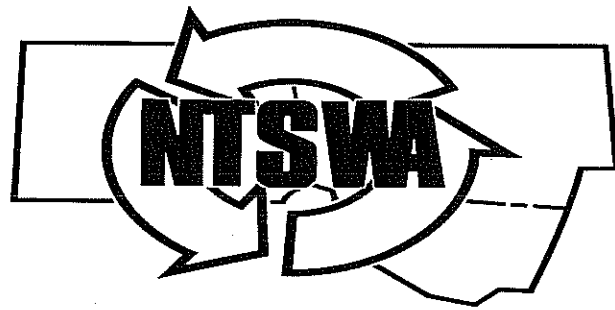


**Northern Tier Municipal Solid Waste  
Management Plan  
for the Counties  
of Bradford, Sullivan and Tioga, Pennsylvania**



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Tom Corbett, Governor*

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## Foreword

The development and implementation of the Northern Tier Solid Waste Management Plan (NTSWMP) shall minimally provide for the health, safety and welfare of the residents, businesses and institutions within these boundaries. It shall be a guide for the participating counties and municipalities for providing waste collection and disposal services to residents as well as other commercial, institutional and industrial establishments. It has been devised in a fair, open and competitive manner, consistent with the relevant purposes and goals of The Pennsylvania Waste Planning, Recycling and Waste Reduction Act (Act 101) of 1988 and all other pertinent legislation. It takes into account the most beneficial and economic situations on behalf of the participating counties as well as reflects the most current happenings in the waste industry. Overall, this plan will be used as a tool to guide municipal solid waste collection, processing and disposal into the next millennium.

The Northern Tier Solid Waste Authority (NTSWA) was created by the Counties of Bradford, Sullivan and Tioga, Pennsylvania, in 1973, under the Pennsylvania Municipal Authorities Act of 1945. By agreement, Bradford, Sullivan and Tioga Counties delegated the responsibilities and obligations required for solid waste management and planning to the NTSWA. Since this time, the NTSWA has developed and implemented the solid waste plans required by mandate for the three counties.

Through this Plan revision process, NTSWA has determined that our existing disposal facilities have the capacity to handle all municipal wastes generated in Bradford, Sullivan and Tioga Counties during the next 10 years. In no way does this guarantee that all of the municipal waste generated will come to our facilities, only that the NTSWA guarantees adequate capacity in the event that it does.

This document is a description of the NTSWA integrated solid waste management system, the planning process and the information required by law. This document shall be considered the most recent edition of the NTSWMP, containing only non-substantial revisions to the Plan prepared in 2000. It is intended that this plan be concise and contain updates or revised information from previous plans. Nothing from the original plan has been deleted and can be referenced in the previous plans. Copies of the previous plans are available for reference at the offices of COX, STOKES & LANTZ, P.C., 19 Central Avenue, Wellsboro, PA 16901 or Northern Tier Solid Waste Authority, 108 Steam Hollow Road, Burlington, PA 18814. All inquiries should be made to Scot Sample, Executive Director, NTSWA, P.O. Box 10, Burlington, PA 18814 or by calling 570-297-4177.



## **Benefits of Municipal Solid Waste Planning**

The Northern Tier Solid Waste Management Plan (NTSWMP) for the counties of Bradford, Sullivan and Tioga, Pennsylvania, will address municipal solid waste collection, processing and disposal and shall benefit all entities therein. Minimally, the Northern Tier Solid Waste Authority (NTSWA) intends that this Plan and its associated implementation:

- Assure waste processing and disposal capacity for at least 10 years in Bradford, Sullivan and Tioga Counties, Pennsylvania;
- Ensure full, fair and open discussion of alternative methods of municipal waste processing and disposal;
- Ensure maximum feasible waste reduction and recycling of municipal waste or source separated recyclable material;
- Fulfill the Counties' mandates regarding municipal waste planning, recycling and waste reduction under Act 101 and Pa Code, Title 25, Chapter 272;
- Protect the short- and long-term public health, safety and welfare of residents, businesses and institutions within the aforementioned counties with regards to solid waste management. This shall be accomplished by ensuring that wastes are properly and safely collected, transported, processed and disposed of with the aid of NTSWA;

In addition to these requirements of the DEP, the NTSWA through the implementation of this Plan, will also accomplish the following:

- Continually investigate solid waste technologies that may assist in future planning.
- Manage an integrated solid waste system that currently works well on behalf of the area residents. This is to include ensuring a fair, reasonable rate or fee for collection and disposal of waste.
- Protect the interests of municipal officials, residents, commercial establishments, and industries with regards to the current vertical integration and consolidation of the solid waste industry in general. This might include education, Pay-As-You-Throw Planning, bid or contract preparation, etc.
- Reduce costs by using a regionalized solid waste management system. These costs are associated with recordkeeping, operation of disposal facilities, operation of support structures like landfill gas and leachate management, conducting recycling programs including cooperative marketing of materials, presentation of waste prevention programs, etc. This regionalized system is especially productive in Bradford, Sullivan and Tioga Counties because of their similar rural and economic nature. The success of this program is demonstrated by the lack of long-term debt held by the NTSWA. The NTSWA has operated in both an economically efficient and environmentally conscious fashion without incurring long-term debt.
- Forge partnerships and special programs with other public and private sector operations in order to work hand-in-hand, to the benefit of all involved. These might include street sweeping projects, composting or brush chipping operations, collection of recyclables and/or the PA Department of Transportation's Agility Program among others as situations arise.
- Employ trained professionals for conducting the NTSWA integrated solid waste management system that is proven to be state-of-the-art and a leader in Pennsylvania. As well as to continue to educate employees on the advancements in the solid waste industry, safety issues, professional development issues, etc.

- Protect and preserve our local environment by using modern landfill techniques and conforming to Department of Environmental Protection regulations. The NTSWA is committed to this on a long-term basis.
- Educate permanent and seasonal residents about solid waste management and recycling.
- Promote waste reduction for all types of wastes and to provide waste audit services for industry and large commercial establishments.
- Foster communication and networking between NTSWA and all municipal entities regarding the latest developments in the solid waste system and/or industry.
- Provide efficient recycling capabilities that are accessible to the general public, private recycling entities, as well as the commercial sector as needed.
- Give residents, municipal officials, private business owners, etc, a view of the direction that municipal solid waste management will take in the next 10 years. Give these entities a chance to be a part of this Plan public participation process.

## **The Need for Revision**

The intent of the Northern Tier Solid Waste Management Plan (NTSWMP) is to assure for environmentally sound solid waste planning for a period of ten years. As the end of the 10-year planning period nears or as other changes are required, this NTSWMP must be reviewed and/or revised.

It is the intent and duty of the NTSWA to manage wastes named in this plan, however, the atmosphere for waste collection and disposal has not dramatically changed since the 2000 revision. This 2012 plan update contains information regarding the NTSWA's operations and intentions for waste collection, recycling, and disposal.

The Department concurs with NTSWAs that the Plan revision is non-substantial.

As the next 10 years transpire, the NTSWA will monitor this Plan and make changes as necessary to reflect the current integrated system or as required by DEP.

# Chapter 1 - Description of the Waste

One goal of municipal waste planning is to identify the content, origin, and weight or volume of municipal waste generated within the boundaries of the Northern Tier of Pennsylvania now and during the next 10 years.

## A. Content

This Plan shall cover all aspects of municipal solid waste management. Specific regulatory definitions and characteristics of wastes under the jurisdiction of the Northern Tier Solid Waste Authority can be referenced in a previous Plans or Pennsylvania Code, Title 25 Chapter 271.1.

As required by 25 Pa. Code, this plan shall primarily address **Municipal Solid Waste** comprised of garbage or refuse generated by residences, commercial or institutional establishments, or from various community activities. Other wastes required to be identified and addressed by the NTSWMP include: **Construction/Demolition (C/D), Sewage Sludge and Septage Waste, Infectious Pathological and Chemotherapeutic Waste (I/C Waste), Ash from Resource Recovery, and Other Components of Municipal Waste.** In addition to these types of mandated wastes, this Plan addresses **Residual Waste and Waste Tires.**

## B. Origin

### I. Geographic Location and Characteristics

The boundaries covered by this plan include approximately 3000 square miles in north central Pennsylvania, specifically Bradford, Sullivan and Tioga Counties. Both Bradford and Tioga Counties are bounded to the north by New York State and Sullivan County is situated directly to the south of Bradford County (See Appendix 1). This area is very rural.

### II. Transportation

The primary means of transportation in the area is by individual vehicle. There are very few means of mass transit located in the Northern Tier of Pennsylvania. The transportation of municipal waste would be affected in each county by the following major routes (See Appendix 1):

**Bradford County** - The major transportation routes of the county include U.S. Route 220 that runs north to south and U.S. Route 6 that runs east to west. Other major Pennsylvania Routes in Bradford County include Route 14 from Canton to the New York State Border, Route 187 from the southeastern corner to the New York State Border and Route 414 from Canton to the center part of the County.

**Sullivan County** - The major transportation route in Sullivan County is U.S. Route 220 that runs from southern Sullivan County north to the Bradford County Line. Pennsylvania Route 87 bisects the county from east to west.

**Tioga County** - Tioga County's transportation network is dominated by U.S. Route 15, soon to be designated as Interstate 99, that runs north to south and U.S. Route 6 that runs east to west. Other major Pennsylvania Routes include Route 49 through the Cowanesque Valley area in the northern part of the county, Route 287 that runs from north to south in the center portion of the county and Route 414 that runs east to west near the southern boundary.

### **III. Regional Population Centers and Anticipated Future Growth**

As of the 2010 census, there were approximately 111,031 residents of this tri-county area. (See Appendix 2) For the most part, the area is rural with a significant agricultural base, however several areas of population density have been established. The following is a breakout by county for the anticipated areas of growth.

#### **a. Bradford County**

As noted in past plans, Bradford County would represent the most industrial or urbanized county of the three participating counties. The most significant growth center in the county is currently the “Valley” area, comprised of Sayre Borough, Athens Borough, Athens Township and South Waverly Borough. The expected growth in this area includes at least one major industry at the present time. This industry, others as they come into the area, and other small business or commercial growth will increase the residential growth of the area throughout the planning period until 2020.

A second population center would be the Towanda area, the Bradford County Seat. Towanda and the surrounding areas are not expected to reach the requirements for mandated municipalities under Act 101, mostly due to the low population density of the entire area.

Also according to the Bradford County Planning Commission, the planned improvements and expansions of sewer systems will allow more use of land that was previously unusable because of sewage restrictions. This could result in the construction of even more residences in the County, and hence more municipal waste would be generated.

Overall, the Pennsylvania State Data Center, a part of the Penn State University at Harrisburg, is projecting a decrease of 1.02% in Bradford County’s population to the year 2020. According to these estimates, residential municipal waste generation should be based on a population of **59,359** residents by 2020. It is anticipated that Sayre Borough will remain the only mandated community for curbside recycling in the county, under Act 101 requirements. These numbers are not expected to change in any significant amount. For background see Appendix 3 for Pennsylvania population projections.

#### **b. Sullivan County**

Sullivan County, the smallest in size and population, is expected to experience a population decrease in the next 10 years. The most significant population center in the county is currently Dushore Borough and the surrounding Cherry Township. Other areas, mostly geared for tourism, include a significant permanent and seasonal population.

According to the 2010 census data, there were 6,428 residents. Sullivan County is no doubt geared as a tourist and recreational area. This would include many second homes for people living outside the county.

Overall, the Pennsylvania State Data Center, a part of the Penn State University at Harrisburg, is projecting a decrease of 1% in Sullivan County’s population to the year 2020. According to these estimates, residential municipal waste generation should be based on a population of **6,313** permanent residents by 2020. Because of the very low populations and population densities, it is anticipated that there will be no mandated communities in the county, under Act 101, before the year 2020 or even beyond.

### **c. Tioga County**

Tioga County is consistent with Bradford and Sullivan Counties, as to its rural nature. According to the Tioga County Planning Commission, the U.S. Route 15/Interstate 99 corridor is currently expected to experience the most significant growth in the County.

The most populated area in Tioga County is the County Seat, Wellsboro. This area is currently expanding with regards to elderly housing as with areas in Bradford County previously mentioned.

The next noteworthy area of population in Tioga County would be Mansfield Borough and surrounding Richmond Township. For the purposes of waste generation, the influx of Mansfield University students must be taken into account in the Mansfield area. According to the Mansfield University Office of Institutional Research and Planning (February 2012), some 3,411 students are enrolled per year. Since the majority of the students are not on campus year round and for purposes of calculating waste generated, we will use half or 1,705 students on a full-time basis.

Overall, the Pennsylvania State Data Center, a part of the Penn State University at Harrisburg, is projecting a decrease of 1.01% in Tioga County's population to the year 2020. According to these estimates, residential municipal waste generation should be based on a population of 39,772 permanent residents by 2020. With the estimated 1,705 year-round Mansfield University Students, municipal waste generation figures should be based on a population of **41,477**.

At this time, it does not appear that any of the municipalities in Tioga County would be mandated for recycling under Act 101. It should be noted that Wellsboro Borough, on a voluntary basis, mandated recycling on August 10, 2009 for residential and commercial establishments pursuant to Ordinance Number 642. The NTSWA does not anticipate that this will change in the next 10 years since the area has experienced extremely low population densities in the past.

## **IV. Other Demographics for Waste Generation in the Northern Tier**

An estimate of the number of residential, commercial, municipal and institutional establishments and community activities within the area are attached as Appendix 4.

An updated inventory of Public and Private Sewage Treatment Plants and Septage Haulers is included in Appendix 5.

The number of Hospitals and other entities generating I\C Waste by county require no revisions at this time.

There are no facilities within the three counties' serving as a disposal site for ash from resource recovery facilities.

## **C. Weights or Volume of Waste**

### **I. Total Municipal Waste Generation**

According to the Franklin Associates, Ltd. (1998), through studies conducted on behalf of the Environmental Protection Agency (EPA), the average person generates 0.8 tons of waste per

year. The NTSWA has in the past, used a lower per person generation figure because of the rural nature of the area and because previous landfill disposal figures were of waste captive in the NTSWA system. The 0.8 ton/person/year (t/p/y) figure will allow the NTSWA to plan for the worst-case scenario for waste generation because wastes will not be captive in the Northern Tier as was according to previous Plans. The NTSWA estimates that this figure would be inflated enough to include wastes generated by seasonal recreationalists, tourists, and other community functions. (It should be noted that a study of the wastes generated by the County Fairs, Winterfest, Maple Festival and other community activities accounted for less than 50 tons.)

The total projected population on which to base waste generation is calculated as follows:

<i>County</i>	<i># of People Generating Waste</i>
Bradford County	59,359
Tioga County	41,477
Sullivan County	6,313
	<b>107,149</b>

Multiplying the total projected population (107,149) by 0.8 t/p/y amounts to 85,719.2 tons of waste generated each year in Bradford, Sullivan and Tioga Counties. Again, this figure is much higher than the actual disposal amounts actually recorded at the NTSWA landfill facilities. Since 2000, the municipal wastes disposed of in the NTSWA integrated solid waste management system has averaged 39,586.2 tons per year. During this same period, the largest amount of municipal waste disposed of was 52,847.27 tons in 2011. (Prior to 1998, nearly all municipal waste was deposited in the NTSWA facilities, allowing for accurate disposal/ generation records.)

Since this plan is intended to span 10 years, the amount of waste that might be generated during this time is 10 times 85,719.2 or **857,192 tons** of municipal waste.

This figure would include the amount recycled by residents, commercial establishments, institutions and industries in the area. According to the 2010 DEP Annual Recycling Progress Reports, Bradford, Sullivan and Tioga Counties recycled over 28,434.3 tons of material. This amounts to an average recycling rate of 24.15% for the three counties. A more detailed description of this recycling program is provided in a later section of this plan. Detailed annual report figures for waste disposal and recycling are also available from the DEP.

## **II. Amount of Other Wastes Identified by the NTSWMP**

Several other waste streams have also been included under the NTSWA integrated solid waste management system. Estimations regarding the amounts of these specific wastes generated and how recycling might affect generation are as follows:

### **a. Construction and Demolition Wastes**

Construction and demolition wastes are generated on a sporadic basis, as projects are constructed or demolished. These wastes have traditionally entered the NTSWA system at a rate of 15,037.33 tons per year, since 2000. In 2003, the highest amount of construction and demolition waste was generated. This amounted to 18,070.05 tons.

In the Northern Tier area, at this time, there is very little recycling of construction/ demolition wastes. Their varied composition makes it difficult to recover any materials from this particular waste stream. The NTSWA owns a 'woodhog' unit for grinding wood

objects. NTSWA is authorized to do this through a minor modification with DEP Permit #101243. The use of this unit may reduce certain construction/ demolition wastes into a mulch product. The type and amount of wastes processed with this unit has yet to be determined.

**b. Residual Wastes**

The generation of residual wastes in Bradford, Sullivan and Tioga Counties is very diverse because of the nature of the industries contained therein. The acceptance of residual waste into the NTSWA system has changed from the previous plan, according to new DEP requirements. The NTSWA now has a Form R - Waste Acceptance Plan that is approved by the DEP and spells out the guidelines of wastes acceptable for entering the NTSWA system. Industries must identify new residual wastes, conduct laboratory testing according to specific guidelines and submit required documentation (Form U) to the NTSWA. Upon NTSWA and DEP approval, these wastes become acceptable at our disposal facilities.

General Plant Trash or municipal-like residual waste is also encompassed under this category. General Plant Trash has characteristics similar to municipal waste, however, because of its industrial origin must be considered residual waste. These types of waste might include packaging waste or waste from a lunchroom. While laboratory testing is not required, this waste must undergo approval by the Form R - Waste Acceptance Plan and DEP prior to being disposed of in a NTSWA disposal facility. See the NTSWA Form R – Waste Acceptance Plan for a detailed listing of approved industries.

Since 2000, NTSWA has accepted an average of 41,930.45 tons of residual waste per year. This would include residual wastes from all three participating counties. The most residual waste ever accepted was 82,137.09 tons in 2010. There was an increase here related to residual waste (Plant Trash and drill cuttings) from development related to the Marcellus Shale Industry.

The NTSWA encourages local industries to reduce or recycle residual waste as much as possible. The amount of industrial recycling is surveyed each year by NTSWA. Most of the larger industries collect, process and market recyclables on their own. However, in several instances, the NTSWA has assisted in this process and/or minimally provided educational services.

**c. Sewage and Septage Wastes**

Liquid or solid wastes generated by municipal sewage collection/ treatment systems as well as septic and holding tank wastes have been addressed in past Plans.

Sewage sludge is accepted into the NTSWA integrated solid waste management system as long as it meets the physical characteristics outlined by the DEP. These sludges must be digested or stabilized and pass a paint filter test. According to the NTSWA Form R - Waste Acceptance Plan, a DEP Form 43 must be submitted by the generator prior to disposal of sludges in the NTSWA system. Since 2000, the NTSWA has accepted an average of 1,840.65 tons of sewage sludge per year; with the maximum amount 2,532.78 tons, being disposed of in 2004. A listing of the municipalities with planned or existing sewage treatment facilities is in Appendix 5.

Liquid septage wastes are generated by on-lot septic systems, collected by septic haulers in the area and treated at the NTSWA Leachate Treatment Facility or other capable municipal wastewater treatment plants. A study was recently conducted by the Bradford



County Conservation District that outlined a management plan for biosolids in the county. The Bradford County Commissioners approved this plan, The Bradford County Septage Management Options, in July of 1996. According to this study, nearly 85% of residences, 20,402 households, utilize some sort of septic or cesspool treatment. The potential for septage waste could be nearly 6.5 million gallons per year for Bradford County alone if a proper or mandated pumping schedule was realized. Detailed information about septage and biosolids management in Bradford County can be referenced in the above mentioned plan.

The NTSWA Leachate Treatment Facility accepts only a fraction of the septage wastes from the area. In 2003, NTSWA treated 347.41 tons of septage waste and has the capacity to treat much more. These wastes do not lend themselves for recycling. Land application of these wastes is minimal in the Northern Tier area because of soil conditions and cost factors.

**d. Infectious, Pathological and Chemotherapeutic Waste**

These wastes are mainly associated with hospitals, however, can also be generated by doctors offices, health clinics, veterinarians, undertakers, dentists and other such establishments. Under the NTSWA Form R - Waste Acceptance Plan, only ash residue from incineration of this type of waste can be disposed of at the NTSWA facilities. This must be approved through a DEP Form 35, prior to acceptance.

At this time NTSWA is not receiving infectious, pathological and chemotherapeutic waste. NTSWA does not anticipate receiving any I/C Waste in the future.

In past plans, an extensive survey was completed for tracking unincinerated infectious, pathological and/or chemotherapeutic waste from various dentists, doctors, etc. It was concluded that the majority of these entities hired a private firm to collect, transport, and dispose of this type of waste. A complete list of licensed Infectious and Chemotherapeutic Waste Transporters is available from the DEP, Bureau of Waste Management. This type of waste does not enter the NTSWA system for disposal.

**e. Ash from Resource Recovery**

These types of waste are not generated in Bradford, Sullivan or Tioga Counties at this time, nor is NTSWA aware of any plans for facilities that would generate this type of waste stream.

**f. Hazardous Wastes**

Hazardous waste, generated by major industries, is not covered under the NTSWMP. It is the responsibility of any entity generating hazardous waste to arrange for the proper storage, collection, transport and disposal of such waste. Special permits may be required for this process. The NTSWA does not accept hazardous wastes from industry for disposal.

**i. Household Hazardous Waste (HHW)**

At this time, the NTSWA addresses several wastes considered to be hazardous, however, because they are in small quantities, generated by

homeowners, they are considered a part of the municipal waste stream or deemed 'household hazardous waste' (HHW). Automotive wastes like used oil, antifreeze and lead acid car batteries are diverted from landfill disposal and sent for reclamation or recycling. Usable paint products are also diverted to a Paint Exchange Program for residents. The most beneficial part of this program is the educational aspect that encourages generators of HHW to purchase only quantities needed, recycle what they can or properly handle and dispose of other dangerous chemicals. NTSWA annually hosts a free residential collection. It is anticipated that this collection will remain an annual event.

HHW materials are handled on a case-by-case basis. For example, dangerous pesticides may be diverted to the Pennsylvania Chemsweep Program, which is geared to properly dispose of farm pesticides and chemicals. Mercury wastes are referred to the DEP and explosives or ammunition would be referred to the PA State Police. Because of exorbitant costs for disposal of most wastes classified as HHW, the NTSWA at this time has opted to not conduct a more extensive permanent collection.

National estimates indicate that while HHW is the most hazardous of the municipal waste stream, HHW only comprises approximately 1%.

**g. Miscellaneous Wastes**

**i. Waste Tires**

In 1997, the disposal of whole tires in landfills was legislatively banned. Tires are difficult to handle in landfill operations because of their bulk and refusal to stay buried. These tires are classified as residual wastes because of their special handling and disposal nature.

As mentioned in the previous plan, the NTSWA has conducted an intensive study on the disposal and recycling options for tires of all sizes. Upon completion of this study and because of Pennsylvania legislation banning whole tires from landfill disposal, the NTSWA purchased a tire-shredding unit with intent to become a regionalized processor for tires. Shredded tires are currently used for beneficial use applications like protective cover and drainage at the landfill sites. Tires are generated by residents and tire service stations of the area and brought to NTSWA facilities.

The NTSWA may from time to time conduct various tire pile cleanups. These may be completed at the request of a resident, municipal or state entity. The NTSWA tire-shredding unit may be moved to the tire pile location if it is not feasible to transport the tires to the shredding unit.

In the future, shredded tires from the NTSWA processing operations might be used as tire-derived fuel, road aggregate, or for other beneficial uses. The recycling of tires into other rubber products at this point is difficult because markets and technology are limited.

The amount of tires generated per year is rather difficult to assess because the NTSWA disposal/ recycling records include the amount of tires generated that include tire pile cleanups and stockpiles that may have been in existence for many years. Also the generation of used tires by consumers varies greatly.

**ii. Leaf and Yard Waste**

The NTSWA disposal facilities are equipped to handle composting of small amounts of leaf and yard waste, however, because of organized municipal compost operations and rural backyard composting, very little is transported to the NTSWA facilities. These municipalities are as follows:

<u>Bradford County</u>	<u>Tioga County</u>	<u>Sullivan County</u>
Sayre Borough	Blossburg Borough	Dushore Borough
South Creek Township	Mansfield Borough	
South Waverly Borough	Wellsboro Borough	
Towanda Borough		
Troy Borough		

As addressed in previous plans, the NTSWA has investigated the composting of sewage and septage sludge with leaf and yard waste. Such a facility has not been constructed since the need for a regional facility is not present at this time.

The NTSWA owns a “woodhog” processor to aid with both private and municipal composting operations. NTSWA is also promoting backyard composting and in conjunction with the County Cooperative Extensions in the area is distributing backyard compost bins.

Because of the extremely rural nature of Bradford, Sullivan and Tioga Counties, quantification of the amount of composting is difficult, if not impossible. However, the municipalities should be reporting to the counties the quantity of leaf waste collected in the counties for the annual recycling report to DEP.

**iii. Bulk Waste Items from Cleanups**

Various bulk waste items are generated year-round, however, homeowners and municipal cleanups create the majority of bulk waste items in the spring and fall. These items might include appliances, mattresses, and other furniture. Metal objects are diverted from the landfill operations to brokers or recyclers of the material. Other non-recyclable items are classified as municipal waste and treated as such.

One important requirement of metal recycling is that all refrigeration units have freon removed. NTSWA is presently the only entity in the area that has trained staff and appropriate equipment to accomplish freon removal. Hence, many refrigeration units that might be taken to other metal salvage operations come to us. Freon removed from refrigeration units is recycled.

**iv. Asbestos**

Asbestos Contaminated Waste (ACW) from Bradford, Sullivan or Tioga Counties can be accepted, with appropriate approvals, into the NTSWA system. ACW is considered a special handling waste under the NTSWA Form R - Waste Acceptance Plan. Case-by-case, generators of the waste must request for disposal of the material and supply a certificate of generator and waste manifest.

The generation of asbestos contaminated wastes is sporadic as construction or demolition projects are conducted. An average of 22.79 tons of asbestos materials is disposed in the NTSWA system per year. The most asbestos disposed of in one year was 114.89 tons, in 2008.

There are no recycling technologies for this material.

**v. Contaminated Soils**

Contaminated soils are also classified as a special handling waste under the NTSWA Form R - Waste Acceptance Plan. These types of waste would include soil, absorbent material and/or vegetation contaminated with fuel oil, diesel fuel, aviation fuel, kerosene, gasoline or other such substance.

Generators are required to complete and submit a DEP Form FC-1 prior to acceptance and approval. If more than 25 tons of material is generated at one time, laboratory testing is also required.

In 2006, the NTSWA disposed of 3,522.49 tons of contaminated soils. The average since 2000 has been 1,432.27 per year.

**D. Storage of Wastes**

The storage of municipal waste in each municipality varies little. Households store their wastes in plastic, metal or paper fiber containers. These containers vary in size from 5 to 55 gallons. Collectors who pick up these containers usually limit the size to approximately 30 gallons due to the weight factor.

Apartment complexes, institutions, commercial establishments and small industries may use the preceding storage system or opt for a container system. These watertight containers are of steel construction with hinged lids and range in size from 1 cubic yard to 10 cubic yards. They may be 'side-loading' or 'rear-loading' depending on the collector servicing the establishment. Refuse collection vehicles lift the container and dump into their load.

Large institutions and industrial establishments may use large roll-off containers ranging in size from 10 to 40 cubic yards. These watertight, steel containers may be open-top, non-compaction containers or closed compaction containers. Compaction units use a stationary hydraulic compactor to compress the waste into a smaller volume.

**E. Collection and Transportation of Wastes**

**I. General Refuse Collection Program**

Presently, the collection of solid waste, municipal or residual, varies greatly with each municipality. The three county area has municipal collection, franchised haulers, and private independent collectors. Since this section is applicable to all municipalities, the types of collection available will be discussed only in basics.

Household collection is usually done weekly and even once every two weeks in some townships. Household collection in boroughs is also done once or twice per week, depending on the borough and the weather. Municipalities with some form of Collection or Garbage Ordinance dictate the type of service a hauler must provide, whether that hauler is licensed or not.

Commercial and industrial establishments' waste is collected in any combination of ways ranging from numerous times daily, once per week to once per month. This depends on type of waste and the needs of that particular firm.

The frequency of collection varies, as does the service that comes with it. Some haulers and municipalities require that the refuse be placed at the curb in specific ways, i.e. in plastic bags, 30 gallon cans, bundles, boxed, etc. Some collectors require the homeowners to place their refuse at the end of their driveway or even at the end of a township road if access to that home is difficult. Collection of most commercial accounts is accomplished by containerization, rear or side dump trucks. The amount to be collected for a specific service is set by either the hauler or municipality. This may range from price per bag or container (specific sizes) to price per cubic yard. A few collectors require homeowners to purchase garbage bags or tags that are color coded or printed with that collector's or municipality's name. The cost of the bag or tag is equal to the collection fee per bag. The collector is then obligated to pick up the bag when placed along the road.

All of the counties have some type of private collection service available. In municipalities where solid waste collection service is limited or inadequate, the NTSWA or an individual municipality may provide collection. The following municipalities collect their own waste: Blossburg Borough, Sayre Borough and Wellsboro Borough. The NTSWA also provides public collection services upon request of a municipality.

Private and public collection vehicles range from pickup trucks with side racks to 25 cubic yard high compactor units. Collection vehicles also may be roll-off container trucks using containers from 10 to 42 cubic yards.

Presently, in the open market system, the hauler chooses the site at which the municipal waste will be disposed of unless the waste is under contract between the generator and the disposal site. Disposal could be at one of the NTSWA disposal facilities or at one chosen out-of-state. Mainly, this system is driven by economics of waste collection, transportation and disposal. The waste will go where it is economically the most advantageous. This system is the most advantageous to the residents and municipalities because collection rates are kept low through competition.

## **II. NTSWA Collection Program**

With its inception, the NTSWA was actively involved with the collection and transportation of municipal and construction/ demolition wastes. This "Rural Collection System" is outlined in the 1986 version of the NTSWMP. It originally consisted of fifteen (15) containers and one diesel roll-off truck. This concept was devised by NTSWA because of the lack of refuse haulers and municipal options for rural waste collection. Through the years, the role that the NTSWA has taken in refuse collection has varied according to the needs of the three counties. The NTSWA has always participated in the collection of waste, however, to differing degrees depending on the climate of the solid waste industry and needs determined.

Presently, the NTSWA conducts residential, commercial, institutional and industrial waste collection in a variety of ways. Larger establishments can utilize the NTSWA rear-load or roll-off container services. Rear-load containers, ranging in size from one and a half (1½) to eight (8) cubic yards, are rented out to customers and serviced as frequently as determined by the customer. Roll-off containers twelve (12), twenty (20), thirty (30) or forty (40) cubic yards are also available and utilized primarily for construction and demolition projects.

One large proponent of the NTSWA collection program is spring and fall municipality cleanup programs. These events are held to combat illegal dumping, unsightly litter and to encourage a cleaner, brighter, Northern Tier. This concept is not new and the NTSWA was an original participant in this program. Municipalities contract with a hauler, possibly NTSWA, to collect non-traditional municipal waste that includes furniture, mattresses, appliances, other metal items, and bulky objects. These cleanups are popular with residents who lack other outlets for

disposal of these items and hence municipal officials are providing a greatly needed service for their constituents.

Collection of refuse by NTSWA also coincides with the collection of recyclables in some areas. The NTSWA anticipates that this co-collection of materials will be more common and cost efficient in the next 10 years.

### **III. Listing of Current Refuse Haulers**

The following is a listing of the known refuse collectors operating in the three counties of Bradford, Sullivan and Tioga at the time of this publication. This listing is dynamic because of waste industry consolidations and because the “pickup truck” haulers frequently sprout up and/or go out of business. This listing is correct and current to the best of the NTSWA’s knowledge; however, the NTSWA does not take responsibility for haulers not included on this list.

#### **Bradford County**

Buddy’s Disposal	570/596-2308
D & L Disposal	570/265-3266
Dibble’s Disposal	570/596-2308
Northeast Municipal Waste	570/247-5600
Northern Tier Solid Waste Authority	570/297-4177
R.G. Brown Refuse Removal	570/869-1672
Robert Reynolds Sanitation	570/297-3016
Ron Powell	570/247-2083
Sayre Borough	570/888-7730
Superior Waste	570/553-2287
TNT Disposal	570/297-0101

#### **Tioga County**

Blossburg Borough	570/638-2452
Dehaven Services	570/659-5159
Foil’s Disposal	814/435-6646
Northern Tier Solid Waste Authority	570/638-2107
Ray Ingalls (Construction only)	570/324-3075
Real Disposal	570/662-3818
Taft Disposal	570/827-3544
Wellsboro Borough	570/724-3186

#### **Sullivan County**

D & L Enterprises	570/928-9410
George Heath Jr.	570/928-9198
Northern Tier Solid Waste Authority	570/297-4177
B& R Container	570/928-7769

#### **IV. Hauler Permitting**

The Northern Tier Solid Waste Authority (NTSWA) currently permits haulers and their respective collection vehicles that utilize the NTSWA disposal facilities. There currently is no fee for this permit procedure. This process encourages haulers to be in compliance with the Solid Waste Management Act and Act 101. The NTSWA encourages all haulers, public and private to abide by Federal Motor Carrier and DEP guidelines for refuse transportation. Permitted haulers, that meet insurance, waste transport documentation and other criteria are offered a discounted tipping fee for using the NTSWA facilities. This permit process is geared to aid in safe collection, transportation and disposal of wastes that become a part of the NTSWA Integrated Solid Waste Management System. This process also has an educational component that aids in both private and public collectors with providing a service that is beneficial to the public's health and safety.

## **Chapter 2 - Description of the Disposal or Processing Facilities in Bradford, Sullivan and Tioga Counties**

Facilities owned and operated by the Northern Tier Solid Waste Authority (NTSWA) that are located in Bradford, Sullivan or Tioga Counties, Pennsylvania, are described herein. Much of the past descriptive information about the NTSWA Facilities is not included in this plan, but can be referenced in previous plans. Reference is also made to other privately owned facilities located in the counties. Detailed information regarding other permitted waste management facilities not owned by the NTSWA is available at the Department of Environmental Protection, Bureau of Waste Management, Williamsport, PA. Description of disposal facilities located outside the three counties was not available to the NTSWA for the purposes of this plan.

### **A. Tioga County**

#### **I. NTSWA Landfill #1 - DEP Permit #101201**

The present day NTSWA Construction/Demolition (C/D) Landfill is situated on a 263.5 acre tract of land that is situated in Hamilton Township, Tioga County, 1.5 miles from Blossburg Borough and U.S. Route 15. (See Appendix 6) The current address of this facility is 540 Old Bloss Road, Blossburg, PA, 16912. The telephone number for this site is 570/638-2107. Communication is accomplished by the telephone system or two-way radio accessible in all NTSWA equipment, facilities and offices.

While previously a municipal waste landfill, on April 13, 1994, the site re-opened as a natural renovation landfill for acceptance of approved construction and demolition wastes only. Permit #101201 is currently valid and allows the use of 75.76 acres for the construction and operation of an attenuating soil lined construction and demolition waste landfill. An average of 18.31 tons per day is currently being landfilled, mostly derived from the Tioga County area. A maximum of 250 tons per day can be accepted, however, the average tons per day cannot exceed 150 according to permit conditions.

The area fill and trench fill methods are being used under permit guidelines to landfill these wastes. The NTSWA owns several pieces of heavy equipment at this site that aids in the placement, compaction and covering of wastes received. Stand-by equipment is available from the NTSWA Landfill #2 in Bradford County. Leachate management, landfill gas venting system, ground water monitoring and other support structures are maintained according to the DEP and permit requirements. All wastes are weighed on approved on-site truck scales prior to disposal. While landfill personnel accomplish some salvaging of recyclable materials, no public scavenging is allowed at the landfill working face. One of the NTSWA Recyclable Processing Centers is located at this site.

After reaching the useful life of this facility, the land will be returned to a condition similar to its previous field and wooded state. This will enhance the use of the area by wildlife.

The site accepts waste Monday through Friday from 8:00 am until 4:00 pm and on Saturdays from 8:00 am until Noon.

This site is also the location of the NTSWA Transfer Station, as described in a later section. All municipal wastes are transported to the lined NTSWA Landfill #2 in West Burlington Township, Bradford County (also described herein).



## **II. NTSWA Transfer Station - DEP Permit # 101578**

With the closure of the NTSWA Landfill #1 for municipal waste disposal, there was a need for transporting these wastes from the Landfill #1 to the NTSWA Landfill #2 in West Burlington Township, Bradford County. In April 1990, when the Landfill #1 was closed, the NTSWA began the design and permitting of a municipal waste transfer station. This was constructed and opened during 1991.

This facility was built to the west of the NTSWA Landfill #1 and recycling center. This facility is 50' X 80' with an eave height of 22 feet to allow for acceptance of the various collection vehicles. The dumping bay measures 14 foot wide and is equipped with overhead doors. The transfer trailers are located at the lower level, which is also enclosed and equipped with overhead doors. The Station has a concrete tipping floor with floor drains to collect liquids associated with the collection of municipal wastes. These drains empty into a piping network connected to two 1,000-gallon leachate holding tanks. The tanks are equipped with an alarm indicator for detection of the full status. Liquids from these tanks are pumped into a transport truck and shipped to a local sewage treatment plant.

Wastes are dumped onto the concrete tipping floor or into 110 cubic yard walking floor solid waste transfer trailers. Once maximum payload is achieved, approximately 22 tons, the trailers are covered, weighed and transported to the NTSWA Landfill #2. Operation of the station is by NTSWA personnel with NTSWA equipment. Based on current tonnages, one truck tractor and two transfer trailers accomplish the necessary hauling. This could change depending on the amount of waste received at the facility.

Many support structures for the NTSWA Landfill #1 are also used for the NTSWA Transfer Station. These might include ground water monitoring, recycling facilities, weigh scales, offices, appliance storage areas, etc. The station is equipped with a pressurized water system for fire protection and to help with general cleaning duties.

Under Permit #101578, the NTSWA Transfer Station accepts waste Monday through Friday from 8:00 am until 4:00 pm and on Saturdays from 8:00 am until Noon. See Appendix 3 for a USGS topographical map of the area.

## **III. Tiadaghton Area Transfer Station - DEP Permit #101217**

This facility is located in Delmar Township, Tioga County along U.S. Route 6, west of Wellsboro, PA. It is currently owned and operated by NTSWA. This transfer station was originally permitted by the NTSWA in 1980, however private enterprise owned and operated it until 2008. This transfer station currently accepts municipal, construction/demolition and limited residual wastes generated in Bradford, Sullivan and Tioga Counties, Pennsylvania. According to permit requirements, the transfer station can operate from 6:00 am to 6:00 pm Monday through Saturday. The maximum average daily tonnage should not exceed 65 tons and no more than 75 tons may be received at the facility on any single day.

The waste is weighed on truck scales and dumped in a partially enclosed dumping station. Various collection vehicles and residential customers dump waste into 100+ cubic yard transfer trailers.

## **IV. Phoenix Resources Residual Waste Landfill - DEP Permit #101649**

This site is located in Duncan Township, Tioga County, near the village of Antrim. It is currently owned by Waste Management Inc. and is double-lined permitted landfill for disposal of approved residual wastes. This site was lined when switched from a C/D landfill to residual

waste. The impetus for obtaining a residual waste landfill permit was due to the Marcellus Shale gas exploration and need for disposal sites for associated residual waste. The site is permitted to operate from 6:30 am to 8:00 pm, Monday through Saturday. The maximum daily tonnage can not exceed 2000 tons and the average daily tonnage can not exceed 1250 tons as per permit requirements. Limitations for waste acceptance include tires, appliances and lead-acid batteries.

The major transportation routes for the wastes are U.S. Routes 287 and 15. Wastes are weighed on truck scales and disposed of using traditional landfilling methods. There are no known recycling operations at this facility.

For more information, contact the Department of Environmental Protection, Bureau of Waste Management, Williamsport, PA, 17701.

## **B. Bradford County**

### **I. NTSWA Landfill #2 - DEP Permit # 101243**

The present day NTSWA Sanitary Landfill #2 is situated on an 88.3 acre tract of land that is located in West Burlington Township, along U.S. Route 6, 9 miles east of Troy, PA. The current address of this facility is P.O. Box 10, Burlington, PA 18814. See Appendix 7 for a USGS topographical map of the area. The telephone number for this site is 570/297-4177. Communication is accomplished by the telephone system or two-way radio accessible in all NTSWA equipment, facilities and offices. The site accepts waste Monday through Friday from 8:00 am until 4:00 pm and on Saturdays from 8:00 am until Noon.

A full history of this facility can be referenced in Appendix 8.

On September 8, 2011, NTSWA acquired 26.0 acres from the PA Game Commission for the purpose of expanding Landfill #2 in the future. This expansion when complete is expected to give Landfill #2 an additional 10 to 15 years disposal capacity.

In 2010 an average of 485.17 tons per day were being landfilled at NTSWA Landfill #2. A maximum of 1,750 tons per day can be accepted, however, the average tons per day cannot exceed 1,250 tons according to permit conditions. Wastes accepted for disposal according to DEP guidelines include; municipal solid waste, residual waste, asbestos contaminated waste, contaminated soil, and sewage sludge. Leachate treatment, landfill gas management, wood grinding and tire shredding operations are also conducted on-site.

The landfill is operated according to standard landfill practices. NTSWA owns many pieces of heavy equipment that aid in the placement, compaction and covering of wastes received. Stand-by equipment is available from the NTSWA Landfill #1 in Tioga County. All wastes are weighed on approved on-site truck scales prior to disposal. While landfill personnel accomplish some salvaging of recyclable materials, no public scavenging is allowed at the landfill working face. Wastes are covered daily with either screened dirt or approved alternate daily covers like tarps or foam. A litter collection system has been constructed and is periodically updated to control blowing litter. Groundwater monitoring occurs on a quarterly basis according to permit conditions. One of the NTSWA Recyclable Processing Centers is located adjacent to the landfill. See Chapter 4 for a detailed description.

After reaching the useful life of this facility, the land will be returned to a condition similar to its previous field and wooded state. This will enhance the use of the area by wildlife.

The extent for which this site will be used for waste disposal solely depends on the open market system during the life of this plan.

## **II. Disposal Limitations**

Acceptance of municipal solid waste at the NTSWA Landfill #2 from outside the geographic boundaries of the NTSWA service area shall be limited to 10% of the total amount of all solid waste generated in the Counties of Bradford, Tioga, and Sullivan on a yearly basis and other conditions imposed by the NTSWA. This is according to the three County Solid Waste Management Ordinances found in Appendix 9.

### **C. Sullivan County**

#### **I. Laporte Township Refuse Depository**

Laporte Township operates a drop-off point for bagged residential refuse, white goods and recyclable items. This facility is located at the Laporte Township Municipal Building along U.S. Route 220, 1.5 miles south of the Borough of Laporte. See previous plans for historical information.

### **D. Northern Tier Solid Waste Authority Co-Generation Project**

In 2000, NTSWA initiated a landfill gas to energy project that began with a CAT 3516 landfill gas engine that would convert 330 SCFM (Standard Cubic Feet per Minute) of landfill gas into 800 kWh (kilowatt-hour) of electricity. NTSWA and PPL Renewable Energy partnered to upgrade the CAT 3516 to a CAT 3520 in 2009 to better manage the quantity of gas produced in the landfill. The CAT 3520 will convert up to 520 scfm of landfill gas into 1600 kwh of electricity. There are many environmental benefits to this project. The engine burns cleaner and is able to double the electricity output, all while significantly decreasing the release of noxious methane gases into the atmosphere. The electrical output from the engine is supplied by NTSWA back to the public through the grid at the equivalent of powering 1600 homes annually. Waste exhaust heat from the engine is recovered and used to heat NTSWA facilities and neighboring county facilities. Further benefits from this project may be developed in the future.

### **E. NTSWA Administrative Operations and Implementation Services**

#### **I. Central Office**

The NTSWA Central Office is located at the West Burlington Township, Bradford County, disposal location. This office is the primary nerve center for the NTSWA operations. Most administrative staff is housed here, conducting day-to-day oversight of operations in all three counties. Accounting and billing operations are housed primarily at the Hamilton Township, Tioga County facility. Duties performed by administrative staff at both sites include recordkeeping/ data management, dispatch, employee oversight, DEP reporting, etc.

As delegated by the Counties, the NTSWA is responsible for solid waste planning and Plan implementation. (See Appendix 10). These responsibilities cover a wide array of activities and change periodically due to the solid waste industry in general, recycling markets, public participation in the system, and regulatory atmosphere, among others. Periodically NTSWA staff reflects on the NTSWA's performance, conduct efficiency studies for facilities or programs, research new avenues for integrated solid waste management, and develop new programs to address the current needs for the area.

## **II. Pay-As-You-Throw (PAYT) Collection**

One of the most recent NTSWA expansions has been our collection capability. Since NTSWA's inception, the system has been based on a crude PAYT principle. Entities utilizing the NTSWA disposal facilities are charged based on the volume or weight of materials deposited at the landfill sites. State-of-the-art truck scales also reflect an accurate amount of refuse collected off-site and customers pay based on how many tons or bags of trash are collected.

With the expansion of our refuse collection services, the NTSWA researched a full-blown PAYT program, whereby residents pay per bag at the curb. The benefits of PAYT have been demonstrated through NTSWA, the EPA and other entities. The NTSWA continues to review, evaluate and tweak this system to the benefit of the residents in the area.

Commercial customers and light industrial accounts presented a problem for the traditional PAYT program. On-board truck scales are legal for formulating a collection fee, however cannot be certified by the state, hence NTSWA could not charge based on actual weight from these scales. A system was developed whereby the customer is charged according to weight category, determined by taking an average from particular accounts collection records. Hence, restaurants with an abundance of food and other 'heavy' waste products are charged more than other similar establishments. This encourages waste reduction and recycling.

The residential, commercial and industrial PAYT systems will be further developed in the next few years. Service and cost efficiency will continue to be scrutinized by the NTSWA staff to the benefit of NTSWA as well as the residents of the three counties.

## **III. Illegal Disposal**

For many years, the NTSWA has been active in promoting and conducting municipal cleanups. These projects mainly address bulky wastes and other non-traditional municipal solid waste items. NTSWA believes that these projects prevent illegal dumping in our rural area and are a valuable service for elected officials to provide for their constituents.

The NTSWA intends to become more pro-active in the prevention and remediation of illegal dumps. We may seek grant monies or other funding for the potential to survey illegal dumps, prioritize with regards to environmental degradation and remediate as necessary. The NTSWA has the staff, experience, and other resources to implement this type of project. In order to help address illegal disposal and illegal burning NTSWA has worked with the Bradford County Conservation District and Keep Pennsylvania Beautiful on identifying illegal disposal sites and providing an outlet for the wastes recovered.

## **IV. Waste Tires**

In 1997, the Pennsylvania Legislature banned the disposal of whole tires from landfills. Since then, the NTSWA has studied the waste tire issue and developed a program to become a regionalized processor for waste tires. Currently the NTSWA owns a tire shredder that produces tire material that is used for civil engineering functions at our landfill sites. While this is an outlet for many of the tires, NTSWA intends to take another closer look at the problem and possible solutions. Hopes are to develop a system in which tires could be processed into a more beneficial or recyclable product. This program development would include research of existing tire processing equipment as well as markets for the different types of tire derived products. Tire piles around the area would also become a part of the study and final action plan.

## **V. Composting**

Due to the area's rural nature, the NTSWA has not constructed a regional composting facility. Many residents have large backyards or are situated on wooded lots. Review of the Annual Recycling Progress Reports and county recycling rates show that the potential for composting is still significant.

The NTSWA has been reviewing options for increasing composting in our area. Future purchase of composting equipment is being examined carefully. Reaching the 35% recycling goal is dependent on the amount of composting that is quantified in our area. The NTSWA intends to further pursue an accurate quantity of materials being composted, develop programs to promote backyard composting, as well as, to support municipal level composting projects.

## **VI. Reaching the 35% Recycling Goal**

The NTSWA intends to reach the 35% goal as set forth in 272.223 (d)(3) of 25 Pa. Code by 2020. In 2010, the NTSWA documented recycling rates for Bradford County as 44.6%, Sullivan County as 11.3% and Tioga County as 16.5% from the residential and commercial sectors. NTSWA will study and pursue avenues to make the existing program more efficient and increase the quantity and quality of materials. In the residential setting, NTSWA's collection, processing and marketing system is the backbone of all recycling in the three counties. Additional services developed might include waste auditing for commercial establishments, material brokering, waste exchanges, etc.

## **VII. Other**

Overall, the NTSWA intends, through this plan and continued improvements to the integrated system, to assist the three counties with waste management issues through the next 10 years. Besides the issues previously discussed, NTSWA may pursue investigations and develop programs or services to address the open burning issue, waste and recycling ordinances, municipal official education, household hazardous waste projects, and ongoing residential education. The NTSWA is committed to operate state-of-the-art, fully permitted facilities, however, support services and programs like these and the others described above are the infrastructure that keeps our integrated system successful and fulfill the requirements of state and federal regulations.

## **F. Impairment of Permitted Capacity of Named Facilities**

This plan only addresses the capacity available through the NTSWA landfill facilities. Because of the open market system, the plan will not impair the use of remaining permitted capacity or the capacity to expand at the NTSWA facilities. As per Pa Code, Title 25, Chapter 272, Section 224(b), substantial impairment might consist of the county ceasing to use a facility, or interfere with the ability of the facility to find other municipal waste customers.

## Chapter 3 - Estimated Future Capacity

### A. Waste Generation Projections

In Chapter 1, Section C.I., a detailed projection of the amount of wastes generated in the next 10 years was outlined. In conclusion, the projection was made that there would be 857,192 tons of municipal waste generated in Bradford, Sullivan and Tioga Counties. The NTSWA believes that this figure is relatively high considering past disposal tonnages; however, this figure is being used for planning purposes. By subtracting 53,537 tons of recycling conducted on average by the three counties, over the 10-year planning period, the amount of waste generated that would require disposal capacity equals 803,655 tons.

Chapter 1, Section C, II, b. of this Plan states that according to NTSWA disposal records, the amount of residual waste to be generated for disposal in the three counties should not exceed 82,137.09 tons per year for a total of 821,370.9 tons over the 10-year period. To account for the amount of these wastes that might be reduced or recycled in the future is extremely difficult, hence, the total amount will be used to calculate capacity requirements. In conclusion, all municipal and residual wastes generated Bradford, Sullivan and Tioga Counties, for disposal, could amount to 1,625,025.9 tons.

### B. NTSWA Waste Capacity Projections and Landfill Expansion Potential

As previously discussed, the NTSWA is a market participant that assures waste disposal capacity for all potential wastes generated in Bradford, Sullivan and Tioga Counties, for the next 10 years and beyond. Each facility has capacity projections made by NTSWA retained solid waste engineers and the Department of Environmental Protection (DEP). These projections also include expansion potentials as the NTSWA is continually looking to the future for waste disposal.

At the NTSWA Landfill #2 in Bradford County, the NTSWA was recently granted a permit by DEP to expand the landfill disposal fields to the west of the existing landfill. The permit expires on November 12, 2019. The existing disposal capacity is expected by NTSWA staff and engineers to last 10+ years at a disposal tonnage rate of 400 tons per day with 1,676,025.99 cubic yards of airspace remaining as of 2011.

On September 8, 2011, NTSWA acquired 26.0 acres of land adjacent to Landfill #2 from the PA Game Commission for the purpose of expanding Landfill #2 in the future. This expansion when completed is expected to give Landfill #2 an additional 10 to 15 years disposal capacity. See Appendix 7 for a USGS topographical map of the area.

The NTSWA Landfill #1, the construction/ demolition waste landfill currently has an estimated capacity of 20+ years. As previously described this site currently only accepts construction and demolition wastes, however, may have the potential to be expanded to a double-lined municipal waste operation. Again, NTSWA staff and engineers anticipate that approximately 50 acres at this site may be suitable for a lined municipal waste landfill. The expansion of this site would only be considered after the existing lined landfill in Bradford County has been utilized to its fullest extent. It is the NTSWA's opinion that a second municipal waste landfill could not be supported in the area at this time due to limited wastes generated. Also, the NTSWA wishes to utilize the landfill and support structures in Bradford County before developing another landfill site in order to maximize the cost sharing benefits of a regional landfill.

Because the Authority owns two sites and has additional ground available at the NTSWA Landfill #1 for development into a lined site, the counties of Bradford, Sullivan and Tioga have determined that there is no need during this 10-year planning period to give public notice or solicit additional disposal capacity for the waste generated in the counties. The available capacities are far more than adequate. The

NTSWA can assure capacity for both the municipal and residual wastes for the next 10 years. The extent of use of this capacity solely depends on the open market system. This system is unpredictable on a long-term basis, beyond the existing short-term waste disposal contracts.

### **C. Variables Affecting Capacity Projections**

The previous capacity assurances could be affected by several variables. Landfill regulations currently required of NTSWA can be suddenly changed on a state or federal level. In this case, existing structures may need to be modified and could affect the future capacity. Other affects might include the addition of new wastes streams or drastic changes in population projections. Increased recycling and waste reduction efforts could reduce the amounts of waste more than projected. The most likely affect would be that area waste haulers take wastes to other facilities out-of-state. Although these variables or other unseen ones may have an affect on the amount of capacity required for disposal of area wastes, the NTSWA will provide the counties with the knowledge and resources necessary to assure that the wastes are properly and safely managed. In the event that these variables are drastic, this Plan will be reviewed and revised as necessary.

### **D. Method of Formal Capacity Assurance**

This plan shall be considered formal capacity assurance to Bradford, Sullivan and Tioga Counties, PA from the Northern Tier Solid Waste Authority. The NTSWA guarantees minimally 10 years of waste disposal capacity for all wastes generated within these counties' boundaries.

## **Chapter 4 - Description of the Recycling Program**

The Northern Tier Solid Waste Authority (NTSWA) conducts the “Recycling Plus” program throughout Bradford, Sullivan and Tioga Counties, Pennsylvania. Included below is a description of that program.

### **A. Types and Quantities of Recyclables Accepted at NTSWA facilities**

Recyclables accepted at the NTSWA Processing Facilities include aluminum cans, clear and colored glass bottles and jars, tin cans, newspapers, corrugated cardboard, mixed paper, junk mail, office paper, magazines, catalogs, textbooks, #1 & #2 plastic bottles and jugs, clothing and textiles, used motor oil, antifreeze, lead-acid batteries, electronic waste, and metal appliances. Private haulers collect recyclables in several areas. The types of recyclables collected are similar to the ones collected by NTSWA.

Materials that can be added to the NTSWA program in a cost efficient manner may be included for acceptance at any time. It is not the policy of the NTSWA to delete items added to the recycling program unless very drastic market changes occurs. All materials must be source separated by the generator and properly prepared.

While the above materials are accepted at the NTSWA Processing Facilities, not every curbside or drop-off collection program accepts each of these materials. Residents, commercial establishments, institutions and industries are encouraged to make contact with either their local program or the NTSWA in order to verify materials they are eligible to recycle and preparation requirements in their respective locality.

In 2011, the NTSWA processed 10.7 million pounds of materials through our materials recovery facilities. We predict over 11 million pounds for calendar year 2012 and anticipate that this amount will gradually increase in the next 10 years. This gradual increase is evidence that we will reach the 35% recycling goal. The total amount recycled in all three counties is accurately reported to the DEP through the Annual Recycling Progress Reports that can be referenced through DEP.

### **B. Potential Benefits of Waste Reduction and Recycling in the Northern Tier**

The benefits of recycling are generally known throughout the three counties. Recycling saves energy, natural resources, landfill space and disposal costs.

#### **I. Benefits Unique to the NTSWA Recycling Plus Program**

##### **a. Cooperative Marketing**

Because NTSWA is a tri-county authority, all recyclables are marketed on a cooperative basis. Recyclables are accepted from residents, municipal collections, commercial establishments, private haulers and some industries at the processing centers. Detailed records of the amount generated by each entity are kept in a computer system as incoming loads are weighed. Materials, regardless of the generator are processed, stored and marketed together. From time to time, recyclables may be moved between processing centers in Bradford and Tioga Counties for marketing purposes. This makes the NTSWA system, made up of 104 municipalities, truly a cooperative effort.



## **b. Incentive Programs**

One very unique aspect of the NTSWA “Recycling Plus” Program is the “Buy Back” or Incentive Program. Residents can visit the processing centers and receive money for recyclables. Eligible municipal entities also receive proceeds for recyclables properly prepared and accepted at the processing facilities.

The NTSWA determines which items to include in the Buy Back Program and the prices paid according to market conditions. Recyclables previously purchased under the buy back include aluminum cans, clear glass, brown glass, tin (bimetal cans), green glass, mixed paper, magazines, newspaper, plastic bottles, jugs and corrugated cardboard.

Without mandatory recycling requirements or ordinances in the majority of the tri-county area, this incentive program provides an enticement to recycle.

## **II. Total Potential Solid Waste Reduction**

The determination of County recycling rates is conducted according to DEP and EPA models provided. The NTSWA does not use construction and demolition wastes as part of municipal wastes generated for recycling rate calculations.

The targeted state recycling goal, mandated by Act 101, has been increased to 35% by the year 2003. In order to meet this goal, all counties are going to need to qualitatively and quantitatively build existing programs and implement additional ones. The NTSWA will strive to reach the 35% goal.

In the Northern Tier, only Bradford County exceeded the old state recycling goal of 25% with a 1998 recycling rate of 26.9%. The 2010 recycling rates were as follows; Bradford County 44.6%, Sullivan County 11.3% and Tioga County 16.5%. The average rate for the three counties is 24.15%. The NTSWA contends that Bradford County will easily meet the 35% goal with Tioga and Sullivan County striving to reach the 25% mark due to their rural nature and lack of commercial/ industrial recycling. The NTSWA hopes that the average recycling rate for the three counties exceeds the 35% goal. See Appendix 11 for a chart of county recycling rates from 2000 to 2010.

## **C. Public Material Recovery Operations**

NTSWA owns and operates two recyclable processing centers (materials recovery facilities). These are located at the landfill sites in Hamilton Township, Tioga County and West Burlington Township, Bradford County. These recycling complexes are very similar in make up at each location and accept the same materials.

Processing equipment, owned and operated by the NTSWA, minimally includes horizontal balers. Various conveyance systems are in place to move recyclables for sorting or processing. Metal storage containers, gaylord boxes, wire cages, etc. are also located in and around the facilities for processing and storage purposes.

The structures and processing equipment, located at each of the NTSWA Processing Facilities were funded in part by Act 101, Section 902 grants administered by the DEP.

## **D. Private Material Recovery Operations**

Currently, as far as the NTSWA has determined, there are four salvage yards in Bradford County that are engaged in private sector recycling of metal materials also accepted by the NTSWA. It appears

that no other entities in Tioga or Sullivan Counties are engaged in this type of operation. The salvage yards in Bradford County are as follows:

<i>Operating Salvage Yards</i>	<i>Location</i>
Towanda Iron and Metal	Towanda, Bradford County
Strope's Salvage Yard	N Towanda, Bradford County
DC Warehousing & Recycling	Towanda, Bradford County
Riverside Recycling	Covington, Tioga County

These entities accept aluminum cans, steel, brass, copper and other metal products for resale and recycling. Towanda Iron and Metal also currently accepts a variety of industrial plastics and paper for recycling. At times, the NTSWA may use these entities or other scrap operations to market our metals. To our knowledge, the NTSWA is the only processor in Bradford, Sullivan and Tioga Counties for the array of residential and commercial recyclables listed above. The NTSWA is also the only entity that accepts and processes metal appliances with refrigeration units. Freon is recovered and recycled from these appliances.

**E. Recycling Compatibility with Other Waste Methods**

The NTSWA operates the Recycling Plus Program as a part of an integrated solid waste management system. Materials that can efficiently and cost effectively be recycled are collected, processed and transported to markets. The NTSWA continually is looking for new markets or recycling technologies to add to the program. Unfortunately, not all materials can be recycled in our rural area. The NTSWA educational program encourages source reduction and reuse as other options for the waste.

**F. Recycling Collection Methods**

The NTSWA conducts much of the collection, storage and processing of recyclables generated in the area, however, there are several programs that are currently accomplished by other private hauling firms in conjunction with refuse collection contracts. Many municipalities are eligible for recycling programs conducted by NTSWA. The collection of recyclables is as dynamic as the markets they are sold to. During good market conditions, collection programs crop up here and there to take advantage of profits from the sale of recyclables. On the other hand, during poor market times, collections may disappear. The collection programs identified are the ones that currently exist. At any given time these lists can change.

**I. Curbside Recycling**

Curbside recycling is most commonly conducted by NTSWA or private haulers with specialized, divided curbside trucks. Hard to handle items (corrugated cardboard) might also be collected by other means, like a packer unit traditionally used for refuse collection. Items collected vary per municipality but most often include aluminum cans, glass bottles and jars, plastic bottles and jugs, tin cans, and newspaper.

Currently only one municipality, Sayre Borough, is mandated to recycle at the curb, all others do so on a voluntary basis.

The following is a listing of some of the curbside programs conducted throughout the three counties in the year 2011:

**Bradford County**

Athens Borough  
Canton Borough  
Sayre Borough  
Towanda Borough  
Troy Borough  
S. Waverly Borough

**Sullivan County**

Dushore Borough  
Eagles Mere Borough  
Forks ville Area

**Tioga County**

Blossburg Borough  
Elkland Borough  
Mansfield Borough  
Putnam Township  
Wellsboro Borough  
Westfield Area

While adding curbside collections is not likely, this listing might be subject to change due to lack of participation, adding new collection programs, or other factors.

**II. Drop-Off Recycling**

Most drop-off collections utilize divided metal roll-off containers or “minibarns” equipped with barrels to receive and store materials. The roll-off containers are delivered and picked up at specified times or on a call in basis. Materials collected in minibarns are transferred to other collection vehicles like curbside trucks as needed. The most common items for collection at recyclable drop-offs include aluminum cans, glass bottles and jars, plastic bottles and jugs, tin cans and newspaper. Drives are periodically put on for items such as clothing and textiles, magazines, and junk mail.

These are most commonly sponsored and staffed by area civic or municipal organizations and serviced by NTSWA. These entities are eligible for the NTSWA Incentive Buy Back Program and receive monies for identified commodities.

The following is a listing of the known drop-offs for recyclables in the three counties:

**Bradford County – Drop-offs Open to the Public\***

Armenia Township	Asylum Township	Athens Township
Canton Township	Columbia Township	Laceyville Borough
Leraysville Borough	Litchfield Township	New Albany Borough
N. Towanda Township	Orwell Township	Ridgebury Township
Sayre Borough	Smithfield Township	South Creek Township
S. Waverly Borough	Sylvania Borough	Ulster Township
Warren Township	Wells Township	Wilmot Township
Wyalusing Township (2)		

**Bradford County – Drop-offs for In-house Use Only**

Arrow United	Asylum Twp VFW Post 6072	Athens Area Schools
Avery Dennison	Beiter’s	Blast IU 17
Bradford Cty Correctional	Bradford Cty Manor	Bradford Cty Commissioners
Bri-Marie Inn	Canton Area School District	Canton Mfg.
Captain Jack’s	Career Link	Cargill Meat
Catholic War of Vets	Clare Printing	Coppertree Shop
Craftmaster	D&H Keystone Market	Dandy Mini Mart
Dollar General	Dupont	Enterprise Zone
Epiphany School	Formula I Feeds	Futures
Gambal Printing	General Electric Railcar	Global Tungsten & Powders
GPU	Granville Township	Ingersoll Rand
Judy’s Country Store	Knight’s Out	Lackawanna College
Lehigh Tavern	Mangialardo’s	Martins Dairy Service

Masco Cabinet Group	Milltown Inn	Mt. Pisgah State Park
Northeast Bradford School	Northern Tier Counseling	Northern Tier Regional Plan.
Old Barge	Our Place	PA DOT
Rustic Grotto	Rynone Manufacturing	Sayre School
Sayre Senior Center	Serve	St. Agnes School
State Troopers Barracks	Stoll Building	Sylvania Citgo
Thrush Insurance	Towanda Area Schools	Towanda Mem Personal Care
Towanda Motel	Troy Area Schools	Troy VFW
Valley Energy	Villa Sena	Vincent's Pizza
Vinnie's Pizza	Wilbur House	Woody's Country Store
Wyoming Casing		

**Tioga County – Drop-offs Open to the Public\***

Bloss Township	Brookfield Township	Charleston Township
Chatham Township	Clymer Township	Duncan Township
Gaines Township	Hamilton Township	Jackson Township
Liberty Township	Morris Township	Richmond Township
Rutland Township	Shippen Township	Sullivan Township
Tioga Borough	Union Township	

**Tioga County – Drop-offs for In-house Use Only**

83 Main	Aikko's Flower Shop	Al's Chainsaw
American Legion-Post 572	America's Truck Stop	Arnot Sportsman's Club
Balsam Real Estate	Beiter's	Blossburg Post Office
Borden's Auto Parts	C&N Bank	Canyon Motel
Carlson, James Attorney	Carleton Senior Home	Century 21
Changos Bar	Cleveland Bros.	Coach Stop Inn
Comfort Inn	DDS John Eaton	Deane Center
DMD Robert C. Bair Jr.	Don Gill Elementary	Dr. Clark's Office
Dr. Fox's Office	Driver's Center	Dunham's Coffee Shop
Dunkin' Donuts	Elkland School	Fiamingos
First Citizens Bank	Forestry Bureau Office	Frog Hut
Garden Cottage	Gaslight	Ginn & Vickery
Gmeiner Art & Cultural Ctr	GPU	Gramma's Kitchen
Green Free Library	Green Home	Gregory's
Guy Morral Trucking	Hanover Engineering Assoc.	Haven of Tioga County
Hickory Festival	Hills Creek State Park	Hillside Rod & Gun Club
HMAC USA, LLC	Hornet's Nest-East Side	Horseshoe Inn
In My Shoes	Indigo Wireless	John's Service Center
Jokers Coal	Karen's Cutting Edge	Karschner & Sons
Keystone North	Kingdom Inc.	Lamb's Creek Food & Spirits
Landing Strip Restaurant	Laurel Health	Liberty School
Liberty V.F.W.	Main Street Antiques	Mansfield High School
Mansfield University	Mansfield V.F.W.	McDonald's
Murus Company	NAPA	Native Bagel
Needles Quilt Shop	Night & Day Coffee Café	Nittany Minit Mart
North Penn High School	Northwest Savings Bank	Osram Sylvania
PA Dept. of Health	PA DOT	Painted Cupboard
Parente Beard LLC	Park Hill Manor	Park Place Restaurant

Pearl Street Shops	Peggy's Candies	Penn E & R
Penn Oak Realty	Penn Wells Hotel	Penn Wells Lodge
Pinnacle Towers	PNT Collision	Post Office
Pudgies Pizza	Putnam Oil	Rhino Linings of Wellsboro
Roc & Doc's	Rock L Butler Middle School	Rte 6 Bowling Lanes
Sandu's Auto	Serve-U Settlement	Sherwin Williams
Sherwood Motel	Soldiers & Sailors Hospital	Spencer Gleason Hebe et al.
St. James Complex	St. Paul's Episcopal Church	Stained Glass Reflections
State Rep Matt Bakers Office	Steak House	Strad Oilfield Services
Superior Court	Tanglewood Camping	Terry's Hoagies
The Forrest Land Group	Thornapple Design Co	Timeless Destination
Tioga Area Federal CU	Tioga County Fair	Tioga County Historical
Tioga Cty Human Services	Tioga County Partnership	Tioga County Prison
Tioga Office Products	Tioga Publishing	Tioga St. Laundry Mat
Tioga Transmission	Tioga Ultrasound	Trehab Learning Center
Tri-County Electric	Triple A	Tyoga Carenet
Tyoga Container	United Methodist Church	USDA
Wal-Mart	Walrath & Coolidge	Ward Manufacturing
Warren L Miller Elemen.	Wellsboro High School	Wellsboro Automotive
Wellsboro Diner	Wellsboro House	Wellsboro Laurel Health
Wellsboro Masonic Lodge	Wellsboro Plumbing/Heating	Wellsboro Small Animal Hosp
Wellsboro Vets Club	West Avenue Café	Wild Asaph Outfitters
Wrens Nest	Yo Mamma's Mug	Yorkholo Brewing Co

**Sullivan County – Drop-offs Open to the Public\***

Cherry Township	Davidson Township	Dushore Borough
Forks Township	Hillsgrove Township	Laporte Township

**Sullivan County – Drop-offs for In-house Use Only**

Camp Brule	High Knob Inn	Hillsgrove Bar
Sullivan County Schools	Sullivan Terrace	World's End State Park

\*See Appendix 12 for maps showing NTSWA's public recycling drop-offs.

*Public Drop-offs are open to the general public. Private drop-offs are intended for recyclables generated only at that site by employees, students, visitors, etc. This list is subject to change as programs are created or deleted.*

**G. Options for Ensuring Recyclable Collection**

**I. Mandated Recycling Programs**

Sayre Borough is the only municipality mandated to conduct a curbside recycling program under Act 101 population and population density requirements. Sayre currently conducts a curbside recycling collection and a municipal drop-off location. Recyclables collected on the curb are delivered to the NTSWA Recyclable Processing Centers and NTSWA services the drop-off location with containers and transportation of the materials.

## **II. Other Options for Ensuring Recyclable Collection**

Residents in non-mandated municipalities are at the greatest disadvantage because of the distances to be traveled to reach the drop-off collections. However, some municipalities have taken a proactive approach to recycling by requiring their contracted refuse hauler to also provide curbside recycling services. In Tioga County, this would include Wellsboro, Elkland and Mansfield Boroughs. In Bradford County, this would include Athens and Towanda Boroughs. Other municipalities pay a collection entity (in the present case NTSWA) to have recyclables collected, independent of refuse collection. These currently include Dushore Borough in Sullivan County and Troy Borough in Bradford County.

## **H. Options for Marketing Materials**

When a load of recyclables meets the market preparation and weight requirements, NTSWA markets it through various brokers, mills, end-users or other processors. The NTSWA does not normally use contracts for marketing recyclable materials, they are sold in demand markets to the highest bidder. Through the years, NTSWA has established relationships with various brokers and end-users. These relationships allow NTSWA to gain better market commitments. New brokers or end-users are always welcome to bid on NTSWA materials.

## **I. Implementation Schedule for Mandated Recycling Programs**

At this time, it appears that no other municipalities will near both the population and population density provisions for mandatory recycling before the year 2020. This was determined by a review of the population projections made by the Pennsylvania State Data Center (2011). Hence, there is no schedule for implementation of additional mandated recycling programs.

## **J. Economics of NTSWA Recycling Program**

### **I. Costs of Operation and Maintenance**

The NTSWA intends that our recycling program be as economically feasible as possible, not creating large deficits in our budget. Each year, NTSWA allots between \$800,000 and \$900,000 for recycling operations and maintenance. This budget includes maintenance of the recycling trucks and processing equipment, program utility costs, advertising, other trucking costs, buy-back incentive monies for eligible residents and drop-off recycling collections, as well as grant match funding. This budget figure does not include labor costs for the collection, processing and marketing conducted through the recycling program. These particular costs are budgeted from the NTSWA tipping fees generated throughout our integrated solid waste management system.

### **II. Estimated Revenue**

Revenue for the NTSWA Recycling Plus Program includes the sale of cooperatively marketed recyclables. This revenue typically is around \$550,000, depending on market conditions for recyclable commodities; however, in 2011 it was \$916,000. Local and global conditions can drastically affect revenues gained. The NTSWA anticipates that recycling markets will continue to encounter drastic ups and downs.

The income for capital costs for the Recycling Plus Program is also supplemented by Act 101 Grant Funds. While these grant funds contribute to the sustainability of the recycling program in the Northern Tier, the delays and lag time of the grant programs make budgeting difficult for NTSWA.

### **III. Avoided Disposal Costs**

The associated avoided costs of materials processed and marketed through the NTSWA facilities was approximately \$240,916.95 in 2011. This is calculated using 5,353.71 tons of materials marketed, multiplied by the NTSWA Landfill tipping fee of \$45.00 per ton. It also should be noted that determining a monetary amount for future landfill space is very difficult because of possible changes in the regulatory atmosphere, solid waste industry, landfill techniques or recycling technology.

### **IV. Economic Comparison of Public vs. Private Recycling Operations**

The NTSWA began recycling collection at our landfill to fulfill the residential and commercial need. Other recycling entities in existence at the onset of this program could only handle limited residential and commercial recyclables. As the markets fluctuate, so do the private individuals and companies collecting the recyclables in demand. It is the experience of the NTSWA that when market conditions are bad, the NTSWA becomes the sole collector and processor for a majority of recyclables from the area. As market conditions improve “mom and pop” recyclers appear and eventually again disappear. To provide an economic comparison of these “temporary” private recyclers is not feasible. Also, to compare recycling economics for the NTSWA Recycling Plus Program and private scrap operations or salvage yards is not a consistent comparison, since the materials they collect are not traditional residential bottles, cans, paper, etc.

### **K. Considerations for Recycling Operations in Existence Prior to 9/26/88**

There were several private collectors of recyclables prior to the enactment of Act 101 on September 26, 1988. These included private scrap dealers, previously mentioned, as well as the local civic organizations that held recyclable collections. Through the creation of the NTSWA Recycling Plus Program these local collectors gained an additional market (NTSWA) for their materials. Private scrap dealers operating for profit in the area also have benefited from the increased NTSWA education of residents about the virtues of recycling. Lastly, since no recyclable commodities are contracted to the NTSWA, hence local markets can be used by any entity under the free market system. However, it is the experience of NTSWA that our recyclable processing facility is the most economically feasible and efficient for recyclables from the three counties.

### **L. Educational Programs**

NTSWA prides itself on educational efforts conducted in Bradford, Sullivan and Tioga Counties. Traditional educational methods like the mass distribution of flyers/ brochures and newspaper advertising are frequently conducted. Other types of education include school environmental days, assemblies, recyclable collection and awareness contests, scholarships, and tours of the facilities. State and National Recycling awareness programs like Pennsylvania’s Recycling Month, and America Recycles Day are brought down to the local level with various promotions and contests, such as Green-sylvania and Recycle-mania, which are school and college recycling competitions.

The educational program emphasizes proper source separation and preparation of recyclables by residents, commercial establishments, institutions and industries.

The NTSWA is committed to future educational endeavors because sustainable programs are built by educating residents of all ages in a repeated fashion. Proper integrated solid waste management must be a way of life. While continuing current, more traditional forms of information dissemination, NTSWA is looking to improve our educational services. Future educational projects might include litter prevention, household hazardous waste management, and/or buy recycled campaigns among others. Municipal officials, responsible for many waste management aspects, need up-to-date information, sample ordinances, and other resources necessary for making informed decisions. Illegal dumping is a topic that has yet to be addressed on a grand scale by NTSWA. Education of residents and municipal officials can prevent illegal dumping, enact and enforce ordinances and punish offenders.

These and other issues of integrated solid waste management will be studied, developed and implemented as needed and as financially feasible in the coming years.

#### **M. Waste Reduction Model (WARM)**

Northern Tier Solid Waste Authority used the EPA Waste Reduction Model (WARM) to calculate the environmental benefits of the recycling that is processed through the NTSWA's recycling centers located in Bradford, Sullivan and Tioga Counties. By calculating these benefits we are able to estimate annual greenhouse gas emissions (MTCO<sub>2</sub>E) that are avoided due to the recycling efforts of the Authority.

In 2011, the Authority processed 4,411.5 tons of recyclables. If those recyclables would have been landfilled it would have been equivalent to consuming 1,207,527 gallons of gasoline, 448,797 cylinders of propane, or 59 railcars of coal. See Appendix 13 for a more complete analysis summary report.



## Chapter 5 - Selection and Justification of Municipal Waste Management Program

### A. Selection and Justification of NTSWA

The three counties of Bradford, Tioga and Sullivan created the NTSWA in 1973 because the private refuse collection and disposal sector was non-existent or ill equipped to pursue and permit disposal facilities for the municipal waste facilities under the Solid Waste Management Act of 1968. Justification for the counties and the NTSWA to continue waste management programs have been carefully described throughout previous Plans. A summary of this process is outlined below.

#### I. Selection of Multi-County Solid Waste Authority

In 1968, the Pennsylvania Solid Waste Management Act implemented regulations and standards regarding the construction, operation and design of landfills. At this time, there were approximately 53 municipal “dumps” that could not meet these requirements and it was beyond the financial resources of individual municipalities to form landfills that were in compliance. Hence, in 1973, the Northern Tier Regional Planning Commission (NTRPC) developed the first multi-county solid waste plan. The NTRPC presented this plan to local municipalities at the township and borough level and asked for recommendations and resolutions regarding solid waste planning. The majority of the county-wide associations, both borough and township, played a leadership role in calling for the County Commissioners of Bradford, Sullivan and Tioga to form a multi-county solid waste management program. Two of the originally participating counties, Susquehanna and Wyoming, withdrew before the Northern Tier Solid Waste Authority (NTSWA) was formed.

The recommendations from the borough and township associations are in previous plans. These outlined the selection and justification for the creation of Northern Tier Solid Waste Authority (NTSWA), the first multi-county solid waste agency in Pennsylvania. Primarily, an entity like NTSWA would allow for a cost savings to the municipalities, enhance the chances for obtaining state and federal grants, promote regionalism, and take advantage of solid waste experience of people in all of the counties.

As a result of these recommendations, the county commissioners passed resolutions to enter into an agreement for the formation of a multi-county Solid Waste and Recycling Authority. (See Appendix 10).

On December 4, 1973, the Northern Tier Solid Waste Authority was incorporated under the Municipal Authorities Act of 1945. (See Appendix 14). The NTSWA is managed by an Executive Director, currently Scot C. Sample, and office staff of approximately fifteen and governed by a Board of Directors, consisting of three Directors from each county. The following is a current listing of these directors:

	<u>Name</u>	<u>From</u>	<u>Date Appointed to Board</u>
<i>Bradford County</i>	Dennis Chaffee	Rome, PA	January 1988
	Alston Teeter	Milan, PA	July 1993
	Jack Walter	Sayre, PA	January 1976

### *Sullivan County*

Clair Black	Dushore, PA	November 2011
Robert Woodhead	Forksville, PA	November 1973*
Richard Smith	Forksville, PA	February 1986

### *Tioga County*

Kenneth Palmer	Little Marsh, PA	March 1976
Dayton Mitstifer	Liberty, PA	November 1973*
Martin Beck	Wellsboro, PA	December 1981

*\*Original Board members appointed with the creation of the NTSWA in 1973*

In 1983-1984, the three incorporating counties, through resolution, designated the NTSWA as the planning and implementing agency to fulfill requirements of the Solid Waste Management Act of 1980. (See Appendix 15). With the passage of Act 101, the County Commissioners also designated the NTSWA as the planning and implementing agency to fulfill the requirements for planning and implementation. (See Appendix 16).

## **II. Selection and Justification of Past Waste Flow Control Practices**

After incorporation, the NTSWA's first task was to identify possible funding avenues for solid waste management. Grant monies handled by the Appalachian Regional Commission (ARC) through the Environmental Protection Agency (EPA) were gained in 1979 to fund the construction of solid waste facilities in the area. The final report for this grant, "A Demonstration of a Unique Three-County Regional Solid Waste Management Program", became one of the first forms of solid waste planning in 1983.

As early as 1977, the NTSWA developed a contract that when accepted and executed by a municipality as a resolution, ensured that waste from that municipality's boundaries would be directed to the NTSWA disposal facilities. The contract itself was to serve two purposes. First, it was developed to ascertain the interest, need, and support of the municipalities who supposedly would utilize the NTSWA. Secondly, this agreement would give the Authority a basis of guaranteed waste flow which could be used to estimate the size of processing or disposal facilities, service area covered, staff size necessary, equipment configuration, and most importantly, to certify to lending institutions that the Authority had a means or income capable of payback for any loans necessary to initiate and develop the project.

In 1988, the majority of the municipalities, 50% of the municipalities with 50% of the population, had adopted the agreement and the 1986 Northern Tier Solid Waste Management Plan. This allowed the NTSWA Plan and system to be "grandfathered" under Pennsylvania's Act 101.

During the 1980's and early 1990's the most prominent method of solid waste system financing, as was the case with the NTSWA, was through municipal ordinance and waste flow control.

## **III. Selection and Justification of Present Solid Waste System**

As a result of court rulings, and because the atmosphere surrounding the solid waste industry in general, the NTSWA has taken a different approach in guaranteeing the viability of our disposal facilities. The waste management system has become an open market in which NTSWA is a market participant guaranteeing refuse collection, processing and disposal services without violating local, state or federal regulations. The NTSWA integrated solid waste management system, including disposal facilities, is maintained primarily by contract with municipalities, refuse haulers, commercial establishments, institutions and/or industries in the tri-county area. These contracts are the primary sources of financial viability for the current waste system.

Municipal bidding requirements can also ensure waste guarantees to the NTSWA. In this open market system, municipal waste generated in Bradford, Sullivan and Tioga Counties can come to NTSWA disposal facilities or be taken to other facilities as determined by the hauler. Unless, the waste was under contract between the generator and disposal facility directly, which is the case with several industrial entities.

While all waste from Bradford, Sullivan and Tioga Counties will not continue to enter the NTSWA disposal facilities because of the open market system, it is the NTSWA's belief that our facilities currently, and in the future, will provide an economic and sensible option. It should be noted that the creation and success of the present day environmental safeguards for solid waste management are largely due to the careful direction by NTSWA Board of Directors and staff. Today, residents of the service area are receiving reasonable collection/disposal rates and cost efficient recycling services that are tied together with a comprehensive educational program. Residents, private haulers, and recycling entities will continue to utilize our system, even if the waste is not flow controlled, because of its proximity and cost effectiveness. This system is as envisioned by those original 1973 township and borough requests, as planned for in the late 1970's and strived for still today by NTSWA in this Plan.

In any event, the NTSWA will constantly pursue all options for municipal solid waste management, looking for alternative disposal options or regionalization advantages that would better the system. Most recently, the NTSWA researched the issue of administrative fee assessment for wastes generated in the three counties. Many other counties in Pennsylvania assess such a fee for services associated with administration, recycling, planning, public education and outreach, etc. At this time, the NTSWA does not foresee an immediate need for devising a system to assess an administration fee. In the event that revenue to fulfill the requirements designated by the Counties is required, the NTSWA may opt to further research the fee and necessary procedural changes on behalf of the Counties.

## **B. Selection and Justification of each NTSWA Waste Management Facility**

The selection and justification for the existing solid waste management facilities has been described in past NTSWMPs. Many consultant and engineering reports were generated during facility siting and system planning. A Solid Waste Advisory Committee for each of the three counties was appointed and activated to review present NTSWMPs. The minutes and comments of these meetings are included in previous Plans.

The following is a synopsis of the justification for each facility currently owned and operated by NTSWA. Other information can be referenced in past Plans. A more detailed description of these facilities can be found in earlier sections of this Plan.

### **I. NTSWA Landfill #1 - Tioga County**

This natural attenuation construction/demolition waste landfill was established in an area that had been previously strip-mined. It has environmental advantages because it was and is still relatively barren. It can be easily transformed and utilized as wildlife habitat after landfilling has occurred. The area is near the center of Tioga County to facilitate accessibility and low cost transportation. This facility has been owned and operated by the NTSWA since 1979 and because NTSWA has already committed significant monetary and other resources into this facility, creation of another facility or closing the existing one would not be sensible at this time. Half of the NTSWA recycling operations are based at this site.

## **II. NTSWA Landfill #2 - Bradford County**

This is the second facility sited by the NTSWA. It has environmental advantages since it was originally rural, unused farmland owned by Bradford County. This area can easily be used as wildlife habitat after landfill closure because of the physical characteristics of the surrounding area. The facility is located in the center of the county; hence it is easily accessed from all areas in Bradford County as well as the other two incorporating counties, Sullivan and Tioga. The NTSWA has attributed significant amounts of resources into the construction and operation of this state-of-the-art municipal waste sanitary landfill. In the opinion of NTSWA, construction of other facilities in the county at this time would not be financially or logistically possible. The amount of wastes generated in the area would not support a second landfill in the county or in other incorporating counties of the NTSWA. Half of the NTSWA recycling operations are based at this site.

Detailed information on the environmental, energy, life cycle, transportation, and costs impacts for this facility was included in previous plans as well as in NTSWA facility permit applications to DEP.

## **III. NTSWA Transfer Station**

This facility was constructed during the early 1990's. As a result of changing landfill regulations, municipal wastes could no longer be buried in the NTSWA Landfill #1 in Tioga County. It was determined that the most economical and wise use of existing facilities was to transfer the wastes to the existing NTSWA Sanitary Landfill in Bradford County. The NTSWA, area residents and private haulers utilize this station.

## **IV. Tiadaghton Area Transfer Station**

This facility was purchased by Northern Tier Solid Waste Authority in 2008. The facility was closed down by its previous owner and NTSWA saw an opportunity to expand their operations. The facility provides a more economical option to area residents and private haulers to utilize this station for refuse and recycling management.

## **V. Facilities Proposed for Construction by the NTSWA**

At this time, the NTSWA does not propose to establish any new waste management facilities in Bradford, Sullivan or Tioga Counties, Pennsylvania. The NTSWA contends that the amount of waste generated in the three counties would not support a second landfill or other disposal outlet.

This plan is reviewed every year to address capacity assurance requirements necessary for the annual recycling progress report to the DEP. In the event that the NTSWA cannot assure capacity for three years, this plan will be revised to include additional public or private facilities for that purpose.

## **VI. Alternative Disposal Locations for Wastes from the Northern Tier**

Through the open market system, generators or collectors of waste decide the use of alternative disposal facilities, other than those operated by the NTSWA. The NTSWA acts as a market participant, not a market regulator. This option has become a state and national trend since the 1994 Carbone Ruling by the U.S. Supreme Court and other various court cases. Also, waste

that was previously “flow controlled” by ordinances is now contractually directed to disposal or processing facilities. This appears to be the most fair, open and competitive manner for waste management at the present time. The NTSWA will continue to monitor the solid waste industry and regulatory atmosphere in order to provide the appropriate integrated solid waste management system and meet the needs of the three counties.

The economic advantages and disadvantages for these other waste disposal facilities are determined on a case-by-case basis for the haulers handling the waste.

## **C. Financing of Facilities, Recycling Programs and/or Waste Reduction Programs**

### **I. NTSWA Facility Financing**

The Northern Tier Solid Waste Authority (NTSWA) is currently a self sufficient municipal Authority. All income is derived from revenues generated through disposal, collection or recycling operations as well as limited grant awards from State sources.

Presently, none of the NTSWA operations are funded by special assessments, municipal or county taxes. The entire integrated system operates on a “user fee” basis in which users pay for disposal, collection or recycling services. The fees raised by the sale of recyclables also generate revenue depending on the market conditions. Since the NTSWA has been so successful, without long-term debt, plans are to continue the user fee for the next 10 years.

### **II. Alternative Facility Financing**

The NTSWA is not proposing to construct or operate any alternative facilities for waste disposal during the next 10 years. At this time, NTSWA does not see a need for financing. There are plans to expand Landfill #2 in the future; however, it is not anticipated that special financing will be needed for this and that any capital improvement in this area will be addressed through regular budgeting processes.

### **III. Recycling Program Financing**

The NTSWA Recycling “Plus” Program is funded by several sources. The majority of the funding, especially operational costs are subsidized through the user fees collected at the NTSWA disposal facilities. This program is also the recipient of Act 101 Recycling Grant Funds for capital costs, 50% of recycling coordinator wages, and performance (based on the tonnage of recycling collected in the municipalities). These funds are matched as required by NTSWA user fees. The sale of recyclables supplement the recycling operations, however, can be extremely dynamic according to market conditions. The greater the depression of recycling markets, the more the NTSWA recycling program is subsidized by the user fees and vice versa. The NTSWA has also been forced to charge municipalities for some recycling services, like curbside collection of the materials.

Plans are to continue to finance the recycling program as has been done in the past. During the next 10 years, NTSWA will strive to make the program as efficient and cost effective as possible, without jeopardizing its sustenance. The NTSWA actively promotes market development on a local, state and federal level because the strength of the recycling markets is directly related to the success of the area’s recycling programs. As financially possible, the NTSWA plans to expand its recyclable processing capabilities in order to meet the 35% recycling goal.

**D. Future Recycling Provisions at Proposed Waste Disposal Facilities**

The NTSWA is not proposing to construct or operate any alternative facilities for waste disposal during the next 10 years. Hence, there is no need for future recycling provisions at new waste disposal facilities. The NTSWA may expand our existing recyclable processing facilities to meet the needs of the area.

## Chapter 6 - Location and Identification of Available Facilities

The Northern Tier Solid Waste Authority (NTSWA) commits the following disposal facilities to handle wastes outlined in this plan. Others are identified and utilized according to the wishes of individual residents, municipalities, or private haulers.

1. Northern Tier Solid Waste Authority Landfill #2  
P.O. Box 10  
Burlington, PA 18814  
U.S. Route 6, 9 miles east of Troy, PA
2. Northern Tier Solid Waste Authority Landfill #1/Transfer Station  
540 Old Bloss Road  
Blossburg, PA 16912  
Township Rt 391 - 1.5 miles from Blossburg
3. Tiadaghton Area Transfer Station  
200 Tioga Street  
Wellsboro, PA 16901  
US Route 6, 1 mile west of Wellsboro

The NTSWA commits the resources of our Recycling Plus Program for handling recyclables as outlined in this Plan. This Program is administered from two recyclable processing centers as indicated below:

1. Northern Tier Solid Waste Authority  
Recyclable Processing Center #2  
U.S. Route 6, 9 miles east of Troy, PA – at the Landfill #2 Site
2. Northern Tier Solid Waste Authority  
Recyclable Processing Center #1  
Township Rt 391 – 1.5 miles from Blossburg – at the Landfill #1 Site

## **Chapter 7 - Implementing Entity Identification**

The Northern Tier Solid Waste Authority (NTSWA) was designated as the Solid Waste Planning Entity by the counties of Bradford, Sullivan and Tioga, Pennsylvania. Each county made this designation through resolutions attached in Appendices 15 and 16. These resolutions determine that NTSWA is authorized to prepare and implement solid waste planning on behalf of the counties and municipalities therein. The agreement also resolves that the NTSWA be authorized and directed to apply for any grants or funding for waste related activities that are or become available.



## **Chapter 8 - Public Function in Municipal Waste Processing or Disposal**

In 1973, elected officials from Bradford, Sullivan and Tioga Counties, Pennsylvania determined that the management of wastes in the area would be completed by a public entity, The Northern Tier Solid Waste Authority. The selection and justification of the public function were discussed in Chapter 5.

## **Chapter 9 – Implementing Documents**

The implementing documents for this plan have been described in previous chapters and are included among the Appendices.

## **Chapter 10 - Orderly Extension of Plan with other Programs**

The NTSWA has prepared this Plan in a manner that is consistent with the needs of the area. It describes the current integrated system for handling municipal solid waste in Bradford, Sullivan and Tioga Counties. The NTSWA has considered other county resources in preparation of this plan and has reviewed both the Act 101 and the Pennsylvania Code.

## **Chapter 12 - Public Participation in Plan Revision**

As required by 272.202 of 25 Pa. Code the Solid Waste Advisory Committees (SWAC) for Bradford, Sullivan and Tioga Counties have been re-activated for the purpose of reviewing the non-substantial revisions to this plan. All comments shall be incorporated or attached to this plan for public review. See Appendix 17 for a listing of the SWAC members and meeting minutes.

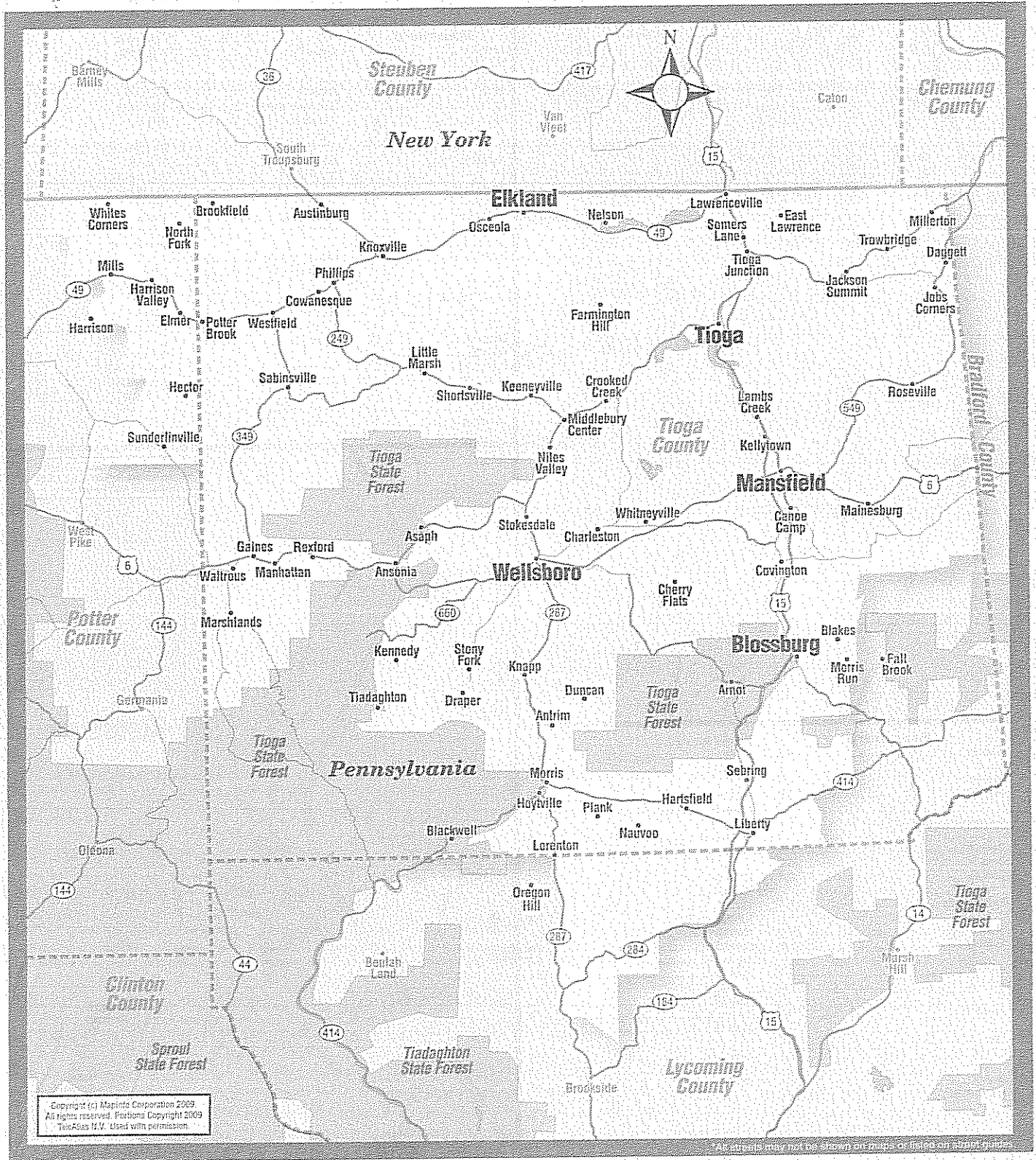
All municipalities have been notified of the plan revision. This occurred informally in the NTSWA Newsletter as well as more formal correspondence. See Appendix 18 for the formal correspondence.

This plan shall be approved at a public meeting of each of the three County Commissioners. See Appendix 19 for this documentation.

# APPENDIX

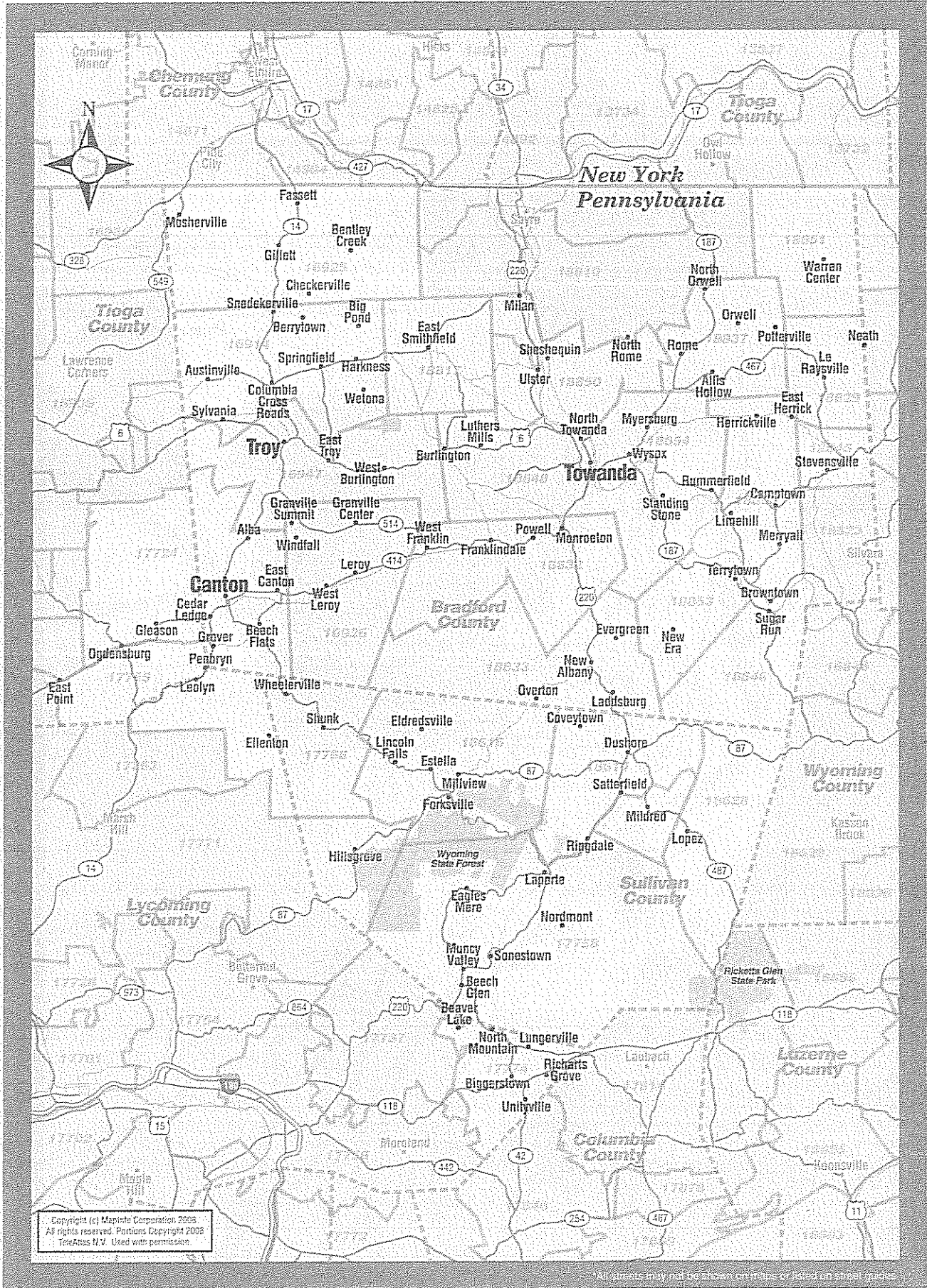
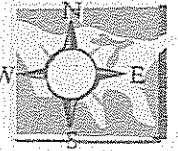
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# Wellsboro/Tioga County & Vicinity



# Bradford & Sullivan Counties, PA

## Maps



All names may not be shown on this map. Used for general guide.

# APPENDIX

2



2010 Census Data

Data provided by U.S. Census Bureau

<b>Bradford County</b>	<b>62,622</b>
Alba borough	157
Albany township	911
Armenia township	180
Asylum township	1,058
Athens borough	3,367
Athens township	5,251
Burlington borough	156
Burlington township	791
Canton borough	1,976
Canton township	2,143
Columbia township	1,196
Franklin township	723
Granville township	950
Herrick township	754
Le Raysville borough	290
Leroy township	718
Litchfield township	1,320
Monroe borough	554
Monroe township	1,250
New Albany borough	356
North Towanda township	1,132
Orwell township	1,159
Overton township	247
Pike township	671
Ridgebury township	1,978
Rome borough	441
Rome township	1,191
Sayre borough	5,587
Sheshequin township	1,348
Smithfield township	1,498
South Creek township	1,128
South Waverly borough	1,027
Springfield township	1,124
Standing Stone township	642
Stevens township	437
Sylvania borough	219
Terry township	992
Towanda borough	2,919
Towanda township	1,149
Troy borough	1,354
Troy township	1,645
Tuscarora township	1,131
Ulster township	1,337
Warren township	959
Wells township	814
West Burlington township	696
Wilmot township	1,204
Windham township	933
Wyalusing borough	596
Wyalusing township	1,242
Wysox township	1,721

<b>Sullivan County</b>	<b>6,428</b>
Cherry township	1,705
Colley township	694
Davidson township	573
Dushore borough	608
Eagles Mere borough	120
Elkland township	577
Forks township	377
Forksville borough	145
Fox township	358
Hillsgrove township	287
Laporte borough	316
Laporte township	349
Shrewsbury township	319

<b>Tioga County</b>	<b>41,981</b>
Bloss township	353
Blossburg borough	1,538
Brookfield township	421
Charleston township	3,360
Chatham township	588
Clymer township	581
Covington township	1,022
Deerfield township	662
Delmar township	2,856
Duncan township	208
Elk township	49
Elkland borough	1,821
Farmington township	637
Gaines township	542
Hamilton township	499
Jackson township	1,887
Knoxville borough	629
Lawrence township	1,718
Lawrenceville borough	581
Liberty borough	249
Liberty township	1,042
Mansfield borough	3,625
Middlebury township	1,285
Morris township	606
Nelson township	571
Osceola township	659
Putnam township	425
Richmond township	2,396
Roseville borough	189
Rutland township	805
Shippen township	527
Sullivan township	1,453
Tioga borough	666
Tioga township	991
Union township	1,000
Ward township	166
Wellsboro borough	3,263
Westfield borough	1,064
Westfield township	1,047

Bradford County 62,622  
 Sullivan County 6,428  
 Tioga County 41,981

Grand Total Population 111,031

# APPENDIX

3

**Pennsylvania Population Projections: 2000-2030**

	<b>April 1, 2000</b>	<b>July 1, 2010</b>	<b>July 1, 2020</b>	<b>July 1, 2030</b>	<b>% Change</b>	<b>% Change</b>	<b>% Change</b>
<b>County</b>	<b>Census</b>	<b>Projection</b>	<b>Projection</b>	<b>Projection</b>	<b>2000-2010</b>	<b>2000-2020</b>	<b>2000-2030</b>
<b>Pennsylvania</b>	12,281,054	12,540,718	12,871,823	13,190,400	2.1	4.8	7.4
Adams	91,292	101,426	109,237	114,689	11.1	19.7	25.6
Allegheny	1,281,666	1,210,748	1,169,207	1,132,736	-5.5	-8.8	-11.6
Armstrong	72,392	68,439	66,054	63,736	-5.5	-8.8	-12.0
Beaver	181,412	168,593	158,212	147,744	-7.1	-12.8	-18.6
Bedford	49,984	50,988	51,751	51,926	2.0	3.5	3.9
Berks	373,638	412,053	450,718	491,914	10.3	20.6	31.7
Blair	129,144	121,278	114,559	107,272	-6.1	-11.3	-16.9
Bradford	62,761	60,664	59,359	58,680	-3.3	-5.4	-6.5
Bucks	597,635	643,095	673,124	697,961	7.6	12.6	16.8
Butler	174,083	191,471	206,380	220,496	10.0	18.6	26.7
Cambria	152,598	141,528	132,810	124,101	-7.3	-13.0	-18.7
Cameron	5,974	5,570	5,569	5,612	-6.8	-6.8	-6.1
Carbon	58,802	63,170	66,843	69,098	7.4	13.7	17.5
Centre	135,758	147,935	156,620	166,148	9.0	15.4	22.4
Chester	433,501	519,979	604,385	692,054	19.9	39.4	59.6
Clarion	41,765	39,662	38,726	37,895	-5.0	-7.3	-9.3
Clearfield	83,382	82,641	81,487	79,890	-0.9	-2.3	-4.2
Clinton	37,914	35,540	33,669	32,263	-6.3	-11.2	-14.9
Columbia	64,151	64,454	67,053	69,765	0.5	4.5	8.8
Crawford	90,366	89,281	89,515	90,088	-1.2	-0.9	-0.3
Cumberland	213,674	234,902	258,880	282,921	9.9	21.2	32.4
Dauphin	251,798	256,070	262,550	269,855	1.7	4.3	7.2
Delaware	550,864	553,502	566,788	583,942	0.5	2.9	6.0
Elk	35,112	31,935	28,909	26,269	-9.0	-17.7	-25.2
Erie	280,843	280,397	275,355	267,538	-0.2	-2.0	-4.7
Fayette	148,644	145,762	139,362	131,874	-1.9	-6.2	-11.3
Forest	4,946	7,060	7,579	7,999	42.7	53.2	61.7
Franklin	129,313	135,740	141,656	148,596	5.0	9.5	14.9
Fulton	14,261	15,480	16,603	17,506	8.5	16.4	22.8
Greene	40,672	40,460	40,018	38,857	-0.5	-1.6	-4.5
Huntingdon	45,586	47,322	47,974	47,564	3.8	5.2	4.3
Indiana	89,605	81,006	72,876	66,095	-9.6	-18.7	-26.2
Jefferson	45,932	44,577	43,775	42,529	-3.0	-4.7	-7.4
Juniata	22,821	23,977	24,798	25,696	5.1	8.7	12.6
Lackawanna	213,295	204,673	199,310	194,835	-4.0	-6.6	-8.7
Lancaster	470,658	498,465	526,194	553,293	5.9	11.8	17.6
Lawrence	94,643	89,957	86,145	83,348	-5.0	-9.0	-11.9
Lebanon	120,327	122,409	126,069	131,118	1.7	4.8	9.0
Lehigh	312,090	336,187	361,437	381,738	7.7	15.8	22.3
Luzerne	319,250	306,330	296,621	287,943	-4.0	-7.1	-9.8

**Pennsylvania Population Projections: 2000-2030**

	April 1, 2000	July 1, 2010	July 1, 2020	July 1, 2030	% Change	% Change	% Change
County	Census	Projection	Projection	Projection	2000-2010	2000-2020	2000-2030
Lycoming	120,044	115,866	113,105	109,969	-3.5	-5.8	-8.4
McKean	45,936	43,742	41,592	39,716	-4.8	-9.5	-13.5
Mercer	120,293	120,047	121,376	122,967	-0.2	0.9	2.2
Mifflin	46,486	46,744	46,421	45,599	0.6	-0.1	-1.9
Monroe	138,687	173,357	208,142	239,824	25.0	50.1	72.9
Montgomery	750,097	813,853	854,994	888,265	8.5	14.0	18.4
Montour	18,236	17,275	16,977	17,038	-5.3	-6.9	-6.6
Northampton	267,066	291,610	316,862	342,081	9.2	18.6	28.1
Northumberland	94,556	93,197	92,861	92,182	-1.4	-1.8	-2.5
Perry	43,602	44,339	45,111	45,638	1.7	3.5	4.7
Philadelphia	1,517,550	1,447,889	1,421,328	1,408,232	-4.6	-6.3	-7.2
Pike	46,302	63,639	80,765	94,374	37.4	74.4	103.8
Potter	18,080	17,760	17,641	17,153	-1.8	-2.4	-5.1
Schuylkill	150,336	146,972	146,457	146,078	-2.2	-2.6	-2.8
Snyder	37,546	38,294	39,025	38,955	2.0	3.9	3.8
Somerset	80,023	78,393	77,149	76,298	-2.0	-3.6	-4.7
Sullivan	6,556	6,338	6,313	6,287	-3.3	-3.7	-4.1
Susquehanna	42,238	48,523	61,630	77,530	14.9	45.9	83.6
Tioga	41,373	40,361	39,772	39,680	-2.4	-3.9	-4.1
Union	41,624	46,414	50,018	52,280	11.5	20.2	25.6
Venango	57,565	55,182	52,844	50,205	-4.1	-8.2	-12.8
Warren	43,863	39,425	35,723	32,145	-10.1	-18.6	-26.7
Washington	202,897	206,656	211,288	212,986	1.9	4.1	5.0
Wayne	47,722	52,499	60,607	67,197	10.0	27.0	40.8
Westmoreland	369,993	374,002	380,748	380,588	1.1	2.9	2.9
Wyoming	28,080	26,872	24,010	20,565	-4.3	-14.5	-26.8
York	381,751	416,743	450,887	482,984	9.2	18.1	26.5

Source: Pennsylvania State Data Center

\*\* For additional information concerning methodologies and analysis used in the formulation of Pennsylvania's population projections, see the *Pennsylvania Population Projections Background Report* available from the Pennsylvania State Data Center.

# APPENDIX

4

## ESTIMATED ESTABLISHMENTS BY COUNTY

	<u>BRADFORD</u>	<u>TIOGA</u>	<u>SULLIVAN</u>
Residential	28,644	19,893	6,017
Commercial	640	569	78
Municipal	44	35	6
Institutional	263	220	99
Major Community Activities	48	44	Less than 20

\*\*Data provided by the 2008 State of the Region Report as prepared by the Northern Tier Regional Planning and Development Commission

# APPENDIX

5

**Listing of Septic Haulers Operating  
In the Northern Tier of Pennsylvania**

*The following is a listing of the know entities that haul septage wastes in the Bradford,  
Sullivan and/or Tioga Counties, Pennsylvania  
(Compiled 2/28/12)*

<b>Name</b>	<b>Origin , County</b>	<b>Phone</b>
B&L Portable Toilets & Septic Service	Tioga, Tioga	570/835-5100
Bradford Co Sanitation Service (Hoover)	Troy, Bradford	570/297-4277
Leslie's Septic Service	Galeton, Potter (Tioga )	800/264-8274
McCloe's	Waverly, NY (Bradford)	607/565-4061
McGuire's Septic Service	Ulster, Bradford	570/247-7633
Nick's Septic Service	Elkland, Tioga	814/258-5513
Patrick's Water Hauling	Troy, Tioga	570/297-2976
L.A. Honeywagon Septic Service	Liberty, Tioga	570/324-2401

**Listing of Operations Accepting Septage Wastes  
In the Northern Tier of Pennsylvania**

<b>Name of Entity</b>	<b>County</b>
Canton Municipal Authority	Bradford
Northern Tier Solid Waste Authority (W. Burlington Twp)	Bradford
Elkland Borough	Tioga

*These listings were compiled from previous Northern Tier Municipal Solid Waste Management Plans, The Donnelly Directory (phone book) and from information gained from the Department of Environmental Protection, Department of Water Management.*

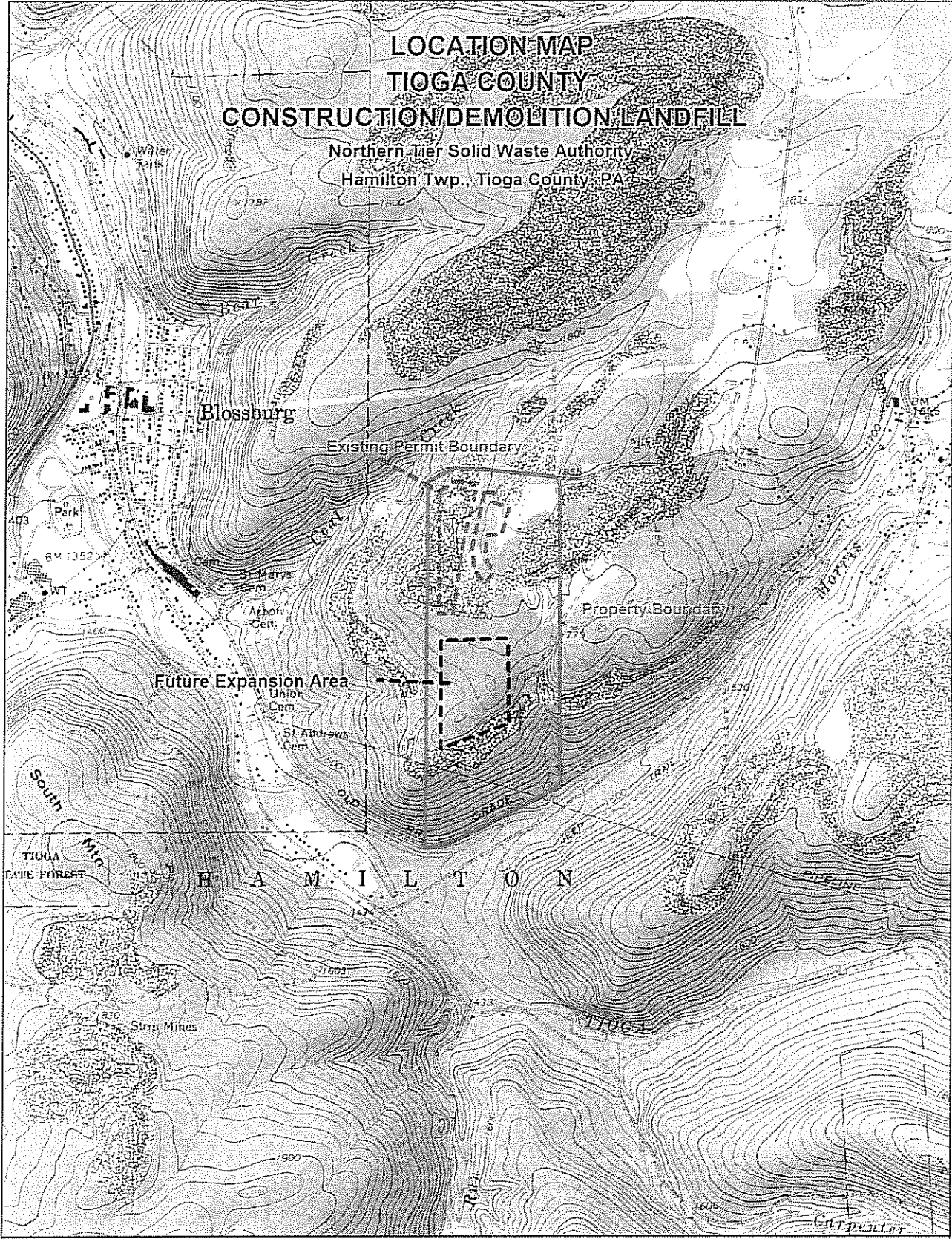


# APPENDIX

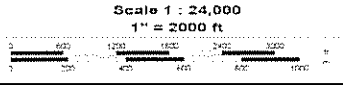
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# LOCATION MAP TIOGA COUNTY CONSTRUCTION/DEMOLITION LANDFILL

Northern Tier Solid Waste Authority  
Hamilton Twp., Tioga County, PA



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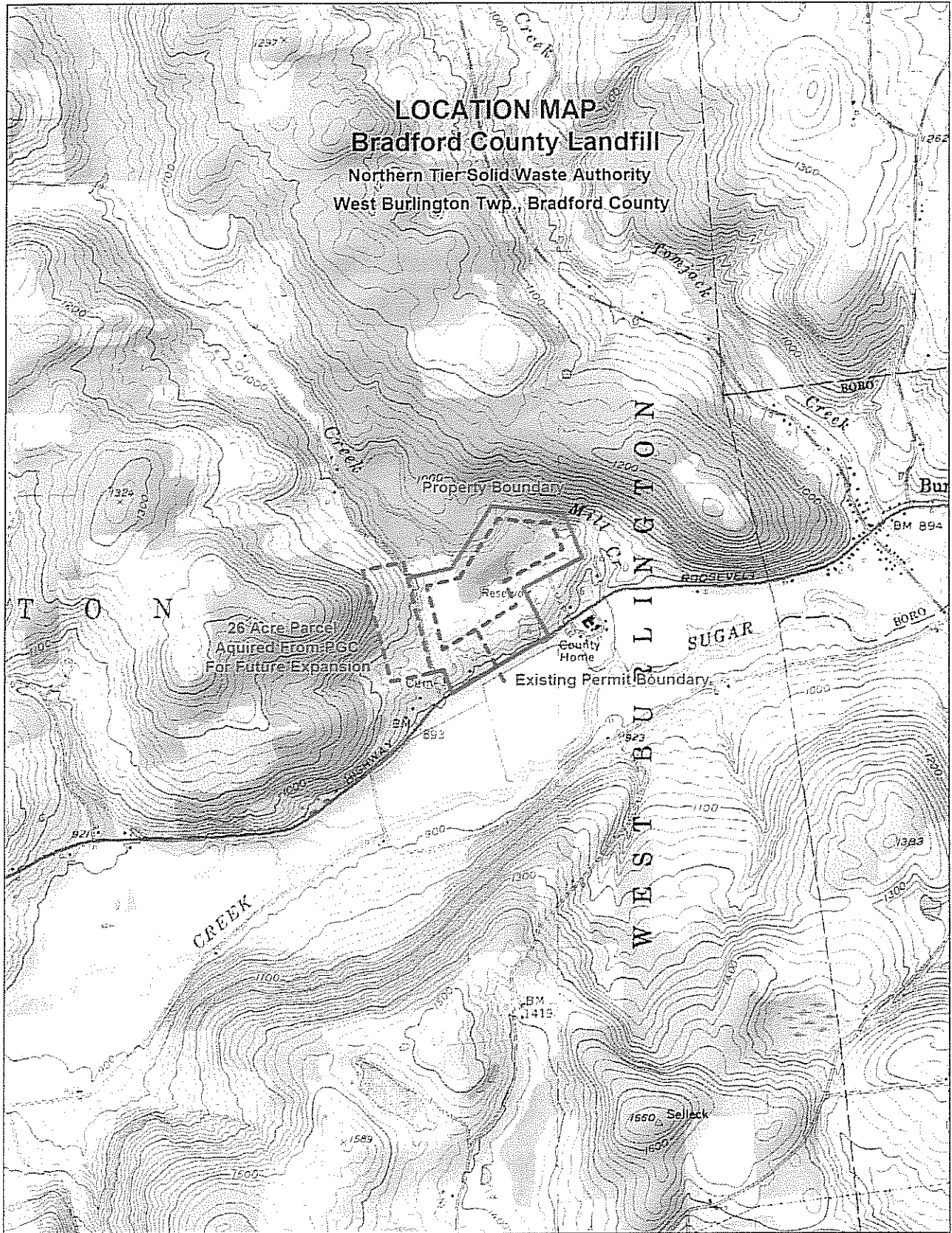


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 MN  
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# APPENDIX

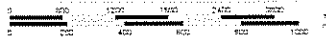
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**LOCATION MAP**  
**Bradford County Landfill**  
 Northern Tier Solid Waste Authority  
 West Burlington Twp., Bradford County



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Scale 1 : 24,000  
 1" = 2000 ft



# APPENDIX

8

1. History of the NTSWA Landfill #2

The permit application to permit the Landfill #2 was submitted to the State in 1981. It was approved by the State and construction began in June of 1982. The site was originally designed as a lined facility with leachate collection and treatment. Using a lagoon area as pre-treatment with passive wind aeration, and transportation of the leachate by pipeline to the Bradford County Manor Home's Sewage Treatment Plant that would discharge into Sugar Creek. Currently, leachate is treated by the NTSWA's Landfill Leachate Treatment Facility, discharged to the Bradford County Manor Sewer Treatment Plant, then discharged to Sugar Creek. The initial design of the disposal fields were that they were to be lined with liquid asphalt AC-20, per the Dept. of Environmental Resources Regulations of 1976. The initial field was excavated in 1982, however, the lining of that field did not take place until the late spring of 1983 and commencement of landfill operations began on July 27, 1983. The initial lagoon, which is Lagoon #1 and, of course, Field #1 were the first structures constructed, the lagoon

with a clay was lined with a clay base and with AC-20. The initial size of the first field constructed at the NTSWA Landfill #2 was 6.7 acres. In 1985, construction began on the next field at the landfill, which was Field #3. (The Fields were developed out of numerical sequence.) This field encompassed 5.0 acres and lays directly south of Field #1. This field was lined with 40 mil HDPE and a permit amendment was received from the Dept. of Environmental Resources, Bureau of Waste Management for this change in the construction of the facility. The Authority changed the design from the AC-20 asphalt spray-on type liner to the HDPE because of the resistance of the polyethylene materials to various substances commonly found in the landfill and landfill leachate. The use of Field #3 began in the summer of 1986 and this Field reached it's capacity in late September 1989. The next Field developed in sequence was Field #2. This Field was cut into two (2) sections, a 2A and a 2B. This was done to allow lining of a portion of the Field with a single liner system without waiting for the new regulations being promulgated by the State in 1988. Field #2A was excavated and lined in 1988. The liner material was 60 mil HDPE and the piping system that was utilized exceeded the current regulations. Subsequently, Field #2B was designed to meet all of the new regulations that were promulgated by the State in 1988 including two (2) 60 mil HDPE liners. Also, during construction of Field #2A, Lagoon #2 was relined and reconstructed as a double lined impoundment, to meet the new municipal waste regulations for

leachate impoundments. It is a double lined lagoon with 60 mil HDPE liner material, has a monitoring system between the liners and also underneath both liner systems. This lagoon is currently being used for emergency back-up of the Leachate Storage Tanks. Leachate drains to or is pumped to pumpstation #1, then pumped into equalization/storage tanks. From these tanks liquid is pumped to the Landfill Leachate Treatment Facility for treatment. With the new design for Field #2B presented to the Dept. of Environmental Resources at the end of October 1989, the next field to be developed after #2B was Field #5. This field lays directly south of Field #3. All of the new lined fields, #2B, #5 and Field #4, which are directly west of Field #5, will be done with a double liner system, 60 mil HDPE. Currently Field #4 is being constructed.



# APPENDIX

9

WILLIAM T. MCNETT  
ROBERT P. HORTON  
RICHARD A. EATON  
County Commissioners

# County of Bradford



Commissioners' Office  
Court House

TOWANDA, PA. 16844

TELEPHONE: 717-265-5700

JONATHAN P. FOSTER  
County Solicitor

GARY L. WOOD  
Chief Clerk

## ORDINANCE

.89-3

County of Bradford  
Commonwealth of Pennsylvania

WHEREAS, Act 101 of 1988, known as the Municipal Waste Planning, Recycling, and Waste Reduction Act authorized Counties to require by Ordinance that all municipal waste generated within their boundaries shall be processed or disposed of at a designated processing or disposal facility(s) that is contained in an approved plan and permitted by the Pennsylvania Department of Environmental Resources, Bureau of Waste Management (PA DER) under the Solid Waste Management Act, and

WHEREAS, more than one-half of the Municipalities within the County, representing more than one-half of the County's population as determined by the Census of 1980 by the U.S. Bureau of Census, have adopted Resolutions approving the Northern Tier Solid Waste Management Plan (NTSWMP) dated June 1986, and said Plan has received the approval of the Pennsylvania Department of Environmental Resources, Bureau of Waste Management on March 23, 1989.

NOW, THEREFORE, the Board of Commissioners of the County of Bradford, does hereby enact as follows:

1. All municipal waste generated within the boundaries of the County of Bradford shall be processed at facilities owned or permitted by the Northern Tier Solid Waste Authority, except as may be otherwise provided in the Pennsylvania Department of Environmental Resources, Bureau of Waste Management approved Northern Tier Solid Waste Management Plan.
2. All municipal waste generated within the boundaries of the County of Bradford shall be disposed of at the Northern Tier Solid Waste Authority's landfill in

Hamilton Township, Tioga County or in West Burlington Township, Bradford County, except as may be otherwise provided in the Pennsylvania Department of Environmental Resources, Bureau of Waste Management approved County Plan.

3. This Ordinance shall not apply to municipal waste or source separated recyclable material that would otherwise be recycled through any recycling program sponsored by the County of Bradford, the Northern Tier Solid Waste Authority or any Municipality so required to recycle under Act 101.
4. This Ordinance takes effect December 27, 1989.

William J. McPherson  
Richard A. Eaton  
Richard A. Eaton  
Bradford County Commissioners

ATTEST:

Gary L. Wood  
Gary L. Wood, Chief Clerk

ORDINANCE NO. 2 - 1990

SOLID WASTE MANAGEMENT ORDINANCE  
OF THE COUNTY OF BRADFORD, PENNSYLVANIA

An Ordinance of the County of Bradford, Commonwealth of Pennsylvania, prohibiting the siting of solid waste treatment, processing, incineration, or storage facilities and land disposal facilities in said County, except in accordance with the provisions of this Ordinance; requiring that all solid waste within said County be conveyed to an area managed by the Northern Tier Solid Waste Authority for ultimate processing and/or disposal providing for the collection of solid waste only by licensed collectors in Bradford County and providing penalties for the violation of said Ordinance.

ARTICLE I  
TITLE, INTENT AND AUTHORITY

Section 101. Title

101.01 This Ordinance shall be known and may be cited as the "Solid Waste Management Ordinance of the County of Bradford, Pennsylvania."

Section 102. Intent

102.01 It is the intent of this Ordinance to manage solid waste in such a manner to protect the public health, safety and welfare and to provide economic and environmental protection to the citizens of the County of Bradford, Pennsylvania.

Section 103. Authority

103.01 The County Board of Commissioners has jurisdiction and control of land use and development as set forth in Act 247, as amended, the Pennsylvania Municipalities Planning Code. The County Board of Commissioners also has jurisdiction over the control of waste disposal in accordance with the provisions of the Pennsylvania County Code to protect the public health, safety and welfare and promote economic and environmental protection to the citizens of the County of Bradford, Pennsylvania. The County Board of Commissioners has jurisdiction and control of the Solid Waste Management as set forth in Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act.

ARTICLE II  
DEFINITIONS

Section 201. Definitions

201.01 General Terms - As used in this Ordinance, words in the singular include the plural, and those in the plural include the singular. The words "shall" and "will" for the purpose of this Ordinance are defined as mandatory.

201.02 Specific Terms - As used in these regulations, terms or words shall be defined as follows. Unless otherwise expressly stated, the following definitions shall, for the purpose of these regulations, have the meaning herein indicated. Any pertinent word or term not a part of this listing but vital to the interpretation of these regulations shall be construed to have its legal definition.

1. Agricultural Waste - Poultry and livestock manure, or residual materials in liquid or solid form generated in the production and marketing of poultry, livestock, furbearing animals, and their products, provided that such agricultural waste is not hazardous. The term includes the residual materials generated in producing, harvesting, and marketing of all agronomic, horticultural, and silvicultural crops or commodities grown on what are usually recognized and accepted as farms, forests, or other agricultural lands.

2. Authority - The Northern Tier Solid Waste Authority, an authority organized by the Counties of Bradford, Sullivan and Tioga, and existing under the laws of the Commonwealth of Pennsylvania, with an office at Blossburg, Pennsylvania.

3. Collector - Any person collecting or transporting Municipal Waste for owners or occupants of property in the Municipality, including the Municipality itself if it undertakes the collection of Municipal Waste directly, and any business or institution within the Municipality which generates sufficient Municipal Waste to require disposal directly by its own employees and equipment.

4. Disposal - The incineration, deposition, injection, dumping, spilling, leaking, or placing of solid waste into or on the land or water in a manner that the solid waste or a constituent of the solid waste enters the environment, is emitted into the air or is discharged to the waters of the Commonwealth.

5. Hazardous Waste - Any garbage, refuse, sludge from an industrial or other waste water treatment plant, sludge from a water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid or contained gaseous material resulting from municipal, commercial, industrial, institutional, mining, or agricultural operations, and from community activities, or any combination of the above, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the U.S. Atomic Energy Act of 1954, as amended (68 Stat. 923), which because of its quantity, concentration or physical, chemical, or infectious characteristics may: (1) cause or significantly contribute to an increase in mortality or an increase in morbidity in either an individual or the total population; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

The term "Hazardous Waste" shall not include coal refuse as defined in the Act of September 24, 1968 (P.L. 1040, No. 318), known as the "Coal Refuse Disposal Control Act." "Hazardous Waste" shall not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on pursuant to and in compliance with a valid permit issued pursuant to the Act of June 22, 1937 (P.L. 1987, No. 394), known as "The Clean Streams Law."

6. County - The County of Bradford, Commonwealth of Pennsylvania.

7. Management - The entire process, or any part thereof, of storage, collection, transportation, processing, treatment and disposal of solid wastes by any person engaging in such process.

8. Municipality - A Borough, or Township within the County of Bradford.

9. Municipal Waste - Any garbage, refuse, industrial lunchroom or office waste and other material including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities and any sludge not meeting the definition of residual or hazardous waste hereunder from a municipal commercial or institutional water supply treatment plant, waste water treatment plant, or air pollution control facility.

10. Person - Any individual, partnership, corporation, association, institution, cooperative enterprise, municipal authority, Federal Government or agency, State institution and agency, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties. In any provisions of this ordinance prescribing a fine, imprisonment or penalty, or any combination of the foregoing, the term "person" shall include the officers and directors of any corporation or other legal entity having officers and directors.

11. Pollution - Contamination of any air, water, land or other natural resources of the Commonwealth such as will create or is likely to create a public nuisance or to render such air, water, land or other natural resources harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other life.

12. Residual Waste - Any garbage, refuse, other discarded material or other waste including solid, liquid, semisolid, or contained gaseous materials resulting from industrial, mining and agricultural operations and any sludge from an industrial, mining or agricultural water supply treatment facility, waste water treatment facility or air pollution control facility, provided that it is not hazardous. The term "residual waste" shall not include coal refuse as defined in the "Coal Refuse Disposal Control Act." "Residual Waste" shall not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on pursuant to and in compliance with a valid permit issued pursuant to "The Clean Streams Law."

13. Regional Facilities - All solid waste disposition facilities heretofore or hereafter acquired or constructed by the Authority.

14. Solid Waste - Any waste, including but not limited to, municipal, residual or hazardous wastes, including solid, liquid, semisolid or contained gaseous materials.

15. Storage - The containment of any waste on a temporary basis in such a manner as not to constitute disposal of such waste. It shall be presumed that the containment of any waste in excess of one year constitutes disposal. This presumption can be overcome by clear and convincing evidence to the contrary.

16. Treatment - Treatment means approved methods of solid waste reduction and/or disposal as prescribed and approved by the Pennsylvania Department of Environmental Resources.

ARTICLE III  
PROHIBITION

Section 301. Interpretation

301.01 From and after the effective date of this Ordinance and for reasons of public health, safety and welfare it shall be illegal for any person to treat or dispose of any solid waste in Bradford County except in accordance with the terms prescribed by this Ordinance.

Section 302. Designated Authority

302.01 No person or organization except the Northern Tier Solid Waste Authority shall use any land within the County of Bradford as a public or private disposal site.

Section 303. Limitation on Disposal of Waste Generated Outside of Bradford, Sullivan, and Tioga Counties

303.01 No person shall dispose solid waste in Bradford County unless said waste is generated by the Counties of Bradford, Sullivan or Tioga of Pennsylvania. Except that the Northern Tier Solid Waste Authority may annually accept waste from outside the three county area provided the waste is in an amount not greater than 10% of the sum total being generated by the Counties of Bradford, Tioga and Sullivan for that calendar year.

ARTICLE IV  
COLLECTION

Section 401. Prohibition

401.01 It shall be illegal for any person to commercially haul, transport or collect solid waste within the County of Bradford without first securing a license to do so from the County of Bradford.



Section 402. Licensing of Solid Waste Collectors

- 402.01 Only a person licensed by the County of Bradford may commercially collect and transport solid waste within the geographic boundaries of Bradford County.
- 402.02 An authorized collector is defined as a person who has been granted a license from Bradford County and has entered into a contract with the Northern Tier Solid Waste Authority for the disposal of solid waste collected at a facility managed by said Authority.
- 402.03 The fee for such license shall be annual and established by Resolution of the Bradford County Board of Commissioners.

ARTICLE V  
ENFORCEMENT AND LEGAL PROCEDURE

Section 501. Appointment

- 501.01 It shall be the duty of the Bradford County Commissioners or their designee to enforce the provisions of this Ordinance.

Section 502. Duties

- 502.01 It shall be the responsibility of the Bradford County Commissioners or their designee to ensure that the provisions of this Ordinance will not be violated.

Section 503. Penalties

- 503.01 (A) Summary Offense - Any person, other than a municipal official exercising his official duties, who violates any order issued hereunder, this Ordinance, or the terms or conditions of any approved municipal waste management plan shall, upon conviction thereof in a summary proceeding, be sentenced to pay a fine of not less than \$100 and not more than \$1,000 and costs and, in default of the payment of such fine and costs, to undergo imprisonment for not more than 30 days.

(B) Violations to be separate offense - Each violation for such separate day and each violation of any provision of this act, this Ordinance, any regulation promulgated hereunder, any order issued hereunder or the terms or conditions of any approved municipal waste management plan shall constitute a separate offense under subsections (A).

503.02 Any violation of the terms of this Ordinance shall constitute a public nuisance and shall be enjoined as such by any Court having jurisdiction thereof.

ARTICLE VI  
SEVERABILITY AND CONSTITUTIONALITY

Section 601. Severability and Constitutionality

601.01 The provisions of this Ordinance shall be severable; and if any of its provisions shall be held to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect the validity of any of the remaining provisions of this Ordinance. It is hereby declared as legislative intent that this Ordinance would have been adopted or if such unconstitutional, illegal or invalid provisions had not been included therein.

Duly enacted and ordained as an Ordinance of the County of Bradford on this 19 day of December, 1990, by the Commissioners of the County of Bradford, Commonwealth of Pennsylvania.

This Ordinance shall become effective immediately.

BRADFORD COUNTY COMMISSIONERS

By: William T. Mc Nett  
William T. Mc Nett

By: Robert P. Horton  
Robert P. Horton

By: \_\_\_\_\_  
Richard A. Eaton

ATTEST:

Gary L. Wood  
Gary L. Wood, Chief Clerk

ORDINANCE  
County of Sullivan  
Commonwealth of Pennsylvania

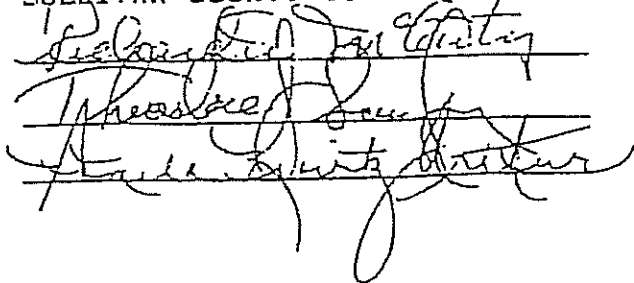
Whereas, Act 101 of 1988, known as the Municipal Waste Planning, Recycling, and Waste Reduction Act authorized Counties to require by Ordinance that all municipal waste generated within their boundaries shall be processed or disposed of at a designated processing or disposal facility(s) that is contained in an approved plan and permitted by the Pennsylvania Department of Environmental Resources, Bureau of Waste Management (PA DER) under the Solid Waste Management Act, and

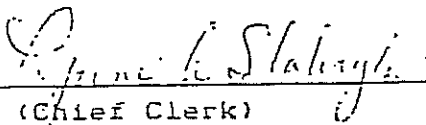
Whereas, more than one-half of the Municipalities within the County, representing more than one half of the County's population as determined by the Census of 1980 by the U.S. Bureau of Census, have adopted Resolutions approving the Northern Tier Solid Waste Management Plan (NTSWMP) dated June 1986, and said Plan has received the approval of the Pennsylvania Department of Environmental Resources, Bureau of Waste Management on March 23, 1989.

Now, therefore, the Board of Commissioners of the County of Sullivan, does hereby enact as follows:

1. All municipal waste generated within the boundaries of the County of Sullivan shall be processed at facilities owned or permitted by the Northern Tier Solid Waste Authority, except as may be otherwise provided in the Pennsylvania Department of Environmental Resources, Bureau of Waste Management approved Northern Tier Solid Waste Management Plan.
2. All municipal waste generated within the boundaries of the County of Sullivan shall be disposed of at the Northern Tier Solid Waste Authority's landfill in Hamilton Township, Tioga County or in West Burlington Township, Bradford County, except as may be otherwise provided in the Pennsylvania Department of Environmental Resources, Bureau of Waste Management approved County Plan.
3. This Ordinance shall not apply to municipal waste or source separated recyclable material that would otherwise be recycled through any recycling program sponsored by the County of Sullivan, the Northern Tier Solid Waste Authority or any Municipality so required to recycle under Act 101.
4. This Ordinance takes effect November 6, 1989.

SULLIVAN COUNTY COMMISSIONERS



  
(Chief Clerk)

ORDINANCE  
County of Tioga  
Commonwealth of Pennsylvania

Whereas, Act 101 of 1988, known as the Municipal Waste Planning, Recycling, and Waste Reduction Act authorized Counties to require by Ordinance that all municipal waste generated within their boundaries shall be processed or disposed of at a designated processing or disposal facility(s) that is contained in an approved plan and permitted by the Pennsylvania Department of Environmental Resources, Bureau of Waste Management (PA DER) under the Solid Waste Management Act, and

Whereas, more than one-half of the Municipalities within the County, representing more than one half of the County's population as determined by the Census of 1980 by the U.S. Bureau of Census, have adopted Resolutions approving the Northern Tier Solid Waste Management Plan (NTSWMP) dated June 1986, and said Plan has received the approval of the Pennsylvania Department of Environmental Resources, Bureau of Waste Management on March 23, 1989.

Now, therefore, the Board of Commissioners of the County of Tioga, does hereby enact as follows:

1. All municipal waste generated within the boundaries of the County of Tioga shall be processed at facilities owned or permitted by the Northern Tier Solid Waste Authority, except as may be otherwise provided in the Pennsylvania Department of Environmental Resources, Bureau of Waste Management approved Northern Tier Solid Waste Management Plan.
2. All municipal waste generated within the boundaries of the County of Tioga shall be disposed of at the Northern Tier Solid Waste Authority's landfill in Hamilton Township, Tioga County or in West Burlington Township, Bradford County, except as may be otherwise provided in the Pennsylvania Department of Environmental Resources, Bureau of Waste Management approved County Plan.
3. This Ordinance shall not apply to municipal waste or source separated recyclable material that would otherwise be recycled through any recycling program sponsored by the County of Tioga, the Northern Tier Solid Waste Authority or any Municipality so required to recycle under Act 101.
4. This Ordinance takes effect immediately.

TIOGA COUNTY COMMISSIONERS.

Charles Richard Barthlett

William F. Haggard

Charles H. Blankin  
(Chief Clerk)

ORDINANCE NO. 2-1988

SOLID WASTE MANAGEMENT ORDINANCE  
OF THE COUNTY OF TIOGA, PENNSYLVANIA

An Ordinance of the County of Tioga, Commonwealth of Pennsylvania, prohibiting the siting of solid waste treatment, processing, incineration, or storage facilities and land disposal facilities in said County, except in accordance with the provisions of this Ordinance; requiring that all solid waste within said County be conveyed to an area managed by the Northern Tier Solid Waste Authority for ultimate processing and/or disposal providing for the collection of solid waste only by licensed collectors in Tioga County and providing penalties for the violation of said Ordinance.

ARTICLE I  
TITLE, INTENT AND AUTHORITY

Section 101. Title

101.01 This ordinance shall be known and may be cited as the "Solid Waste Management Ordinance of the County of Tioga, Pennsylvania."

Section 102. Intent

102.01 It is the intent of this ordinance to manage solid waste in such a manner to protect the public health, safety and welfare and to provide economic and environmental protection to the citizens of the County of Tioga, Pennsylvania.

Section 103. Authority

103.01 The County Board of Commissioners has jurisdiction and control of land use and development as set forth in Act 247, as amended, the Pennsylvania Municipalities Planning Code. The County Board of Commissioners also has jurisdiction over the control of waste disposal in accordance with the provisions of the Pennsylvania County Code to protect the public health, safety and welfare and promote economic and environmental protection to the citizens of the County of Tioga, Pennsylvania.

ARTICLE II  
DEFINITIONS

Section 201. Definitions

201.01 General Terms - As used in this Ordinance, words in the singular include the plural, and those in the plural include the singular. The words "shall" and "will" for the purpose of this Ordinance are defined as mandatory.

201.02 Specific Terms - As used in these regulations, terms or words shall be defined as follows. Unless otherwise expressly stated, the following definitions shall, for the purpose of these regulations, have the meaning herein indicated. Any pertinent word or term not a part of this listing but vital to the interpretation of these regulations shall be construed to have its legal definition.

1. Agricultural Waste - Poultry and livestock manure, or residual materials in liquid or solid form generated in the production and marketing of poultry, livestock, furbearing animals, and their products, provided that such agricultural waste is not hazardous. The term includes the residual materials generated in producing, harvesting, and marketing of all agronomic, horticultural, and silvicultural crops or commodities grown on what are usually recognized and accepted as farms, forests, or other agricultural lands.

2. Authority - The Northern Tier Solid Waste Authority, an authority organized by the Counties of Bradford, Sullivan and Tioga, and existing under the laws of the Commonwealth of Pennsylvania, with an office at Blossburg, Pennsylvania.

3. Collector - Any person collecting or transporting Municipal Waste for owners or occupants of property in the Municipality, including the Municipality itself if it undertakes the collection of Municipal Waste directly, and any business or institution within the Municipality which generates sufficient Municipal Waste to require disposal directly by its own employees and equipment.

4. Disposal - The incineration, deposition, injection, dumping, spilling, leaking, or placing of solid waste into or on the land or water in a manner that the solid waste or a constituent of the solid waste enters the

environment, is emitted into the air or is discharged to the waters of the Commonwealth.

5. Hazardous Waste - Any garbage, refuse, sludge from an industrial or other waste water treatment plant, sludge from a water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid or contained gaseous material resulting from municipal, commercial, industrial, institutional, mining, or agricultural operations, and from community activities, or any combination of the above, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under §402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the U.S. Atomic Energy Act of 1954, as amended (68 Stat. 923), which because of its quantity, concentration or physical, chemical, or infectious characteristics may: (1) cause or significantly contribute to an increase in mortality or an increase in morbidity in either an individual or the total population; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

The term "Hazardous Waste" shall not include coal refuse as defined in the Act of September 24, 1968 (P.L. 1040, No. 318), known as the "Coal Refuse Disposal Control Act." "Hazardous Waste" shall not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on pursuant to and in compliance with a valid permit issued pursuant to the Act of June 22, 1937 (P.L. 1987, No. 394), known as "The Clean Streams Law."

6. County - The County of Tioga, Commonwealth of Pennsylvania.

7. Management - The entire process, or any part thereof, of storage, collection, transportation, processing, treatment and disposal of solid wastes by any person engaging in such process.

8. Municipality - A Borough, or Township within the County of Tioga.

9. Municipal Waste - Any garbage, refuse, industrial lunchroom or office waste and other material including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities and any sludge not meeting the definition of residual or hazardous waste hereunder from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant, or air pollution control facility.

10. Person - Any individual, partnership, corporation, association, institution, cooperative enterprise, municipal authority, Federal Government or agency, State institution and agency, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties. In any provisions of this ordinance prescribing a fine, imprisonment or penalty, or any combination of the foregoing, the term "person" shall include the officers and directors of any corporation or other legal entity having officers and directors.

11. Pollution - Contamination of any air, water, land or other natural resources of the Commonwealth such as will create or is likely to create a public nuisance or to render such air, water, land or other natural resources harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other life.

12. Residual Waste - Garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under The Clean Streams Law.



13. Regional Facilities - All solid wastes disposition facilities heretofore or hereafter acquired or constructed by the Authority.

14. Solid Waste - Any waste, including but not limited to, municipal, residual or hazardous wastes, including solid, liquid, semisolid or contained gaseous materials.

15. Storage - The containment of any waste on a temporary basis in such a manner as not to constitute disposal of such waste. It shall be presumed that the containment of any waste in excess of one year constitutes disposal. This presumption can be overcome by clear and convincing evidence to the contrary.

16. Treatment - Treatment means approved methods of solid waste reduction and/or disposal as prescribed and approved by the Pennsylvania Department of Environmental Resources.

### ARTICLE III PROHIBITION

#### Section 301. Interpretation

301.01 From and after the effective date of this Ordinance and for reasons of public health, safety and welfare it shall be illegal for any person to treat or dispose of any solid waste in Tioga County except in accordance with the terms prescribed by this Ordinance.

#### Section 302. Designated Authority

302.01 No person except the Northern Tier Solid Waste Authority shall use or permit to be used any land within the County of Tioga as a public or private disposal site, and only after approval has been obtained from the local municipality and the Pennsylvania Department of Environmental Resources.

### ARTICLE IV COLLECTION

#### Section 401. Prohibition

401.01 It shall be illegal for any person to haul, transport, or collect solid waste within the County of Tioga without

first securing a license to do so from the County of Tioga.

Section 402. Licensing of Solid Waste Collectors

402.01 Only a person licensed by the County of Tioga may collect and transport solid waste within the geographic boundaries of Tioga County.

402.02 An authorized collector is defined as a person who has been granted a license from Tioga County and has entered into a contract with the Northern Tier Solid Waste Authority for the disposal of solid waste collected at a facility managed by said authority.

402.03 The fee for such license shall be annual and established by Resolution of the Tioga County Board of Commissioners.

ARTICLE V  
ENFORCEMENT AND LEGAL PROCEDURE

Section 501. Appointment

501.01 It shall be the duty of the Tioga County Commissioners or their designee to enforce the provisions of this Ordinance.

Section 502. Duties

502.01 It shall be the responsibility of the Tioga County Commissioners or their designee to ensure that the provisions of this Ordinance will not be violated.

Section 503. Penalties

503.01 Any violation of the terms of this Ordinance shall be punishable by a fine not to exceed One Hundred Dollars (\$100.00) to be paid to the use of the County with costs of prosecution or imprisonment for a term not to exceed ten (10) days or both. Each day the violation continues to exist shall constitute a separate offense.

503.02 Any violation of the terms of this Ordinance shall constitute a public nuisance and shall be enjoined as such by any Court having jurisdiction thereof.

ARTICLE VI  
SEVERABILITY AND CONSTITUTIONALITY

Section 601. Severability and Constitutionality

601.01 The provisions of this Ordinance shall be severable; and if any of its provisions shall be held to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect the validity of any of the remaining provisions of this Ordinance. It is hereby declared as legislative intent that this Ordinance would have been adopted or if such unconstitutional, illegal or invalid provisions had not been included therein.

Duly enacted and ordained as an Ordinance of the County of Tioga on this 14th day of June, 1988, by the Commissioners of the County of Tioga, Commonwealth of Pennsylvania.

This Ordinance shall become effective immediately.

TIOGA COUNTY COMMISSIONERS

By: Brian W. Edgcomb  
Brian W. Edgcomb

By: Oliver Richard Bartlett  
Oliver Richard Bartlett

By: Van W. Emmons, Sr.  
Van W. Emmons, Sr.

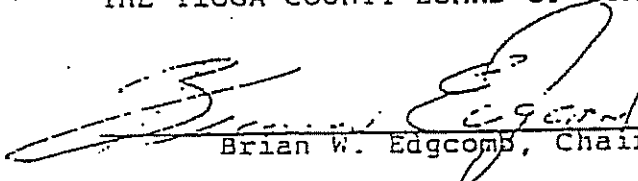
RESOLUTION NO. R-7-88

RESOLUTION APPOINTING SOLID WASTE MANAGEMENT ORDINANCE  
ENFORCEMENT OFFICER

BE IT RESOLVED by the Tioga County Board of Commissioners,  
and it is hereby resolved by authority of the same, that Charles E.  
Balleine is appointed Enforcement Officer for the Solid Waste  
Management Ordinance of the County of Tioga, Pennsylvania, and  
that Charles E. Balleine is hereby authorized and directed to  
develop any regulations required by said Solid Waste Management  
Ordinance.

RESOLVED this 23rd day of June, 1988.

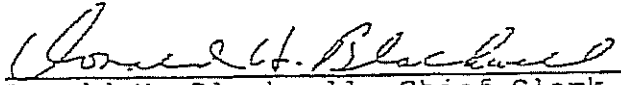
THE TIOGA COUNTY BOARD OF COMMISSIONERS

  
\_\_\_\_\_  
Brian W. Edgcomb, Chairman

  
\_\_\_\_\_  
Oliver Richard Bartlett

\_\_\_\_\_  
Van W. Emmons, Sr.

Attest:

  
\_\_\_\_\_  
Donald H. Blackwell, Chief Clerk

# APPENDIX

10

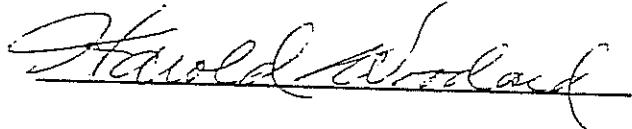
RESOLUTION

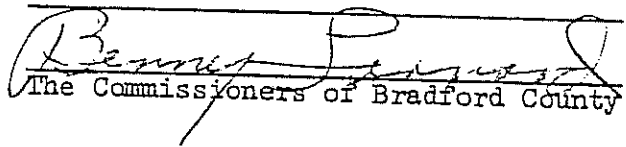
WHEREAS, The Bradford County Commissioners, desiring to alleviate the Solid Waste problem in the Northern Tier area of the Commonwealth of Pennsylvania, and

WHEREAS, the problem is more than can be financially budgeted by the various sub-divisions of the counties and area, and

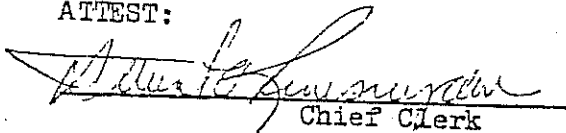
WHEREAS, the Commissioners of Bradford County believe that it would be less of a financial burden on the counties if several joined together to operate under one single Solid Waste Authority,

NOW THEREFORE, be it resolved that Bradford County enter into an agreement with Tioga County and Sullivan County, Pennsylvania, to join together to form a Solid Waste and Recycling Authority consisting of the three counties, and if one or both of the other counties do not wish to join in this type of an organization, be it further resolved that Bradford County will form an Authority to meet the problem of solid waste for Bradford County.

  
\_\_\_\_\_

  
The Commissioners of Bradford County

ATTEST:

  
Chief Clerk

OFFICE OF  
SULLIVAN COUNTY COMMISSIONERS

EULA L. BENNETT, CHIEF CLERK

LAPORTE, PENNSYLVANIA 18626

RESOLUTION

WHEREAS, The Sullivan County Commissioners, desiring to alleviate the Solid Waste problem in the Northern Tier area of the Commonwealth of Pennsylvania, and

WHEREAS, the problem is more than can be financially budgeted by the various sub-divisions of the counties and area, and

WHEREAS, the Commissioners of Sullivan County believe that it would be less of a financial burden on the counties if several joined together to operate under one single Solid Waste Authority,

NOW THEREFORE, be it resolved that Sullivan County enter into an agreement with Tioga County and Bradford County, Pennsylvania, to join together to form a Solid Waste and Recycling Authority consisting of the three counties.

Richard D. McLeary  
Bernard W. Walsh  
Richard D. McLeary  
The Commissioners of Sullivan County

ATTEST:

Eula L. Bennett  
Chief Clerk



TIOGA COUNTY

WELLSBORO, PA.

October 17, 1973

RESOLUTION

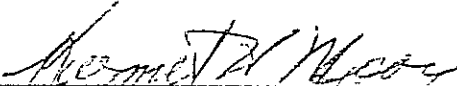
WHEREAS, the Tioga County Commissioners, desiring to alleviate the Solid Waste Problem in the Northern Tier area of the Commonwealth of Pennsylvania, and


WHEREAS, the problem is more than can be financially budgeted by the various sub-divisions of the counties and area, and


WHEREAS, the Commissioners of Tioga County believe that it would be less of a financial burden on the counties if several joined together to operate under one single Solid Waste Authority,

NOW THEREFORE, be it resolved that Tioga County enter into an agreement with Sullivan County and Bradford County, Pennsylvania, to join together to form a Solid Waste and Recycling Authority consisting of the three counties.

THE TIOGA COUNTY BOARD OF COMMISSIONERS

  
Kermit H. Moore

  
Willard O. Smith

  
William D. Hall

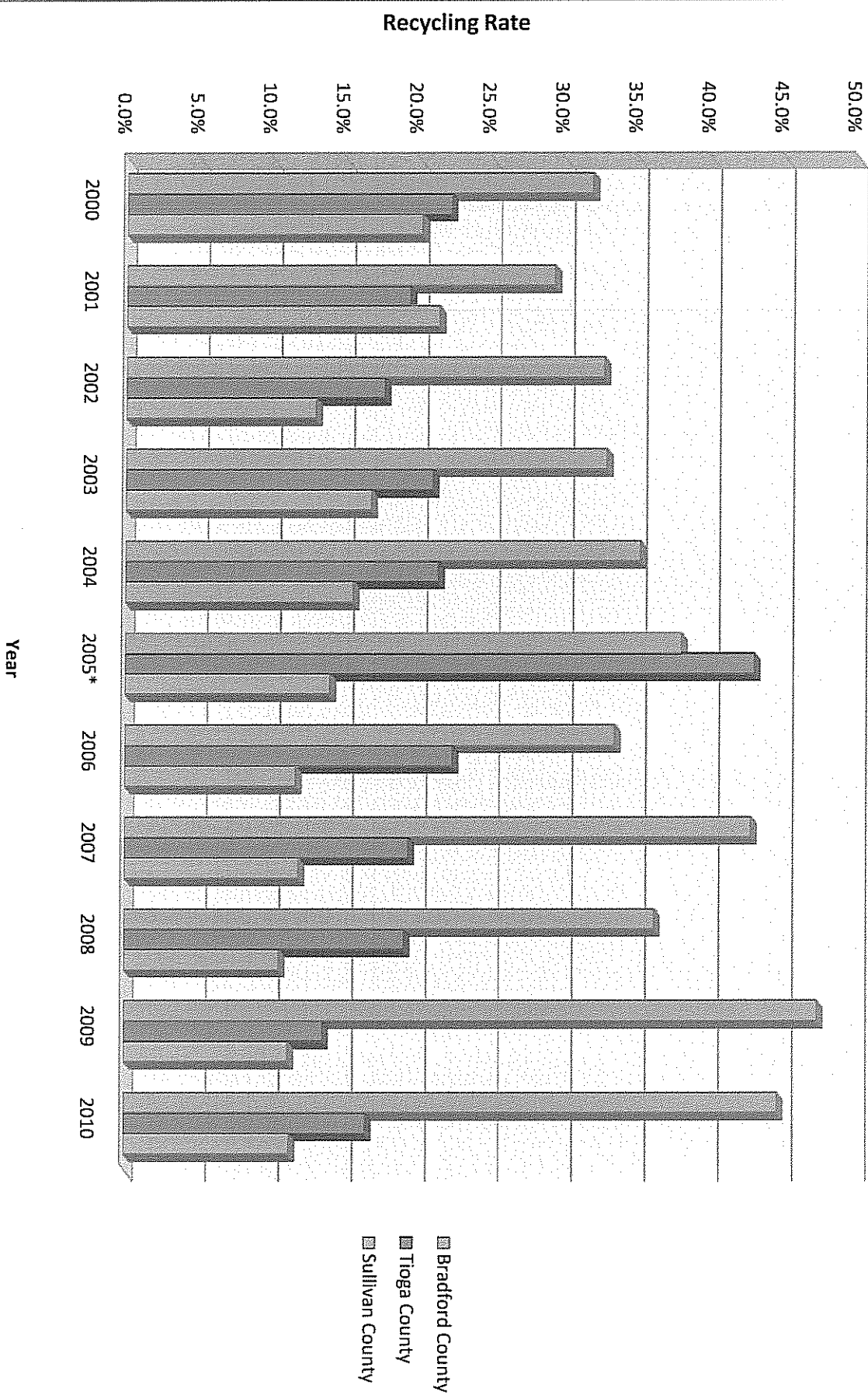
Attest: \_\_\_\_\_  
Donald H. Blackwell, Chief Clerk



# APPENDIX

11

# Northern Tier Solid Waste Authority County Recycling Rates 2000-2010

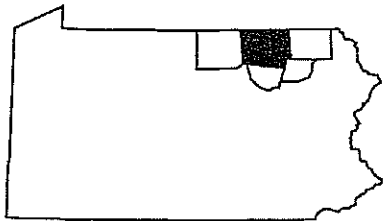
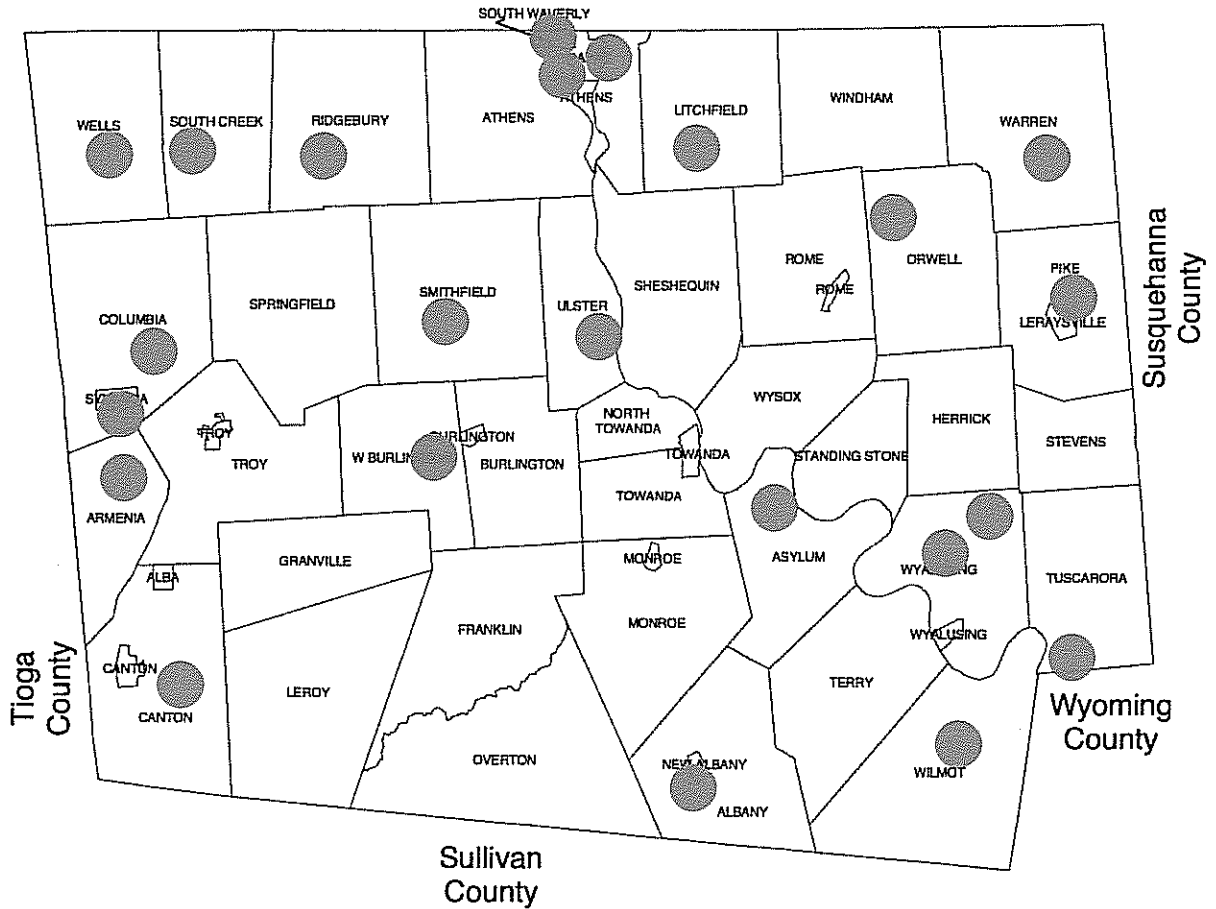


\* 2005 sufficient data does not exist for Tioga County

# APPENDIX

12

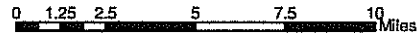
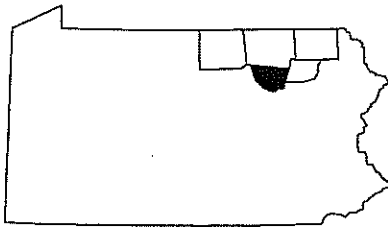
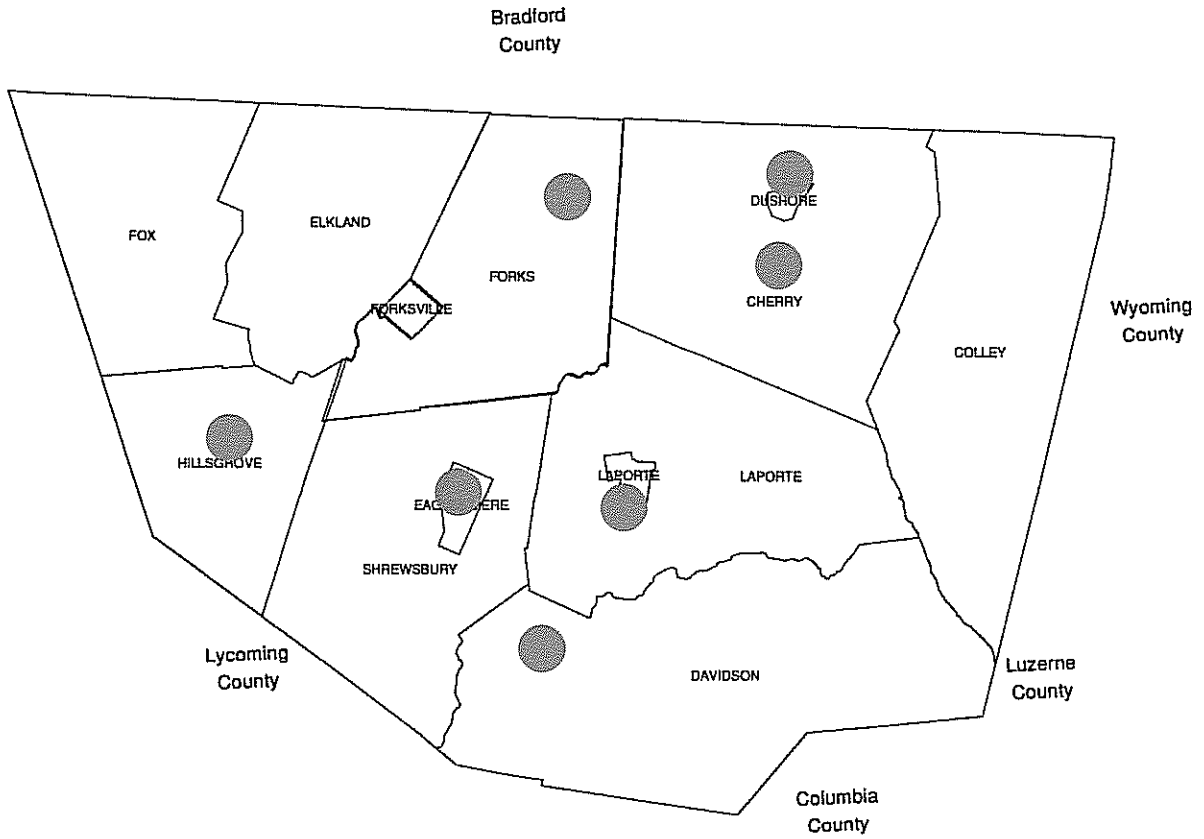
# Bradford County



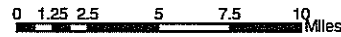
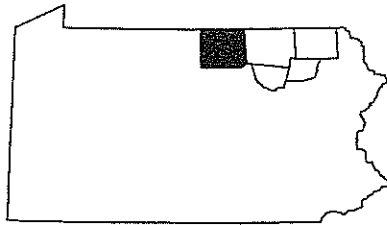
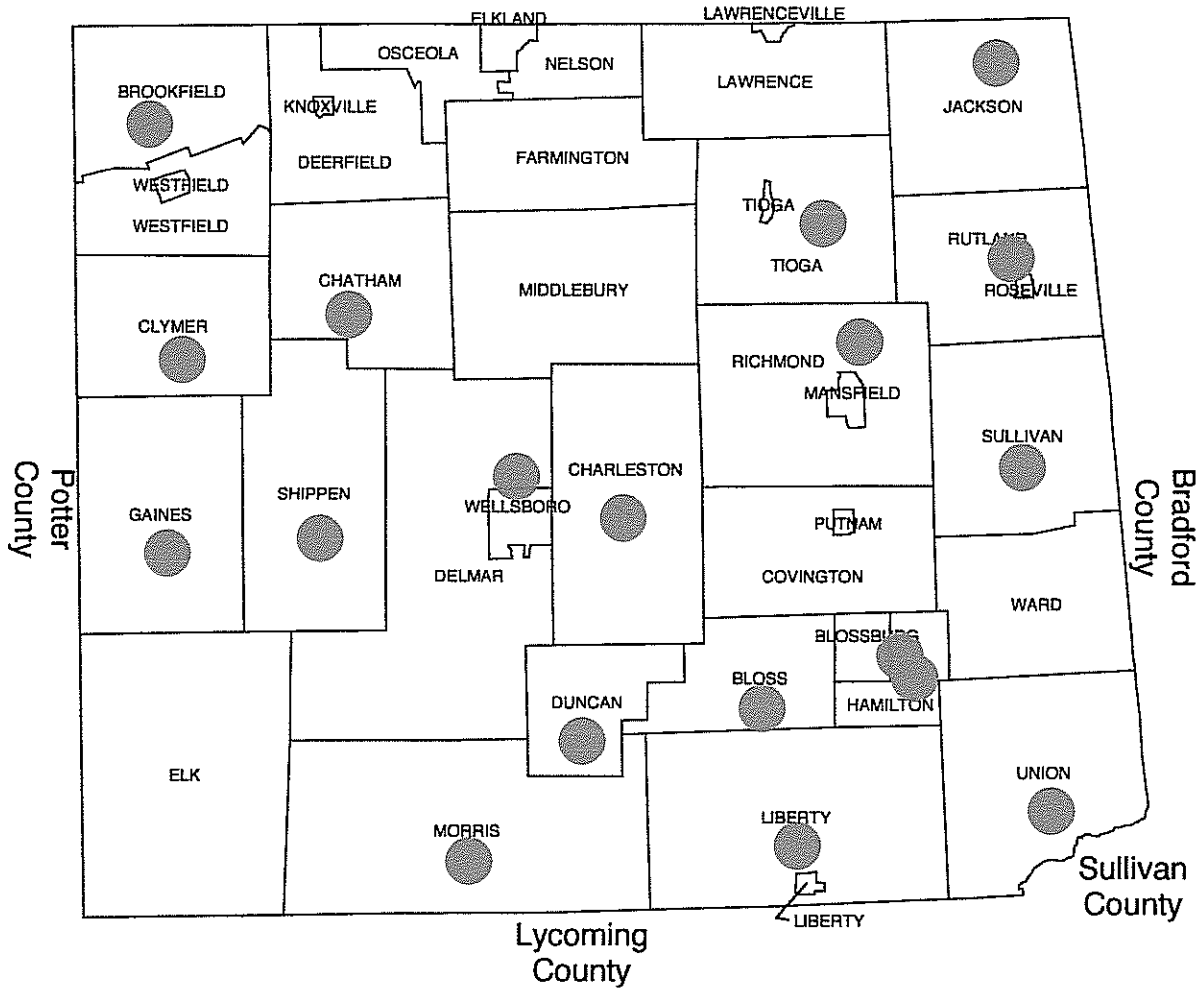
0 1.25 2.5 5 7.5 10 Miles



# Sullivan County



# Tioga County



# APPENDIX

13

# GHG Emissions Analysis -- Summary Report

Version 12  
 GHG Emissions Waste Management Analysis for Northern Tier Solid Waste Authority  
 Prepared by: Leigh Twomey  
 Date of Analysis: 01/01/11 to 12/31/11  
 File Path: C:\Users\leight\Documents\Projects\Northern Tier Solid Waste Authority\GHG Emissions Analysis\Summary Report.docx

GHG Emissions from Baseline Waste Management (MTCO<sub>2</sub>E): (26,133)

Commodity	Tons Recycled	Tons Landfilled	Tons Comburbed	Tons Composted	Total MTCO <sub>2</sub> E
Aluminum Cans	82.0	172.7	-	NA	(1,220)
Aluminum Ingot	768.0	768.0	-	NA	(1,224)
Steel	133.2	133.2	-	NA	(1,134)
HDPE	132.1	132.1	-	NA	(1,134)
PEI	1,087.7	1,087.7	-	NA	(1,087)
Comburbed Containers	241.1	241.1	-	NA	(1,087)
Magnesium class mail	517.8	517.8	-	NA	(1,440)
Newsprint	15.6	15.6	-	NA	(45)
Office Paper	20.8	20.8	-	NA	(85)
Textbooks	489.8	489.8	-	NA	(1,723)
Mail Paper (General)	20.3	20.3	-	NA	(130)
Mail Paper (Special)	52,847.6	52,847.6	-	NA	(18,808)
Mail MNY	29.5	29.5	-	NA	(69)
Personal Computers	-	-	-	-	0
...	...	...	...	...	...

Note: a negative value (i.e., a value in parentheses) indicates an emission reduction; a positive value indicates an emission increase.

- a) For explanation of methodology, see the EPA report: Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks (EPA530-R-04-004) - available on the Internet at <http://epa.gov/airtochemicals/waste/downloads/waste.pdf> (6 Mb PDF file).
- b) Emissions estimates provided by the model are intended to support voluntary GHG measurement and reporting initiatives.
- c) The GHG emissions results estimated in WARM indicate the full life-cycle benefits waste management alternatives. Due to the timing of the GHG emissions from the waste management pathways, (e.g., avoided landfilling and increased recycling), the actual GHG implications may occur over the long-term. Therefore, one should not interpret the GHG emissions implications as occurring all in one year, but rather throughout time.

GHG Emissions from Alternative Waste Management Scenario (MTCO<sub>2</sub>E): (17,382)

Commodity	Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Comburbed	Tons Composted	Total MTCO <sub>2</sub> E	Change (Alt.-Base) MTCO <sub>2</sub> E
Aluminum Cans	-	-	82.0	-	NA	3	733
Aluminum Ingot	-	-	768.0	-	NA	7	1,210
Steel	-	-	133.2	-	NA	30	244
HDPE	-	-	132.1	-	NA	5	110
PEI	-	-	1,087.7	-	NA	5	132
Comburbed Containers	-	-	241.1	-	NA	1,087	4,694
Magnesium class mail	-	-	517.8	-	NA	1,250	1,974
Newsprint	-	-	15.6	-	NA	(25)	1,026
Office Paper	-	-	20.8	-	NA	20	31
Textbooks	-	-	489.8	-	NA	(130)	1,374
Mail Paper (General)	-	-	20.3	-	NA	1	21
Mail Paper (Special)	-	-	52,847.6	-	NA	(18,808)	26
Mail MNY	-	-	29.5	-	NA	1	0
Personal Computers	-	-	-	-	-	0	0
...	...	...	...	...	...	...	...

Total Change in GHG Emissions (MTCO<sub>2</sub>E): 10,771

This is equivalent to...

- 2,112 Passenger Vehicles Adding annual emissions from
- 1,207,637 Gallons of Gasoline Consuming
- 448,797 Cylinders of Propane Used for Home Barbeques Consuming
- 50 Railway Cars of Coal
- 0.00063% Annual CO<sub>2</sub> emissions from the U.S. transportation sector
- 0.00050% Annual CO<sub>2</sub> emissions from the U.S. electricity sector



# Waste Reduction Model (WARM) -- Results

Analysis Results (MTCO<sub>2</sub>E)

Total GHG Emissions from Baseline MSW Generation and Management (MTCO <sub>2</sub> E):	(28,133)
Total GHG Emissions from Alternative MSW Generation and Management (MTCO <sub>2</sub> E):	(17,382)
Incremental GHG Emissions (MTCO <sub>2</sub> E):	10,771
MTCO <sub>2</sub> E = metric tons of carbon dioxide equivalent	

## Per Ton Estimates of GHG Emissions for Alternative Management Scenarios

Material	D10 Emissions per Ton of Material Reduced (MTCO <sub>2</sub> E)	D10 Emissions per Ton of Material Recycled (MTCO <sub>2</sub> E)	GHG Emissions per Ton of Material Landfilled (MTCO <sub>2</sub> E)	GHG Emissions per Ton of Material Comburbed (MTCO <sub>2</sub> E)	GHG Emissions per Ton of Material Composted (MTCO <sub>2</sub> E)
Aluminum Cans	(4.84)	(8.89)	0.04	0.05	NA
Aluminum Ingot	(7.27)	(9.97)	0.04	0.05	NA
Steel Cans	(3.10)	(1.80)	0.04	(1.55)	NA
Copper Wire	(7.26)	(4.89)	0.04	0.05	NA
Glass	(0.53)	(0.28)	0.04	0.05	NA
HDPPE	(1.47)	(0.66)	0.04	1.27	NA
LDPE	(1.79)	NA	0.04	1.28	NA
PET	(2.22)	(1.11)	0.04	1.24	NA
LLDPE	(1.57)	NA	0.04	1.27	NA
PP	(1.55)	NA	0.04	1.27	NA
PS	(2.50)	NA	0.04	1.04	NA
PVC	(1.90)	NA	0.04	0.87	NA
PLA	(2.18)	NA	0.04	0.87	NA
Comingated Containers	(5.59)	(3.11)	(0.21)	(0.62)	(0.20)
Megatonsteel/dura steel	(8.84)	(3.07)	(0.50)	(0.49)	NA
Newsprint	(4.85)	(2.78)	(0.74)	(0.55)	NA
Office Paper	(7.99)	(2.65)	(1.60)	(0.47)	NA
Plywood	(0.27)	(2.65)	0.31	(0.55)	NA
Torobaka	(0.11)	(2.46)	(1.80)	(0.47)	NA
Dimensional Lumber	(2.02)	(2.47)	(1.11)	(0.50)	NA
Medium-density Fibreboard	(2.22)	NA	(0.82)	(0.12)	(0.20)
Food Scraps	0.00	NA	0.48	(0.15)	(0.20)
Yard Trimmings	0.00	NA	0.03	(0.15)	(0.20)
Grass	0.00	NA	0.03	(0.15)	(0.20)
Leaves	0.00	NA	0.03	(0.15)	(0.20)
Branches	0.00	NA	(0.83)	(0.15)	(0.20)
Mixed Paper (General)	NA	(3.52)	(0.71)	(0.49)	NA
Mixed Paper (primarily residential)	NA	(3.52)	(0.75)	(0.46)	NA
Mixed Paper (primarily from office)	NA	(3.50)	(0.43)	(0.44)	NA
Mixed Plastics	NA	(3.97)	0.04	(1.06)	NA
Mixed Retyables	NA	(0.89)	0.04	1.25	NA
Mixed Metals	NA	(2.00)	(0.63)	(0.43)	NA
Mixed Organics	NA	NA	0.02	(0.14)	(0.20)
Mixed MSW	NA	NA	(0.30)	(0.04)	NA
Carpet	(3.06)	(2.37)	0.04	1.10	NA
Personal Computers	(54.15)	(2.35)	0.04	(0.17)	NA
City Bikes	(0.28)	NA	0.04	NA	NA
Concrete	NA	(0.01)	0.04	NA	NA
Fly Ash	NA	(0.87)	0.04	NA	NA
Tires	NA	(0.39)	0.04	0.51	NA
Asphalt Concrete	(4.32)	(0.11)	0.04	NA	NA
Asphalt Sillings	(0.11)	(0.09)	0.04	NA	NA
Drywall	(0.22)	(0.09)	0.04	(0.34)	NA
Fiberglass Insulation	(0.22)	0.03	0.13	NA	NA
Vinyl Flooring	(0.39)	0.03	0.04	NA	NA
Wood Flooring	(0.52)	NA	0.04	(0.30)	NA
Wood Fluorizing	(4.88)	NA	8.97	(0.78)	NA

Analysis Results (MTCO2E)

GHG Emissions from Baseline Management of Municipal Solid Wastes

Material	Baseline Generation of Material (Tons)	Estimated Recycling (Tons)	Annual GHG Emissions from Recycling (MTCO2E)	Estimated Landfilling (Tons)	Annual GHG Emissions from Landfilling (MTCO2E)	Estimated Combustion (Tons)	Annual GHG Emissions from Combustion (MTCO2E)	Estimated Composting (Tons)	Annual GHG Emissions from Composting (MTCO2E)	Total Annual GHG Emissions (MTCO2E)
Aluminum Cans	82.0	82.0	(729.9)	0.0	0.0	0.0	0.0	0.0	0.0	(729.9)
Aluminum Light	172.7	172.7	(1,203.8)	0.0	0.0	0.0	0.0	0.0	0.0	(1,203.8)
Steel Cans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Copper Wire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass	768.9	768.9	(2,13.8)	0.0	0.0	0.0	0.0	0.0	0.0	(2,13.8)
HDPE	133.2	133.2	(114.2)	0.0	0.0	0.0	0.0	0.0	0.0	(114.2)
LDPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PET	122.1	122.1	(146.4)	0.0	0.0	0.0	0.0	0.0	0.0	(146.4)
LDPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PVC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PLA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corrugated Containers	1,687.7	1,687.7	(5,248.8)	0.0	0.0	0.0	0.0	0.0	0.0	(5,248.8)
Magnesium-based class mail	341.1	341.1	(1,047.3)	0.0	0.0	0.0	0.0	0.0	0.0	(1,047.3)
Newsprint	517.8	517.8	(1,440.3)	0.0	0.0	0.0	0.0	0.0	0.0	(1,440.3)
Office Paper	15.0	15.0	(44.5)	0.0	0.0	0.0	0.0	0.0	0.0	(44.5)
Phonebooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Textbooks	20.0	20.0	(64.9)	0.0	0.0	0.0	0.0	0.0	0.0	(64.9)
Dimensional Lumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Medium-density Fibreboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Food Scraps	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yard Trimmings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limbs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Branches	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Paper (General)	489.8	489.8	(1,723.0)	0.0	0.0	0.0	0.0	0.0	0.0	(1,723.0)
Mixed Paper (primarily residential)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Paper (primarily from offices)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Metals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Plastics	20.3	20.3	(18.8)	0.0	0.0	0.0	0.0	0.0	0.0	(18.8)
Mixed Fiberglass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Organics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed MSW	52,847.0	N/A	N/A	52,847.0	(18,067.8)	0.0	0.0	0.0	0.0	(18,067.8)
Carpet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Personal Computers	29.5	29.5	(89.2)	0.0	0.0	0.0	0.0	0.0	0.0	(89.2)
City Bricks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fly Ash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asphalt Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asphalt Shingles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Drywall	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fiberglass Insulation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vinyl Flooring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wood Flooring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>57,258.5</b>	<b>4,411.5</b>	<b>(12,065.8)</b>	<b>52,847.0</b>	<b>(18,067.8)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>(20,132.8)</b>

Analysis Results (MTCO2E)

GHG Emissions from Projected Alternative Management of Municipal Solid Wastes

Material	Baseline Generation of Material (Tons)	Projected Source Reduction (Tons)	Projected Emissions from Source Reduction (MTCO2E)	Projected Recycling (Tons)	Annual GHG Emissions from Recycling (MTCO2E)	Projected Landfilling (Tons)	Annual GHG Emissions from Landfilling (MTCO2E)	Projected Combustion (Tons)	Annual GHG Emissions from Combustion (MTCO2E)	Projected Composting (Tons)	Annual GHG Emissions from Composting (MTCO2E)	Total Annual GHG Emission (MTCO2E)
Aluminum Cans	62.9	0.0	0.0	0.0	0.0	62.9	3.2	0.0	0.0	NA	0.0	3.2
Aluminum Npht	172.7	0.0	0.0	0.0	0.0	172.7	0.7	0.0	0.0	NA	0.0	0.7
Sheet Glass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Copper Wire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Glass	768.0	0.0	0.0	0.0	0.0	768.0	29.8	0.0	0.0	NA	0.0	29.8
HDPE	133.2	0.0	0.0	0.0	0.0	133.2	5.2	0.0	0.0	NA	0.0	5.2
LDPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
PET	132.1	0.0	0.0	0.0	0.0	132.1	5.1	0.0	0.0	NA	0.0	5.1
PP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
PS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
PVC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
PLA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Corrugated Containers	1,097.7	0.0	0.0	0.0	0.0	1,097.7	4.0	0.0	0.0	NA	0.0	4.0
Magnesium/ster-class mail	341.1	0.0	0.0	0.0	0.0	341.1	(354.5)	0.0	0.0	NA	0.0	(354.5)
Newspaper	517.0	0.0	0.0	0.0	0.0	517.0	(593.5)	0.0	0.0	NA	0.0	(593.5)
Office Paper	15.0	0.0	0.0	0.0	0.0	15.6	(24.8)	0.0	0.0	NA	0.0	(24.8)
Pneumobooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Trailbooks	20.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	NA	0.0	0.0
Dimensional Lumber	0.0	0.0	0.0	0.0	0.0	0.0	(3.3)	0.0	0.0	NA	0.0	(3.3)
Medium-density Fiberboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Food Scraps	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Yard Trimmings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Grass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Leaves	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Branches	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Mixed Paper (General)	489.8	0.0	0.0	0.0	0.0	489.8	0.0	0.0	0.0	NA	0.0	0.0
Mixed Paper (Generally residential)	0.0	0.0	0.0	0.0	0.0	0.0	(349.1)	0.0	0.0	NA	0.0	(349.1)
Mixed Paper (Generally from offices)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Mixed Metals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Mixed Plastics	20.3	0.0	0.0	0.0	0.0	20.3	0.0	0.0	0.0	NA	0.0	0.0
Mixed Recyclables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Mixed Organics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Mixed MSW	52,847.0	0.0	0.0	0.0	0.0	52,847.0	(18,067.5)	0.0	0.0	0.0	0.0	(18,067.5)
Crupit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Personal Computers	29.5	0.0	0.0	0.0	0.0	29.5	1.1	0.0	0.0	NA	0.0	1.1
City Bikes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Ply Ash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Tires	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Asphalt Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Asphalt Shingles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Drywall	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Fiberglass Insulation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Wool Flooring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
Total	57,255.5	0.0	0.0	0.0	0.0	57,255.5	(17,361.7)	0.0	0.0	0.0	0.0	(17,361.7)

Analysis Results (MTCO2E)

Incremental GHG Emissions from Projected Alternative Management of Municipal Solid Wastes

Material	Source Reduction (Tons)	GHG Emissions from Source Reduction (MTCO2E)	Incremental Recycling (Tons)	Incremental GHG Emissions from Recycling (MTCO2E)	Incremental Landfilling (Tons)	Incremental GHG Emissions from Landfilling (MTCO2E)	Incremental Combustion (Tons)	Incremental GHG Emissions from Combustion (MTCO2E)	Incremental Composting (Tons)	Incremental GHG Emissions from Composting (MTCO2E)	Total Incremental GHG Emissions (MTCO2E)
Aluminum Cans	0.0	0.0	(82.0)	789.0	82.0	3.2	0.0	0.0	NA	NA	732.2
Aluminum Ingot	0.0	0.0	(172.7)	1,203.8	0.0	0.7	0.0	0.0	NA	NA	1,210.5
Steel Cans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Copper Wire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Sticks	0.0	0.0	(788.9)	213.9	788.9	28.6	0.0	0.0	NA	NA	243.7
HDPE	0.0	0.0	(133.2)	114.2	133.2	5.2	0.0	0.0	NA	NA	119.3
LDPE	0.0	0.0	(132.1)	140.4	0.0	5.1	0.0	0.0	NA	NA	0.0
PET	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	NA	151.5
LDPE	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PP	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PS	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PVC	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PLA	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Corrugated Containers	0.0	0.0	(1,087.7)	5,248.9	0.0	0.0	0.0	0.0	NA	NA	0.0
Multigrahdicraft-clms mat	0.0	0.0	(341.1)	1,047.3	1,887.7	(354.9)	0.0	0.0	NA	NA	4,384.8
Newsprint	0.0	0.0	(517.8)	1,440.3	341.1	(1,992.8)	0.0	0.0	NA	NA	847.5
Office Paper	0.0	0.0	(15.8)	44.5	517.8	(283.9)	0.0	0.0	NA	NA	1,958.4
Phonebooks	0.0	0.0	(20.8)	0.0	15.0	(24.9)	0.0	0.0	NA	NA	18.8
Textbooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Dimensional Lumber	0.0	0.0	0.0	0.0	20.8	(33.3)	0.0	0.0	NA	NA	31.4
Medium-density Fibreboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Food Strips	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Yard Trimmings	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Gross	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Leaves	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Branches	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Paper (General)	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Paper (primarily residential)	0.0	0.0	(488.8)	1,723.0	488.8	(348.1)	0.0	0.0	NA	NA	1,374.8
Mixed Paper (primarily from offices)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Plastic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Plastics	0.0	0.0	(20.3)	19.9	20.3	0.5	0.0	0.0	NA	NA	28.7
Mixed Recyclables	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Organics	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed MSW	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Carpet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Personal Computers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Clay Bricks	0.0	0.0	(28.5)	60.2	28.5	1.1	0.0	0.0	NA	NA	78.4
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Fly Ash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Tires	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Asphalt Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Asphalt Shingles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Pyrexial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Fiberglass Insulation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Vinyl Flooring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Wood Flooring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Total	0.0	0.0	(4,411.5)	12,855.0	4,411.5	(1,293.8)	0.0	0.0	0.0	0.0	10,771.1

a) For explanation of methodology, see the EPA report: Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks (EPA530-R-06-004)  
 -- available on the Internet at <http://epa.gov/climatechange/yd/waste/downloads/lulireport.pdf> (5.6 Mb PDF file).

b) Emissions estimates provided by this model are intended to support voluntary GHG measurement and reporting initiatives.

# APPENDIX

14

## Commonwealth of Pennsylvania

Department of State

Office of The  
Secretary of the Commonwealth

To all to whom these Presents shall come, Greeting:

WHEREAS, In and by the provisions of the Municipality Authorities Act approved May 2, 1945, P. L. 382, as amended, the Secretary of the Commonwealth is authorized and required to issue a

## CERTIFICATE OF INCORPORATION

evidencing the incorporation of an authority under the provisions of said Act.

AND WHEREAS, The stipulations and conditions of said Act have been fully complied with by the Municipal Authorities of the County of Bradford, County of Sullivan, and the County of Tioga,

Commonwealth of Pennsylvania desiring the organization of

## NORTHERN TIER SOLID WASTE AUTHORITY

THEREFORE, KNOW YE, That subject to the Constitution of this Commonwealth, and under the authority of Act No. 164, approved the second day of May, Anno Domini one thousand nine hundred and forty-five, P. L. 382, as amended, I DO BY THESE PRESENTS, which I have caused to be sealed with the Great Seal of the Commonwealth, declare and certify the creation, erection and incorporation of

## NORTHERN TIER SOLID WASTE AUTHORITY

into a body politic and corporate in deed and in law by the name chosen hereinbefore specified, now to become operative with authority to transact business, and which shall exist for a term of fifty years unless sooner dissolved according to law.

Such corporation shall have and enjoy and shall be the subject to all the powers, duties, requirements, and restrictions, specified and enjoined in and by the above Act of Assembly and all other applicable laws of this Commonwealth.

GIVEN under my Hand and the Great Seal of the Commonwealth, at the City of Harrisburg, this 4th day of December, in the year of our Lord one thousand nine hundred and seventy-three and of the Commonwealth the one hundred and ninety-eighth.

*C. McLaughlin Tucker*

Secretary of the Commonwealth  
jmw

# APPENDIX

15

COUNTY OF BRADFORD  
PENNSYLVANIA

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Resolution No. 32-83

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A RESOLUTION  
OF THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF  
BRADFORD, PENNSYLVANIA, DESIGNATING NORTHERN TIER SOLID  
WASTE AUTHORITY AS THE SOLID WASTE PLANNING AGENCY FOR,  
INTER ALIA, THE COUNTY OF BRADFORD; AUTHORIZING AND  
DIRECTING IT, (A) TO PREPARE PLANS FOR SOLID WASTE  
MANAGEMENT SYSTEMS TO SERVE, INTER ALIA, MUNICIPALITIES  
LOCATED WITHIN THE COUNTY OF BRADFORD, (B) UPON REQUEST  
TO AGREE TO AND TO PREPARE PLANS FOR MUNICIPAL WASTE  
MANAGEMENT SYSTEMS SERVING SUCH MUNICIPALITIES, OR  
REVISIONS OF EXISTING PLANS; (C) TO PROVIDE FOR  
PARTICIPATION AND REVIEW OF ANY SUCH PLANS BY ALL  
MUNICIPALITIES AFFECTED THEREBY, AND (D) TO SEEK FUNDING  
FROM SOURCES OTHER THAN MUNICIPALITIES LOCATED WITHIN  
THE COUNTY OF BRADFORD FOR SUCH WASTE MANAGEMENT  
PLANNING.

---

WHEREAS, all municipalities, including the townships and  
boroughs located within the County of Bradford, are responsible for  
the collection, transportation, storage, processing and disposal of  
municipal solid waste generated within their boundaries; and

WHEREAS, Section 201 of the Solid Waste Management Act of July  
7, 1980, P.L. 38, No. 97 (the "Act" ), provides, inter alia, that



"Each municipality with a population density of 300 or more inhabitants per square mile and each municipality with a population density of less than 300 wherein the department (the Department of Environmental Resources of the Commonwealth of Pennsylvania) has identified a waste problem or a potential waste problem shall submit to the department an officially adopted plan for a municipal waste management system or systems serving the areas within its jurisdiction..."; and

WHEREAS, each municipality may request (by resolution) and may enter into an agreement with the County or its designated solid waste planning agency to develop and adopt, with the municipality's participation and review, a solid waste management plan for review by the appropriate official planning agencies of the municipality and of the County and for approval by the Department of Environmental Resources of the Commonwealth of Pennsylvania; and

WHEREAS, Northern Tier Solid Waste Authority (the "Authority" is a municipality authority organized and existing under the Municipality Authorities Act of May 2, 1945, P.L. 382, as amended and supplemented, was incorporated by this County, the County of Sullivan and the County of Tioga, and is providing solid waste disposition facilities serving municipalities of each of those three counties; a

WHEREAS, the Board of County Commissioners of this County desires to designate the Authority to be and to act, inter alia, as its designated solid waste planning agency pursuant to the Act;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of the County of Bradford, as follows:

1. Northern Tier Solid Waste Authority be and it hereby is designated as the solid waste planning agency for the County of Bradford, pursuant to and for the purpose of achieving compliance in the County of Bradford with the Solid Waste Management Act of July 7, 1980, P.L. 38, No. 97, as now enacted and as hereafter amended and supplemented

2. The Authority be and it hereby is authorized and directed to prepare a plan or plans for a solid waste management system or systems to serve, inter alia, municipalities located within the County of Bradford, which plan or plans shall include consideration of present and future generation, storage, collection, transportation, processing and disposing of all solid wastes within the County of Bradford.

3. The Authority be and it hereby is authorized, upon request to it by any municipality located within this County, to agree to and to prepare for such municipality a plan for a municipal waste management system or systems serving such municipality, or to agree to and to prepare for such municipality such revisions to any existing plan as may be necessary or required.

4. The Authority, in preparing any solid waste management plan or revision thereto, for the County of Bradford, is hereby directed to provide for participation and review of all affected municipalities; and to submit any such plan, or revision, to this

Board of County Commissioners for review, and acceptance or rejection by the Board within thirty (30) days after such submission.

5. The Authority is authorized and directed to apply for any grants or funding for waste management planning that are or may become available from any governmental or non-governmental sources, but shall not seek nor accept any financial assistance or grants from any municipality located in the County of Bradford for waste management planning.

6. Proper officers of this Board of County Commissioners are authorized and directed to execute all documents and to do all other acts as may be necessary and proper to carry out the intent and purpose of this Resolution.

7. All other resolutions or parts of resolutions which are inconsistent herewith shall be and the same expressly are repealed.

DULY ADOPTED, this 24th day of August, 1983, by the Board of County Commissioners of the County of Bradford, in lawful session duly assembled.

COUNTY OF BRADFORD, PENNSYLVANIA

By *Thomas P. Douglas*  
County Commissioner

By *[Signature]*  
County Commissioner

By *Benny Farnsworth*  
County Commissioner

ATTEST:

*Gary L. Wood*  
Gary L. Wood, Chief Clerk

COUNTY OF SULLIVAN  
PENNSYLVANIA

Resolution No. \_\_\_\_\_

---

A RESOLUTION  
OF THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF  
SULLIVAN, PENNSYLVANIA, DESIGNATING NORTHERN TIER SOLID  
WASTE AUTHORITY AS THE SOLID WASTE PLANNING AGENCY FOR,  
INTER ALIA, THE COUNTY OF SULLIVAN; AUTHORIZING AND  
DIRECTING IT, (A) TO PREPARE PLANS FOR SOLID WASTE  
MANAGEMENT SYSTEMS TO SERVE, INTER ALIA, MUNICIPALITIES  
LOCATED WITHIN THE COUNTY OF SULLIVAN, (B) UPON REQUEST  
TO AGREE TO AND TO PREPARE PLANS FOR MUNICIPAL WASTE  
MANAGEMENT SYSTEMS SERVING SUCH MUNICIPALITIES, OR  
REVISIONS OF EXISTING PLANS; (C) TO PROVIDE FOR PARTICIPATION  
AND REVIEW OF ANY SUCH PLANS BY ALL MUNICIPALITIES  
AFFECTED THEREBY, AND (D) TO SEEK FUNDING FROM SOURCES  
OTHER THAN MUNICIPALITIES LOCATED WITHIN THE COUNTY OF  
SULLIVAN FOR SUCH WASTE MANAGEMENT PLANNING.

---

WHEREAS, all municipalities, including the townships and  
boroughs located within the County of Sullivan, are responsible  
for the collection, transportation, storage, processing and  
disposal of municipal solid waste generated within their boundaries;  
and

WHEREAS, Section 201 of the Solid Waste Management Act of  
July 7, 1980, P.L. 38, No. 97 (the "Act"), provides, inter alia,  
that

"Each municipality with a population density of 300 or more inhabitants per square mile and each municipality with a population density of less than 300 wherein the department (the Department of Environmental Resources of the Commonwealth of Pennsylvania) has identified a waste problem or a potential waste problem shall submit to the department an officially adopted plan for a municipal waste management system or systems serving the areas within its jurisdiction..."; and

WHEREAS, each municipality may request (by resolution) and may enter into an agreement with the County or its designated solid waste planning agency to develop and adopt, with the municipality's participation and review, a solid waste management plan for review by the appropriate official planning agencies of the municipality and of the County and for approval by the Department of Environmental Resources of the Commonwealth of Pennsylvania; and

WHEREAS, Northern Tier Solid Waste Authority (the "Authority") is a municipality authority organized and existing under the Municipality Authorities Act of May 2, 1945, P.L. 382, as amended and supplemented, was incorporated by this County, the County of Sullivan and the County of Bradford, and is providing solid waste disposition facilities serving municipalities of each of those three counties; and

WHEREAS, the Board of County Commissioners of this County desires to designate the Authority to be and to act, inter alia, as its designated solid waste planning agency pursuant to the Act;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of the County of Sullivan, as follows:

1. Northern Tier Solid Waste Authority be and it hereby is designated as the solid waste planning agency for the County of Sullivan, pursuant to and for the purpose of achieving compliance in the County of Sullivan with the Solid Waste Management Act of July 7, 1980, P.L. 38, No. 97, as now enacted and as hereafter amended and supplemented.

2. The Authority be and it hereby is authorized and directed to prepare a plan or plans for a solid waste management system or system to serve, inter alia, municipalities located within the County of Sullivan, which plan or plans shall include consideration of present and future generation, storage, collection, transportation, processing and disposing of all solid wastes within the County of Sullivan.

3. The Authority be and it hereby is authorized, upon request to it by any municipality located within this County, to agree to and to prepare for such municipality a plan for a municipal waste management system or systems serving such municipality, or to agree to and to prepare for such municipality such revisions to any existing plan as may be necessary or required.

4. The Authority, in preparing any solid waste management plan or revision thereto, for the County of Sullivan is hereby directed to provide for participation and review of all affected municipalities; and to submit any such plan, or revision, to this

Board of County Commissioners for review, and acceptance or rejection by the Board within thirty (30) days after such submission.

5. The Authority is authorized and directed to apply for any grants or funding for waste management planning that are or may become available from any governmental or non-governmental sources, but shall not seek nor accept any financial assistance or grants from any municipality located in the County of Sullivan for waste management planning.

6. Proper officers of this Board of County Commissioners are authorized and directed to execute all documents and to do all other acts as may be necessary and proper to carry out the intent and purpose of this Resolution.

7. All other resolutions or parts of resolutions which are inconsistent herewith shall be and the same expressly are repealed.

DULY ADOPTED, this 4<sup>th</sup> day of January, <sup>1954</sup>~~1953~~,  
by the Board of County Commissioners of the County of Sullivan,  
in lawful session duly assembled.

COUNTY OF SULLIVAN, PENNSYLVANIA

By Henry B. Miller Jr.  
County Commissioner

By Marion Beaman  
County Commissioner

By John W. Pattoke  
County Commissioner

ATTEST:

Donald J. Leary  
Chief Clerk

COUNTY OF TIOGA  
PENNSYLVANIA

Resolution No. \_\_\_\_\_  
R-7-83

A RESOLUTION  
OF THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF  
TIOGA, PENNSYLVANIA, DESIGNATING NORTHERN TIER SOLID  
WASTE AUTHORITY AS THE SOLID WASTE PLANNING AGENCY FOR,  
INTER ALIA, THE COUNTY OF TIOGA; AUTHORIZING AND DIRECTING  
IT, (A) TO PREPARE PLANS FOR SOLID WASTE MANAGEMENT SYSTEMS  
TO SERVE, INTER ALIA, MUNICIPALITIES LOCATED WITHIN THE  
COUNTY OF TIOGA, (B) UPON REQUEST TO AGREE TO AND TO PREPARE  
PLANS FOR MUNICIPAL WASTE MANAGEMENT SYSTEMS SERVING SUCH  
MUNICIPALITIES, OR REVISIONS OF EXISTING PLANS; (C) TO  
PROVIDE FOR PARTICIPATION AND REVIEW OF ANY SUCH PLANS BY ALL  
MUNICIPALITIES AFFECTED THEREBY, AND (D) TO SEEK FUNDING  
FROM SOURCES OTHER THAN MUNICIPALITIES LOCATED WITHIN THE  
COUNTY OF TIOGA FOR SUCH WASTE MANAGEMENT PLANNING.

---

WHEREAS, all municipalities, including the townships and  
boroughs located within the County of Tioga, are responsible  
for the collection, transportation, storage and processing and  
disposal of municipal solid waste generated within their boundaries;  
and

WHEREAS, Section 201 of the Solid Waste Management Act of  
July 7, 1980, P.L. 38, No. 97 (the "Act"), provides, inter alia,  
that



"Each municipality with a population density of 300 or more inhabitants per square mile and each municipality with a population density of less than 300 wherein the department (the Department of Environmental Resources of the Commonwealth of Pennsylvania) has identified a waste problem or a potential waste problem shall submit to the department an officially adopted plan for a municipal waste management system or systems serving the areas within its jurisdiction..."; and

WHEREAS, each municipality may request (by resolution) and may enter into an agreement with the County or its designated solid waste planning agency to develop and adopt, with the municipality's participation and review, a solid waste management plan for review by the appropriate official planning agencies of the municipality and of the County and for approval by the Department of Environmental Resources of the Commonwealth of Pennsylvania; and

WHEREAS, Northern Tier Solid Waste Authority (the "Authority" is a municipality authority organized and existing under the Municipality Authorities Act of May 2, 1945, P.L. 382, as amended and supplemented, was incorporated by this County, the County of Bradford and the County of Tioga, and is providing solid waste disposition facilities serving municipalities of each of those three counties; and

WHEREAS, the Board of County Commissioners of this County desires to designate the Authority to be and to act, inter alia, as its designated solid waste planning agency pursuant to the Act;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of the County of Tioga, as follows:

1. Northern Tier Solid Waste Authority be and it hereby is designated as the solid waste planning agency for the County of Tioga, pursuant to and for the purpose of achieving compliance in the County of Tioga with the Solid Waste Management Act of July 7, 1980, P.L. 38, No. 97, as now enacted and as hereafter amended and supplemented.

2. The Authority be and it hereby is authorized and directed to prepare a plan or plans for a solid waste management system or systems to serve, inter alia, municipalities located within the County of Tioga, which plan or plans shall include consideration of present and future generation, storage, collection, transportation, processing and disposing of all solid wastes within the County of Tioga.

3. The Authority be and it hereby is authorized, upon request to it by any municipality located within this County, to agree to and to prepare for such municipality a plan for a municipal waste management system or systems serving such municipality, or to agree to and to prepare for such municipality such revisions to any existing plan as may be necessary or required.

4. The Authority, in preparing any solid waste management plan or revision thereto, for the County of Tioga, is hereby directed to provide for participation and review of all affected municipalities; and to submit any such plan, or revision, to this

Board of County Commissioners for review, and acceptance or rejection by the Board within thirty (30) days after such submission.

5. The Authority is authorized and directed to apply for any grants or funding for waste management planning that are or may become available from any governmental or non-governmental sources, but shall not seek nor accept any financial assistance or grants from any municipality located in the County of Tioga for waste management planning.

6. Proper officers of this Board of County Commissioners are authorized and directed to execute all documents and to do all other acts as may be necessary and proper to carry out the intent and purpose of this Resolution.

7. All other resolutions or parts of resolutions which are inconsistent herewith shall be and the same expressly are repealed.

DULY ADOPTED, this 1<sup>st</sup> day of Nov, 1983, by the Board of County Commissioners of the County of Tioga, in lawful session duly assembled.

COUNTY OF TIOGA, PENNSYLVANIA

By Oliver Richard Bartholomew  
County Commissioner

ATTEST:

Ronald G. Blackwell  
Chief Clerk

By William W. Mervin  
County Commissioner

By \_\_\_\_\_  
County Commissioner

# APPENDIX

16

# County of Bradford

WILLIAM T. MCNETT  
ROBERT P. HORTON  
RICHARD A. EATON  
County Commissioners



JOHATHAN P. FOSTER  
County Solicitor

GARY L. WOOD  
Chief Clerk

Commissioners' Office  
Court House

TOWANDA, PA. 16848

TELEPHONE: 717-265-5700

## AGREEMENT

Agreement made this 27 of DECEMBER, 1989 between the Board of Commissioners of Bradford County, Pennsylvania, hereinafter referred to as "COUNTY"

AND

Northern Tier Solid Waste Authority (NTSWA), a Municipal Authority, formed, organized, and existing under the Municipal Authority's Act of May 2, 1945, P.L. 382, as amended and supplemented and incorporated by this County, the County of Sullivan and the County of Tioga, hereinafter referred to as "AUTHORITY".

## AGREEMENT BACKGROUND

Act 101 of 1988, mandates it is the duty of each County in the Commonwealth of Pennsylvania to insure the availability of adequate permitted processing and disposal capacity for the municipal waste which is generated within its boundaries. Counties may, pursuant to Act 101, enter into written Agreements with Authorities by which the Authority undertakes to fulfill some or all of the County's responsibility under Act 101 for municipal waste planning and implementation of an approved County Plan. The Northern Tier Solid Waste Management Plan, of which Bradford County is part thereof, was submitted to the Pennsylvania Department of Environmental Resources, Bureau of Waste Management, and was approved on March 23, 1989. The County has approved and adopted the Northern Tier Solid Waste Management plan dated June 1986 on October 19, 1989.

NOW, THEREFORE, the parties hereto, within, the provisions of Section 303(d) of Act 101, do hereby enter into the following Agreement:

1. The Northern Tier Solid Waste Authority, pursuant to the request of the County, undertakes to fulfill all of the County's responsibilities and obligations under Act 101 for municipal waste planning and implementation of the approved Northern Tier Solid Waste Management Plan.
2. The Authority shall be jointly and severally responsible with the County for municipal waste planning and implementation of the approved Northern Tier Solid Waste Management Plan in accordance with the regulations promulgated pursuant thereto.

William T. Dyer  
John H. ...  
Richard A. ...  
Bradford County Commissioners

ATTEST:

Gary L. Wood  
Gary L. Wood, Chief Clerk

Robert B. Woodhead  
Chairman,  
Northern Tier Solid Waste  
Authority

Martine J. ...  
Secretary

AGREEMENT

Agreement, made this sixth of November 1989 between the Board of Commissioners of Sullivan County, Pennsylvania, hereinafter referred to as "County"; and

Northern Tier Solid Waste Authority (NTSWA), a Municipal Authority, formed, organized and existing under the Municipal Authority's Act of May 2, 1945, P.L. 382, as amended and supplemented and incorporated by this County, the County of Bradford and the County of Tioga, hereinafter referred to as "Authority".

AGREEMENT BACKGROUND

Act 101 of 1988, mandates it is the duty of each County in the Commonwealth of Pennsylvania to insure the availability of adequate permitted processing and disposal capacity for the municipal waste which is generated within it's boundaries. Counties may, pursuant to Act 101, enter into written Agreements with Authorities by which the Authority undertakes to fulfill some or all of the County's responsibility under Act 101 for municipal waste planning and implementation of an approved County Plan. The Northern Tier Solid Waste Management Plan, of which Sullivan County is part thereof, was submitted to the Pennsylvania Department of Environmental Resources, Bureau of Waste Management, and as approved on March 23, 1989. The County has approved and adopted the Northern Tier Solid Waste Management Plan dated June 1986 on November 21, 1988.

Now, therefore, the parties hereto, within the provisions of Section 303(d) of Act 101, do hereby enter into the following agreement.

1. The Northern Tier Solid Waste Authority, pursuant to the request of the County, undertakes to fulfill all of the County's responsibilities and obligations under Act 101 for municipal waste planning and implementation of the approved Northern Tier Solid Waste Management Plan.
2. The Authority shall be jointly and severally responsible with the County for municipal waste planning and implementation of the approved Northern Tier Solid Waste Management Plan in accordance with the regulations promulgated pursuant thereto.

Attest:

*[Signature]*

*Martina Beck*  
(Secretary)

SULLIVAN COUNTY COMMISSIONERS

*[Signature]*  
*[Signature]*  
*[Signature]*

NORTHERN TIER SOLID WASTE AUTHORITY

*Robert B. Woodhead*  
(Chairman)

AGREEMENT

Agreement, made this 2nd of November 1989 between the Board of Commissioners of Tioga County, Pennsylvania, hereinafter referred to as "County"; and

Northern Tier Solid Waste Authority (NTSWA), a Municipal Authority, formed, organized and existing under the Municipal Authority's Act of May 2, 1945, P.L. 382, as amended and supplemented and incorporated by this County, the County of Sullivan and the County of Bradford, hereinafter referred to as "Authority".

AGREEMENT BACKGROUND

Act 101 of 1988, mandates it is the duty of each County in the Commonwealth of Pennsylvania to insure the availability of adequate permitted processing and disposal capacity for the municipal waste which is generated within it's boundaries. Counties may, pursuant to Act 101, enter into written Agreements with Authorities by which the Authority undertakes to fulfill some or all of the County's responsibility under Act 101 for municipal waste planning and implementation of an approved County Plan. The Northern Tier Solid Waste Management Plan, of which Tioga County is part thereof, was submitted to the Pennsylvania Department of Environmental Resources, Bureau of Waste Management, and as approved on March 23, 1989. The County has approved and adopted the Northern Tier Solid Waste Management Plan dated June 1986 on October 6, 1988.

Now, therefore, the parties hereto, within the provisions of Section 303(d) of Act 101, do hereby enter into the following agreement:

1. The Northern Tier Solid Waste Authority, pursuant to the request of the County, undertakes to fulfill all of the County's responsibilities and obligations under Act 101 for municipal waste planning and implementation of the approved Northern Tier Solid Waste Management Plan.
2. The Authority shall be jointly and severally responsible with the County for municipal waste planning and implementation of the approved Northern Tier Solid Waste Management Plan in accordance with the regulations promulgated pursuant thereto.

Attest:

Conrad H. Beardslee

Walter J. Beck  
(Secretary)

TIOGA COUNTY COMMISSIONERS

Thomas E. Gorman  
Oliver Richard Holt  
Thomas F. Cooper

NORTHERN TIER SOLID WASTE AUTHORITY

Robert B. Woodward  
(Chairman)



# APPENDIX

17

# Northern Tier Solid Waste Authority

## SWAC Contact sheet

COUNTY	CATEGORY	Business/ Association	NAME
Sullivan	Borough	Eagles Mere Borough	John Huhn
Sullivan	Township	Laporte Township	Richard Marks
Sullivan	Citizen Org.	Sullivan County Conservation District	Randy Reibson
Sullivan	Industry	Hoffman/ New Yorker, Inc.	Richard Powers
Sullivan	Private Waste Hauler	D & L Enterprise	Lenny Fitzgerald
Sullivan	Scrap Recycler	ONE DOESN'T EXIST	
Sullivan	Recycling Coordinator	NTSWA	Leigh Twoey
Bradford	Borough	Canton Borough Water Authority	Lester Hilfiger
Bradford	Township	West Burlington Township	Ralph Jennings
Bradford	Citizen Org.	Bradford County Conservation District	Dan Rhodes
Bradford	Industry	Strong Excavating	Kathy Murphy-Strong
Bradford	Private Waste Hauler	FILLED BY Murphy-Strong	
Bradford	Scrap Recycler	VACANT/ covered by Alexyn & D & L Disposal in other co's SWAC	
Bradford	Recycling Coordinator	NTSWA	Leigh Twoey
Tioga	Borough	Wellsboro Borough	John Sticklin
Tioga	Township	Delmar Township/ Van Sant Productions	Ken Van Sant
Tioga	Citizen Org.	Various Organizations	Julie Sticklin
Tioga	Industry	FILLED BY Van Sant and Alexyn	
Tioga	Private Waste Hauler	Real Disposal Service, LLC	Dave Alexyn
Tioga	Scrap Recycler	ONE DOESN'T EXIST	
Tioga	Recycling Coordinator	NTSWA	Leigh Twoey

**Bradford, Sullivan and Tioga County  
Solid Waste Advisory Committee  
Joint Meeting  
April 14, 2012**

**Members Present**

Leigh Twoey  
Scot C. Sample  
David Alexyn  
Lenny Fitzgerald  
Randy Reibson  
Richard Marks  
Kathy Strong  
Dan Rhodes  
Ralph Jennings  
Ken VanSant  
John Huhn

**County Represented**

Bradford, Sullivan, Tioga – County Recycling Coordinator  
Northern Tier Solid Waste Authority  
Tioga  
Sullivan  
Sullivan  
Sullivan  
Bradford  
Bradford  
Bradford  
Tioga  
Sullivan

*A joint meeting of the Bradford, Sullivan and Tioga Counties' Solid Waste Advisory Committees was held at the Central Office of the Northern Tier Solid Waste Authority. This facilitated a tour of the primary location named for disposal capacity in the Plan.*

**I. Introduction and Meeting Overview**

At 9:00 am, Leigh Twoey welcomed participants and distributed a tentative agenda for the meeting. Members present introduced themselves and the county they represented.

**II. Overview of the Proposed Northern Tier Municipal Solid Waste Management Plan**

Leigh Twoey, Recycling Coordinator and Scot Sample, Executive Director for Northern Tier Solid Waste Authority, presented a computer-generated presentation regarding the content of the proposed plan. An outline of this information is attached to these minutes. SWAC members present participated in general discussions about the content of the plan as presented to them.

**III. Tour of the NTSWA Facilities, West Burlington Township, Bradford County**

Meeting participants were given a tour of the Northern Tier Solid Waste Authority Facilities in Bradford County. These included; the Subtitle D Landfill, Leachate Treatment Facility, Landfill Gas Management System, Hydroponic Greenhouse, Tire Chipping, Wood Processing Operations, and Recyclable Processing Centers.

*A short break was taken at this time for a luncheon.*

**IV. Open Forum**

SWAC Members were encouraged to present recommendations and/or comments to the Plan in an open forum setting. The discussions held are outlined below:

### **Waste Tire Management**

Ralph Jennings, Bradford County, West Burlington Township Supervisor, representing the Municipality sector, discussed an operation that proposed establishing a tire recycling facility in West Burlington Township. The operation would convert waste tires into a fuel source and employ 10. The Committee discussed the impact this would have on NTSWA. Scot Sample, Executive Director for NTSWA stated he was not against such a proposed facility and stated this sort of operation could be of benefit to the Authority and community, and that he did not view the proposed operation as competition. Sample suggested to Jennings to be sure the operation had all permitting in place, especially through PA DEP. Jennings further looked into the operation and notified NTSWA on April 16, 2012 that the plans were cancelled on this project due to the extensive permitting process.

At this time, Dan Rhodes, Bradford County Conservation District, suggested an alternative method of managing the tires might be to bale them. He noted seeing them used as sub-base for building new roads.

### **Blossburg C/D Landfill**

Dave Alexyn, Tioga County, representing the private refuse/recycling hauler sector, questioned why yard and leaf waste type materials are not accepted at the C/D Landfill site located in Blossburg. Scot Sample and Leigh Twoey, NTSWA Recycling Coordinator, explained that those types of materials are not listed as acceptable materials on the sites current permit, per Pa DEP. Alexyn stated he would like to see an updated list of acceptable materials. *(This list is attached to these minutes and made a part of the Plan).*

### **Discussion of Recycling Fees**

Dave Alexyn, Tioga County, representing the private refuse/recycling hauler sector, recommended that Northern Tier Solid Waste Authority look at possibly charging for recycling services provided to curbside recycling customers. Alexyn felt this may help increase recycling rates and help the Authority make up for the funding lost through State budgetary cuts to the recycling fund. Alexyn noted that smaller hauling companies would then also be able to charge for the service. Alexyn also stated that he felt the increased revenue received through recycling subscription should be reflected in a decreased waste disposal tipping fee. Leigh Twoey, NTSWA Recycling Coordinator, stated that it may be something for NTSWA to look at in the future, but did not feel that is something the Authority wants or needs to get into at this time.

### **Discussion of Current Waste Streams**

Scot Sample, Executive Director for NTSWA, discussed the impact the natural gas industry has had on the NTSWA Landfills. Sample stated that NTSWA is no longer accepting drilling residuals because "they" are able to dispose of it elsewhere at a cheaper rate. He also stated that NTSWA is no longer accepting the liner used to cover the well pads, and has not for some time. Sample stated he recently learned of a local based company that provides mobile shredding and recycling services for the liner materials and that the Authority may want to revisit accepting this type of in the future.

Dan Rhodes of the Bradford County Conservation District discussed NTSWA's current situation regarding the acceptance and management of bio-solids. This is relative to a recent study conducted by the Conservation District. Rhodes was interested in how the Authority handles this with the recent

stricter regulations on limits created to help reduce the nutrient levels flowing into the Chesapeake Bay. Sample informed Rhodes that NTSWA had the ability to accept bio-solids but has not accepted any in several years and that most of that waste stream is sent through waste water treatment facilities. Sample also mentioned that our discharge permit is through The Bradford County Manor.

### **Commercial Recycling Expansion in Sullivan County**

Lenny Fitzgerald, Sullivan County, representing the private refuse hauler sector, discussed with the Committee the possibility of expanding the commercial recycling in Sullivan County, in particular, the bars and restaurants. Sample agreed that was a good idea and that NTSWA will need to work with the current refuse haulers picking up those facilities waste.

### **Disposal Capacity Assurance**

The Committee held a discussion regarding the possibility of developing a new Municipal Waste Landfill at the existing property owned by NTSWA in Hamilton Township, Tioga County. Sample explained that NTSWA had hoped to develop on that project; however, during the exploration process NTSWA acquired acreage from the PA Game Commission adjacent to the existing Landfill in W. Burlington Township, Bradford County. Utilizing this property would be most economical for the Authority.

To further ensure capacity, Sample explained that NTSWA will be relocating the waste and modernizing the liner system in Fields 1 and 3, which in turn will be better for the environment and create more air space. The Committee members agreed that the disposal capacity ensured by NTSWA is adequate to meet the needs of the three counties.

At this time, members of the Committee decided that further SWAC Meetings were unnecessary. Leigh Twoey indicated that any additional comments from SWAC members would be received in writing and made part of the Public Participation Section of the Plan. The Meeting was adjourned at 1:30 pm.

NORTHERN TIER SOLID WASTE AUTHORITY  
TIOGA COUNTY CONSTRUCTION/DEMOLITION LANDFILL  
ACCEPTABLE AND UNACCEPTABLE WASTES LIST

ACCEPTABLE<sup>1</sup>

Appliances  
Asbestos  
Asphalt  
Asphalt Board  
Brick  
Ceramic Material  
Cinder Blocks  
Concrete  
Corrugated Containers  
Crating Materials  
Electrical Fixtures and Wiring  
Forming and Framing Lumber  
Framing and Siding Materials  
Ferrous and Non-Ferrous Metals  
Glass  
Gypsum Board  
Fiberglass Insulation  
Laminates  
Metal/Tin Siding  
Pallets  
Paper (construction type)  
Particle Board  
Piping/Radiators  
Plaster  
Plastics (sheeting, etc.)  
Plywood  
Porcelain  
Roofing Materials  
Sheetrock  
Shipping Skids  
Slate  
Stone  
Tar  
Tar Paper  
Terra-Cotta Tile/Pipe  
Tires  
Vulcanized Materials  
Wood Floors

UNACCEPTABLE

Any Container Containing 1 Gallon or Greater of Free Liquid  
Any Medical Waste, Human and Animal Chemotherapeutic Wastes  
Explosives  
Hazardous Waste  
Infectious Waste  
Large Nickel-Cadmium (NI-CAD) batteries  
Lawn Clippings  
Lead/Acid Batteries (car, boat, tractor, etc.)  
Lead Based Paints  
Leaves  
Liquid Waste in any Form or Amount  
\*Municipal Waste  
Pathological Wastes  
Pharmaceutical Wastes  
Putrescible Wastes  
Radioactive Wastes  
Residual Wastes  
Sewage Sludge (Except for Revegetation Purposes)  
Waste Anti-Freeze  
Waste Motor Oil

\*As defined by PaDER Municipal Waste Regulations.

<sup>1</sup>These "Acceptable" wastes assume no contamination and are not wastes classified as residual wastes; Acceptability also assumes PaDER approval of this list.

*effective 1/30/2003 to 1/30/2013*

## Northern Tier Municipal Solid Waste Management Plan for Bradford, Sullivan & Tioga Counties

Prepared for the  
**Northern Tier Solid Waste Authority**



April 2012


Previously Revised - December 2000

### Required Planning Elements by Pa DEP

- 10-year capacity assurance
- Facilitate research of all alternative methods
- Ensure maximum waste reduction and recycling
- Fulfill County requirements of Act 101
- Protect public health, safety and welfare through proper solid waste management


### Other Benefits of the NTSWMP

- Continual investigation of new technologies
- Ensure fair, reasonable rate for collection and disposal of wastes
- Use the advantages of a regionalized system
- Avoid long-term debt
- Forge partnerships with public and private sector to provide mutually beneficial services
- Employ trained professionals and provide a safe work atmosphere



### Benefits – Cont'd

- Use modern landfill techniques and other best management practices to protect our environment
- Educate all residents about integrated solid waste management
- Foster communication between and protect interests of local municipalities
- Provide efficient waste management options
- Allow public participation in the planning process




### The Need for Revision

“Act 101 calls for Plan revision every 10 years from the date of the original Plan or when a County has less than 5 years of Disposal Capacity”

### Wastes Covered In the Plan (Content – Chapter 1)

- Municipal
- Construction/ Demolition
- Sewage Sludge
- Septage Waste
- Infectious, Pathological and Chemotherapeutic Waste
- Ash from Resource Recovery
- Residual
- Waste Tires
- Other – HHW, Yardwaste, Bulk Items, Asbestos, Contaminated Soils



## Origin of Wastes

Bradford, Sullivan and  
Tioga Counties, PA

Estimated 2020 Population: 107,149

*Estimate from the Penn State Data Center, 2010*

## Weight/ Volume of Municipal Wastes


On Average, each person generates  
0.8\* tons/person/year

0.8 t/p/y X 107,149 residents X 10 years  
**857,192 tons**

\*Figure generated in a national study conducted for EPA by Franklin Associates Ltd.

## Collection and Transportation of Wastes

- Residential, commercial and industrial wastes collected by “packer” trucks and “roll-off” trucks
- Public and private haulers collect wastes, mostly through contract and subscription services



## Open Market System

- Waste haulers choose the site where municipal waste will be disposed unless the waste is under contract
- This is known as the “Open Market System”
- Most advantageous because competition keeps collection rates low for all

## Disposal and Processing Facilities Named in the Plan (Chapter 2)

- Construction/ Demo Landfill - Blossburg (NTSWA), Tioga
- Transfer Station – Blossburg (NTSWA), Tioga
- Transfer Station – Wellsboro (TATS), Tioga
- Residual Waste Landfill – Antrim, Tioga
- Subtitle D (MSW) Landfill – W. Burlington (NTSWA), Bradford
- Laporte Township Depository, Sullivan

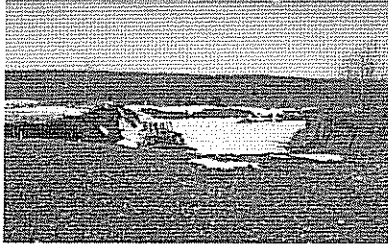
## C/D Landfill – NTSWA, Blossburg

Permit #101201

- Disposal of max 250 t/p/d
- Average 20 t/p/d accepted during warm weather months
- 263.5 acres of land at site, 75.76 for disposal
- Construction and demolition wastes only
- Previous municipal waste landfill
- NTSWA Transfer Station and Recycling Center located at this site

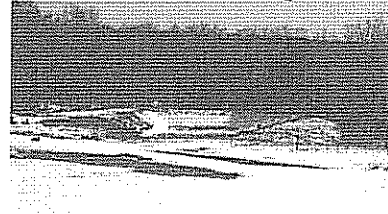


### NTSWA C/D Landfill, Blossburg



Trench fill method used at the natural attenuation landfill

### NTSWA C/D Landfill, Blossburg



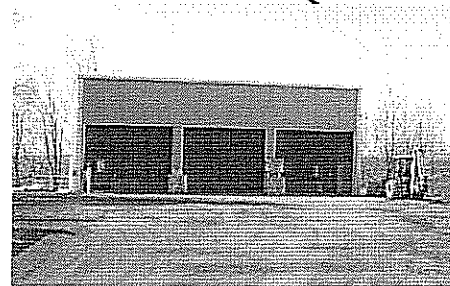
A full array of structures, like the sedimentation basin above, support the C/D Landfill

### NTSWA Transfer Station, Blossburg

Permit #101578

- Average 18 t/p/d accepted currently
- Acceptance of municipal wastes only
- Opened in 1991 due to regulation changes
- NTSWA owns the truck and trailers used to transport wastes to W. Burlington

### NTSWA Transfer Station, Blossburg



### NTSWA Transfer Station, Blossburg

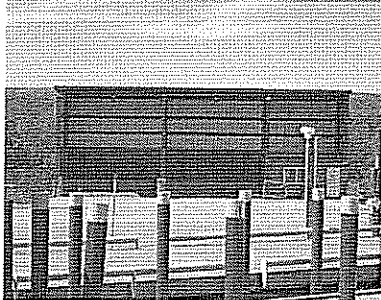


### Tiadaghton Area Transfer Station, Wellsboro

Permit # 101217

- Owned and operated by NTSWA
- Maximum daily tonnage not to exceed 75 tons
- Wastes transported to NTSWA Landfill #3 Burlington

### Tiadaghton Area Transfer Station, Wellsboro



### Residual Waste Landfill – Antrim

Permit # 101649

- Owned and operated by Waste Management Inc.
- Max t/p/d not to exceed 2000
- Wastes may be accepted from outside three county area.

### NTSWA Subtitle D (MSW) Landfill, W. Burlington

Permit #101243

- Disposal of max 1750 t/p/d
- Average 400 t/p/d accepted
- 88.3 acres of land at site, 46.3 for disposal
- Waste Acceptance Plan approved by DEP for the types and quantities of materials deposited here
- Subtitle D, Lining System, Leachate and Gas Treatment
- NTSWA Recycling Center located at this site

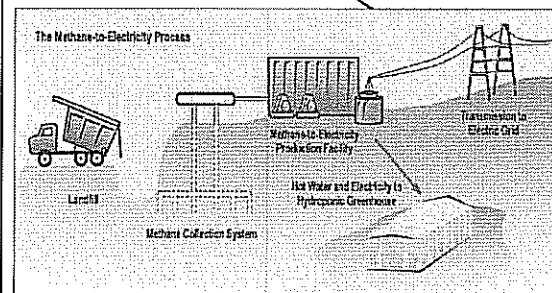
### Laporte Refuse Depository

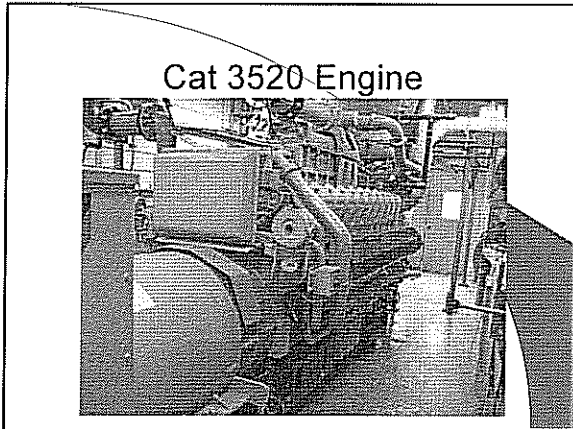
- Drop-off point for municipal wastes from area residents
- Operated by Laporte Township Supervisors
- Named previously in Plans

### Co-Generation Project

- Partnership between NTSWA and PPL
- CAT 3520 converts 520 scfm to 1600 kw/h
- Environmental benefits
- Waste heat used to heat NTSWA facilities and neighboring County facilities

### Methane to Electricity Process





### Disposal Limitations for NTSWA Facilities

“As per Bradford County Ordinance, NTSWA shall not accept more than 10% total amount of waste from outside the area”

### Estimated Future Capacity Chapter 3

Municipal Waste Potential	857,192 tons
Residual Waste Potential	821,370.9 tons
Estimated Recycling	<u>-53,537 tons</u>
<b>Total Capacity Requirements</b>	<b>1,625,025.9 tons</b>

### NTSWA Capacity Potential

With nearly 1.7 million cubic yards of air space remaining, the 2012 annual report shows 10+ years of life remaining at NTSWA Landfill # 2

*This was calculated using current daily tonnages*

### Capacity Assurance

The NTSWA has the capacity to dispose of all municipal wastes generated in Bradford, Sullivan and Tioga Counties, for the next 10+ years in the existing Landfill.

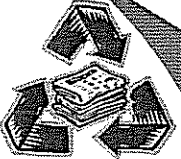
In 2011, NTSWA acquired 26.0 acres adjacent to the Current Landfill # 2 in Burlington from the PA Game Commission that will provide another 10-15 years capacity.

- ### Capacity Assurance Variables
- Changes in landfill regulations
  - New waste streams
  - New industry and commercial establishments
  - Increased recycling and waste reduction
  - Export of wastes from the area

## Recycling Program (Chapter 4)

Materials accepted:


- Aluminum cans
- Glass bottles and jars
- Tin cans
- Newspapers
- Corrugated cardboard
- Mixed paper/junk mail
- Magazines
- Textbooks
- Plastic bottles and jugs
- Clothing and textiles
- Used motor oil/ antifreeze/ lead acid batteries
- White Goods/ Appliances
- Electronics



## Recycling Benefits

General Benefits:  
Saves energy, natural resources, disposal costs and landfill air space

Unique NTSWA Benefits:  
Cooperative Marketing  
Incentive Programs

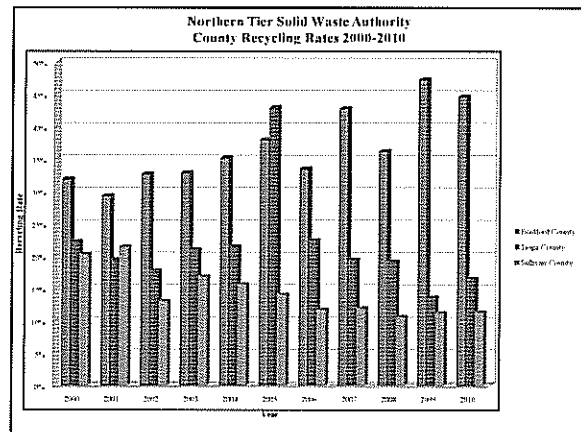


## PA Recycling Goal

The Pennsylvania legislature has set the recycling goal at 35%.

2011 NTSWA Figures:

Bradford County	44.6%
Tioga County	16.5%
Sullivan County	11.3%
<b>Average</b>	<b>24.15%</b>



## Recycling Economics

- Collection and processing funded through PA DEP Grants and sale of commodities
- Act 101 disposal fees support grant funding so without incoming waste, there would be no funding to support recycling.
- Grants do not cover labor or processing costs

## Justification of System (Chapter 5)

Plan includes history and background of previous "waste flow control" practices

Now an open market system because of Supreme Court Rulings and atmosphere of solid waste industry in general.

## System Financing

- NTSWA intends to continue the "user fee" system for generating revenue for the next 10 years
- Revenue is also gained from sale of recyclables and operation of special programs like street sweeping and wood processing

## Plan Ratification Process

1. SWAC recommendations included
2. Municipality distribution and comment period
3. Draft submitted to DEP for review and comment
4. County Commissioner ratification
5. Final submittal and approval from DEP

## THE END

Northern Tier Solid Waste Authority

P.O. Box 10  
Burlington, PA 18814  
570-297-1077

[ntswa@epix.net](mailto:ntswa@epix.net)

[www.ntswa.org](http://www.ntswa.org)

**Joint Meeting**  
**Bradford, Sullivan and Tioga Counties**  
**Solid Waste Advisory Committee (SWAC)**  
**Meeting**  
**April 14, 2012**

**AGENDA**

**9:00 am**                    **Introductions and Meeting Overview/ Goals**

*The purpose of this meeting is for appointed SWAC members to provide comment to the Northern Tier Municipal Solid Waste Management Plan(NTMSWMP) as part of the public participation process.*

**9:30 am**                    **Overview of the Plan**

*Northern Tier Solid Waste Authority (NTSWA) staff will make a presentation on the contents of the proposed NTMSWMP.*

**10:30 am**                    **Tour of the NTSWA Subtitle D Landfill and Support Structures at the Site**

**Noon**                        **Lunch**

**1:00 pm**                    **Open Forum**

*SWAC Members will present any comments or questions and make recommendations for the plan*

Attendance

Northern Tier Municipal Solid Waste Management Plan

Solid Waste Advisory Committee

April 14, 2012

Name County Representing

LEIGH TWOEY BRADFORD SULLIVAN & TIOGA

Scott Samuel NTSWA

David Alexian Tioga

Lenny Fitzgerald Sullivan

Kandi Keibson Sullivan

Richard Marks Sullivan

Kathy Strong Bradford

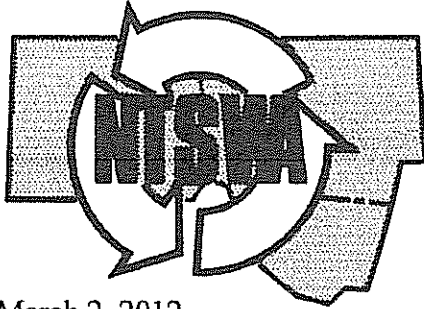
Dan Rhodes Bradford

Ralph A. Jennings Bradford

Ken Vandant Tioga

JOHN HUHN EAGLES MERE (Sullivan)

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**NORTHERN TIER SOLID WASTE AUTHORITY**

P.O. Box 10, Burlington, Pennsylvania 18814-00  
Phone (570) 297-41  
FAX (570) 297-31  
Website [www.ntsua.c](http://www.ntsua.c)  
Email [ntsua@epix.r](mailto:ntsua@epix.r)

March 2, 2012

Dear Municipal Official:

This letter is to serve as official notification as required under Title 25, Chapter 272 Section 272.203 of the Pennsylvania Code that the Northern Tier Solid Waste Authority (NTSWA) has started the revision process of the Northern Tier Solid Waste Management Plan (NTSWMP) for the Counties of Bradford, Sullivan and Tioga as required by the Pennsylvania Department of Environmental Protection.

The primary purposes of this Plan are to ensure:

- 10 years of municipal waste processing and disposal capacity in each of the counties,
- Open discussion of alternative methods for municipal waste disposal/ processing,
- Maximum feasible waste reduction and recycling for wastes generated and to
- Conserve resources and protect the public health, safety and welfare

Please consider the following as a progress report on the Plan revisions. The NTSWA and the Department have determined the updates to this Plan to be non-substantial. The Bradford, Sullivan and Tioga County Commissioners appointed their Solid Waste Advisory Committee (SWAC) members and the Authority staff, Solicitor and Engineer have updated several portions of the plan including Chapter 1 detailing the Description of Wastes (Content, Origin, Weight/ Volume, Storage and Collection/Transportation) and Chapter 2 detailing the Description of the Disposal or Processing Facilities in Bradford, Sullivan and Tioga counties. The SWAC Committee should be meeting in the next several weeks to review, comment or propose changes to the updated Plan.

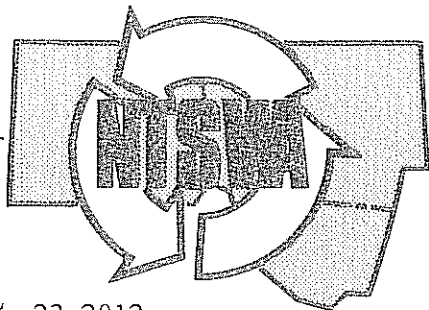
After the SWAC review process, NTSWA will be sending a copy of the revised Plan to you for your review. You will then have 30 days to comment, should you desire.

Should you have any questions regarding this matter please feel free to contact either myself or Recycling Coordinator, Leigh Twoey at the above information.

Sincerely,

Scot C. Sample  
Executive Director





**NORTHERN TIER SOLID WASTE AUTHORITY**

P.O. Box 10, Burlington, Pennsylvania 18814-0010

Phone (570) 297-4177

FAX (570) 297-3158

Website [www.ntsua.org](http://www.ntsua.org)

Email [ntsua@epix.net](mailto:ntsua@epix.net)

May 23, 2012

Dar Municipal Official,

The Northern Tier Solid Waste Authority (NTSWA) is pleased to present you with the latest version of the Northern Tier Municipal Solid Waste Management Plan (Plan). This covers the NTSWA jurisdiction of Bradford, Sullivan and Tioga Counties, Pennsylvania.

The primary purposes of this Plan are to ensure:

- 10 years of municipal waste processing and disposal capacity in each of the counties,
- Open discussion of alternative methods for municipal waste disposal/ processing,
- Maximum feasible waste reduction and recycling for wastes generated, and to
- Conserve resources and protect the public health, safety and welfare.

The NTSWA has been delegated to conduct these planning activities as outlined within the Plan. The Solid Waste Advisory Committees (SWAC) of each county has also conducted a review and discussion of the Plan.

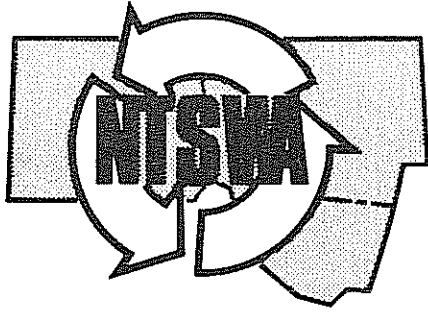
At this time, the NTSWA is encouraging each municipality to review the Plan as well as to provide written comments on the subject matter contained within. Each municipality will have 30 days from receipt of this letter to provide these comments if so desired.

This latest version of the Plan retains the existing recycling and waste management programs as is in the previous version. The NTSWA still is opposed to accepting out-of-the-area waste and is opposed to merchant landfills designed to accept out-of-the-area waste for sole profit purposes.

Thank you for your attention to this matter. If anyone has comments, please submit them in writing as soon as possible. If anyone requires clarifications or has any questions, please feel free to call me at the above information.

Sincerely,

Leigh Twoey  
Recycling Coordinator



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**MEMORANDUM**

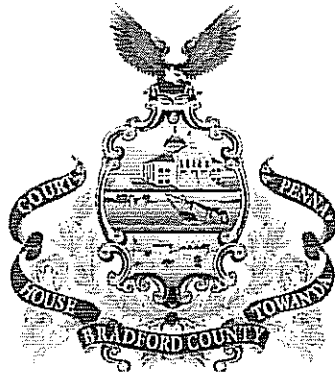
On May 23, 2012, correspondence letters were mailed out to all municipalities in Bradford, Sullivan and Tioga Counties, PA requesting comment on the Northern Tier Municipal Solid Waste Management Plan. As of June 25, 2012, no comments, written, verbal or electronic were received from this request by the Northern Tier Solid Waste Authority.

Leigh Twoey  
Recycling Coordinator

# APPENDIX

19

Doug McLinko, Chairman  
Daryl L. Miller, Vice Chairman  
Mark W. Smith, Commissioner



Michelle L. Shedden, Chief Clerk  
Jonathan Foster, Solicitor

RECEIVED  
JUN 20 2012

Bradford County Commissioners Office

June 13, 2012

Scot Sample, Executive Director  
Northern Tier solid Waste Authority  
P.O. Box 10  
Burlington, PA 18814

Dear Mr. Sample,

At the Commissioners' meeting held on June 14, 2012, the Bradford County Commissioners approved the Update of the Solid Waste Management Plan.

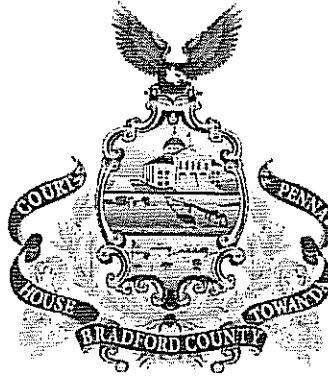
We appreciate the work that Northern Tier Solid Waste Authority does to benefit the County.

Sincerely,

Michelle Shedden  
Chief Clerk

MLS/sam

Doug McLinko, Chairman  
Daryl L. Miller, Vice Chairman  
Mark W. Smith, Commissioner



Michelle L. Shedden, Chief Clerk  
Jonathan Foster, Solicitor

Bradford County Commissioners Office

**BRADFORD COUNTY  
COMMONWEALTH OF PENNSYLVANIA**


**RESOLUTION 2012 – 11**

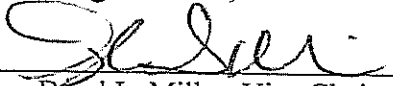
IT IS HEREBY RESOLVED, by the undersigned, being Commissioners of  
Bradford County that:

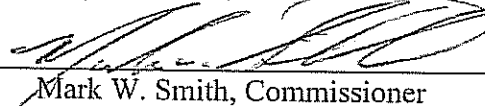
1. The Solid Waste Management Plan as prepared and presented by Northern Tier Solid Waste Authority is approved.

DULY ADOPTED this 14<sup>th</sup> day of June, 2012.

**BRADFORD COUNTY COMMISSIONERS**

By:   
Doug McLinko, Chairman

By:   
Daryl L. Miller, Vice Chairman

By:   
Mark W. Smith, Commissioner

**SULLIVAN COUNTY  
COMMONWEALTH OF PENNSYLVANIA**

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**RESOLUTION**

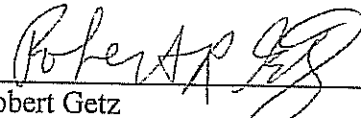
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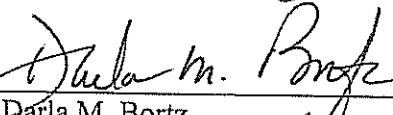
IT IS HEREBY RESOLVED, by the undersigned, being Commissioners of Sullivan County that:

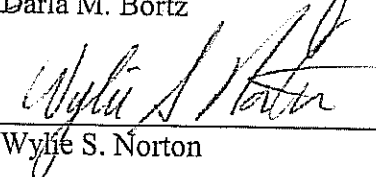
1. The Solid Waste Management Plan as prepared and presented by Northern Tier Solid Waste Authority is approved.

DULY ADOPTED this 19<sup>th</sup> day of June, 2012.

**SULLIVAN COUNTY COMMISSIONERS**

By:   
Robert Getz

By:   
Darla M. Bortz

By:   
Wylie S. Norton

Attest:

  
Chief Clerk

# Tioga County Commissioners

ERICK J. COOLIDGE  
COMMISSIONER

MARK L. HAMILTON  
COMMISSIONER

ROGER C. BUNN  
COMMISSIONER



DEREK D. WILLIAMS  
CHIEF CLERK

RAYMOND E. GINN, JR.  
SOLICITOR

PHONE 570-723-8209  
FAX 570-723-8206

---

Courthouse Annex 118 Main Street Wellsboro, PA 16901

June 13, 2012

RECEIVED  
JUN 18 2012

Scot Sample, Executive Director  
Northern Tier Solid Waste Authority  
P. O. Box 10  
Burlington, PA 18814

Dear Mr. Sample:

The Tioga County Board of Commissioners, at their meeting held on June 12, 2012, approved the update of the Solid Waste Management Plan. We appreciate the work that Northern Tier Solid Waste Authority does to benefit the County.

Sincerely,

A handwritten signature in cursive script, appearing to read "Derek D. Williams".

Derek D. Williams  
Chief Clerk

TIOGA COUNTY  
COMMONWEALTH OF PENNSYLVANIA

R-45-12

RESOLUTION

IT IS HEREBY RESOLVED, by the undersigned, being Commissioners of Tioga County that:

1. The Solid Waste Management Plan as prepared and presented by Northern Tier Solid Waste Authority is approved.

DULY ADOPTED this 12<sup>th</sup> day of June, 2012.

TIOGA COUNTY COMMISSIONERS

By: Erick J. Coolidge  
Erick J. Coolidge

By: Mark L. Hamilton  
Mark L. Hamilton

By: Roger C. Bunn  
Roger C. Bunn

Attest:

[Signature]

Chief Clerk