of County
Village of Richfield Springs Waste Water Treatment Facility	Richfield Springs	1.49 Tons

1.2.11 Significant Construction and Development Activities in Otsego County

Currently, there were no significant construction and/or development activities in Otsego County that would impact the preparation of the LSWMP. Smaller scaled projects at the Cooperstown All Star Village and various baseball housing projects are in progress, but none of these are considered significant.

Chapter 2. Existing Administration and Financial Structure

The purpose of this chapter is to describe how the County operates administratively, how the Solid Waste program fits into that administrative structure, what expenses the County incurs to operate the Solid Waste program, and how revenues are allocated to cover those expenses.

With the exception of a Solid Waste User Fee, the County does not have any regulations regarding solid waste, including local hauler registration. The User Fee is described in the following pages. Of the 34 municipalities in the County, the following have local regulations regarding dumps, junk, cars, and/or waste:

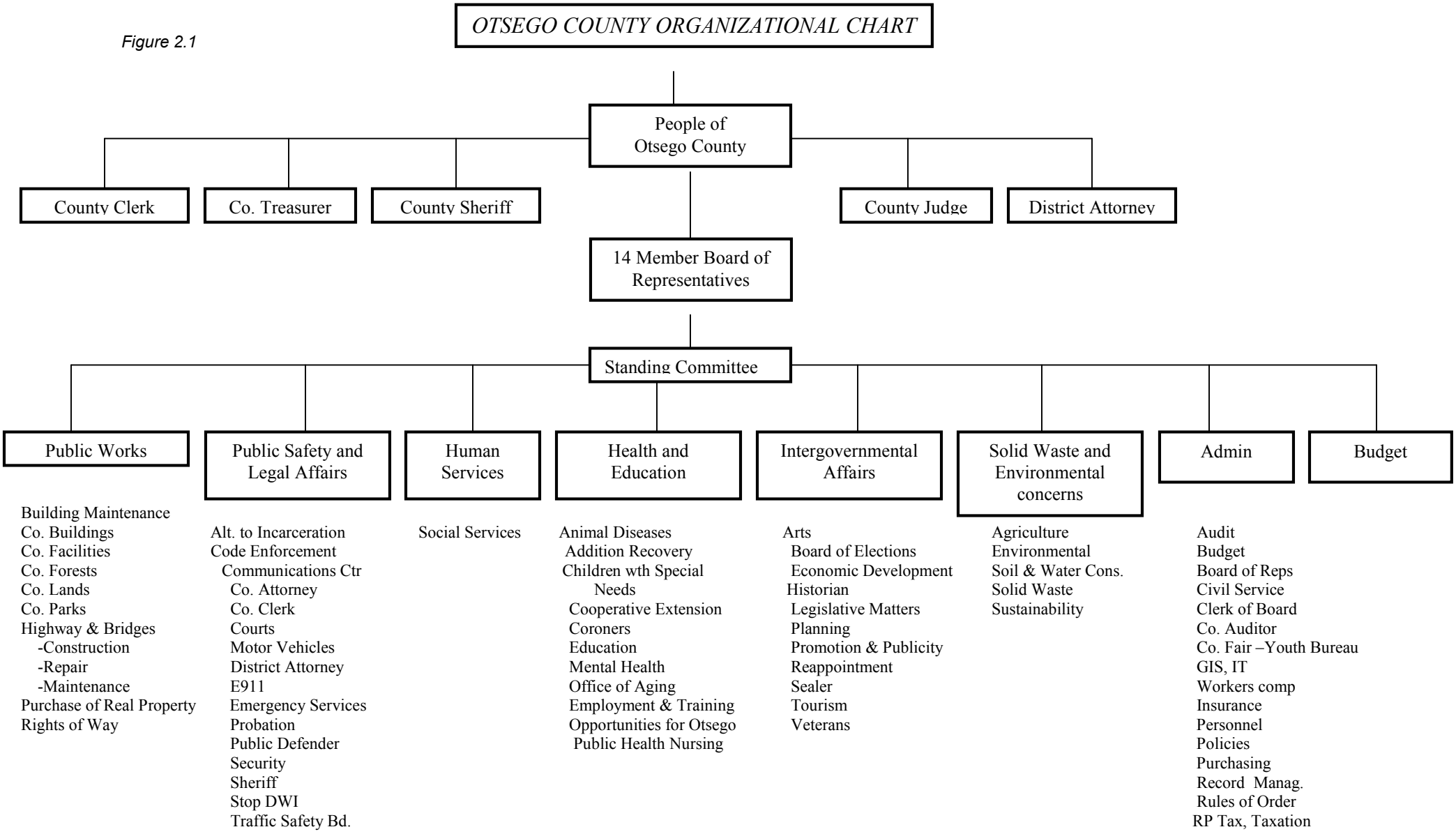
Town of Butternuts
Town of Exeter
Town of Hartwick
Town of Laurens
Town of Milford
Town of New Lisbon
Town of Oneonta
Town of Otego
Town of Otsego
Town of Plainfield
Town of Richfield
Town of Roseboom
Town of Worcester
Village of Cherry Valley
Village of Morris
Village of Otego
Village of Unadilla
City of Oneonta

The enforcement of these local laws is up to the local municipality and they are not enforceable by the County Solid Waste Department.

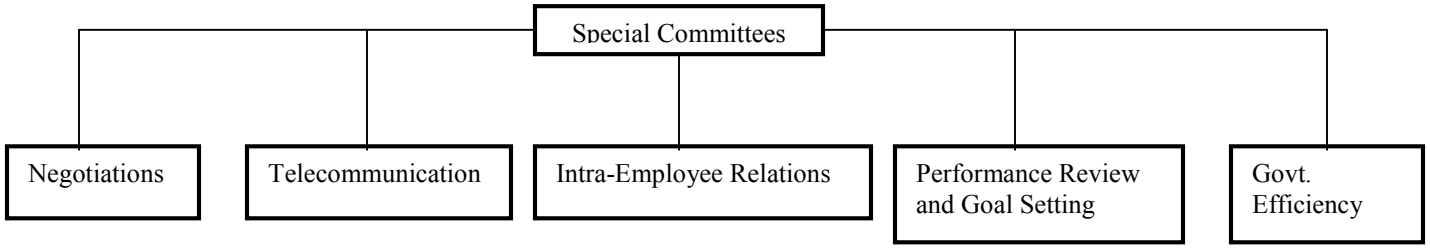
2.1 Administrative and Financial Structure of Otsego County

The Otsego County Solid Waste Management Program is assigned to the County Planning and Solid Waste Department. The Department's "parent committee' is the Solid Waste and Environmental Concerns Committee. Exhibit C below represents the Legislative Organizational Chart of Standing and Special Committees and the departments each oversees.

Figure 2.1


OTSEGO COUNTY ORGANIZATIONAL CHART
People of Otsego County
County Clerk
Co. Treasurer
County Sheriff
County Judge
District Attorney
14 Member Board of Representatives
Standing Committee
Public Works
Public Safety and Legal Affairs
Human Services
Health and Education
Intergovernmental Affairs
Solid Waste and Environmental concerns
Admin
Budget
Building Maintenance
Co. Buildings
Co. Facilities
Co. Forests
Co. Lands
Co. Parks
Highway & Bridges
-Construction
-Repair
-Maintenance
Purchase of Real Property
Rights of Way
Alt. to Incarceration
Code Enforcement
Communications Ctr
Co. Attorney
Co. Clerk
Courts
Motor Vehicles
District Attorney
E911
Emergency Services
Probation
Public Defender
Security
Sheriff
Stop DWI
Traffic Safety Bd.
Social Services
Animal Diseases
Addition Recovery
Children wth Special Needs
Cooperative Extension
Coroners
Education
Mental Health
Office of Aging
Employment & Training
Opportunities for Otsego
Public Health Nursing
Arts
Board of Elections
Economic Development
Historian
Legislative Matters
Planning
Promotion & Publicity
Reappointment
Sealer
Tourism
Veterans
Agriculture
Environmental
Soil & Water Cons.
Solid Waste
Sustainability
Audit
Budget
Board of Reps
Civil Service
Clerk of Board
Co. Auditor
Co. Fair –Youth Bureau
GIS, IT
Workers comp
Insurance
Personnel
Policies
Purchasing
Record Manag.
Rules of Order
RP Tax, Taxation

Workers comp
Treasurer/Wages



The County seat is located in the Village of Cooperstown with the main county office building located at 197 Main Street Cooperstown, NY 13326. The County consists of 14 elected Board Representatives for the 14 recognized Districts. The county has weighted voting, based on populations of each district. A Chair of the Board of Representative is elected by the board each year. The County Attorney is a part time appointed position. The following table represents the district weighted votes and the municipalities represented for 2016.

Weighted Votes	District	Represented Municipalities
439	District #1	Town of Unadilla
503	District #2	Town(s) of Butternut, Morris, Pittsfield
554	District #3	Town(s) of Laurens and Otego
523	District #4	Town of Oneonta
627	District #5	Town(s) of Hartwick, Milford, New Lisbon
534	District #6	Town(s) of Decatur, Maryland, Westford, Worcester
405	District #7	Town(s) of Cherry Valley, Middlefield, Roseboom
390	District #8	Town of Otsego County
375	District #9	Town(s) of Richfield and Springfield
487	District #10	Town(s) of Burlington, Edmeston, Exeter, Plainfield
348	District #11	City of Oneonta (Wards 1 & 2)
356	District #12	City of Oneonta (Wards 3 & 4)
348	District #13	City of Oneonta (Wards 5 & 6)
339	District #14	City of Oneonta (Wards 7 & 8)

Total 6,228 Votes

The LSWMP's preparation is the responsibility of the Solid Waste Department with oversight by the Solid Waste and Environmental Concerns Committee, which will ultimately recommend to the Board of Representatives adoption of the plan by the County Legislators following approval by the NYSDEC. The Planning Department has secured a SUNY Oneonta Intern to assist with preparation of the plan. The intern is expected to begin Spring of 2017 and will be available through the Fall and Summer terms.

2.1.1 Financial Structure

Sales Tax: The Otsego County, New York Sales Tax is 8.00%, consisting of 4.00%, New York State sales tax and 4.00% Otsego County local sales tax. The Otsego County sales tax is collected by the merchant on all qualifying sales made within Otsego County. Groceries are exempt from both County and NYS sales taxes. The 4% collected by Otsego County is the maximum allowed under NYS sales tax. According to the 2016 NYS tax rate website, "Otsego County has a higher sales tax than 77.9% of New York's other cities and counties. [5]

[5] http://www.tax-rates.org/new_york/otsego_county_sales_tax

The Otsego County sales tax region partially or fully covers 32 zip codes in New York. ZIP codes do not necessarily match up with municipal and tax region borders, so some of these zip codes may overlap with other nearby tax districts.

12064	12116	12155	12197	13315	13320	13326	13333	13335	13337
13342	13348	13415	13439	13450	13457	13468	13475	13482	13488
13747	13776	13796	13807	13808	13810	13820	13825	13834	13849
13859	13861								

None of the cities or local governments within Otsego County collect additional local taxes.

Property Tax: The median property tax in Otsego County, NY is $2,053 per year for a home worth the median value of $129,000.[6] Otsego county collects on average 1.59% of a property's assessed fair market value as property tax. Otsego County has one of the highest median property taxes in the United States and is ranked 419th of the 3143 counties in order of median property taxes. The average yearly property tax paid by Otsego County resident's amounts to about 3.77% of their yearly income. Otsego County is ranked 289th of the 3143 counties for property taxes as a percentage of median income.

Property taxes are managed on a county level by the local tax assessor's office. The exact property tax rate is set by the tax assessor based on property by property basis. Otsego County property tax is levied directly on the property.

User Fee: The New York State Solid Waste Management Plan and the Solid Waste Management Act of 1988 mandated that the amount of solid waste generated and disposed in New York State be managed through the establishment of programs to reduce the amount of waste being produced and disposed by recycling and reusing that portion of the waste stream that can feasibly be so recovered.

In order to provide the citizens of Otsego County with solid waste management and recycling services as required by the State, the County entered into a Service Agreement with the Montgomery-Otsego-Schoharie Solid Waste Management Authority or "MOSA" in 1989 a public benefit corporation created pursuant to Title 13-AA of the Public Authorities Law. The Service Agreement requires the County to deliver or cause to be delivered to MOSA the solid waste generated within the County.

The County through the Service Agreement with the Authority initiated a number of programs pursuant to the mandates of the Plan and 1988 Act, which provide services to the residents of the County and serve to implement a local solid waste management plan.

[6] 2016 Tax-Rate.org

The solid waste user fee was adopted as a local law by the Otsego County Board of Representatives originally in 1995 (local law #6 of 1995) for commencement on January 1. 1996. The user fee is an annual fee covering January 1 through December 31 of each year. The user fee was implemented as a means of raising revenues for solid waste services provided in the county. At the same time, a resolution was adopted by MOSA (The Montgomery, Otsego, and Schoharie Authority), of which Otsego County is a member, to release MOSA of recycling responsibilities and pass this onto the three counties. The user fee law was enacted by Otsego County in order to institute a plan to cover the cost for a county wide recycling program, address expenses related to solid waste as a member of the authority and pay for related services and facilities provided by MOSA and the County. In 1996, the user fee was established at a rate of $35.51 per unit. Today, following the dissolution of MOSA, the rate is $15 per unit.

Both taxable and non-taxable property owners in the county, including residents, businesses, industries, non-profit institutions, etc., are assessed a fee. Fees are set based on an estimate of how much garbage is generated by a property classification. There is a minimum fee for all classifications no matter how much or how little garbage is generated. Property owners that do not use the county's solid waste system are not exempt from paying this fee. The rate is established by the County Board of Representatives at the end of each year for following year.

The fees are based on a rate per unit for single family houses, two family houses, three family houses, mobile homes, apartments and other residential uses. Non-residential properties are billed according to projected or actual tonnages of solid waste generated. One solid waste unit equals 3/4 tons of solid waste.

Residential Parcels include:

- Single family homes, two family homes, three family homes, apartments, mobile homes and multi-unit residences, are charged one unit for each habitable residence.

- Senior citizens who receive a real property tax exemption on their parcel (This does not include the STAR exemption) – are charged half a unit

- Farms -- charged one unit for every residence on the property.

The term habitable, is considered property that is serviced with electric, water and sewage disposal as of March 1st of the previous year.

Non Residential Parcels include:

- Non-residential buildings - charged per tonnage either based on projected solid waste or actual tonnage generated

- No fees are charged for Houses of worship or vacant land

In 2016 there were a total of 39,413 user fee units in the county. Multiplied by $15/unit, this generated $591,195 in revenue to support the solid waste and recycling expenditures to Otsego County.

Solid Waste Budget

There are three major components of the solid waste budget.

1. Contracts (Recycling – MSW)
2. Post Closure and
3. Office Expenses/Maintenance and Repairs.

Each are briefly described below:

1. Contracts: There are three major contracts in the solid waste budget:

1. Solid Waste Management (SWM)
2. Recycling
3. Household Hazardous Waste (HHW)

2. Post Closure: The Post Closure Agreement is a three county (Otsego- Schoharie-Montgomery) binding agreement for monitoring of three closed landfills that were transferred to all three counties at the dissolution of MOSA. The Post Closure Inner Municipal Agreement assigned Montgomery County as the landfill manager. Costs are shared by each county.

3. Office Expenses/Maintenance and Repairs: include all the incidentals, personnel, postage, M&S, fuel etc. necessary for the department to administer the solid waste and recycling programs in the county.

The Otsego County Solid Waste Department's 2016 budget was $3.2 Million dollars. A summary of the last three years is below and reflective of the changes that occurred with the dissolution of MOSA and anticipated capital improvements for the two stations.

Year	Allocated SW Budget
2013	$ 435,523.50
2014	$ 544,253.37
2015	$ 3,574,419
2016	$ 3,272,689
2017	$ 3,885,705

With the dissolution of MOSA in April of 2014, the county took on full responsibility and cost for operating the two transfer stations. To off-set expenses, the county established the tip fee and other associated charges to the haulers and residents delivering solid waste and recyclables to the transfer stations. A contract for operations and maintenance of the two transfer stations was established following a request for proposals and procurement. Casella Waste of New York received the contract award. The contract's term is five (5) years and ends December 31, 2018. Under the contract, the county establishes the tip fee which covers the operating cost under the contract. Beginning May 1, 2014 a tip fee rate of $65 per ton was established by the county. The County was able to cover all 2015 operating expenses for the year including a monthly administration cost through the tip fee differential of $14.78 per ton which is calculated by the established tip fee of $65 minus the charge of $50.22 per ton by Casella to the

County. The county's contract with Casella also included $3.50/ton for every out of county MSW delivered and $1 for every bag delivered. The table below reflects the tons collected charges to the county and balance/credit statement for the 2015 and 2016 calendar year. 2014 was not included due to the contract starting mid year. As indicated in the last column, the county has had a credit for 2015 and anticipated for 2016. It is anticipated through 2017 that stabilizing the tip fee at $65/ton will cover operating cost.

Table 2.1

Otsego County Solid Waste Management Cost

Year	Tons collected (MSW)	Tip Fee Revenue (Tons X $65/ton plus Out-of-County and bag fees)	Cost per ton by Casella to the county	Operating cost per year including administration – Casella (not including recycling)	Balance/Credit due at end of year
2015	38,123.03	$2,335,474.50	$50.22/ton	$2,300,370	(-$35,104.50)
2016*	35,433.58	$2,137,813.63	$51.48/ton	$2,115,782 (11 mths)	(-$23,031.68)

**Figures through November 30, 2016*

The County has a separate recycling contract to service the 12 remote transfer stations, collect and transport all the recyclables to a Manufacturing Recycling Facility (MRF). Currently the county is contracted with Casella who transports the material to Sierra Recycling facility located in Albany NY. The following table shows the total tons collected and cost associated.

Table 2.2

Otsego County Recycling Cost

Year	Total Tons Collected	Avg. Cost per ton	Vendor cost	County Labor cost	Total Cost per Year
2014	3,800.26	$58/ton	$ 220,415.08	$25,746.32	$246,161.40
2015	4,459.23	$63.42	$ 258,635.34	$24,166.92	$282,802.26
2016*	4,434.92	$65.29	$ 259,580.91	$23,457.60	$283,038.52

**Figures through November 30, 2016 with a $10/ton rebate beginning Sept. 1, 2016 under new contract with Casella*

Household Hazardous Waste: Each year in the Fall, the county hosts a household hazardous waste event for the collection of hazardous materials not accepted through the year. The county procures a vendor to accept the material and the county provides the volunteers and additional collection venues including pharmaceuticals, household and small engine batteries, propane tanks, and recycling of latex paint. The county files for a NYSDEC HHW permit and grant to offset certain acceptable cost. The average cost total expenditures for the event range from $17,000 to $23,000 with an average of $10,000 - $8,000 reimbursed through NYSDEC.

Post Closure: In 2014 with the dissolution of MOSA the three counties, Montgomery, Schoharie and Otsego were required by NYS to retain the management of the three

prior closed landfills that were overseen by MOSA. Residents and businesses located within the three counties historically relied on the three landfills for disposal. The Central Landfill, located in the Town of Root, County of Montgomery, was conveyed by Montgomery County to MOSA and closed in 1994; The C&D Landfill, located in the Town of Otsego, County of Otsego was conveyed by Otsego County to MOSA and closed in 1997; and the Eastern Landfill, located in the Town of Amsterdam, County of Montgomery, was conveyed by Montgomery County to MOSA and closed in 1999. Collectively, the three landfills and title to each was convened to MOSA along with the attendant operating, closure and post closure responsibilities. MOSA and the three participating counties signed a Post Closure Agreement (PCA) in December of 2009.[7] The original PCA designated MOSA as the Post Closure Manager through April 30, 2014. Effective May 1, 2014, MOSA transferred ownership of the three landfills from MOSA to the counties of Montgomery, Schoharie and Otsego. Following an RFP, it was agreed to assign Montgomery County as the Post Closure Manager for a five year contract which commenced on May 1, 2014 and ends on December 31, 2018. One aspect of the Post Closure Manager is to ascertain an Annual Engineering Report (AER) is prepared each year. The cost distribution is shared by each county is the same percentage expressed when each was a part of MOSA. The percentage of cost for the post closure management is as follows:

Montgomery County	42%
Otsego County	40%
Schoharie County	18%

The Intermunicipal Agreement (IMA) for Landfill Management included a projected budget for the five year contract as follows:

Table 2.3

Year	Total budgeted Operating Cost	Plus Administration Cost	Total Budgeted	Montgomery 42% cost	Otsego 40% cost	Schoharie 18% cost
Year 1	$478,500	15% of total cost	$550,275	$231,115.50	$220,110.00	$99,049.50
Year 2	$478,500	12% of total cost	$535,920	$225,086.40	$214,368	$96,465.60
Year 3-4 and 5	$478,500	10% of total cost	$526,350	$221,067	$210,540	$94,743

[7] Annual Engineering Report 2016

The actual billing for Otsego County through the past three years has been well below the contract proposal.

Table 2.4

Year	Actual Operating Cost	Montgomery 42% cost	Otsego 40% cost	Schoharie 18% cost
Year 1	$394,337.90	$165,621.91	$157,735.16	$70,980.82
Year 2	$329,103	$138,223.26	$131,641.20	$59,238.54
Year 3*	$254,009.62	$106,684.04	$101,603.85	$45,721.73

**Through November 30, 2016*

The following chart is the estimated cost as indicated in the 2016 AER prepared by Cornerstone Engineering dated November 2016.

Table 2.5

POST CLOSURE COST ESTIMATE
Annual Engineer's Report (AER) - Closed Sites
Montgomery County, New York

Item	Description	Eastern Landfill	Central Landfill	C&D Landfill	2017
1	Personnel Expenses	$ 32,955.74	$ 85,427.92	$ 2,622.24	$ 121,005.90
2	Leachate Disposal	$ 92,334.96	$ 83,257.06	$ 0.00	$ 175,592.01
3	Leachate System Cleaning	$ 8,722.69	$ 8,451.36	$ 0.00	$ 17,174.05
4	Fuel	$ 7,383.97	$ 5,020.08	$ 305.02	$12,709.07
5	Eq. Repair & Maintenance	$ 4,635.00	$ 2,266.00	$ 0.00	$ 6.901
6	Landfill Repairs & Maint	$ 6,365.76	$ 24,862.11	$ 375.00	$ 31,602.87
7	Engineering	$ 4,218.06	$ 2,867.70	$ 174.24	$ 7,260.00
8	Monitoring	$ 11,080.80	$ 25,149.60	$ 0.00	$ 36,230.40
9	Waste Transporter Permits	$ 719.31	$ 489.03	$ 29.71	$ 1,238.06
10	Uniforms	$ 564.42	$ 383.73	$ 23.32	$ 971.34
11	Utilities	$ 1,856.71	$ 1,262.31	$ 76.70	$ 3,195.71
12	Insurance	$ 6,579.83	$ 4,473.38	$ 271.80	$ 11,325.00
	Subtotal	**$177,417.25**	**$ 243,910.27**	**$ 3,878.02**	**$425,205.55**
	Contingency Cost (10%)	$17,741.73	$ 24,391.03	$ 387.80	$42,520.55
	TOTAL	**$ 195,158.98**	**$ 268,301.30**	**$ 4,265.83**	**$467,726.10**

2.2 Evaluation of the Costs of the Waste Management System

The County Solid Waste Department operates with the following expenses:

2.2.1 Personal Service

Two part-time transfer station attendants are posted at the recycling areas of the transfer stations in Oneonta and Cooperstown to monitor and educate residential drop-off of recyclables, mattresses, and electronics. The rest of the staff is paid under different budgets, such as Planning and Public Transportation.

2.2.2 Fuel & Mileage

One vehicle is shared between the Otsego County Planning, Solid Waste, and sometimes Veterans Affairs offices. When the vehicle is used for Solid Waste purposes, the department is charged for fuel. In the event that the vehicle in not available, Solid Waste staff use their own vehicles and are reimbursed for their mileage.

2.2.3 Lodging, Meals, Tolls, Etc.

Occasionally there are opportunities for Solid Waste staff to attend workshops.

2.2.4 Telephone

The Solid Waste Department is charged for maintenance and use of office phones.

2.2.5 Heat & Lights

The County is responsible for paying the electrical bill for the recycling building located in Oneonta.

2.2.6 Postage & UPS

The Solid Waste Department is responsible for sending letters regarding the County User Fee. When Agricultural District reviews are taking place, the Solid Waste Department incurs the expenses for mailing letters to landowners.

2.2.7 Materials & Supplies

Occasionally, the transfer station attendants need supplies to maintain the recycling areas of the transfer stations. Materials and supplies, such as screens for filtering paint, are purchased for the County's annual Household Hazardous Waste Event.

2.2.8 Maintenance & Repairs

The County budgets funds for repairs, maintenance, and unexpected construction at each of the County transfer stations. These costs can be hard to predict, but occasionally equipment and buildings at the transfer stations are in need of repair or replacement due to wear and tear from heavy usage and/or large trucks.

2.2.9 Contracts

The County maintains several contracts in order to implement many of its services. The table below lists all the contracts maintained by the Solid Waste Department, along with the current vendor.

Table 2.6

Contract	Vendor as of 2017
Solid Waste	Casella
Recycling	Casella
Household Hazardous Waste	Care Environmental
Electronic Recycling	Evolution Recycling
Mattress Recycling	Triad
Agricultural Plastic Recycling	Otsego County Soil & Water
Educational Programming "Trash Talk"	Townsquare Media

2.2.10 Post Closure

Otsego County is required to pay 40% of the Post Closure budget plus a 10% administration fee to Montgomery County via a Memorandum of Understanding. Detailed information on the Post Closure agreement can be found earlier in this chapter.

2.2.11 Other

Various expenses are incurred for the annual Household Hazardous Waste Event, legal ads, Earth Festival, and the water and sewer bill from the City of Oneonta for the Southern Transfer Station.

The following table is a summary of the County Solid Waste Department's expenses along with the associated revenue used to pay that expense.

Table 2.7

Expense	Revenue
Personnel	User Fee
Mileage	User Fee
Lodging & Meals	User Fee
Phone	User Fee
Heat & Lights	User Fee
Postage	User Fee
Materials/Supplies	User Fee
Fuel	User Fee
Repairs	Reserve Allocation
Other	User Fee DEC HHW Grant
Contracts	User Fee Tip Fee Mattress Charges DEC E-Waste Grant Car Battery Sales Metal Rebate Reserve Allocation
Post Closure	User Fee

Any expenses that are not covered by their associated revenues are paid for with County taxpayer dollars. To avoid this, the user fee and/or the tip fee may need to increase as expenses continue to rise. The County continues to seek grant opportunities and other revenue sources as much as possible to expand their services offered or cover existing services.

Chapter 3. Waste Generation and Materials Recovered Data

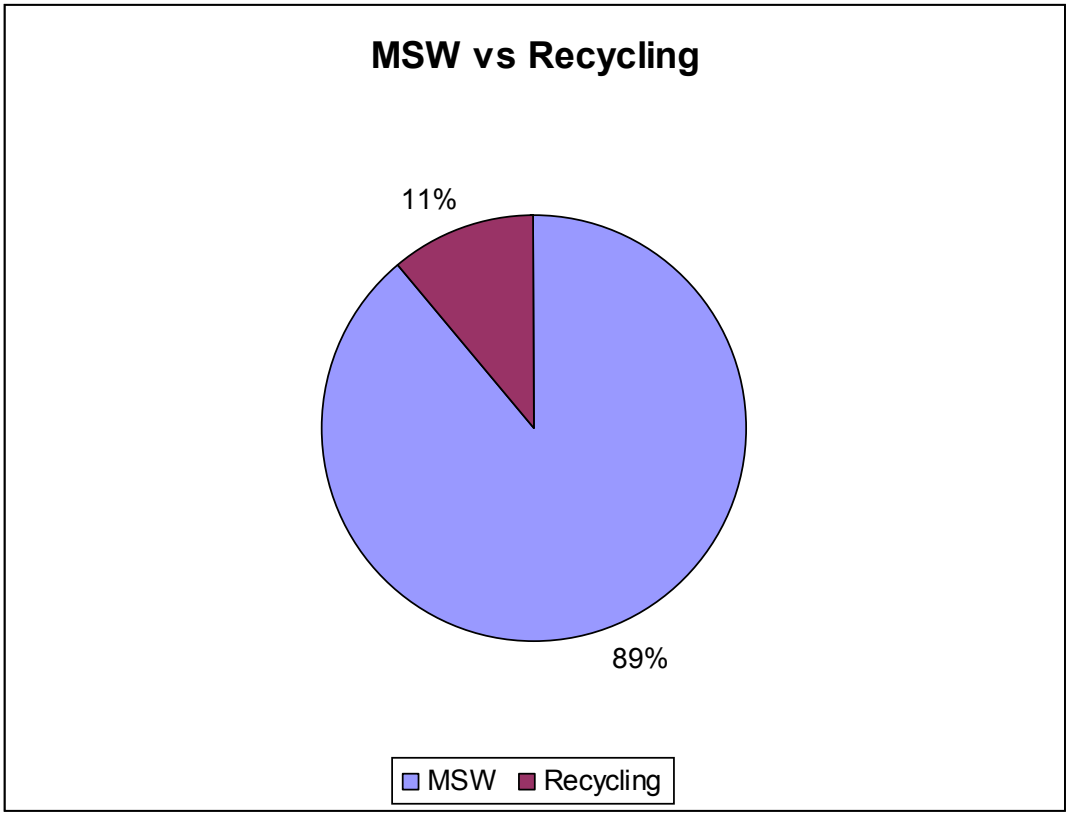
This chapter contains several graphs, charts, and tables which display data related to our solid waste and recycling programs. It is important that these data are collected and presented here, as they inform the future of Otsego County's solid waste programs. As the County considers alternatives for the future, these data provide insight as to both the feasibility and the need for implementing new programs or improving the current programs offered.

3.1 Municipal Solid Waste (MSW)

- MSW includes all waste produced by residents, commercial establishments, and institutional sources
- Common materials found in MSW include; paper, plastics, metals, glass, e-waste, household hazardous waste, tires, and other miscellaneous MSW

Figure 3.1

Breakdown of the Municipal Solid Waste to Recycling (2016)



Created with the data from Table 3.1

Table 3.1

Otsego County MSW & Recycling Totals in Tons (2016)

Month	MSW Imported	MSW Exported	MSW Out of County	Recyclables
Jan	2389.4	2578.27	118.35	336.81
Feb	2441.68	2609.46	136.85	350.84
Mar	2900.16	3196.33	170.2	363.35
April	3349.12	3249.18	240.62	353.75
May	3545.03	3808.78	248.93	429.01
June	3551.81	3918.8	290.71	437.12
July	3661.46	3985.72	301.72	428.28
Aug	3851.01	4209.53	266.88	470.68
Sept	3389.02	3861.91	285.19	376.18
Oct	3234.23	3555.51	257.04	390.67
Nov	3150.66	3409.45	236.76	398.23
Dec	2679.48	3058.02	250.91	411.65
Total	**38143.06**	**41440.96**	**2804.16**	**4746.57**

Tons of MSW going to Ontario landfill:	**37893.96**

Source: Casella Waste Systems daily reports 2016

3.2 Electronic Waste Recycling (E-Waste)

- E-waste is accepted year-round at the transfer station in Oneonta and in 2017 was accepted at the County's annual Household Hazardous Waste Event
- The County has contracted with Evolution Recycling located in Johnston NY to recycle e-waste for 2017

Table 3.2

Otsego County Electronic Waste Recycling Total (2016)

	Televisions			Computers		Computer Peripherals	Small Electronic Equipment		
Date	CRTs	Flats	Plasma	Laptops	Computers	Monitors CRT	Ewaste Mixed	Total-lbs	Tons
2/8/2016	15423	656	717	0	0	0	1938	18734	9.37
3/31/2016	12344	479	805	0	702	2274	1767	18371	9.19
5/10/2016	21296	0	0	0	0	0	1273	22569	11.3
6/8/2016	14551	0	0	0	0	0	1421	15972	7.99
7/8/2016	17489	0	0	0	0	0	0	17489	8.74
8/15/2016	17643	0	0	0	0	0	719	18362	9.18
8/18/2016	13609	0	0	0	0	714	2725	17048	8.52
9/15/2016	12097	0	0	0	0	0	6373	18470	9.24
10/20/2016	12300	0	1292	0	0	0	3384	16976	8.49
10/31/2016	10842	426	298	0	0	0	1256	12822	6.41
11/23/2016	10179	0	153	0	1341	565	3925	16163	8.08
12/22/2016	11567	269	0	0	0	387	2463	14686	7.34
Total:	**169340**	**1830**	**3265**	**0**	**2043**	**3940**	**27244**	**207662**	**104**

Source: Evolution Recycling Invoices

3.3 Household Hazardous Waste (HHW)

- See Appendix D for DEC report form from the 2017 HHW event

Table 3.3

Items Collected at the Annual HHW Event in 2017

Liquids	Gallons	Solids	Pounds
Antifreeze	220	Automotive Batteries	2785
Hazardous Paint	495	Pesticides	3600
Pesticides	935	Fluorescent Bulbs	555
Other	7625	Other	5859
Miscellaneous	2265	Hazardous Household Batteries	220
		Bulk Mercury	41.7
		Other Electronics	3410

Source: DEC HHW Report Form

Figure 3.2

2017 Household Hazardous Waste Event

3.4 C&D (Construction Debris)

- Includes uncontaminated solid waste resulting from construction, remodeling, repair, and demolition of utilities structures, and roads. This does not include personal residential projects.
- C&D includes but is not limited to CARBS (concrete, asphalt, rock, and brick), wood, roofing, drywall, soil/gravel, metal, plastic, and corrugated paper

Table 3.4

C&D Broken Down By Municipality in Tons (2016)

Municipality	Tons	Municipality	Tons
Town of Burlington	61.13	New Libson	20.5
Town of Butternuts	6.49	Town of Oneonta	4,173.96
Cherry Valley	104.8	Otego	270.8
Cooperstown	1143.73	Town of Otsego	292.67
Town of Decatur	7	Town of Pittsfield	8.91
Delaware County	870.57	Plainfield	1.43
Town of Edmeston	107.83	Richfield Springs	446.11
Town of Exeter	28.5	Town of Roseboom	38.63
Fly Creek	100.67	Village of Schenevus	59.78
Gilbertsville	13.71	Scoharie County	90.77
Hartwick	328.85	Springfield	270.18
Town of Laurens	156.5	Town of Unadilla	42.51
Town Of Maryland	138.54	Wells Bridge	3.44
Town of Middlefield	265.62	Westfield	12.17
Milford	250.47	Town of Westford	14.96
Morris	194.13	Town of Worcester	270.07
Mount Vision	15.76	Total C&D	9811.19

Source: Otsego County Southern Transfer Station Annual Report 2016
Otsego County Northern Transfer Station Annual Report 2016

3.5 Other Solid Waste and Recycling Program Data

3.5.1 Agricultural Plastic

- In 2016, the Cornell RAPP (Recycling Agricultural Plastics Program) came to an end, leaving it up to the County to continue to collect and market agricultural plastics independently
- Approximately 40,000 lbs. of agricultural plastic were collected in 2016 at four collection events (two in the fall and two in the spring). The agricultural plastic was then marketed by the County to Dock 7 Materials Group and Casella Waste Systems Inc.
- In June 2017 Casella sent 6 bales of white agricultural plastic from Otsego county amounting to 3.26 tons. All the agricultural plastic was sent to Indonesia to be recycled.
- The County aims to continue this program as long as possible.

Figure 3.3

Agricultural Plastic at STS in Oneonta, NY

3.5.2 Mattress Collection

- Starting September 2016 Otsego County began a mattress recycling program
- A container is staged at the STS by Triad Recycling located in Tonawanda, NY
- County residents can drop off their mattresses/box springs to be recycled for 25$

Table 3.5

Mattresses Shipped from Otsego County in 2016/2017

2016		2017	
23-Sep	103	22-Feb	110
24-Oct	124	17-Mar	140
8-Nov	178	12-Apr	129
18-Nov	140	9-May	87
1-Dec	143	1-Jun	128
		12-Jun	94
		27-Jun	100
		14-Jul	118
		28-Jul	142
		25-Aug	110
		18-Sep	75
		4-Oct	120
		20-Oct	105
Total	**688**	**Total**	**1458**

Source: County Data collected from Triad Recycling

Figure 3.4

Loading a mattress into the shipping container at STS in Oneonta, NY

3.5.3 Freon-Containing Appliances

- Refrigerators, AC's,
- Only Collected at STS
- Freon is mitigated accordingly
- 175 Freon containing appliances were collected in 2016

3.5.4 Scrap Metal

- Scrap Metal is collected at both NTS and STS
- Otsego County Auto Crushers is contracted to collect the scrap metal

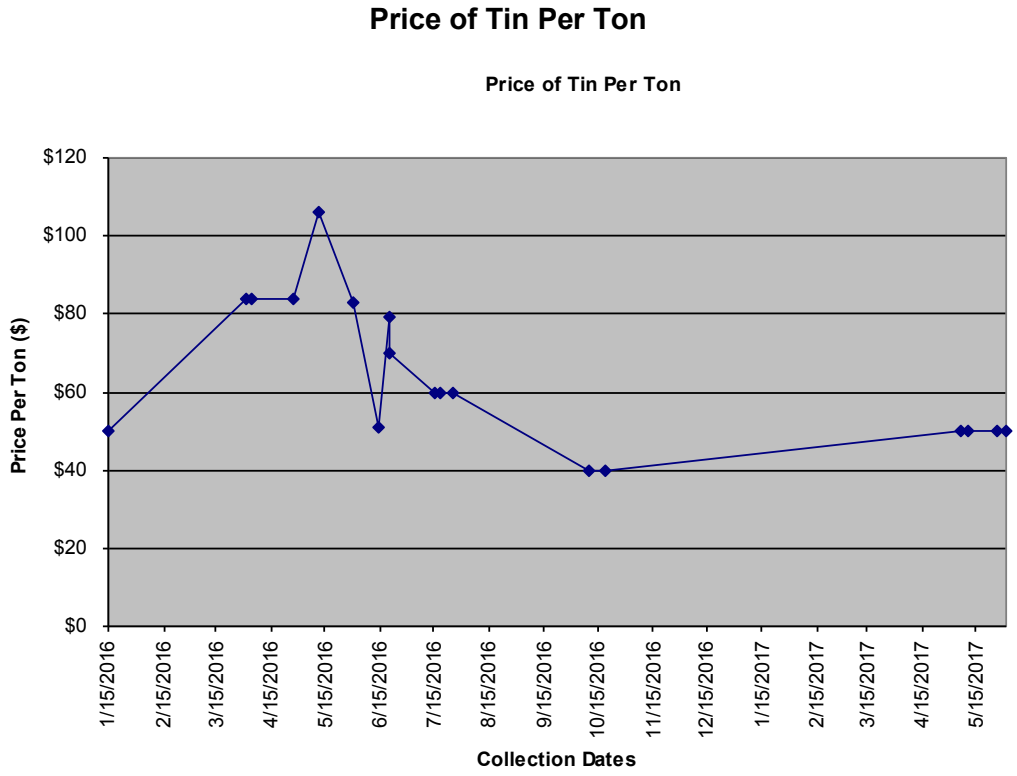
Table 3.6

Scrap Metal Data

Ticket #	Date	Tare Wt.	Price/Ton	Amount Paid to O.C.	Material	Location
#46863	1/15/16	37840	$50	$311	TIN	STS
#48815	4/1/16	34140	$84	$202.44	TIN	NTS
#48876	4/4/16	53880	$84	$336	TIN	STS
#48876	4/27/16	37780	$84	$229.04	TIN	NTS
#50823	5/11/16	35680	$126	$400.68	Unprepared Steel	NTS
#50823	5/11/16	34260	$106	$412.34	TIN	NTS
#50823	5/31/16	35520	$83	$222.44	TIN	NTS
#52786	6/14/16	37000	$51	$267.75	TIN	OAC pick up
#52786	6/20/16	39240	$79	$66.36	TIN	NTS
#52786	6/20/16	34660	$70	$161.00	TIN	NTS
#53660	7/5/17	36780	$60	$280.20	TIN	STS
#53660	7/18/17	36380	$60	$287.40	TIN	NTS
#53660	7/26/17	37100	$60	$346.80	TIN	STS
#57996	10/10/17	36220	$40	$150.40	TIN	NTS
#57996	10/19/17	36580	$40	$217.60	TIN	STS
#65229	5/6/17	37200	$50	$132.50	TIN	STS
#65229	5/10/17	36640	$50	$217.00	TIN	NTS
#65229	5/26/17	33780	$50	$169.50	TIN	NTS
#65229	5/31/17	36520	$50	$222.50	TIN	STS

Source: Receipts from Otsego County Auto Crushers
TIN: Mixed material
Unprepared Steel: >5'x2'

Figure 3.5



Source: Receipts from Otsego County Auto Crushers

3.5.5 Tires

- Tires are collected at the NTS and STS for a fee
- 5.00$/tire for Auto Tires with the rim off
- 10.00$/tire for Truck Tires with the rim off
- 25.00 $/tire for tires mixed in with MSW
- Tires are sent to Casings Inc., located in Catskill, NY
- In 2016, 35.28 tons of tires were collected
    - *(Source: 2016 Otsego County Annual Report Form)*

3.5.6 Industrial Waste (Non-Hazardous)

- Industrial waste includes discarded materials generated by manufacturing or industrial processes
- Includes but is not limited to the following paper mill residuals, food processing waste, coal ash, liquid ash, liquid waste, foundry sands

Table 3.7

Non-Hazardous Industrial Waste

Location	Amount (Tons)	Final Destination
Northern Transfer Station	8.56	Ontario County Landfill
Southern Transfer Station	40.17	Ontario County Landfill
Total	48.73	

Source: 2016 DEC Annual Report Form

3.5.7 Biosolids

- Includes solid or semisolid organic materials generated as a result of the treatment of wastewater
- Otsego County has three municipal sewage treatment plants (STPs) or wastewater treatment plants (WWTPs)

Table 3.8

Grits and Screenings Collected in Tons (2016)

Facilities	**Location**	**Sludge Treatment Method**	**Disposal Method**	**Dewater Device**	**Material delivered to transfer stations. Eq. Grit. Amt per year (in tons)**
Oneonta (C) WWTP	Silas Lane City of Oneonta	Anaerobic Digestion	Landfill	Belt Press/Dry Beds	38.15
Cooperstown (V) STP	Linden Avenue Village of Cooperstown	Anaerobic Digestion	Landfill	Drying Beds	1.88
Richfield Springs (V) STP	Richfield Springs	Aerobic Digestion	Landfill	Drying Beds	8.17
Total Grit Collected		48.20 Tons			

Source: NYSDEC, Biosolids Management in New York State, 2011
Otsego County Southern Transfer Station Annual Report 2016

Figure 3.6

Oneonta Wastewater Treatment Plant

Photo taken by Denise Richardson of the Daily Star, Oneonta

3.6 Data Gaps

- A few large private businesses failed to provide information on how they dispose of MSW and recyclable materials
- No data on residents bringing waste out-of-county
- Was unsuccessful in retrieving data on medical waste

3.7 DEC Population and Municipal Solid Waste Composition Calculator

- The full set of calculations and results can be viewed in Appendix B.
- The number of tons of MSW disposed was generated from data provided by Casella Waste Systems Inc for the 2016 Annual Report. Refer to Appendix C.
- Tons Diverted was an estimate generated from all items being diverted from the waste stream in Otsego County

Chapter 4. Existing Program Description

4.1 Current Solid Waste Management System

The prior SWMP was completed in 1991 by the Montgomery-Otsego-Schoharie Authority (MOSA). The plan is being updated to accurately reflect Otsego County's operating conditions following the dissolution of MOSA in 2014. Otsego County serves as the administrator for municipal solid waste collection and disposal in Otsego County and the participating municipalities.

The original MOSA LSWMP followed the priorities of State SWMP and called for the continued operation of the three counties' solid waste management facilities, including the Eastern and Central landfills that were operational at the time. Due to Consent Orders from the NYSDEC, both Montgomery County landfills were scheduled to close in 1993, shortly after the establishment of MOSA. The Counties of Montgomery, Otsego, and Schoharie established MOSA for the purpose of a more efficient regional solid waste management system. The LSWMP main focus was on the critical issue of solid waste transportation at the time.

Otsego County owns two main transfer stations The Northern Transfer Station (NTS) in Cooperstown, and The Oneonta Transfer Station (STS). Both transfer stations are owned by the County and operated by the current contractor, Casella Waste Management Inc. The Northern Transfer station in Cooperstown station receives recyclables, MSW, and C&D materials. The material collected at NTS, is then transported to a NYS DEC approved landfill, currently Ontario Landfill. Recyclable material collected at the twelve perimeter recycling collection facilities, is serviced by the current contractor, Casella, and delivered to the Oneonta transfer station for transporting to a materials recovery facility (MRF). In 2017, Otsego County recyclables were transported to Sierra MRF in Albany and Taylor in Appalachia.

Due to Otsego County's rural composition there are twelve municipalities scattered throughout the county that provide convenient drop off locations. Each drop-off station accepts different materials, ranging from MSW, recyclables, scrap metal, brush, and more. The standard practice is to have a local hauler collect bagged MSW on a Saturday for a minimal fee, and households to dispose of their recyclables at the same time. The County is only responsible for servicing the recycling containers and not the MSW collected by the local hauler. This allows residents the opportunity to dispose of both recyclables and MSW within their community and not have to travel to one of the two main transfer stations. Some drop off locations accept scrap metal and use the revenue generated for their town and a few will sponsor yearly clean up days. The county does not provide "county wide" collection of MSW. Collection of MSW is provided by private hauling companies hired by residents, businesses, and institutions. The haulers then transport their material to one of the two county owned transfer stations.

4.2 Solid Waste Management Facilities

Table 4.1

In-County Solid Waste Management Facilities

Facility Name	Waste Accepted	Regulatory Status	Operating Status	Location
Southern Transfer Station, Oneonta*	MSW, Recyclables, C&D, E-Waste, Mattresses, Scrap Metal, Tires	Permitted	Public-Private Arrangement	75 Silas Lane
Northern Transfer Station, Cooperstown*	MSW,Recyclables	Permitted	Public-Private Arrangement	NYS 28/80 1 mile North of Cooperstown
City Of Oneonta Waste Water Treatment Facility	Sewage	Registered	Public	11 Silas Ln, Oneonta
Village of Richfield Springs Waste Water Treatment Facility	Sewage	Registered	Public	3576 US Hwy 20 Richfield Springs
Town of Hartwick	Recycling/Scrap Metal	Registered	Public	Town Barn, in the hamlet
Town Of Decatur	Recycling/Trash/Scrap Metal	Registered.	Public	Ivan Mereness Rd., Near the hamlet
Town of Cherry Valley	Recycling/Trash	Registered	Public	Rt. 166, North of the Village next to Town Hall

Facility Name	Waste Accepted	Regulatory Status	Operation Status	Location
Town of Exeter	Recycling/Trash	Registered	Public	Town barn, north of Schuyler Lake hamlet
Town of Maryland	Recycling/Trash/Scrap Metal	Registered	Public	Tannery St. South of Hamlet
Town of Morris	Recycling/Trash/Scrap Metal/Brush	Registered	Public	Card Rd, east of village
Town of Pittsfield	Trash/Scrap Metal	Registered	Public	Mumbalo Rd, off Co Rt 49
Town of Richfield	Recycling/Trash/Scrap Metal/Brush	Registered	Public	Elm St Ext, east of Richfield
Town of Springfield	Recycling/Trash/Scrap Metal/Brush	Registered	Public	Rt 80, 2 miles north of Rt 20
Town of Unadilla	Recycling/Scrap Metal	Registered	Public	122 Valley View Rd
Town of Westford	Recycling/Trash/Clean Lumber/Scrap Metal	Registered	Public	Strong Hill Rd, north of hamlet
Town of Worcester	Trash/Recycling	Registered	Public	Town barn, in the hamlet
Otsego County Auto Crushers	Scrap Metal	Exempt (NYS Part 360)	Private	6071 NY-23, Oneonta, NY 13820

Source: Otsego County Planning & Solid Waste Data
**STS and NTS are permitted, all other municipal drop-off locations registered*

Table 4.2

Out of County Solid Waste Management Facilities

Facility Name	Location	Waste Accepted	Operating Status	Distance From Otsego County	Tonnage from Otsego County (2016)	Regulatory Status
Evolution Recycling Inc.	5 Claremont Street Johnstown, NY 12095	Electronic Waste	Privately owned	~70 miles	104	Registered
Triad	3755 River Rd, Tonawanda, NY 1415	Mattresses	Privately owned	~250 miles	1,736*	Permitted
Taylor Recycling	3104 Old Vestal Rd, Vestal, NY 13850	Single-stream recyclables	Privately owned	~65 miles	4747	Permitted
Casings Inc.	169 Maple Ave, Catskill, NY 12414	Tires	Privately owned	*~80 miles*	35.28	Permitted

Source: Otsego County Planning & Solid Waste Data
**Number* of mattresses shipped since collection started in Sept. 2016. Not recorded in tons.*

Table 4.3

Landfills

Landfill	Location	Waste Accepted	Regulatory Status	Operating Status	2013 Waste Quantity (Tons)	Existing Annual Permit Limits (Tons/Year)	Remaining Existing & Entitled Capacity Under Permit	Proposed Capacity Not Under Permit (Tons)
Ontario County	1879 Route 5&20 Stanley, NY	MSW, C&D, Industrial, Sewage Sludge, Asbestos	Permit	Municipally owned; operated by Casella	855,666 *	1,200,000*	2,119,626*	10,814,512*
Chemung County	1488 County Route 60, Chemung, NY	MSW, C&D, Industrial, Petroleum contaminated soils	Permit	Municipally owned; operated by Casella	166,264*	180,000*	317,590*	10,212,690*

Source: DEC 2013 MSW Landfill Capacity Chart (as of December 2013); DEC Landfill- Solid Waste Management Facilities Map
**DEC Data as of December 2013*

4.2.1 Existing Waste Recovery Efforts

Single-Stream Recycling

Otsego County offers single stream (zero-sort) recycling to residents, businesses, and institutions at its transfer stations operated by Casella Waste Systems, Inc. Single Stream recycling does not require the separation of recyclables into specific categories.

Items currently accepted for recycling are shown below: (From Casella Website)

- **Cardboard/Paper**
  Newspapers
  Magazines and Phone Books
  Corrugated Cardboard
  Mail and Greeting Cards
  File Folders and Office Paper
  Boxboard and Paper Cartons
- **Mixed Plastics #1-7**
- **Metals**
  Metal and Food Cans (Aluminum, Tin, Foil)
- **Glass** (Food Jars and Beverage)

E-Waste

Under the Electronic Equipment Recycling and Reuse Act of 2010, electronics must be recycled in order to prevent hazardous materials in electronic equipment from contaminating the environment. The intent of the Act was to place responsibility on the manufacturers to provide recycling options for consumers. While the act requires that electronic recycling programs are convenient, many of the manufacturer programs are buried below several pages of manufacturer websites and require shipment of items. The other option would be to bring the items back to retail-manufacturers, but Otsego County has few to none of these businesses. The Otsego County Solid Waste Department has developed an electronic recycling program to provide a convenient location for residents to dispose of their old electronics. In Otsego County all residential e-waste is accepted at STS year-round free of charge. The County reinstituted electronic collection at their annual Household Hazardous Waste Event in 2017 and will continue to do so in the future. The County is currently contracted with Evolution Recycling in Johnstown, New York to service the e-waste collected in the County. Local retailers are required under the NYS Electronic Equipment Recycling and Reuse Act to accept electronics at no cost to the costumer.

Mattresses

In 2016 the County Planning and Solid Waste Department contracted with Triad Recycling, located in Tonawanda, NY, to begin a mattress recycling program. The County initiated a fee of $25/mattress and $25/boxspring to cover the cost of transport and recycling of the mattresses. The focus was to remove mattresses from the waste stream and find an alternative means of disposal. Triad stages a shipping container at the OTS. When full, Triad switches out the full container for an empty container and transports to their facility for recycling. The County is unable to offer the same service at NTS due to lack of space and staff to manage. Since the start of the program in

September of 2016 through September of 2107, the County has collected 2,336 mattresses.

Tires

Tires are collected at both the NTS and STS for a fee. The fee varies based on the tire, auto tires with the rims off is a 5$/tire fee, truck tires with the rims off is a 10$/tire fee, and tires mixed in with MSW is a 25$/tire fee. The collected tires from NTS and STS are transported to a recycling facility, Casings, Inc. located in Catskill, NY to be processed.

Scrap Metal

Scrap metal is collected at both the NTS and STS, and serviced by a private company, Otsego County Auto Crushers located on NYS Highway 23, in the Town of Oneonta. The revenue collected from the scrap metal is applied as shared revenue between the County and Casella Waste Systems Inc. The price per ton the County receives for the scrap metal is market sensitive.

Freon

Freon containing appliances (refrigerators/AC units) are accepted at the STS and NTS for a $25 fee. The Freon is removed by a certified individual and disposed of properly. The remaining metal appliance is then processed as scrap metal.

HHW Event

In the fall each year, the Otsego County Department of Solid Waste hosts a household hazardous waste event with the help of various service and non-profit organizations such as OCCA (Otsego County Conservation Association), Oneonta Job Corps, SUNY Oneonta and other volunteers. The planning department contracted CARE Environmental Group (2017) to divert the collected hazardous waste. The event begins with a “mini collection” on the Friday before the Saturday event, in Unadilla at the Town Barn located on County Highway 3- Martin Brook Road. The main event is held on Saturday at the County Office Complex “The Meadows” located on County Highway 33W. A collection event for CESQGs (Conditionally Exempt Small Quantity Generators) is held at the Meadows Office Complex on the Friday of the event weekend as well. The items collected are displayed in Chapter 3. A copy of the 2017 household hazardous waste event report to NYSDEC can be found in Appendix D.

4.2.2 Residential

Table 3.1 above provides a summary of the locations that accept recyclables throughout the county. Casella Waste Systems, Inc. is contracted with the county to provide recycling services to the twelve municipal recycling stations, and provide for the collection, transport and marketing of all recyclables collected in Otsego County. The county does not have its own materials recovery facility (MRF). Currently in 2017, recyclables have been transported to Sierra Recycling in Albany County and Taylor

Recycling in Appalachian, NY. With the exception of 'redemption' centers for the collection of returnable bottles and cans, there are no other recycling facilities in the county.

The residential collection of recyclables is handled in two ways: curbside collection and residential drop-off. Residents can contract with private haulers to collect their MSW and recyclables curbside or they can bring their recyclables and in some cases MSW to a county subsidized recycling transfer station in the designated municipalities noted in the above chart. There is no charge for county residents to dispose of recyclables (refer to accepted materials list above) in Otsego County.

4.2.3 Commercial

The commercial sector includes establishments, such as institutions, retail and wholesale, restaurants, hospitals etc, which generate a large volume of waste and recyclable materials. Commercial establishments may handle their waste removal through a privately contracted hauler, or utilize the County's transfer stations.

4.2.4 Agriculture

The County, in conjunction with Otsego County Soil & Water Conservation (OCSW) and the Otsego County Conservation Association (OCCA), received funding from the Cornell RAPP (Recycling Agricultural Plastics Program) to collect and market agricultural plastics for recycling. In 2016, RAPP came to an end and the collection of agricultural plastic was continued independently by the County.

An inter-office agreement between OCSW and the county offset the expenses and provided the necessary labor to continue the program. The county sponsors four agriculture plastic collection events over the course of a year.

Two events are held in the fall and two events are held in the spring at each County transfer station. OCSW maintains and runs the baler at the collection events, while OCCA conducts outreach, educates farmers about the program, and provides additional labor at collection events. The County Planning Department researches a market and Casella assists in loading the bales for final transport. Accepted items include bale wrap, silage bags, bunker silo covers, greenhouse covers, and wood pellet bags. The agricultural plastic must be relatively clean in order to be acceptable for marketing.

Currently, the market for agricultural plastics is challenging to breach, as buyers have become increasingly stricter on which materials and the quality of the materials they will accept. Recently the County has teamed up with neighboring counties in order to send a full load in a timely manner. Because most buyers are looking for full loads (upwards of 40+ bales) and the County has little to no storage space to keep the bales out of the elements, coordination with other counties is likely to continue. In nearby counties, there are efforts to use this material in a plastics-to-oil or plastics-to-energy system which may become better local options in the future.

4.2.5 C&D Recycling

C&D is collected at the transfer stations and mixed in with the rest of the MSW that is sent to either Chemung or Ontario County landfill. The County currently does not have a C&D recycling program. In 2016 over 7,000 tons of C&D was collected and sent to either Chemung or Ontario County landfill. Recently a Reuse Store owned and operated by ARC Otsego opened in the city of Oneonta to collect reusable items from deconstruction projects in order to refurbish and resell. The county will be working with ARC to establish a collection point at the OTS in order to remove reusable items from the waste stream. Additional work is needed on the County's behalf to increase C&D recycling.

4.2.6 Composting and Organic Recovery

The County does not have the ability to accept and process organics on a county wide basis. The city of Oneonta has a curbside collection of yard waste for residents that are brought to a city composting facility on Silas Lane, adjacent to the NTS. An effort this past winter (2016-2017) was to offer the collection of Christmas trees for County residents at both transfer stations.

In 2016 the City of Oneonta received a $420,000 award to implement an Otsego County Regional Composting Facility through the Climate Smart Communities grants program[8]. This effort was spear-headed by the SUNY Oneonta Office of Sustainability. Seward Sand & Gravel Inc. will match the $420,000 award and run the composting facility at their site located off County Highway 58 in the town of Oneonta. The composting facility will collect food waste from schools, grocery stores, restaurants, and aims implement a curbside residential collection of food waste in the future. The organizations involved include Casella Waste Systems, Mohican Farm in the town of Springfield, the Otsego County Planning Department, Otsego County Soil and Water Conservation District, the City of Oneonta and its Environmental Board, the Otsego County Board of Representatives, Hartwick College, SUNY Oneonta, Seward Sand and Gravel and the Otsego County Conservation Association (OCCA).

Mohican Farm, located just north of Cooperstown, has a composting facility run by farm manager Bob Sutherland. The facility handles post and pre-consumer food waste collected from The Otesaga Resort Hotel in Cooperstown, New York. The food waste is then composted in an aerated compost system on the farm. This aerated compost system is capable of handling 150-180 tons of organic food waste.

4.2.7 Recycling Data Collection

The solid waste department collects data on all recyclables generated, and diverted throughout the county. Casella Waste Management Inc. keeps data on all single-stream recyclables entering and leaving the county's two transfer stations (NTS and STS). This data is shared with the solid waste department and kept on the county's solid waste drive. All data from the two transfer stations is updated on a monthly basis, and at the

[8] http://www.thedailystar.com/news/local_news/officials-seek-funds-for-compost-facility-proposal/article_595bed8c-9542-5dfb-a4d0-bb571a0c2187.html

conclusion of each year an annual report is put together. The county also collects data on all the different materials collected and recycled at household hazardous waste events. Other miscellaneous recyclable materials (e-waste, mattresses, scrap metal, etc) collected by contracted private companies, all data is shared with the county usually through receipts. All data on municipal solid waste and recyclables is readily available on the county solid waste drive.

4.3 Public Education and Outreach

The Otsego County Conservation Association (OCCA) serves as a unique education and outreach organization for the County. OCCA's goal is to protect and improve local natural resources and educate the public about environmental concerns. One area of focus includes recycling, solid waste, and the promotion of a zero-waste lifestyle. OCCA's website contains readily available information on recycling and composting[9]. OCCA also collects various difficult-to-recycle items that are recycled through Terracycle. OCCA holds an annual Earth Festival and the Annual "Reduce, Reuse, & Recycle" Garage Sale to promote recycling and waste reduction. OCCA is also an integral partner to the County for its annual Household Hazardous Waste Event.

In addition to its Household Hazardous Waste Event, the County has a few strategies to promote its recycling efforts and educate the public about solid waste. The County's Solid Waste Department website provides an abundance of information on upcoming events, news, and how to handle solid waste and recycling. A key feature of the department's website is its "How Do I Get Rid Of???" page[10], which provides information on the correct way to dispose of a plethora of items. The department also has a Facebook page that is regularly updated with important information and upcoming events. The department has recently launched a radio campaign called "Trash Talk" to periodically educate listeners on new solid waste-related topics.

SUNY Oneonta employs a Sustainability Coordinator. The solid waste department has worked closely with the Sustainability Coordinator in an effort to open a large-scale composting facility after receiving a grant through the Climate Smart Communities grants program (refer to 3.2 for more info). A few of the duties of a sustainability coordinator are to provide information and resources to students, faculty, and staff, implement curriculum changes, coordinating sustainability events, and act as a recycling coordinator.

4.4 Market Analysis

Casella Waste Systems Inc. is currently in contractual agreement to run the County's two transfer stations. The current contract is effective until December 31, 2018. Casella currently handles the collection of single stream recyclables (table shown above), and servicing the twelve perimeter recycling transfer sites in the county. In Sept 2017, due to changes in the market value of recyclables, Casella rerouted Otsego County recyclables from Sierra Recycling in Albany to Taylor Recycling in Appalachia. The County currently receives a $10/ton rebate from Taylor Recycling; but this is fragile due to significant changes in oversea markets. Once all single stream recyclables are collected, Casella

[9] http://occainfo.org/
[10] http://www.otsegocounty.com/depts/sw/HowdoIgetridof.htm

delivers them to Taylor Recycling in Apalachin, NY. Taylor then handles the marketing of the recyclable materials collected at the Otsego County transfer stations.

Electronics collected in Otsego County are serviced under contract with Evolution Recycling of Jamestown NY. Otsego County pays to have their electronics recycled and in 2017, has benefited by DEC 50% reimbursement to help offset the cost. Marketing of all electronic material is the responsibility of the contractor and not the county.

Mattresses are collected and stored in a shipping container at the STS in Oneonta. Once a container is filled Triad Recycling comes and replaces the full container with an empty one. Triad then handles the disassembly and marketing of the mattress components.

As of 2016, the Cornell RAPP program was cut and the County, with the assistance of OCCA and Otsego County Soil & Water, has been able to maintain the collection of agricultural plastic. The County is responsible for marketing the agricultural plastic and in 2016 the agricultural plastic was marketed to Dock 7. Marketing agricultural plastic is difficult and market dependent. In 2017, Otsego County was able to provide adjoining Delaware County with baled agricultural plastic to provide for a full shipment to market. The program will continue in 2018, with funding coming from the County's Solid Waste Department.

4.5 Data Gaps

- Many commercial businesses utilize private recycling companies and collecting data from these businesses is difficult
- A breakdown of the materials collected through single stream recycling
- A thorough analysis of the breakdown of MSW

Chapter 5. Alternatives Evaluation and Selection

5.1 Alternatives Evaluation

Per the requirements of the Local Solid Waste Management Plan guidance and legislation, the County has assessed the following fifteen types of alternatives. These assessments were made according to the options currently available and the feasibility of such options being implemented in Otsego County. Based on these assessments, the County has selected specific alternatives to pursue in the near future. The assessment of these alternatives is based on the collective knowledge and experience of department staff and the County's solid waste and recycling contractors with cited supporting documentation where applicable.

Alternative Types:

1. Waste Reduction Programs

2. Reuse Programs

3. Recyclables Recovery Programs for paper, metal, glass, plastic, and textiles

4. Organics Recovery Programs for food scraps and yard trimmings

5. Programs to develop and improve local and regional markets for recyclables

6. Enforcement Programs

7. Incentive-based Pricing

8. Education and Outreach

9. Data Collection and Evaluation Efforts

10. Local Hauler Licensing Programs; including an assessment of laws preventing commingling of recyclables with waste

11. Flow Control and Districting Potential
12. C&D Debris Reduction, including Deconstruction, Reuse and Recovery Programs

13. Private Sector Management and Coordination Opportunities

14. Management of waste through thermal treatment technologies

15. Waste Disposal Options

5.1.1. Waste Reduction Programs

The NYSDEC defines the primary focus of waste reduction as the "prevention of solid waste generation through changes in products, packaging and purchasing." For consumers, waste reduction is centered on "not creating the waste in the first place", while for manufacturers, the effort is to "design, manufacture, purchase, or use… materials to reduce the volume or toxicity before products are produced and eventually enter the waste stream." According to the NYSDEC, 13% of MSW is packaging material from grocery store products.[11]

The Otsego County Solid Waste Department has the ability to support changes on the consumer side of waste reduction. Education is one of the main tools that can be used to promote waste reduction and is discussed later in this chapter. Aside from educating the public to make better choices, primarily when purchasing groceries, the County can make strides in offering more options to recycle materials. Many waste reduction programs can be achieved through public-private partnerships.

[11] http://www.dec.ny.gov/chemical/8502.html

Polystyrene

Moving into the future the planning unit is looking into the potential of polystyrene recycling. Polystyrene is petroleum based; non-biodegradable product that the County aims to remove from the waste stream. While consumers and local businesses can be encouraged to choose other types of packaging materials for food and shipping, it is challenging to completely remove polystyrene from the waste stream without either a local ban or a recycling program. For Otsego County, recycling this material is a more likely alternative.

The Foodservice Packing Institute offers a rolling application for grants up to $50,000 to public and private entities to encourage Styrofoam recycling. In order to be eligible for this grant our planning unit must identify a way to collect and process the material and find a market willing to purchase the materials. Through a public-private partnership, the County could implement polystyrene recycling at its transfer stations.

Alternative: Implement a polystyrene recycling program

- Quantitative Impacts:
  - Reduction in MSW generated by the County, thus resulting in cost savings
  - Initial capital costs to purchase equipment and operating space
  - Ongoing operations and maintenance costs
  - Potential cost to consumer depending on the market
- Qualitative Impacts:
  - Increase conscientiousness of consumer
  - Education efforts will be necessary
- Cost Data Used for Evaluation:
  - Variable markets make it difficult to estimate return on material, if any
  - Cost to purchase machinery is estimated at $10,000, based on anecdotal information from neighboring county
  - Aforementioned grant opportunity up to $50,000 will reduce start-up costs
- Impact on
  - Natural Resource Conservation:
    - Added costs to consumers may result in increased littering
    - Removes the material from landfills
  - Energy Production:
    - Action is not likely to produce energy, but may reduce energy used in the production of virgin material
  - Employment-creating Opportunities:
    - Employees would be needed to operate the equipment and sort/store the material
    - Marketing of material would likely be administered by existing technical staff

Mattresses

The County is currently contracted with Triad to recycle mattresses from Otsego County. As of 2017, the County charges the consumer $25 per mattress in order to cover the costs of this program. Part of this cost is due to trucking, as Triad is approximately 250 miles from the Southern Transfer Station. Transporting mattresses for recycling is therefore energy intensive and strenuous on the trucks transporting the material.

This is a prime opportunity for a possible private-public partnership or for the County to support a private local facility. A local facility would reduce costs by lowering the trucking fees and reduce energy consumption used to transport the material. It also has the potential to bring revenue into the County and create employment opportunities.

Alternative: Construct and/or site an in-county mattress recycling facility

- Quantitative Impacts:
  - Reduction in costs to existing program
  - Generation of revenue
- Qualitative Impacts:
  - Improve resident perception of existing mattress recycling program
  - Strengthen existing relationships with private entities through partnership
- Cost Data Used for Evaluation:
  - Current cost of operate program with Triad comes to roughly $25/mattress, reduced trucking costs could greatly lower this expense
- Impact on
  - Natural Resource Conservation:
    - Reduction in costs might reduce any increase in illegal dumping as a result of the initial mattress recycling program
  - Energy Production:
    - Action is not likely to impact energy production
  - Employment-creating Opportunities:
    - Employees would be needed to operate the equipment and sort/store the material
    - Marketing of material would likely be administered by existing technical staff

Plastic Bags

Plastic bag recycling is currently the responsibility of many large retailers in the County. Most large retail stores have a bin where customers can drop off their plastic bags and other plastic films for recycling. Some consumers reuse their plastic bags or use them for smaller trash bins. However, most plastic bags are ultimately thrown away and eventually end up in a landfill. Some counties like Madison County, Otsego County's neighbor, have considered a county-wide plastic bag ban. Several municipalities across the country have implemented a type of plastic bag ban and can serve as a model for Otsego County.

Alternative: Ban plastic bags in Otsego County.

- Quantitative Impacts:
  - Reduce solid waste generated in the County
  - Some initial increased cost for consumers who do not currently own reusable bags
  - Considerable up-front promotional and educational costs
- Qualitative Impacts:
  - Will require consumers to change personal habits
  - Local retailers will need to change store policies
  - Residents who make purchases outside the County will require education on how to properly recycle their plastic bags
  - Enforcement could be challenging
- Cost Data Used for Evaluation:
  - Cost data unavailable but many articles cite positive environmental impact
- Impact on
  - Natural Resource Conservation:
    - Fewer bags in landfills
    - Reduce plastic bag litter
  - Energy Production:
    - No direct impact on energy production
  - Employment-creating Opportunities:
    - No direct impact on employment
    - Marketing of material would likely be administered by existing technical staff

5.1.2. Reuse Programs

The NYSDEC recognizes the benefit to reuse programs, as they save money, conserve natural resources, and reduce the amount of waste going to landfills.[12] Many thrift and second-hand stores exist throughout the County, where individuals can take their gently used items. However, these stores are mainly limited to clothing, furniture, and other household goods. The ARC of Otsego has recently opened the Otsego ReUse Center in Oneonta, which accepts many types of used furniture and reclaimed or leftover building materials, such as lumber, cabinets, lighting, fixtures, flooring, pavers, and more. These items are then sold at a reduced price and the revenue generated benefits the programs of the ARC Otsego. The County has an opportunity to support this program by providing a way for these items to be collected at STS, such as a building or lean-to where residents and contractors can leave materials for ARC Otsego to periodically collect and bring to their store.

[12] http://www.dec.ny.gov/chemical/8828.html

Alternative: Support the Otsego ReUse Center by creating a drop-off location at STS

- Quantitative Impacts:
  - Reduction in the amount of MSW and C&D brought to the County transfer stations
  - Tax benefits for individuals and contractors who make donations
  - Upfront construction costs for drop-off location at STS
  - Affordable furniture and home improvement materials

- Qualitative Impacts:
  - Strengthen existing relationship with ARC Otsego through partnership

- Cost Data Used for Evaluation:
  - No data currently available

- Impact on
  - Natural Resource Conservation:
    - Reusing means that fewer natural resources will be needed to create new materials (i.e. lumber)
  - Energy Production:
    - Reuse has the potential to decrease the amount of materials bought new, thereby reducing the energy needed to create more new materials
  - Employment-creating Opportunities:
    - Employees are needed in the retail space and for collection/sorting of donations

5.1.3. Recyclables Recovery Programs for paper, metal, glass, plastic, and textiles

The County currently maintains a strong single-stream recycling program, scrap metal drop-off bin, book recycling drop-off program through Discover Books, and textiles recycling drop-off program through the Salvation Army. Therefore, this section is not applicable. However, the County recognizes that it can improve these programs through better promotion and education to the public. This is discussed later in the chapter.

5.1.4. Organics Recovery Programs for food scraps and yard trimmings

The NYSDEC lists composting as one of its highest priorities, explaining that organic materials "are best managed as a resource rather than a waste."[13]

Food Scraps

The City of Oneonta, in partnership with SUNY Oneonta and other organizations, is working to establish a large scale composting facility. In 2016 the City received a $420,000 award for the Otsego County Regional Composting Facility through the Climate Smart Communities grants program. This effort was spear-headed by the SUNY Oneonta Office of Sustainability with assistance from Casella Waste Systems, Mohican Farm in the Town of Springfield, the Otsego County Planning & Solid Waste Department, the OCSWCD, the City of Oneonta and its Environmental Board, the Otsego County Board of Representatives, Hartwick College, OCCA, and Seward Sand & Gravel. Seward Sand & Gravel Inc. of Oneonta will match the $420,000 award and run the composting facility off County Highway 58. The composting facility will pilot on SUNY Oneonta's campus, eventually expanding to Hartwick College, commercial establishments, and, eventually, residential consumers.

Alternative: Support the Expansion of the Otsego County Regional Composting Facility

- Quantitative Impacts:
  - Reduce MSW
  - Revenues generated from sale of end-process material
  - Reduce disposal costs
- Qualitative Impacts:
  - Secured partnerships
  - Improved consumer awareness of composting
- Cost Data Used for Evaluation:
  - Grant funded by the Climate Smart Communities Program for $420,000 with local match from Seward Sand & Gravel
- Impact on
  - Natural Resource Conservation:
    - Reduced MSW means less waste going to landfill
  - Energy Production:
    - Not likely to impact energy production
  - Employment-creating Opportunities:
    - Expand business for Seward Sand & Gravel, thereby increasing the potential to hire more employees

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

Yard Trimmings

Yard trimmings are currently collected on a municipal basis. The Village of Cooperstown will hold yard waste collections periodically, while the City of Oneonta maintains a yard waste collection site on Silas Lane. These collections are maintained exclusively for the residents of that particular municipality. In 2016, the County offered a Christmas tree collection for residents looking for dispose of their old trees, but the response was underwhelming. The County's facilities are unlikely to be able to accommodate county-wide yard trimming drop-off, but partnerships are possible and discussions are currently underway.

Alternative: Partner with local landscaper(s) to accept yard trimmings from County residents

- Quantitative Impacts:
  - Possible costs to County that might be passed onto residents
  - Local landscapers can either sell end product or use as part of their projects
- Qualitative Impacts:
  - Yard trimmings can be composted and used to improve soils for planting
- Cost Data Used for Evaluation:
  - No data currently available
- Impact on
  - Natural Resource Conservation:
    - Organic materials are being re-used instead of going to a landfill
  - Energy Production:
    - No likely impact on energy production
  - Employment-creating Opportunities:
    - Can potentially improve business for local landscapers, allowing them to increase their number of employees

5.1.5. Programs to develop and improve local and regional markets for recyclables

By 2018, China will stop taking many types of recycling material due to the mixing of hazardous and dirty materials in containers the country has received from the United States.[14] It is reported that China is only accepting recyclables with less than 0.3% contamination; previously 5% contamination was accepted.[15] In the last few months of 2017, the impacts have been felt locally in Otsego County. The recycling rebate has declined and the County has had to find a new recycler to accept its materials, as there is currently no Materials Recovery Facility (MRF) in-county. While the County cannot control global markets, it can take steps to improve the quality of its materials and reduce contamination. Much of this depends on education and outreach to residents, which will be addressed later in this chapter. Some articles suggest that the

[14] https://www.scientificamerican.com/article/china-bans-foreign-waste-but-what-will-happen-to-the-worlds-recycling/

[15] http://www.naco.org/articles/china%E2%80%99s-ban-some-recycled-materials-could-impact-county-landfills

plastic could be incinerated in order to produce electricity or even stored in anticipation that the market might improve. The County does not have the capacity at this time to pursue either of those options.

5.1.6. Enforcement Programs

The County currently employs two transfer station attendants who monitor the recycling bins and help ensure that residents are placing the appropriate items in those bins. Currently, when faced with issues from residents, businesses, or local haulers, the County is able to address its concerns on an individual basis and resolve without issue. The County also charges $99/ton for loads of MSW mixed with recyclables and charges $20 for uncovered loads. Otherwise, the County does not have enforceability outside its transfer stations.

Local laws regarding junk, debris, or solid waste are not enforceable by the County. Rather, they are the responsibility of the town, city, or village to uphold.

5.1.7. Incentive-based Pricing

Pay-As-You-Throw

Incentive-based pricing is a way to reduce waste by lowering costs for those who generate the least waste. One of the more prevalent methods of incentive-based pricing is unit pricing or Pay-As-You-Throw (PAYT). In a way, the County already has this pricing in place. The County currently charges $3 per bag for a bag up to 30 gallons. Those who produce fewer bags of trash will pay less over time to dispose of their waste. However, residents can hire private local haulers who instead set a monthly fee with limits (and sometimes no limits) on the number of bags they will take each week. Some Towns and Villages have local drop-off locations where their residents can leave a virtually unlimited amount of trash for free and the cost to dispose of this waste is covered in their local taxes. Some municipalities including the City of Oneonta and the Village of Cooperstown have public trash containers that they service. This is the extent of any municipally run trash pick up. Therefore, enacting County-wide PAYT is unlikely.

Hauler and Contractor Incentives

The EPA describes several ways to incentivize pricing for haulers and contractors. Essentially, these methods reduce the amount a hauler or contractor pays to dispose of waste based on the amount of waste they are able to divert from the waste stream. Some examples include: Use of a sliding scale tip fee based on percentage of waste diverted, incentives for meeting waste diversion milestones, and payment sharing of return on recyclable materials marketed.[16]

Such a program would require substantial oversight. The County does not have the staff to implement such a program, nor does it expect to increase the staff to be able to manage it in the next ten years. Furthermore, the figure at which the County sets its tip fee for MSW and C&D is always calculated to just cover the expenses of operating the solid waste program. There is limited "wiggle room" to charge haulers and contractors less without taking away the revenues necessary to operate the program.

The situation is similar for recycling, as rebates only offset a fraction of the cost to operate the recycling program. Splitting that revenue with haulers and contractors would increase unfunded expenditures, which could force the County to increase the tip fee or user fee to make up for lost revenue. With the current challenges faced by recycling programs due to changes in China's policies, this issue would only be exacerbated (See item 5 for more information).

5.1.8. Education and Outreach

The County recognizes education and outreach as a key way to improve its many solid waste programs. Many residents are not aware of the programs that already exist in the County to dispose of items such as electronics, pharmaceuticals, plastic bags, and more. And, while the County has a strong single stream recycling program, there is still uncertainty over which items can be recycled through single stream recycling and that those items should be clean.

Media

Improving media presence across multiple platforms, including radio, newspaper, and social media, will help reach people across multiple walks of life. The County already has a "Trash Talk" program with a local radio company that promotes different educational topics about solid waste disposal. The County also has a Facebook page that is slowly gaining followers. However, there are far more platforms than just these two, including newspaper, Instagram, Twitter, and local television commercials that could be used to reach more people.

[16] https://www.epa.gov/transforming-waste-tool/contracting-best-practices-incentives-and-penalties

Alternative: Expand media presence to a wide array of platforms

- Quantitative Impacts:
  - Some platforms, like newspaper and radio, cost money
  - Improved recycling programs may result in higher rebates to County

- Qualitative Impacts:
  - Improved awareness of recycling and solid waste programs in the County
  - Reduced contamination of recyclables

- Cost Data Used for Evaluation:
  - Current radio campaign costs $7,000
  - Social media is free with exception of ads
  - A newspaper cost proposal is forthcoming

- Impact on
  - Natural Resource Conservation:
    - Fewer materials going to landfills
  - Energy Production:
    - No likely impact on energy production
  - Employment-creating Opportunities:
    - No likely impact on employment

Recycling Coordinator/Solid Waste Educator

Many solid waste authorities have a dedicated staff-person whose responsibility is to improve recycling in the community through outreach and education. This person would target specific groups of people and educate them on the benefits and long term importance of recycling. They would visit schools, businesses, and attend public events. This individual would also be responsible for maintaining a social media presence. This position could start as an internship and translate into a job opportunity if successful. The County could also achieve this position through partnership with a local non-profit, who would undertake public outreach and education through contract with the County.

Alternative: Establish a Recycling Coordinator/Solid Waste Educator Position or Partnership

- Quantitative Impacts:
  - Increased personnel or contract costs to pay for position
  - Improved recycling programs may result in higher rebates to County
- Qualitative Impacts:
  - Improved awareness of recycling and solid waste programs in the County
  - Reduced contamination of recyclables
  - Better relationship between County Solid Waste department and community
- Cost Data Used for Evaluation:
  - Salary cost approximately $30,000 (recruiter.com) plus fringe rate of nearly 70%
- Impact on
  - Natural Resource Conservation:
    - Fewer materials going to landfills
  - Energy Production:
    - No likely impact on energy production
  - Employment-creating Opportunities:
    - One job created as a result of this action

5.1.9. Data Collection and Evaluation Efforts

The collection of data is essential to running a cost-efficient and sustainable solid waste program. The County currently manages its data meticulously, which can be used to assess the composition of waste collected on a municipal level, adjust tip fees and user fees according to increasing or changing costs, and predict future costs. This is achieved through cooperation with the vendors used in the County's solid waste and recycling contracts.

Waste Assessments

The County currently breaks down its material by MSW, C&D, Single Stream Recycling, and then by specific recycling and mitigation programs (i.e. e-waste, mattresses, etc.). However, the composition of MSW, C&D, and Single Stream Recycling is not currently assessed. Waste Assessments are a way to get an idea of the composition of County waste through sampling portions of trash and recycling, then categorizing the materials found. The samples can then be extrapolated to represent the County's current total waste composition. Brief research of waste assessments around the country reveals efforts by university students and environmental or volunteer organizations. The County has two institutions of higher learning and a plethora of organizations that might be willing to assist the County in such assessments.

Alternative: Conduct periodic Waste Assessments of MSW, C&D, and Recyclables

- Quantitative Impacts:
  - Increase the amount of data available to the County
  - Reduce MSW by identifying items that are recyclable or compostable, then promoting those activities through education and outreach
- Qualitative Impacts:
  - Improved awareness of recycling and solid waste programs in the County
  - Reduced contamination of recyclables
  - Better relationship between County Solid Waste department and community
  - More informed decision-making about County Solid Waste programs
- Cost Data Used for Evaluation:
  - Use of volunteers and/or students is typically free
- Impact on
  - Natural Resource Conservation:
    - Fewer materials going to landfills
  - Energy Production:
    - No likely impact on energy production
  - Employment-creating Opportunities:
    - Not likely to create paid opportunities, but might create an internship or student project

Monitoring Material Origins

Otsego County has two main transfer stations, one in Cooperstown and one in Oneonta. However, the County recognizes that it may be more convenient for some residents to use a facility outside the County, event if it is more expensive, due to their location along the outskirts of the County. Likewise, Otsego County transfer stations might be more convenient for residents living outside Otsego County but near the border. While the County does track out-of-county waste coming into the County, in-county waste brought to other transfer stations or landfills in neighboring counties is not currently tracked. Out-of-county waste could be tracked through cooperation with neighboring counties and sharing of data.

Alternative: Facilitate data-sharing between Otsego County and its neighbors

- Quantitative Impacts:
  - Increase the amount of data available to the County
  - Identify the amount of tons generated in the County, but brought to other counties

- Qualitative Impacts:
  - Better relationship between County Solid Waste department and its neighbors
  - More informed decision-making about County Solid Waste programs

- Cost Data Used for Evaluation:
  - Sharing of data for mutual benefit should be free

- Impact on
  - Natural Resource Conservation:
    - Improved monitoring will better identify the amount of waste generated in the County
  - Energy Production:
    - No likely impact on energy production
  - Employment-creating Opportunities:
    - Not likely to create jobs

5.1.10. Local Hauler Licensing Programs; including an assessment of laws preventing commingling of recyclables with waste;

To provide better oversight of private hauling company's municipalities or the planning unit can require local haulers to be licensed. By requiring haulers to be licensed the County would be able to more accurately keep track of the amount of waste being hauled and its final destination, as licensing programs tend to have data maintenance requirements. This would allow the County to make certain the legitimacy of the haulers bringing waste to the transfer stations, including the insurances they hold and the safety of their practices. Many communities around the country require hauler permits, which are obtained for a small fee and typically last a few years. Particular effort would be necessary to effectively communicate such a program to the County's haulers.

The County could instead consider a Hauler Registration Program at no cost to the hauler. The purpose of the registration would be to effectively maintain records of haulers available to County residents with the most current contact information. The County could also request that haulers report some data to the County as part of this registration.

Alternative: Implement a Local Hauler Registration Program
▪ Quantitative Impacts: o More data for tracking of MSW ▪ Qualitative Impacts: o May result in improved MSW and recycling separation due to hauler awareness of increased County oversight o Improved relationship with haulers through closer contact o Up-to-date information for local residents ▪ Cost Data Used for Evaluation: o Hauler licensing fees are typically about $100-300, but the County would like to consider a program that is of no monetary cost to the hauler ▪ Impact on o Natural Resource Conservation: ▪ Improved compositions of MSW and recyclables o Energy Production: ▪ Not likely to impact energy production o Employment-creating Opportunities: ▪ Not likely to create any new employment opportunities

5.1.11. Flow Control and Districting Potential

Flow Control

The National Solid Wastes Management Association describes flow control as "when a local government… owns a landfill, transfer station, or waste-to-energy facility and can no longer compete in the marketplace, that government tries to keep 'feeding' their facility with trash to cover the costs of construction and operation."[17] Essentially, the practice designates local haulers to the specific sites they are to bring their trash. The EPA notes that flow control can help financially sustain solid waste management systems, but the effects of flow control on protection of the environment are minimal.[18]

The County operates two transfer stations, while there are several smaller stations throughout the County that are owned by the municipalities. All wastes collected at these facilities ultimately end up at STS to then be hauled to a landfill outside of the County. Furthermore, the County's solid waste and recycling contracts are maintained and paid on the system as a whole; all the revenues collected separately benefit the whole system. Therefore, enacting flow control is not applicable to Otsego County.

Districting Potential

Otsego County was formerly one third of the solid waste authority called MOSA. See previous chapters for an explanation of that relationship and how it was resolved. The County now operates its own solid waste management program, with one transfer station in the northern part of the County, another in the southern part, and several municipal-run drop-off locations around the County. The County transfer stations are

[17] https://wasterecycling.org/images/documents/our-work/advocacy-issues/Flow-Control-Factsheet-101012vFinal.pdf
[18] https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/flowctrl.html

situated near the two main population centers in the County: Oneonta and Cooperstown. Based on these locations, solid waste haulers and local residents naturally gravitate towards using the closest transfer station to them. The County is otherwise deeply rural in nature and those who live too far away from a transfer station always have the option to hire a hauler. For these reasons, districting is not applicable to Otsego County at this time.

5.1.12. C&D Debris Reduction, including Deconstruction, Reuse and Recovery Programs

The NYSDEC defines Construction and Demolition Debris as "uncontaminated solid waste resulting from the construction, remodeling, repair and demolition of utilities, structures and roads; and uncontaminated solid waste resulting from land clearing."[19] Some of the C&D Debris is expected to be reduced in Otsego County through the Otsego ReUse Center, which is described earlier in this chapter. In the future, the Otsego ReUse Center may explore the possibility of doing deconstruction projects, where careful disassembly can result in the reuse of materials. However, the C&D that is generated in the County is likely to be mostly unsalvageable. Currently, it is not separated from the waste stream in Otsego County, with the exception of LEED projects.

Recycling is another way to remove C&D from the waste stream. C&D recycling facilities sort materials including wood, masonry, soil and rock, wall coverings, roofing shingle, glass, and more. These are then used to make other materials such as mulch or melted and reused (i.e. plastic). The NYSDEC lists several actively registered C&D processing facilities across the state.[20]

[19] http://www.dec.ny.gov/chemical/107410.html
[20] http://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf

Alternative: Implement a C&D Recycling Program

- Quantitative Impacts:
  - Eliminate up to 75% of the waste stream
  - Likely costs to County, will reflect on waste generators
- Qualitative Impacts:
  - Improve awareness
  - Alternative commodities (mulch, crushed gravel, etc)
- Cost Data Used for Evaluation:
  - Sources from mass.gov and the NERC show savings from C&D diversion on a project level, but not on a municipal level[21]
  - Based on our contracted price with Casella (54.07$/ton) if we removed 75% of C&D from our waste stream we would save ~$400,000
- Impact on
  - Natural Resource Conservation:
    - Recycling extends the life of materials, reducing the amount going immediately to landfills
  - Energy Production:
    - Not likely to impact energy production
  - Employment-creating Opportunities:
    - County contract with nearby recycler may create revenue to hire more individuals

5.1.13. Private Sector Management and Coordination Opportunities

Utilizing the private sector to manage and coordinate solid waste and recycling can be used as a cost-saving measure for government entities. Private sector companies are already permitted and regulated, have their own insurance, are well connected with others in the industry, have a high level of expertise, take care of daily operations, can take action on issues and ideas with fewer bureaucratic steps, and if they are a large company they can utilize connections within the company (i.e. a company runs a transfer station for one municipality and can take that waste to a landfill they operate in another municipality).

The County utilizes the private sector in nearly all facets of its solid waste program, including solid waste, recycling, mattress recycling, electronic recycling, and household hazardous waste. The County is always open to partnerships and coordination with the private sector to expand its current programs and create new programs.

In addition the coordination with the private sector, the County also coordinates with other municipalities, quasi-governmental programs like the OCSWCD, and non-profits like OCCA.

The County feels its efforts under this section are extensive and therefore it does not apply at this time.

[21] http://www.mass.gov/eea/docs/dep/recycle/reduce/06-thru-l/cdrguide.pdf
https://nerc.org/documents/calculating_the_cost%20effectiveness_of_recycling_C_D.pdf

5.1.14. Management of waste through thermal treatment technologies

There are several types of thermal treatment technologies, which include gasification, incineration, mechanical heat treatment, pyrolysis, thermal depolymerisation, and waste autoclaves. A couple of these treatments are described in the following paragraphs.

Pyrolysis is a thermal treatment technology that adds heat into a system to decompose carbon based materials without the use of oxygen. A gaseous mixture of carbon monoxide and hydrogen gas, “syngas”, is a potential result of the use of Pyrolysis on MSW. Syngas steam can be used in turn to produce electricity. Pyrolysis technology has been referred to by different vendors as the following thermal pyrolysis/cracking, catalytic pyrolysis/cracking, and hydrocracking. By products of pryolsis includes ash, char, and silica (sand). There is a commercial sized pyrolysis facility in Niagara Falls, New York, operated by JBI. The facility takes non-recyclable plastic and turns it into fuel oil and naphtha.

Gasification is a thermal treatment technology similar to pyrolysis in that oxygen and heat are added to the system. The amount of oxygen added is not enough to allow for complete combustion. Gasification produces carbon monoxide, hydrogen, and potentially methane. Syngas formed throughout the gasification process can be used to produce electricity. The main types of gasification include high temperature gasification, low temperature gasification, and plasma gasification. A gasification facility exists in Montgomery, New York and is operated by Taylor Biomass.

The creation of such a facility in Otsego County is highly unlikely, as finding a location would be challenging in addition to the incredible up-front costs of such a project. The possibility of a partnership or agreement with an existing facility could be explored, but the distance for trucking materials to the above mentioned facilities, for example, would greatly reduce the feasibility of such an agreement. In addition, the County foresees local support to be particularly challenging to obtain. Therefore, the County does not find this alternative to be applicable.

5.1.15. Waste Disposal Options

There are a number of options when it comes to disposing of solid waste such as landfills in state, landfills out of state, thermal treatment facilities, and compost facilities to name a few. Some of those options are previously addressed in this chapter and therefore will not be addressed here.

Currently, the County operates two transfer stations with several small drop-off locations operated by the Towns and Villages. All waste generated in the County is then trucked to Western New York and primarily goes to the Ontario County Landfill.

The Ontario County landfill is expected to run out of room in 2028, at which point Otsego County will have to find another location for its waste.[22]

An in-county landfill or thermal treatment facility are both unlikely due to strong environmental concerns in county and the time required to develop such a facility. As the County currently relies on its connections from its contracted transfer station operator, future requests for proposals should require a bidder to verify they have an established connection to a landfill in which to dispose of the County's waste.

A more likely waste disposal option is a Municipal Solid Waste and Biosolids co-composting facility, similar to the one in neighboring Delaware County. In 2005, Delaware County began operations at its co-composting facility and has been able to divert more then 70% of its MSW from entering their county run landfill. MSW is collected by a grappling arm and placed in a rotating ("bioreactor") drum. The material works its way through the drum over the course of approximately three days. The material is dramatically reduced in size and screened to remove any inorganic materials. The screened material then enters the composting section of the facility where biosolids are added. The material remains in this portion of the facility for ~56 days before it is refined once last time before sitting for ~90 days before reaching its final product. The final product is then sold to be used on various projects. Materials that are removed throughout the composting process enter the landfill.

Alternative: Construct a MSW and Biosolids Co-composting Facility

- Quantitative Impacts:
  - Eliminate up to 70% of MSW
  - Considerable up-front and capital costs
  - Considerable operating costs
  - End product might serve as revenue source
- Qualitative Impacts:
  -
- Cost Data Used for Evaluation:
- Impact on
  - Natural Resource Conservation:
    - Greatly reduce the amount of waste going to landfills
  - Energy Production:
    - Not likely to produce energy
  - Employment-creating Opportunities:
    - Employees needed to operate facility, either employed by County or through private partnership

[22] http://www.fltimes.com/news/ontario-county-supervisors-dig-into-landfill-operations/article_84122fee-186d-11e7-937e-ff8e82408330.html

5.2 Alternatives Selection

Below is a summary of the alternatives proposed in the previous section that assesses the feasibility of implementing them in Otsego County. These assessments were made based on the collective knowledge and experience of department staff and the County's solid waste and recycling contractor regarding cost, likelihood for local support, administrative capacity, and the opportunities for securing local partners.

Table 5.1

Alternative	Least Feasible 1	2	Most Feasible 3	Comments
Implement a polystyrene recycling program		X		Dependent on ability to secure a market and a partner to execute the program
Construct and/or site an in-county mattress recycling facility		X		Dependent on the ability to secure funding, partner, and find a location
Ban Plastic Bags in Otsego County	X			Process will require in-depth research and outreach, will present great challenges in implementation and enforcement
Support the Otsego ReUse Center by creating a drop-off location at STS			X	Drop-off location will likely have multi-use purposes (i.e. periodic storage of agricultural plastics)
Support the Expansion of the Otsego County Regional Composting Facility			X	Funding is in place and the plans to pilot the project are underway as of late 2017
Partner with local landscaper(s) to accept yard trimmings from County residents		X		Dependent on the ability to find a willing partner(s)
Expand media presence to a wide array of platforms			X	Many media platforms are free and paid platforms are willing to negotiate pricing
Establish a Recycling Coordinator/Solid Waste Educator Position	X			Cost to add another staff-person will likely inhibit the creation of such a position
Conduct Periodic Waste Assessments of MSW, C&D, and Recyclables			X	Free and relatively simple to complete

Alternative	Least Feasible 1	2	Most Feasible 3	Comments
Facilitate data-sharing between Otsego County and its neighbors			X	Likely free and has numerous mutual benefits
Implement a Local Hauler Registration Program		X		Careful consideration and open communication with haulers is necessary
Implement a C&D Recycling Program			X	Attractive option for both County and local haulers, contractors with several registered processors across the State
Construct a MSW and Biosolids Co-Composting Facility		X		Support for composting facility is ample, but the project will be costly and bureaucratically challenging

Chapter 6. Implementation Schedule

See Appendix A.

Chapter 7. Waste Stream Projections

See Appendix B.