

**WARREN COUNTY SOLID WASTE MANAGEMENT PLAN**

September 8, 2021

Prepared for

**Warren County Board of County Commissioners**

In cooperation with

**Warren County Solid Waste Advisory Council**

Prepared by

**Warren County Planning Department**

Approved by Board of County Commissioners, September 8, 2021  
Certified by New Jersey Department of Environmental Protection, February 17, 2022

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**Solid Waste Plan Amendment Resolutions Approved Since the 2007 Solid Waste Management Plan was Certified by the NJDEP**

**Resolution 502-7** Resolution to Amend the Introduction, Sections 1 through 6, 8, and Related Appendices of the Warren County Solid Waste Management Plan (Approved September 12, 2007)

**Resolution 503-7** Resolution to Amend Sections 7 and the “Procedural and Evaluation Guidelines to Modify Existing and Include New Solid Waste and Recycling Facilities in the Warren County Solid Waste Management Plan” and Related Appendices of the Warren County Solid Waste Management Plan (Approved September 12, 2007)

**Resolution 384-08** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Modify the Operational Hours of the Warren County District Landfill ( Approved June 25, 2008)

**Resolution 385-08** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Address the New Jersey Department of Environmental Protection Certification Letter Dated February 4, 2008 (Approved June 25, 2008)

**Resolution 390-09** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Modify the Types of Household Batteries That are Designated to be Recycled and to Modify the Battery Recycling Strategy ( Approved June 24, 2009)

**Resolution 67-10** Resolution to Correct the Warren County Solid Waste Management Plan Adopted September 12, 2007 and Revised June 25, 2008. (Approved January 27, 2010) *to correct lot number for landfill property*

**Resolution 202-11** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Clarify Language Pertaining to the Pollution Control Financing Authority’s Recycling Convenience Center (Approved April 13, 2011)

**Resolution 615-11** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Include Joel and Claire Balbi in Blirstown Township as a Class A Recycling Center (Approved November 22, 2011)

**Resolution 250-12** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Approve an Increase in the Monthly Capacity of Class A Recycling Materials Processed at the Joel J. and Claire Balbi ( Balbi Enterprises) Recycling Center in Blairstown Township (Approved April 25, 2012)

**Resolution – 282-13** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Allow a Portable Metal Recovery System from Ash Residue to be Installed at the Warren County District Landfill ( Approved May 22, 2013)

**Resolution 318-13** Resolution to Amend the Warren County Solid Waste Management Plan to Include Global Computer Pro in the Town of Phillipsburg as a Class D Recycling Center ( Approved June 12, 2013)

**Resolution 594-13** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Include Riversedge Contracting LLC, in Harmony Township to Conduct Recycling Activities in Accordance with N.J.A.C. 7:26A-1.4(a) 13 to Receive Yard Trimmings for Composting ( Approved November 26, 2013)

**Resolution 595-13** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Increase the Daily Incoming Limit of All Consumer Electronic Material Delivered to Global Computer Pro in the Town of Phillipsburg to 50 Tons per Day ( Approved November 26, 2013)

**Resolution 22-14** Resolution to Amend the Warren County Solid Waste Management Plan to Provide for the Expansion of the Warren County District Landfill and to Increase the Types of Materials Accepted at the Recycling Center (Approved January 8, 2014)

**Resolution 96-15** Resolution to Amend the Warren County Solid Waste Management Plan With Conditions to Include S. Rotondi and Sons, Inc. aka Harmony Recycling Facility, in Harmony Township as a Class B Recycling Center and Limiting the Recycling Center's Class B and C Site Capacity to 101,000 Cubic Yards and 200,000 Cubic Yards Respectively (Approved February 11, 2015)

**Resolution 394-15** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Recognize the Change in Name of the Covanta Warren Energy Facility ( Approved June 24, 2015)

**Resolution 473-15** Resolution to Grant an Extension to S. Rotondi and Sons, Inc. aka Harmony Recycling Facility, in Harmony Township in Meeting the Conditions Set Forth in the Amendment to the Warren County Solid Waste Management Plan

Approved by the Board of Chosen Freeholders on February 11, 2015 (Approved August 12, 2015)

**Resolution 496-15** Resolution to Amend the Warren County Solid Waste Management Plan to Provide for the Expansion of the Warren County District Landfill (Approved September 9, 2015)

**Resolution 598-15** Resolution to Grant a Second Extension to S. Rotondi and Sons, Inc. aka Harmony Recycling Facility, in Harmony Township in Meeting the Conditions Set Forth in the Amendment to the Warren County Solid Waste Management Plan Approved by the Board of Chosen Freeholders on February 11, 2015. ( Approved October 28, 2015)

**Resolution 641-15** Resolution to Affirm that Rotondi and Sons, Inc., aka Harmony Recycling Facility , in Harmony Township will be Entering Into an Administrative Consent Order with the New Jersey Department of Environmental Protection as an Alternative to Meeting Two of the Conditions Set Forth in the Amendment to the Warren County Solid Waste Management Plan Approved by the Board of Chosen Freeholders on February 11, 2015 ( Approved November 24, 2015)

**Resolution 696-15** Resolution to Execute an Agreement with the New Jersey Department of Environmental Protection to Toll the Certification Period by an Additional 90 Days for the Warren County Solid Waste Management Plan Amendment Concerning S. Rotondi & Sons Recycling Center. ( Approved December 9, 2015)

**Resolution 25-16** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Allow Covanta Warren Energy Resource Co. LLC to Inject Waste Type ID #72 Process Liquids into its Furnaces as a Research, Development, and Design Project. ( Approved January 13, 2016)

**Resolution 240-16** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Allow Covanta Warren Energy Resource Co. LLC., The United States Department of Agriculture and the New Jersey Department of Agriculture to Conduct a Test Burn of Waste Type ID #25 of Non Infected Poultry Carcasses. ( Approved April 27, 2016)

**Resolution 275-16** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Extend the Approval Time Period to Allow Covanta Warren Energy Resource Co.LLC to Continue to Inject Waste Type ID #72 Process Liquids into its Furnaces as a Research, Development, and Design Project Until September 30, 2016. ( Approved May 11, 2016)

**Resolution 419-16** Resolution to Amend the Warren County Solid Waste

Management Plan Through Administrative Action to Extend the Approval Time Period to Allow Covanta Warren Energy Resource Co.LLC to Continue to Inject Waste Type #72 Process Liquids into its Furnaces as a Research, Development, and Design Project Until March 31, 2017. ( Approved August 10, 2016)

**Resolution 471-16** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Allow Covanta Warren Energy Resource Co. LLC to Conduct Liquid Direct Injection (LDI) of Waste Type ID #72 Process Liquids into

**Resolution 411-17** Resolution to Amend the Warren County Solid Waste Management Plan to Provide for the Expansion of the Warren County District Landfill (Approved September 27, 2017)

**Resolution 322-19** Resolution to Amend the Warren County Solid Waste Management Plan Through Administrative Action to Reconfigure and Consolidate the Block and Lots Designated as the Warren County District Landfill (Approved June 12, 2019)

**Resolution 424 -19** Resolution to Approve the Update to the Recycling Plan Element of the Warren County Solid Waste Management Plan Through Administrative Action to Address the New Jersey Department of Environmental Protection Certification Letter Dated March 8, 2018. (Approved August 28, 2019)

**Resolution 401-21** Resolution to Amend the Warren County Solid Waste Management Plan to Remove the Resource Recovery Facility Located at 218 Mt. Pisgah Avenue on Block 26 Lots 88, 88.01, AND 89 in Oxford Township and Remove a Class C Recycling Facility Located at 40 Foul Rift Road on Block 21, Lot 11 in White Township and Revise the Short and Long Term Disposal Strategy for the Disposal of Solid Waste Generated within the County of Warren and to Clarify Language Regarding the Reconfiguration and Consolidation of Lots for the Warren County District Landfill



## INTRODUCTION

In accordance with the requirements of Public Law 1975, Chapter 326, Laws of New Jersey, each county in the state is designated as a solid waste management district and is responsible for the preparation and implementation of a plan for the collection and disposal of its solid waste. In addition, each county has the responsibility of evaluating and modifying the county plan, as necessary, on a biennial basis following the adoption of the plan.

The primary objectives of this Plan Update are to address the requests of the NJDEP Certification letter March 8, 2018 regarding the measures that the County will be taking to increase the recycling rate in Warren County. In addition this Plan Amendment reflects the consolidation of active landfill properties and the subdivision and dedication of affiliated landfill properties to the NJ Division of Fish and Wildlife as the alternative to Wildlife Mitigation contained in previous landfill operating permits. Lastly, the Plan states what the solid waste disposal strategy will be if Covanta decides to close the Resource Recovery Facility in Oxford. The Warren County SWAC has updated the information concerning solid waste generation, long-term landfill needs, and the recycling goals and policies to support this Plan.

### History of the Resource Recovery Facility and District (County) Landfill

In 1983, Warren County completed the first required review and evaluation of its solid waste management plan. It represented an update of the district (county) plan in terms of the progress that has been made toward the implementation of the solid waste management plan. The selection of resource recovery technology, siting, design, construction, startup of the facility, and the siting and design of the district landfill represented the experience on which this plan is based, and the beginning point for the district to be alert to new approaches for solving the long-term solid waste management needs of the county. It was prepared by various task groups that were part of the district's (County's) Solid Waste Advisory Council (SWAC).

In the April 1984 Plan, the Pollution Control Financing Authority (PCFA) was designated as the implementation agency for the Warren County Solid Waste Management Plan (WCSWMP). The PCFA was established in 1974 as the Industrial Pollution Control Financing Authority, as an agency for assisting in the reduction and prevention of environmental pollution. Its name was changed in 1984, per State Statute, and assumed its current role.

In August of 1984, the site for the Resource Recovery Facility (RRF) was selected. The site is known locally as the Oxford Quarry Site 89, in Oxford Township.

In 1985, Blount Energy Resource Corporation was selected as the full-service operator of the RRF, and a site was selected and designated in the adopted plan for a district landfill for residuals and bypass materials.

In 1986, construction of the resource recovery facility commenced and was completed in June 1988. The resource recovery facility began operations in July 1988. In the spring of 1991, Ogden Martin Systems purchased Blount's interest in the facility and took over its operation. In 2002 Covanta Energy assumed control of the RRF.

The Warren County District Landfill (WCDL) site was chosen near the (RRF), in White Township. This site is 355 acres and construction of the first phase of the WCDL began in 1987. The WCDL began accepting ash from the RRF in September 1990 and raw waste was first accepted in April 1991. Commingling of ash and raw waste was permitted on November 1, 1995.

When New Jersey's waste flow regulations were invalidated in 1997, the PCFA and Ogden Martin struggled to find a solution to pay off the stranded debt that remained after higher tipping fees charged at both facilities were no longer collected. While State subsidies were provided to pay off the stranded debt for the RRF, the PCFA imported acceptable waste from areas inside and outside of Warren County at higher volumes sufficient to pay off the debt and continue to meet all required and necessary operational costs. One result of the higher waste volumes was that landfill space was used much more quickly than originally intended. Another outcome was that the types of wastes imported caused landfill odors leading to complaints from neighboring residents. The PCFA installed a methane collection system which collected the gas and burned it as fuel to generate electricity for sale back to Jersey Central Power and Light. Since then the volume of waste has decreased significantly and the amount of methane produced has decreased to the point where gas flow to the generators is insufficient to produce electricity. The excess gas is now burned off by a constant flare.

In December 2002, the Board of Chosen Freeholders requested the PCFA provide a plan to ensure the proper closure of the landfill at the end of 2006. After a careful review of the ongoing financial obligations of the landfill, including debt service and closure funding, the PCFA proposed an alternative landfill design in January 2003. The alternative landfill design did not expand the 45 acre footprint, but increased the landfill side-slopes from 4:1 to 3:1 over the 45 acre footprint. The result was an increase in the landfill's design capacity from 3.0 million cubic yards to 4.5 million cubic yards.

In accordance with N.J.S.A. 13:1E-20, the Board of Chosen Freeholders approved this capacity increase. Based on the proforma, the landfill was expected to reach capacity and cease waste acceptance at the end of 2006 with the goal of accruing sufficient funds to pay for landfill closure and a 30 year post closure maintenance period. This closure plan goal was not realized. On September 13, 2006, the Board of Chosen Freeholders adopted a resolution to delay closing the landfill until the end of 2007.

On March 23, 2005, the Board of Chosen Freeholders adopted a plan amendment to close the landfill in 2006 with final capping in 2007. On September 13, 2006, the Board of Chosen Freeholders adopted a resolution to cease waste acceptance at the end of 2007 when the WCDL was anticipated to reach its permitted capacity. The PCFA was to commence the closure and final capping of the WCDL starting in 2008.

After further financial analysis and to ensure that Warren County residents and businesses will have a long term disposal site available locally, the Board of Chosen Freeholders amended the Solid Waste Plan to provide for the continuing operation of the landfill beyond the previous closure date of 2007. The construction of cell #5 was completed and the expansion of the landfill vertically was permitted. The expansion increased the height of landfill by 50 feet and increased its disposal capacity by 85% to a total volume of approximately 5.5 million cubic yards. Based on an average disposal rate of approximately 100,000 tons per year beginning in 2009, which is equivalent to the quantity of waste generated in Warren County, it was projected that, the life of the landfill would last until 2020. A letter from White Township, the host community, dated February 27, 2007 supported the expansion and is found in the Appendix.

From the years 2007 through 2016 the amount of waste delivered to the landfill was generally below 100,000 tons per year. Pursuant to the service agreement that was entered into between the PCFA and Ogden Martin, and then Covanta, most of the waste disposed of in the landfill was ID 13 and incinerator ash. The service agreement restricted the landfill from accepting ID 10 waste unless the load was bypassed or rejected by Covanta.

In 2013, the Pollution Control Financing Authority studied the feasibility of expanding the landfill. The consultant's findings and the PCFA's recommendation to the Freeholder Board was to prepare the engineering plans and permitting documents to expand the landfill area by 34.3 acres for a total of 79.3 acres. Air space would increase by 8.4 million cubic yards bringing the total to 14.53 million cubic yards. A portion of Block 32 Lot 10 had to be acquired to accommodate the expansion. The Board of Freeholders amended the Solid Waste Management Plan in 2017 to provide for this expansion.

The expansion will occur to the north and west of the existing landfill and its height will reach a final elevation of the 780 feet at its highest peak. The expansion will extend the useful life of the landfill to the year 2060+/- at the current rate of filling. The NJDEP issued its final General Approval on July 3, 2018 with several conditions. In a separate Alternative Wildlife Mitigation agreement, two lots, block 34 lot 33 and block 42 lot 7 containing 22 acres and two lots (block 32 lot 18 and 22) containing 31.4 acres were subdivided and offered for donation to the NJDEP to compensate for the loss of the Existing Wildlife Management area when the landfill is expanded. The Resolution authorizing the subdivision and donation through the Alternative Mitigation Agreement was approved by the Board of Board of Chosen Freeholders on March 28, 2018 and similarly executed by the NJDEP and the Pollution Control Financing Authority of Warren County. In addition the offering of the property for donation as set forth in the agreement satisfies any and all past and present wildlife habitat and mitigation obligations and shall have no further obligations in connection with the same.

To satisfy the terms and conditions of the Agreement and to facilitate the donation, the County amended the Solid Waste Management Plan on June 12, 2019 through Administrative Action, to reconfigure and consolidate the lots of the landfill into Block 32 Lot 12 containing a total of 217.866 acres and removing the remaining areas designated for the landfill. Subsequently,

the PCFA requested and the NJDEP issued a permit modification to be consistent with this Solid Waste Management Plan amendment.

On January 15, 2016, and May 11, 2016, the County amended the SWMP to allow Covanta to conduct trial tests to allow Covanta to take ID 72 liquid waste in a Liquid Direct Injection process. The process would help Covanta reduce water usage in cooling the burners thereby saving the company money in operating costs. Covanta's trial tests revealed that that LDI would be beneficial. On September 14, 2016, the County approved a plan amendment to allow ID 72 waste type to be delivered and processed through Liquid Direct Injection.

On April 27, 2016, the SWMP was amended by Administrative Action to allow Covanta to conduct a test burn of chicken carcasses with the NJDEP and NJ Dept. of Agriculture in the event the avian flu or other diseases broke out and the carcasses needed to be destroyed. The test burn revealed that the Covanta facility could satisfactorily destroy the carcasses. However, no permit was issued to allow Covanta to process carcasses in the future in cases of emergency.

In a letter dated September 24, 2018, Covanta announced that it will be temporarily suspending operations at the end of March , 2019 with a complete shutdown as an option prospectively. In fact the facility closed on March 2, 2019 and Covanta filed a Mothball Temporary Closure Plan with the NJDEP. For over two years the facility remained closed. Pursuant to the Solid Waste Regulations at N.J.A.C. 7:26 -6.10(b)9, 6.11(b)7 which provides for the modification of a district's solid waste policy and/or program including short and long term disposal strategies, and for the deletion of a facility not in operation for more than two years, Section 8 of this Plan outlines the strategy for waste disposal now that the RRF has been closed for over two years since March 2, 2019.

## History of Recycling Facilities

### Class A Recycling

The Warren County Recycling Center was first sited at the Warren County Road Department Garage on CR 519 until 2007 when it was relocated to the PCFA at the landfill. It continues to operate as a residential drop off center for many source separated Class A Recycling materials.

When the recycling center began operating, materials were source separated by type. At a later date, the center processed source separated materials as dual stream. As markets changed, the center began accepting material single stream. The recyclables are taken to Colgate in New Brunswick. This practice continues today.

Some municipalities operate recycling centers (depots) for use by their residents. Section 7 Recycling contains a listing of all of the municipal centers and their respective hours of operation and materials accepted.

Two privately owned Class A recycling centers are operated by Second Chance Recycling and Sanico in Harmony and Knowlton Townships. It transfers recyclables collected from customers and transports them to markets elsewhere.

#### Class B and C Recycling

In 1992, Natures Choice was added to the SWMP as a regional composting facility for leaves and a limited amount of grass. It closed operation in 2016 and the remaining finished and unfinished material has been removed. Effective February 25, 2021 the NJDEP terminated Natures Choice General Approval and revoked its authority to operate a Class C Recycling Center.

In 1989, S. Rotondi and Sons was added to the SWMP as a Class C regional compost facility. In 2015 it applied to accept Class B material as well. The County allowed the Class B material under a number of conditions. Rotondi entered into an Administrative Consent Order with the NJDEP in concurrence with the County and is close to receiving Class B/C approval.

In 2015, Riversedge Contracting was added to the SWMP as an exempt compost recycling facility.

#### Class D Recycling

In 2013, Global Computer Pro was added to the SWMP as a Class D center to receive computers and other electronic equipment. The approved site was in the former Ingersoll Rand site in Phillipsburg. The IR site is currently being redeveloped and GCP is no longer located there.

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Lastly, the Warren County Solid Waste Advisory Council reaffirms its insistence that:

- any and all waste management systems be designed and developed to be both environmentally sound and socially acceptable, as well as functionally effective and economically feasible;
- all reasonable approaches, whether of the high-technology or the low technology variety, be explored for applicability to the county's needs;
- the closest possible watch be kept on the development of new technological data, new scientific insights and new information, so that the Warren County solid waste management facilities represent the best attainable techniques, methods or approaches;
- the public participate fully, through the vigorous, open and uninhibited proceedings of the SWAC and its task groups and committees, in the development of the plan as it evolves to meet changing situations and in the general oversight of the implementation of the plan.

## **Section 1: Existing and Future Solid Waste Generation**

### **Historical Generation**

According to the 2004 statistics released by the New Jersey Department of Environmental Protection, Warren County generated approximately 193,935 tons of waste in 2004 consisting of 95,823 tons of municipal solid waste (MSW) and 98,113 tons of bulky waste. 75,983 tons of MSW were disposed of and 19,840 tons were recycled. This equates to a recycling rate of 20.73% for MSW.

For bulky waste in 2004, there were 32,281 tons disposed of as bulky waste and 65,831 tons recycled. This equates to a 67.1% recycling rate for bulky wastes. The total recycling rate for all waste in Warren County was 44.2%.

Warren County's estimated population in 2004 was 109,687 persons. This equates to a generation rate of 1.77 tons of total waste per person per year. For MSW the generation rate is .87 tons per person per year. In comparison, the entire state generates 1.17 tons per person per year of MSW.

As shown in Table 7-B in the Recycling Section of this plan,, since the year 2000, the trend in municipal solid waste generation in Warren County has varied from .78 tons per person per year in 2001 to .91 ton per person per year in 2002. The generation rates for 2000 and 2004 were .87 tons and .86 tons respectively. The average generation rate over the five year period is .858 tons per person per year. The difference between .78 and .91 equates to a person throwing away 11.2 ounces more garbage per day. In comparison, the state generation rate ranged from 1.09 to 1.17 tons/person with an average rate of 1.12 tons per year.

For total solid waste, since the year 2000, the trend in Warren County has varied from 1.35 tons per person per year in 2001 to 1.87 tons per person per year in 2003. The generation rates for 2000, 2002, and 2004 were 1.42 tons, 1.68 tons, and 1.77 tons respectively. The average generation rate for total solid waste over the five year period is 1.62 tons per person per year. In comparison, the state generation rates per person range from 2.04 tons/yr. to 2.51tons per year averaging 2.27 tons per year in 2004 the entire state generated 2.5 tons per person per year.

Because Warren County is generating less MSW and total waste per person than the state average, it appears that Warren County residents may be reducing the waste stream through source reduction and reuse. Consequently, it is Warren County's position that a bonus or financial credit be given to Warren County and to any other county that generates less waste than the state average.

## 2007 Estimate

For the year 2007, the first year of the updated Warren County Solid Waste Plan, and using the county five year average MSW generation rate of .858, and a preliminary population estimate of 112,500 persons the amount of MSW generated is projected to be 96,525 tons per year. Using average total waste generation rate of 1.62 tons per year, the total amount of waste generated in Warren County will be 182,250 tons. The figures are shown in Table 1-A

## Year 2017

Two methods are used to project the amount of solid waste that will be generated in 2017, the horizon of the Solid Waste Plan. The first is based on the average generation rate and population growth. The New Jersey Department of Labor projects that the population will grow to 125,900 persons in 2015. The Warren County Planning Department projection for 2015 is 123,528. Assuming that the NJDOL projections are high for 2015, because of pertinent growth limiting impacts of the Highlands Act, they will be used as a reasonable number for the year 2017. Assuming that the average generation rate of 1.62 tons per person per year for total waste will remain constant, the amount of total waste generated in 2017, will be 203,958 tons per year. Based on the average per capita MSW generation factor of .858 tons/person/year calculated above, the amount of MSW generated in 2017 will be 108,022 tons.

The second method to project waste generation in 2017, uses a regression analysis of population vs. solid waste generation. Using this method, the generation of total waste is projected to be 289,495 tons and the generation of MSW is projected to be 146,943 tons. These figures represent a per capita generation rate of and 2.31 tons of total waste and 1.17 tons of MSW annually.

The regression analysis is a statistical analysis that considers the trend in Warren County's solid waste generation vs. population from 1995 through 2004. The correlation of waste generation vs. population has a  $R^2$  of .832 for MSW and .784 for total solid waste. This is a high correlation rate with 1 being the highest possible correlation. Therefore the regression analysis can be used a reliable tool to project the amount of waste generated in 2017.

Because the methods project two very different numbers it was decided to average the two projection methods rather than rely on one or the another. The rationale to average the two is the following. Historical patterns confirm that the generation rate per person increases over time. However, national and state policies are to reduce the amount of waste generated through source reduction and reuse. Averaging the two will balance current trend with the governmental policy to reduce the amount of waste generated.

For planning purposes the projected amount of total waste and MSW generated in 2017 will be as follows:

1. Total waste generated in 2017 -- 246,726 tons ( generation rate of 1.96 tons per person)
2. MSW generation in 2017 – 127, 482 tons ( generation rate of 1.01 tons per person)

Disposal Needs using Current (2004) Recycling Rates

If it is assumed that the 2017 recycling rate for the total waste stream will be the same as the 2004 recycling rate at 44.17%, the total amount to be disposed of in 2017 will be 137,747 tons (377 tons per day) consisting of 101,093 tons (277 tons per day) of MSW and 36,654 tons ( 100 tons per day) of bulky waste.

Disposal Needs Assuming State Recycling Goals are Met ( 50% MSW) (60% Total)

If it is assumed that the overall total waste stream recycling rate meets the State mandated and County Recycling Plan’s goal of 60%and the MSW goal of 50%, the total amount to be disposed of in 2017 will be 98,690 tons (270 tons per day) consisting of 63,741 tons (175 tons per day) of MSW and 34,949 tons ( 96 tons per day) of bulky waste.

<b>TABLE 1-A WASTE GENERATION AND DISPOSAL 2007 AND 2017 (TONS)</b>					
<b>2007</b>			<b>2017</b>		
	<b>Generated</b>	<b>Disposal (Assuming 2004 Recycling Rate)</b>	<b>Generated</b>	<b>Disposal (Assuming 2004 Recycling Rate)</b>	<b>Disposal (Meeting State Recycling Goals)</b>
<b>ID10 (MSW)</b>	96,525	76,544	127,482	101,093	63,741
<b>ID13 (Bulky)</b>	85,725	28,203	119,244	36,654	34,949
<b>TOTAL</b>	182,250	104,747	246,726	137,747	98,690

Table 1-B depicts the amount of ID10 and ID13 waste generated in Warren County, the amount recycled, and the amount disposed of at the RRF and Landfill (Warren Facilities) and the amount disposed of out of county. As the table shows 20% to 26% of ID10 waste is transported outside the county for disposal. Approximately 2.5% to 5.5% of ID13 waste is disposed of outside the county.



<b>TABLE 1-B</b>						
<b>TONS OF ID 10, 13, 13C WASTE GENERATED IN WARREN COUNTY, RECYCLED, and GENERAL DISPOSAL LOCATION</b>						
	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005(1)</b>
Population	102,437	105,044	106,654	108,549	109,687	110,885
ID 10 Generated	89,320	81,676	97,384	93,882	95,823	93,663
ID 10 Recycled	16,834	14,693	24,671	18,116	19,840	18,982
ID 10 Disposed at Warren Facilities	53,678	46,269	47,207	51,149	56,168	55,087
ID 10 Disposed outside Warren County	18,808	20,714	25,505	24,616	19,815	19,594
"% disposed outside WC	21.06%	25.36%	26.19%	26.22%	20.68%	20.92%
ID 13, 13 C Generated	56,233	60,080	81,416	109,585	98,113	49,216
ID 13, 13 C Recycled	30,213	32,787	51,003	77,397	65,831	16,171
ID 13, 13C Disposed at Warren Facilities	24,511	24,547	28,023	26,201	35,306	33,311
ID 13, 13C Disposed outside WC	1,509	2,746	2,390	5,987	-3,024	-266 (2)
"% disposed outside WC	2.68%	4.57%	2.94%	5.46%	-3.08%	-0.54%
Total ID 10, 13, 13C Waste Disposed Outside Warren County	20,317	23,460	27,895	30,603	16,791	19,328
Total ID 10, 13, 13C Waste Generated	145,553	141,756	178,799	203,467	193,936	142,897
Total Waste Recycled	30,213	47,480	75,674	95,513	85,671	35,153
% Total Recycled	32.30%	33.49%	42.32%	46.94%	44.17%	24.60%
(1) 2005 numbers are not official. They are based on the 30 day desk audit reports for recycling tonnage and unpublished solid waste generation						
(2) The negative numbers are the result of inaccuracy in data reporting and the method used by NJDEP to adjust reported data						

## **Section 2: Existing Solid Waste Facilities**

### **Resource Recovery Facility**

The closed mothballed resource recovery facility (RRF) is located in Oxford Township at 218 Mt. Pisgah Avenue on Block 26 Lots 88, 88.01, 89, 87.02, and 84.03. Lots 87.02 and 84.03 are the Access Road to the RRF and the Landfill and is known as Jensen Drive. The RRF has a permitted capacity to handle 548 tons of municipal solid waste per day.

The waste types that were permitted at the RRF were the acceptable portions of those identified by the NJDEP as follows:

- ID 10 - Municipal Waste (household, commercial and institutional)
- ID 23 - Vegetative Waste
- ID 27 - Dry Industrial Waste (except for certain prohibited categories which are directed to the district landfill)
- ID72 - Non-hazardous industrial process liquids (no more than 32,000 gallons per day through Liquid Direct Injection only)

Waste was delivered to the RRF during the hours of 7 a.m. to 5 p.m. on Monday through Friday and during the hours of 7 a.m. to 12 noon on Saturday.

The RRF was designed to receive and dispose of acceptable, burnable, non-hazardous municipal and industrial solid waste for at least a 20 year planning period, and is consistent with the goals of the WCSWMP, which called for the development of a long-term solid waste disposal facility.

The information presented in Tables 2-A(1) and 2-A(2) depict the trend in waste disposal at the Resource Recovery Facility by waste type from 1998 through 2006 and 2007 and to March 2017. As shown, the origin of waste disposed at the Resource Recovery Facility has been consistent throughout the nineteen year period for in county and out of county waste.

Correspondence dated September 24, 2018 from Covanta indicated that Covanta would cease operations at the end of March, 2019 with complete shutdown as an option prospectively. Subsequently, Covanta put its customers/haulers on notice stating that instead of closing on March 31, it would cease receiving deliveries on March 7, 2019. Actually the RRF ceased receiving deliveries on March 2. Covanta then filed a Temporary Mothball Closure Plan with the NJDEP. Covanta has since informed the County that it has no intention of reopening the facility and is currently in the process of effectuating plans and approvals for its permanent closure. Pursuant to the Solid Waste Regulations at N.J.A.C. 7:26 -6.10(b)9, 6.11(b)7 which provides for the deletion of a facility not in operation for more than two years, Warren County is deleting the RRF from its Solid Waste Management Plan as it no longer plays an active and productive role in the management of I.D. 10 waste generated within Warren County. Section 8 of this Plan outlines

the short and long term strategy for waste disposal now that the RRF has been closed since March 2,2019.

**TABLE 2-A(1)**  
**TREND IN SOLID WASTE DISPOSAL AT WARREN COUNTY RESOURCE RECOVERY FACILITY**

**WASTE TYPE IDENTIFICATION (ID)**

	<b>10</b>	<b>13</b>	<b>13C</b>	<b>23</b>	<b>25</b>	<b>27</b>	<b>27A</b>	<b>27I</b>	<b>OTHER</b>	<b>TOTAL</b>
<b>1998</b>										
Warren County	44,135	0	0	0	0	6,773	0	0	0	50,908
Other	99,787					12				99,799
<b>TOTAL</b>	<b>143,922</b>					<b>6,785</b>				<b>150,707</b>
<b>1999</b>										
Warren County	46,752					2,146				48,898
Other	93,814									93,814
<b>TOTAL</b>	<b>140,566</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,146</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>142,712</b>
<b>2000</b>										
Warren County	51,996					2,090		158	0	54,244
Other	84,408									84,408
<b>TOTAL</b>	<b>136,404</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,090</b>	<b>0</b>	<b>158</b>	<b>0</b>	<b>138,652</b>
<b>2001</b>										
Warren County	46,120					2,466				48,587
Other	117,299									117,299
<b>TOTAL</b>	<b>163,420</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,466</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>165,886</b>
<b>2002</b>										
Warren County	45,903	0	0	0	0	2,221	0	0	0	48,124
Other	99,725									99,725
<b>TOTAL</b>	<b>145,628</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,221</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>147,849</b>
<b>2003</b>										
Warren County	40,739	0	0	0	0	1,291	0	117	163	42,307
Other	98,645									98,645
<b>TOTAL</b>	<b>139,382</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,291</b>	<b>0</b>	<b>117</b>	<b>163</b>	<b>140,952</b>
<b>2004</b>										
Warren County	46,127	0	0	0	0	1,367	0	0	113	47,607
Other	99,307									99,307
<b>TOTAL</b>	<b>145,434</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,367</b>	<b>0</b>	<b>0</b>	<b>113</b>	<b>146,914</b>
<b>2005</b>										
Warren County	51,146	0	0	0	0	1,162	0	99	0	52,408
Other	92,101	0	0	0	0	0	0	0	0	92,101
<b>TOTAL</b>	<b>143,247</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,162</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>144,508</b>
<b>2006</b>										
Warren County	52,669	0	0	0	0	1,115	0	0	0	53,784
Other	93,225	0	0	0	0	15	0	0	0	93,241
<b>TOTAL</b>	<b>145,894</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,130</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>147,025</b>

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**TABLE 2-A(2)**  
TREND IN SOLID WASTE DISPOSAL AT WARREN COUNTY RESOURCE RECOVERY FACILITY

WASTE TYPE IDENTIFICATION (ID)										
	10	13	13C	23	25	27	27A	27I	OTHER	TOTAL
<b>2007</b>										
Warren County	50,374	0	0	0	0	1,265	0	0	0	51,639
Other	111,174	0	0	0	0	0	0	0	172	111,345
<b>TOTAL</b>	<b>161,548</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,265</b>	<b>0</b>	<b>0</b>	<b>172</b>	<b>162,985</b>
<b>2008</b>										
Warren County	55,506	0	0	0	0	1,188	0	0	0	56,694
Other	109,079	0	0	0	0	230	0	0	37	109,347
<b>TOTAL</b>	<b>164,585</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,418</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>166,040</b>
<b>2009</b>										
Warren County	52,959	0	0	0	0	996	0	0	0	53,955
Other	120,422	0	0	0	0	404	0	0	0	120,826
<b>TOTAL</b>	<b>173,382</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>174,781</b>
<b>2010</b>										
Warren County	51,442	0	0	0	0	573	0	0	0	52,015
Other	116,806	0	0	0	0	168	0	0	0	116,974
<b>TOTAL</b>	<b>168,247</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>741</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>168,989</b>
<b>2011</b>										
Warren County	52,731	0	0	0	0	426	0	0	0	53,157
Other	123,071	0	0	0	0	278	0	0	0	123,349
<b>TOTAL</b>	<b>175,802</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>703</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>176,505</b>
<b>2012</b>										
Warren County	47,147	0	0	0	0	615	0	0	0	47,761
Other	120,332	0	0	0	0	466	0	0	0	120,798
<b>TOTAL</b>	<b>167,479</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,080</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>168,559</b>
<b>2013</b>										
Warren County	45,968	0	0	0	0	850	0	0	0	46,818
Other	123,457	0	0	0	0	878	0	0	0	124,335
<b>TOTAL</b>	<b>169,425</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,728</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>171,153</b>
<b>2014</b>										
Warren County	45,758	0	54	0	0	829	0	69	0	46,710
Other	122,985	0	0	0	0	1,388	0	189	0	124,562
<b>TOTAL</b>	<b>168,744</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>2,217</b>	<b>0</b>	<b>258</b>	<b>0</b>	<b>171,272</b>
<b>2015</b>										
Warren County	45,819	0	0	0	0	921	0	0	0	46,740
Other	112,599	0	0	0	0	4,111	0	11	0	116,721
<b>TOTAL</b>	<b>158,418</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,032</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>163,461</b>
<b>2016</b>										
Warren County	43,925	0	0	0	0	853	0	0	0	44,779
Other	127,303	0	0	0	0	6,425	0	0	6,934	140,661
<b>TOTAL</b>	<b>171,228</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,278</b>	<b>0</b>	<b>0</b>	<b>6,934</b>	<b>185,440</b>
<b>2017</b>										
Warren County	44,274	0	0	0	0	1,028	0	0	0	45,301
Other	125,864	0	0	0	0	6,427	0	0	15,656	147,947
<b>TOTAL</b>	<b>170,138</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,454</b>	<b>0</b>	<b>0</b>	<b>15,656</b>	<b>193,248</b>
<b>2018</b>										
Warren County	46,916	0	0	0	0	976	0	0	0	47,892
Other	120,873	0	0	0	0	7,197	48	0	15,677	143,795
<b>TOTAL</b>	<b>167,789</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,173</b>	<b>48</b>	<b>0</b>	<b>15,677</b>	<b>191,687</b>
<b>2019 January -March 7</b>										
Warren County	5,868	0	0	0	0	138	0	0	0	6,006
Other	11,570	0	0	0	0	697	48	0	3,788	16,055
<b>TOTAL</b>	<b>17,438</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>835</b>	<b>48</b>	<b>0</b>	<b>3,788</b>	<b>22,061</b>

## Warren County District Landfill

The landfill designated to serve the basic waste management needs of Warren County in the district solid waste management plan, as originally approved, was the High Point Sanitation Company facility in Franklin Township, Warren County. After protracted litigation, in which Warren County and the NJDEP joined forces to compel the closure of the facility, landfilling ceased at this site in October 1983. Warren County wastes were then redirected to the Ocean County landfill in Manchester Township, Ocean County, with the option available to haulers of using out-of-state alternatives.

Evaluation of sites for a future district landfill was initially undertaken in midsummer 1983 by a SWAC task group. After the closing of High Point, the Warren County Board of Chosen Freeholders determined that, in the County's best interest, a landfill within the county, and under public control, was essential to the success of the proposed resource recovery facilities. A contract was accordingly negotiated with the consultant firm of Metcalf & Eddy, Inc. for comprehensive study, analysis and screening of potential landfill sites. Under the terms of this contract, the entire county was studied for suitability in terms of distance from occupied structures, accessibility, hydrogeology, slope, water table, flood hazard, availability of water, existing land use, zoning preference of the host community, ease of acquisition, and other criteria, both technical and sociological. Metcalf & Eddy, Inc. was instructed to specify the landfill size in terms of the requirements for disposing of all county wastes by landfilling in the event a resource recovery facility was not operational. Following the evaluation, a site of approximately 355 acres in White Township was acquired for the Warren County District Landfill consisting of Block 32 Lots 12, 13, 14, 15.01, 17, 18, 22, and Block 34 Lots 17, 18, 18.01, 18.02 and Block 42 Lot 7.

This site was designated as the Warren County District Landfill (WCDL) by action of the Board of Chosen Freeholders on January 16, 1985, and construction began at the site in late 1987. The WCDL began accepting ash from the RRF in September 1990 and raw waste was first accepted in April 1991. Commingling of ash and raw waste was permitted on November 1, 1995.

The permitted waste at the WCDL includes:

- ID 10 - Municipal Waste (household, commercial and institutional)
- ID 13 - Bulky Waste
- ID 13C - Construction and Demolition
- ID 23 - Vegetative Waste (excluding leaves)
- ID 25 - Animal and Food Processing Waste
- ID 27 - Dry Industrial Waste
- ID 27I - Waste Material consisting of incinerator ash or ash containing waste

The WCDL is open from 7 a.m. to 2:30 p.m. on Monday through Friday and 7 a.m. to 11 a.m. on Saturday. Vehicles delivering waste to the Warren County solid waste facilities are

restricted to using the RRF road (now called Jensen Drive) from New Jersey Route 31.

In December 2002, the Board of Chosen Freeholders requested that the PCFA provide a plan to ensure the proper closure of the landfill at the end of 2006. After a careful review of the ongoing financial obligations of the landfill, including debt service and closure funding, the PCFA proposed an alternative landfill design in January 2003. The alternative landfill design did not expand the 45 acre footprint, but only increased the landfill side-slopes from 4:1 to 3:1 over the 45 acre footprint. The result was an increase in the landfill's design capacity from 3.0 million cubic yards to 4.5 million cubic yards.

In accordance with N.J.S.A. 13:1E-20, the Board of Chosen Freeholders approved this capacity increase. Based on the proforma, the landfill was expected to reach capacity and cease waste acceptance at the end of 2006 with the goal of accruing sufficient funds to pay for landfill closure and a 30-year post closure maintenance period.

On March 23, 2005, the Board of Chosen Freeholders adopted a plan amendment to close the landfill in 2006 with final capping in 2007. On September 13, 2006, the Board of Chosen Freeholders adopted a resolution to cease waste acceptance at the end of 2007 when the WCDL was anticipated to reach its permitted capacity. The PCFA was to commence the closure and final capping of the WCDL starting in 2008.

After further financial analysis and to ensure that Warren County residents and businesses will have a long-term disposal site available locally, the Solid Waste Plan was amended in 2007 to provide for the continuing operation of the landfill beyond the previous closure date of 2007. The construction of cell #5 was completed and the vertical expansion of the landfill permitted. It was estimated that the expansion would increase the height of landfill by 50 feet and increase its disposal capacity by 85% to a total volume of approximately 5.5 million cubic yards. Based on an average disposal rate of approximately 100,000 tons per year beginning in 2009, which was equivalent to the quantity of waste generated in Warren County, it was projected that, the life of the landfill would last until 2020. . A letter from White Township, the host community, dated February 27, 2007 supported the expansion and is found in the Appendix.

In a letter September 6, 2013, the PCFA outlined the series of events that would need to take place if the County wanted to increase disposal capacity and extend the life of the landfill. The initial expectation was that the landfill could last until the year 2031. The SWAC reviewed the outline and prepared a report of recommendations dated November 7, 2013 to the Board of Chosen Freeholders. Subsequently, the Board of Chosen Freeholders amended the Solid Waste Management Plan to direct the PCFA to conduct the necessary studies and investigations to determine the feasibility and extent to which the landfill could be expanded and the potential disposal capacity of a landfill expansion. Unless the studies showed the extent of the expansion to be less than anticipated, the PCFA should proceed with the steps to expand the landfill in accordance with the PCFA's letter of September 6, 2013.

Subsequently, the PCFA's Engineer conducted the analysis and had prepared four different

conceptual plans for expanding the landfill. They are discussed in a report titled “Feasibility Study for Landfill Expansion” dated June 2014. The conceptual Plan selected and recommended by the PCFA would have expanded the landfill by 34.3 acres for a total of 79.3 acres. Air space would increase by 7.06 million cubic yards bringing the total to 13.19 million cubic yards. It was projected that the expanded landfill would reach capacity in 2056 at the current rate of filling. A portion of Block 32 Lot 10 was to be acquired to accommodate the expansion.

The portion of Block 32 Lot 10 was acquired and the final engineering plans, specifications and supporting documents were completed and assembled in documentation dated February 2017. On March 29, 2017, the Major Permit Modification Application for the Landfill Expansion was submitted to the NJDEP Bureau of Landfill and Hazardous Waste Permitting for approval. The final engineering revealed that an additional 1.34 million cubic yards of air space could be obtained for a total of 14.53 million cubic yards. The acquisition of 1.52 acres of block 32 lot 10 adjacent to the current footprint maximized the airspace that can be gained from this expansion using currently approved design and landfill construction practices in the State of New Jersey. The expansion will develop to the north and west of the existing landfill reaching a final elevation of the 780 feet at its highest peak. The expansion will extend the useful life of the landfill to the year 2061+/- at the current rate of filling. The NJDEP issued a final General Approval dated July 3, 2018.

As a condition of prior approval by the NJDEP of an amendment to the Solid Waste Management Plan and for the approval of a major modification of the landfill permit to facilitate its expansion and extend its active life and to increase the overall amount of land dedicated for wildlife habitat and mitigation, the County, PCFA, and the NJDEP entered into an Alternative Mitigation Agreement dated March 18, 2018. The Alternative Mitigation Agreement compensates for the loss of the Existing Wildlife Management area when the landfill is expanded. The Agreement provides for the donation of the properties to the NJDEP and that the offering of the property for donation satisfies any and all past and present wildlife habitat and mitigation obligations and that the County and the PCFA shall have no further obligations in connection with the same.

To satisfy the terms and conditions of the Agreement and to facilitate the donation, the County amended the Solid Waste Management Plan on June 12, 2019 through Administrative Action , to remove as landfill properties: Block 32 Lots 12,13,14,15.01, 17, 18, 22, and Block 34 Lots 17,18, 18.01, 18.02 and Block 42 Lot 7, in White Township; and to reconfigure and consolidate lots designated for the landfill into Block 32 Lot 12 containing a total of 217.866 acres. The NJDEP certified these amendments in a letter dated June 25, 2019.

### Annual Waste Disposal at Landfill

Tables 2-B(1), 2-B(2), and 2-B(3) depict the tonnage of waste disposal by origin from 1998 to 2006, from 2007 to 2017, and from 2018 to April 2021. It shows that landfill waste deliveries spiked in 2004 due to out of county waste deliveries of MSW (ID10) and ID 13. The



amount of ID 13 waste disposed from Warren County ranged from 25,000 tons in 2000 to 36,000 tons per year in 2006. Since the last SWMP was adopted in 2007 the amount of waste disposed in the landfill leveled off at around 100,000 tons per year. In recent years, ID 13 Waste originating from Warren County is approximately half of the total amount of ID 13 waste delivered to the landfill. .

**TABLE 2-B(1)**

**TREND IN SOLID WASTE DISPOSAL AT WARREN COUNTY DISTRICT LANDFILL**

**WASTE TYPE IDENTIFICATION (ID)**

	<b>10</b>	<b>13</b>	<b>13C</b>	<b>23</b>	<b>25</b>	<b>27</b>	<b>27A</b>	<b>27I</b>	<b>OTHER</b>	<b>TOTAL</b>
<b>1998</b>										
Warren County	365	11,595				754		41,671		54,385
Other	41,200	53,069				0				94,269
<b>TOTAL</b>	<b>41,565</b>	<b>64,664</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>754</b>	<b>0</b>	<b>41,671</b>	<b>0</b>	<b>148,654</b>
<b>1999 *</b>										
Warren County	497	17,750		1		4,285		33,708		15,722
Other	18,284	32,828			16	17		0		51,146
<b>TOTAL</b>	<b>18,781</b>	<b>50,578</b>	<b>0</b>	<b>1</b>	<b>16</b>	<b>4,302</b>	<b>0</b>	<b>33,708</b>	<b>0</b>	<b>66,868</b>
<b>2000</b>										
Warren County	1,682	24,511		4	27	4,837		35,694		66,756
Other	55,533	53,053		0	118	959		0		109,663
<b>TOTAL</b>	<b>57,215</b>	<b>77,564</b>	<b>0</b>	<b>4</b>	<b>145</b>	<b>5,796</b>	<b>0</b>	<b>35,694</b>	<b>0</b>	<b>176,419</b>
<b>2001</b>										
Warren County	148	24,547		3	27	10,561		26,364		61,649
Other	52,164	86,523		0	226	2,435		877		142,226
<b>TOTAL</b>	<b>52,312</b>	<b>111,070</b>	<b>0</b>	<b>3</b>	<b>253</b>	<b>12,996</b>	<b>0</b>	<b>27,241</b>	<b>0</b>	<b>203,875</b>
<b>2002</b>										
Warren County	1,304	28,023		0.43	8	1,921	211	37,034	0	68,502
Other	57,767	117,174		0	232	3,855				179,027
<b>TOTAL</b>	<b>59,070</b>	<b>145,197</b>	<b>0</b>	<b>0.43</b>	<b>240</b>	<b>5,776</b>	<b>211</b>	<b>37,034</b>	<b>0</b>	<b>247,529</b>
<b>2003</b>										
Warren County	6,284	26,201	0	6	13	8,006	0	28,556	143	69,198
Other	139,395	45,973		0	382	1,989		377		188,119
<b>TOTAL</b>	<b>145,679</b>	<b>72,175</b>	<b>0</b>	<b>6</b>	<b>395</b>	<b>9,995</b>	<b>0</b>	<b>28,933</b>	<b>143</b>	<b>257,317</b>
<b>2004</b>										
Warren County	10,041	35,306	0	14	90	1,412	0	31,536	98	78,497
Other	181,453	75,241		0	506	2,790				259,990
<b>TOTAL</b>	<b>191,494</b>	<b>110,547</b>	<b>0</b>	<b>14</b>	<b>596</b>	<b>4,202</b>	<b>0</b>	<b>31,536</b>	<b>98</b>	<b>338,487</b>
<b>2005</b>										
Warren County	3,941	33,311	0	13	382	1,100	0	22,582	58	61,387
Other	119,259	46,971		0	154	2,054				168,438
<b>TOTAL</b>	<b>123,200</b>	<b>80,282</b>	<b>0</b>	<b>13</b>	<b>536</b>	<b>3,154</b>	<b>0</b>	<b>22,582</b>	<b>98</b>	<b>229,865</b>
<b>2006</b>										
Warren County	2,419	35,538	0	10	303	968	0	17,865	0	57,103
Other	1,252	18,469		3	224	1,304				21,252
<b>TOTAL</b>	<b>3,671</b>	<b>54,007</b>	<b>0</b>	<b>13</b>	<b>527</b>	<b>2,272</b>	<b>0</b>	<b>17,865</b>	<b>0</b>	<b>78,355</b>

\* January Report is missing

Source: Solid Waste Landfill Facility Monthly Volume Reports January 1998 through December 2006

jls 3/19/02, rev. tlm 4/12/07

**TABLE 2-B(2)**  
**TREND IN SOLID WASTE DISPOSAL AT WARREN COUNTY DISTRICT LANDFILL**

<b>WASTE TYPE IDENTIFICATION (ID)</b>										
	<b>10</b>	<b>13</b>	<b>13C</b>	<b>23</b>	<b>25</b>	<b>27</b>	<b>27A</b>	<b>27I</b>	<b>OTHER</b>	<b>TOTAL</b>
<b>2007</b>										
Warren County	1,125	29,479	0	13	182	1,749	0	20,824	0	53,372
Other	10	16,737	0	1	354	1,313	0	0	0	18,415
<b>TOTAL</b>	<b>1,134</b>	<b>46,217</b>	<b>0</b>	<b>13</b>	<b>536</b>	<b>3,061</b>	<b>0</b>	<b>20,824</b>	<b>0</b>	<b>71,787</b>
<b>2008</b>										
Warren County	1,108	25,609	0	24	34	1,578	0	12,513	0	40,866
Other	898	18,511	0	0	468	1,543	0	0	0	51,146
<b>TOTAL</b>	<b>2,006</b>	<b>44,121</b>	<b>0</b>	<b>24</b>	<b>502</b>	<b>3,121</b>	<b>0</b>	<b>12,513</b>	<b>0</b>	<b>62,287</b>
<b>2009</b>										
Warren County	1,344	19,890	0	4	19	701	0	10,035	0	31,994
Other	37	10,523	0	0	443	1,488	0	0	0	12,490
<b>TOTAL</b>	<b>1,380</b>	<b>30,413</b>	<b>0</b>	<b>4</b>	<b>462</b>	<b>2,189</b>	<b>0</b>	<b>10,035</b>	<b>0</b>	<b>44,485</b>
<b>2010</b>										
Warren County	1,178	18,546	0	4	31	11,697	0	0	0	31,456
Other	645	48,278	0	6	417	14,470	0	0	0	63,817
<b>TOTAL</b>	<b>1,823</b>	<b>66,824</b>	<b>0</b>	<b>10</b>	<b>448</b>	<b>26,167</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95,272</b>
<b>2011</b>										
Warren County	1,049	18,834	0	2	10	4,414	0	0	0	24,308
Other	12	69,065	0	0	353	27,542	0	0	0	96,972
<b>TOTAL</b>	<b>1,061</b>	<b>87,898</b>	<b>0</b>	<b>2</b>	<b>363</b>	<b>31,956</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>121,280</b>
<b>2012</b>										
Warren County	1,179	18,459	0	5.00	5	590	0	0	0	20,237
Other	309	55,632	0	0	332	14,658	0	0	0	70,931
<b>TOTAL</b>	<b>1,488</b>	<b>74,091</b>	<b>0</b>	<b>5</b>	<b>337</b>	<b>15,248</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91,168</b>
<b>2013</b>										
Warren County	501	19,831	0	0	10	384	0	0	0	20,726
Other	15	69,416	0	0	339	19,183	0	0	0	88,954
<b>TOTAL</b>	<b>516</b>	<b>89,247</b>	<b>0</b>	<b>0</b>	<b>349</b>	<b>19,567</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>109,679</b>
<b>2014</b>										
Warren County	174	19,539	0	0	72	437	0	0	0	20,222
Other	11	81,435	0	0	341	10,138	0	0	0	91,925
<b>TOTAL</b>	<b>186</b>	<b>100,974</b>	<b>0</b>	<b>0</b>	<b>413</b>	<b>10,575</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>112,147</b>
<b>2015</b>										
Warren County	155	18,622	0	0	4	398	0	0	0	19,180
Other	1	82,409	0	1	286	10,194	0	0	0	92,891
<b>TOTAL</b>	<b>156</b>	<b>101,031</b>	<b>0</b>	<b>1</b>	<b>291</b>	<b>10,592</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>112,071</b>
<b>2016</b>										
Warren County	195	17,945	0	1	2	314	0	0	0	18,455
Other	27	86,736	0	0	291	2,833	0	0	0	89,887
<b>TOTAL</b>	<b>222</b>	<b>104,680</b>	<b>0</b>	<b>1</b>	<b>293</b>	<b>3,146</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>108,342</b>
<b>2017</b>										
Warren County	52	20,263	0	0	22	268	0	0	0	20,604
Other	1,847	74,905	0	0	283	1,820	0	0	0	78,855
<b>TOTAL</b>	<b>1,899</b>	<b>95,167</b>	<b>0</b>	<b>0</b>	<b>305</b>	<b>2,088</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>99,459</b>

**TABLE 2-B(3)****TREND IN SOLID WASTE DISPOSAL AT WARREN COUNTY DISTRICT  
LANDFILL**

	<b>WASTE TYPE IDENTIFICATION (ID)</b>									<b>TOTAL</b>
	<b>10</b>	<b>13</b>	<b>13C</b>	<b>23</b>	<b>25</b>	<b>27</b>	<b>27A</b>	<b>27I</b>	<b>OTHER</b>	
<b>2018</b>										
Warren County	15	29,184	0	0	29	84	0	0	0	29,312
Other	0	33,305	0	0	320	379	0	0	0	34,004
<b>TOTAL</b>	<b>15</b>	<b>62,489</b>	<b>0</b>	<b>0</b>	<b>349</b>	<b>463</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63,316</b>
<b>2019</b>										
Warren County	471	42,203	0	0	1	627	8	0	0	43,310
Other	0	32,931	0	0	311	4,769	0	0	0	38,012
<b>TOTAL</b>	<b>471</b>	<b>75,134</b>	<b>0</b>	<b>0</b>	<b>312</b>	<b>5,396</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>81,321</b>
<b>2020</b>										
Warren County	1,196	33,964	637	0	2	411	0	0	0	36,210
Other	0	30,626	2,004	0	273	8,637	0	0	0	41,540
<b>TOTAL</b>	<b>1,196</b>	<b>64,590</b>	<b>2,641</b>	<b>0</b>	<b>275</b>	<b>9,048</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77,750</b>
<b>2021 to</b>										
Warren County	1,178	18,546	0	4	31	11,697	0	0	0	31,456
Other	645	48,278	0	6	417	14,470	0	0	0	63,816
<b>TOTAL</b>	<b>1,823</b>	<b>66,824</b>	<b>0</b>	<b>10</b>	<b>448</b>	<b>26,167</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95,272</b>

Recycling

The recycling center is operated through an interlocal agreement between the PCFA and the County of Warren. It was formerly located on the site of the Warren County Road Department Garage in White Township. It was designed to handle separated glass, aluminum cans, steel cans and plastic containers. Through an administrative action by the Board of Chosen Freeholders dated June 14, 2006 the center was relocated from the County Road Department to the landfill site in White Township on Block 32 Lot 14, now Block 32 Lot 12, and opened on January 15, 2007. Containers are provided for residents to drop off many traditional recycling materials. It receives single stream glass bottles, plastic bottles, aluminum cans, steel and tin cans, newspaper, mixed office paper, magazines, glossy paper, and white paper. It is open Monday through Friday 7:00 a.m. to 2:30 p.m. and Saturday 7:00 a.m. to 11:00 a.m. In addition, a convenience center is located at the same location to drop off bagged garbage and residential bulky waste. It is open the same hours as the WCDL.

## Other Landfills

Certain solid waste generators within the county have unique situations that require special planning efforts in order to be a part of the comprehensive waste management plan. In particular, the Ingersoll-Rand Company, which was, for many years, the county's largest employer, had maintained a landfill on its site in Phillipsburg for construction debris and foundry sand. The company discontinued the use of the landfill when the NJDEP adopted rules and regulations that affected the operation of that type of disposal facility. In response to changing world markets, the Ingersoll-Rand Company planned substantial modifications to the plant facilities that required the demolition of many of the old buildings on the Phillipsburg site. This demolition waste could be accommodated at the WCDL; however, the quantity of material to be disposed of was so large that an alternate disposal facility was in the best interest of the county to preserve needed capacity in the county landfill.

The Ingersoll-Rand Company no longer operates a Class II landfill on a four-acre area adjacent to the inoperative existing landfill to accommodate construction debris and foundry sand. Detailed site evaluation, engineering plans and an environmental health impact statement have been prepared and reviewed. The plan for the Ingersoll-Rand Class II landfill on a portion of tax account 70773 has been approved by the Board of Chosen Freeholders with the recommendation that the leachate from the landfill "be directed to an on-site storage facility until such time as applicable testing procedures have been performed to determine its ultimate disposition." Although foundry sand is permitted at the landfill, it is no longer disposed there since the foundry plant has closed.

On March 8, 2006, the Warren County Board of Freeholders approved an administrative action to recognize the transfer of ownership of the Ingersoll-Rand landfill to Phillipsburg Associates, III, L.P. Through series of transactions, the site is now being redeveloped. The landfill has been properly closed and capped.

### **Section 3: Waste Flow Direction and Interdistrict Agreements**

#### **Pre – Atlantic Coast Decision, 1997**

The original flow strategy for waste management involved the processing of all acceptable waste at the Resource Recovery Facility (RRF) and the disposal of residual ash at the Warren County District Landfill (WCDL). Ash generated from the operations of the facility was managed as an ID 27 non-hazardous industrial waste and was landfilled in accordance with all New Jersey Department of Environmental Protection (NJDEP) regulations. At those times when the RRF was unable to process waste or when certain waste types were not acceptable at the RRF, those wastes were directed to the WCDL. The Warren County Solid Waste Management Plan (WCSWMP) required that all acceptable waste generated within Warren County be directed to the Warren County solid waste facilities, consisting of the RRF in Oxford Township, and the WCDL in White Township. In addition, one hundred tons per day of waste from Hunterdon County, which was accommodated in the interdistrict agreement between Hunterdon and Warren Counties was also directed to the Warren County RRF or WCDL if the RRF was inoperable. Further, according to the terms of an interdistrict agreement between Warren County, the Pollution Control Financing Authority (PCFA) of Warren County and Somerset County, Somerset County was to provide the Warren County RRF 1,400 tons per week of acceptable waste. This interdistrict agreement continued the Emergency Waste Flow Order redirection from the NJDEP and the New Jersey Board of Public Utilities (NJBPU), which directed up to 250 tons per day (7 days/week) of acceptable waste from Somerset County to the Warren County RRF. The solid waste management plan incorporated the provisions of the NJBPU and NJDEP Waste Flow Order of June 6, 1989.

#### **Post – Atlantic Coast Decision**

When New Jersey's waste flow regulations were invalidated in 1997, Somerset and Hunterdon Counties refused to honor the interdistrict agreement. Because no positive assistance was forthcoming from the New Jersey courts, legislature, Governor, or the NJDEP, the Warren County PCFA sued Somerset County and Bridgewater Resources Inc. Hunterdon agreed to send its required tonnage while Somerset County's case was still pending. The PCFA and the County maintained that the agreements were still valid contracts and that shipments from both counties must be honored. The case has been settled.

#### **United Haulers Decision, April 30, 2007**

On April 30, 2007 in the U.S. Supreme Court Decision of United Haulers Association, Inc et al v. Oneida-Herkimer Solid Waste Management Authority et. al. the Court held that counties flow control ordinances that direct waste to government owned facilities do not discriminate against interstate commerce. The court said that the commerce clause is not intended to control public efforts to enact flow control ordinances because waste disposal is typically and traditionally a function of local government exercising its police powers. The higher tipping fees that normally accompany waste flow will fall onto the citizens of the jurisdiction of the publicly owned facility it serves.

Given the facts of the United Haulers decision the County of Warren and the PCFA is reviewing the viability of imposing waste flow requirements of ID 13 and incinerator ash to the landfill. The decision to require waste flow will made in a future plan amendment.

#### **Section 4: Solid Waste Collection Practices**

As shown in Table 4A, the majority of households, business and industry in Warren County have private waste collection.

Alpha and Washington Borough have a municipal contract with private haulers to collect household waste and limited quantities from businesses. All the remaining waste is collected through private contract.

Belvidere, Oxford and Phillipsburg operate their own trucks for household and some commercial pick-up. In all cases, industrial wastes are picked up by private contractors.



**SOLID WASTE COLLECTION PRACTICES**

**March 6, 2007**

**Table 4A**

Municipality	Type Collection Services (Residential)	Approximate % of Municipality Served	Type Collection Services (Industrial)	of Approximate % of Municipality Served	Type Collection Services (Commercial)	of Approximate % of Municipality Served
Allamuchy	P	100%	N/A	----	P	100%
Alpha	C	100%	P	100%	C & P	50%/50%
Belvidere	M	100%	P	100%	M & P	100%
Blairstown	P	100%	P	100%	P	100%
Franklin	P	100%	P	100%	P	100%
Frelinghuysen	P	100%	P	100%	P	100%
Greenwich	P	100%	P	100%	P	100%
Hackettstown	P	100%	P	100%	P	100%
Hardwick	P	100%	N/A	----	P	100%
Harmony	P	100%	P	100%	P	100%
Hope	P	100%	P	100%	P	100%
Independence	P	100%	P	100%	P	100%
Knowlton	P	100%	P	100%	P	100%
Liberty	P	100%	P	100%	P	100%
Lopatcong	P	100%	P	100%	P	100%
Mansfield	P	100%	P	100%	P	100%
Oxford	M	100%	P	100%	M & P	50%/50%
Phillipsburg	M	100%	P	100%	M & P	20%/80%
Pohatcong	P	100%	P	100%	P	100%
Washington Boro	C	100%	P	100%	C & P	80%/20%
Washington Twp.	P	100%	P	100%	P	100%
White	P	100%	P	100%	P	100%

KEY TO COLLECTION TYPES:

M- Municipal Collection: Municipal Trucks and Crews

C- Municipal Contract: Private Trucks and Crews, paid by municipality pursuant to contract

P- Private Collection: Private Trucks and Crews, paid by individuals for their own waste disposal

SOURCE: Warren County Planning Department

**Section 5: Municipal Solid Waste Collectors**

MUNICIPALITY	MAJOR WASTE HAULERS
Allamuchy	Waste Management
Alpha	Waste Management
Belvidere	Town of Belvidere , Sanico & Gary Gray
Blairstown	Sanico, Gary Gray, & Balbi
Franklin	Gene/George Smith & Sanico
Frelinghuysen	Sanico & Balbi
Greenwich	Gene/George Smith
Hackettstown	Sanico & Waste Management
Hardwick	Sanico, Balbi & Gary Gray
Harmony	Gene/George Smith & Sanico
Hope	Sanico
Independence	Sanico, Waste Management & Gary Gray
Knowlton	Sanico & Gary Gray
Liberty	Sanico
Lopatcong	Gene/George Smith & Sanico
Mansfield	Sanico & Waste Management
Oxford	Town of Oxford
Phillipsburg	Town of Phillipsburg
Pohatcong	Gene/George Smith
Washington Boro	Blue Diamond
Washington Twp.	Sanico
White	Sanico

## **Section 6: Collection/Haul Analysis**

Currently, waste in Warren County is being collected by private haulers and municipalities and disposed of at in-state and out-of-state facilities. Type 10 , 13, 23, 25, and 27 and 27I are permitted to be disposed at the Warren County District Landfill (WCDL).

Table 6A reflects the approximate distance collection vehicles must travel and the primary routes from each municipality to the Warren County District Landfill. Drivers and hauling companies should be instructed on and given a copy of the designated routes that they must follow.

Access to the Landfill is by way Mt. Pisgah Avenue and an access road, Jensen Drive, which is connected directly to New Jersey State Highway Route 31, north of the village of Oxford. No development, except Tilcon Quarry, exists on these roads.

It is the county's objective that waste haulers use interstate, U.S. and state highways for deliveries to the WCDL to the extent possible. Trucks coming from outside Warren County must use only state highways to access the Landfill. Trucks, coming from the east on I-80, are required to travel to Exit 4, Columbia, to U.S. Route 46 East to N.J. Route 31 South. After unloading, trucks leaving via I-80 must use the entrance at Exit 4 in Columbia.

Trucks from eastern New Jersey or New York traveling I-78 must enter Warren County on N.J. Route 31 North to the RRF and landfill. Trucks from Pennsylvania using U.S. Route 22, must take U.S. Route 22 East to N.J. Route 57 North to N.J. Route 31 North. Trucks from Pennsylvania using I-78 must exit at Exit 3, take U.S. Rt. 22 West to the U-Turn at Second Street or Roseberry Street to U.S. Route 22 East to N.J. Route 57 North to Route 31 North. After unloading, trucks leaving are to leave using the same routes described above.

For Class B, C, and D recycling centers, the County encourages trucks to use Interstate, U.S. and state highways for deliveries to the greatest extent possible.

Trucks to Tilcon Quarry should use the same routes as provided above for the Landfill.

For Rotondi, trucks coming from the east on I-80 should travel to Exit 4, Columbia, to U.S. Route 46 east to CR 519 south. Trucks from eastern New Jersey or New York traveling I-78 should take Exit 3 to US Route 22 west to U-turn at Second Street or Roseberry Street to US Route 22 east to NJ Route 57 north to CR 519 north. Trucks from Pennsylvania using U.S. Route 22 should take U.S. Route 22 east to N.J. Route 57 north to CR 519 north. Trucks from Pennsylvania using I-78 should exit at Exit 3, take U.S. Route 22 west to the U-turn at Second Street or Roseberry Street to U.S. Route 22 east to N.J. Route 57 north to CR 519 north.

**EXISTING COLLECTION/HAUL ANALYSIS**

Table 6A

MUNICIPALITY	DISPOSAL FACILITY	DISTANCE (one way) (miles)	PRIMARY ROUTE(s)	UTILIZATION OF TRANSFER STATION
Allamuchy	RR, Oxford Twp.	18	Rt. 517 to Rt. 46 to Rt. 31 to RR	No
Alpha	RR, Oxford Twp.	18	Rt. 519 to Rt. 57 to Rt. 31 to RR	No
Belvidere	RR, Oxford Twp.	6	Rt. 46 to Rt. 31 to RR	No
Blairstown	RR, Oxford Twp.	18	Rt. 521 to Rt. 519 to Rt. 46 to Rt. 31 to RR	No
Franklin	RR, Oxford Twp.	9	Rt. 57 to Rt. 31 to RR	No
Frelinghuysen	RR, Oxford Twp.	14	Rt. 519 to Rt. 46 to Rt. 31 to RR	No
Greenwich	RR, Oxford Twp.	14	Rt. 57 to Rt. 31 to RR	No
Hackettstown	RR, Oxford Twp.	15	Rt. 57 to Rt. 31 to RR	No
Hardwick	RR, Oxford Twp.	20	Rt. 521 to Rt. 519 to Rt. 46 to Rt. 31 to RR	No
Harmony	RR, Oxford Twp.	11	Rt. 519 to Rt. 46 to Rt. 31 to RR	No
Hope	RR, Oxford Twp.	8	Rt. 519 to Rt. 46 to Rt. 31 to RR	No
Independence	RR, Oxford Twp.	10	Rt. 46 to Rt. 31 to RR	No
Knowlton	RR, Oxford Twp.	13	Rt. 46 to Rt. 31 to RR	No
Liberty	RR, Oxford Twp.	5	Rt. 46 to Rt. 31 to RR	No
Lopatcong	RR, Oxford Twp.	17	Rt. 46 to Rt. 31 to RR	No
Mansfield	RR, Oxford Twp.	11	Rt. 46 to Rt. 31 to RR	No
Oxford	RR, Oxford Twp.	2	Local Roads to Rt. 31 to RR	No
Phillipsburg	RR, Oxford Twp.	17	Rt. 57 to Rt. 31 to RR	No
Pohatcong	RR, Oxford Twp.	20	Rt. 519 to Rt. 57 to Rt. 31 to RR	No
Washington Borough	RR, Oxford Twp.	6	Rt. 31 to RR	No
Washington Township	RR, Oxford Twp.	8	Rt. 31 to RR	No
White	RR, Oxford Twp.	6	Rt. 519 to Rt. 46 to Rt. 31 to RR	No

SOURCE: Warren County Planning Department

## **SECTION 7: RECYCLING**

### **I. OVERVIEW**

Perhaps the overriding issue facing recycling today is a national one. It is not one of statewide or countywide importance alone. As reported in many media outlets, professional settings, and industry representatives, the impact of China's rejection of recyclables from the United States has resulted in recyclables being disposed of in landfills and incinerators or stockpiled until market conditions improve. China had been taking about 40% of the paper, plastics and other recyclables from the US, but since China has impose stricter quality standards on plastic and paper products that percentage has been greatly reduced. It is virtually impossible to meet the stringent contamination standards being set by China. Additionally it is reported that recycling costs are almost as high as the costs to dispose of municipal solid waste at resource recovery facilities and landfills. The dilemma is should we be spending time and money to encourage people to recycle when in fact that source separated recycled material may actually be disposed of in a RRF or landfill or being stockpiled in a warehouse or outside storage yard until markets turn around and become "profitable" again?

Clearly, the trend toward single stream collection has hurt the quality of recyclable material which caused China to reject the poor quality materials from the US. Obviously end markets in the US are not equipped to deal with poor quality single stream recyclable materials so the question is how should the recycling industry change for the US to become self sufficient rather than rely on international markets to handle our recycled waste?. This is a problem that is much greater than the Recycling Section in the Warren County Solid Waste Management Plan. This is a problem that must be addressed at the State and National level. In effect, it is an unsung national emergency. So, absent any State or National mandate to collect recyclables in a dual stream, commingled, or separated fashion, Warren County will concentrate its efforts in educating the public on what materials should and should not be recycled, and how to reduce contamination in the recycling stream. The focus in the solid waste management effort should be to reduce the amount of waste produced and to reuse as much of it as possible. Statistics provided in this Solid Waste Management Plan support the fact that Warren County generates less waste per person than the State average. Producing less waste, reusing more "waste" is better than collecting waste for recycling, especially when recycling that waste becomes economically inviable. This is not to say that Warren County will not promote recycling, it is just that of the three "R"s the focus should be on reduction and reuse, especially in today's recycling market.

A general recommendation in this Plan is that the State should be proactive in making sure that recycling markets exist in New Jersey. One way may be to mandate that recycling collection return to dual stream to improve the quality of materials. The State should standardize what materials should be collected and recycled rather than leave it up to the individual counties. To that end, the preparation of those items for recycling should be standardized as well because it becomes confusing to the ordinary citizen what is to be recycled and how.

## **A. Previous Plans**

The first Warren County Recycling Plan drafted by the Warren County Solid Waste Advisory Council (SWAC), adopted by the Board of Freeholder and approved by the NJDEP on November 3, 1989, was developed to provide Warren County residents, businesses and industries, the SWAC, the Solid Waste Coordinator and the County Recycling Coordinator with the alternatives and opportunities for recycling in Warren County. The primary objective of the County's 1989 plan was to achieve the goal of 25 percent reduction in the county's municipal solid waste stream via recycling. In addition to the 25 percent recycling goal, Warren County's other 1989 plan objectives were aimed at reducing the quantity of materials in the waste stream by recycling in order to make the Warren County Resource Recovery Facility (RRF) more efficient and to improve the quality of residue disposed at the Warren County District Landfill (WC DL).

The 1993 and 1994 Recycling Plans modified the 1989 plan to meet the goals of the Governor's Emergency Solid Waste Task Force to recycle 60% of the total waste stream by 1995. To meet the goal the 1993 and 1994 Plans designated additional materials, business and industry were called upon to expand their recycling efforts, enforcement programs were expanded, and opportunities to recycle were increased by the Pollution Control Financing Authority (PCFA) and haulers. Additional recycling centers were included to recycle concrete and yard waste.

In 1999 the 1994 Plan was updated to deal with the U.S. Supreme Court decision of 1997 that invalidated New Jersey's waste flow regulations. The basic recycling strategy did not change except that the 1999 Plan recognized the need to respond to changing technology, to adequately fund the county's recycling program, and to capture more materials at the recycling center and convenience center. The establishment of a reuse center was also recommended.

The 2007 Plan explained the responsibilities of those involved in the recycling effort in Warren County. The Plan provided details on the amount recycling that was collected by municipality over a three year period. The intention of this analysis was to show where recycling rates were acceptable and where improvements would be needed by type of material. The Plan outlined a number of strategies that should be utilized to improve recycling and promote recycling to the general public. Enforcement and funding needs were discussed as well.

## **B. Purpose**

In accordance with the New Jersey Mandatory Source Separation and Recycling Act, the adopted 2006 New Jersey Statewide Solid Waste Management Plan, and the Recycling Enhancement Act, all counties/districts are required to prepare a Recycling Plan that will attain the State's recycling goals of 60% for total solid waste and 50% for municipal solid waste through the collection, processing and marketing of designated traditional and non-traditional recyclable materials.

The 2019 Update is, in part, in direct response to the request contained in the letter from the

Acting NJDEP Commissioner dated March 8, 2018 certifying the Warren County Solid Waste Plan amendment of September 27, 2017. The relevant portion of the Certification letter pertaining to the Recycling Element of the SWMP follows:

**Plan Element: Municipal Solid Waste (MSW) Recycling in Warren County**

On September 12, 2017, the Warren County Board of Chosen Freeholders adopted an Amendment to the County Plan which, among other things, included specific strategies for achieving the State's statutorily-mandated minimum MSW recycling rate of 50% (N.J.S.A. 13:1E-99.13). This Amendment to the County Plan was certified as approved by the Department on February 4, 2008. The most recent recycling data compiled by the State shows that in 2015, Warren County achieved a MSW recycling rate of 35%. Using 2015 Department data, an additional 25,610 tons of Warren County MSW would have had to have been recycled in 2015 to reach a MSW rate of 50%.

In this regard, the County is reminded that the Department adopted an update to the Statewide Solid Waste Management Plan in 2006, which set forth, among other things, a framework for the counties in assessing various strategies to be employed to achieve the statutorily-mandated recycling goals. As these goals have not been achieved, in order for the County to provide a broader, more robust and strategic review and analysis toward reaching mandated goals, the Department requests that the county, at a minimum:

- 1) In accordance with N.J.A.C. 7:26A-12.2 assess the sufficiency and effectiveness of the requirements of the County Recycling Plan that was certified and approved by the Department on February 4, 2008. Specifically, Warren County shall review and analyze the strategies, assumptions, practices, and expenditures contained therein for effectiveness in reaching mandated recycling goals. Special attention shall be directed to ensuring compliance with source separation and recycling requirements within the commercial and institutional sectors, including but not limited to public and private schools, government buildings, large office complexes, recreational facilities and other public locations within the county. This assessment shall, as appropriate, focus on the monitoring of and ensuring compliance with pertinent rules and statutes including but not limited to N.J.A.C. 7:26A-10, N.J.A.C. 7:26A-11 to the extent practicable, and N.J.S.A.13:1E-99.13.

Pursuant to the above, Warren County shall prepare an update to the County Recycling Plan for the Department's review by December 31, 2018 to discuss

and implement strategies to accomplish the above goal. Said plan shall recognize that current strategies and practices are not yielding sufficient

recycling benefits and shall provide alternative strategies and practices with an emphasis on assessing and gaining compliance with local source separation and recycling/reporting ordinances starting with the largest generators. This may include but not be limited to specific uses of any grant money the County or municipalities receive for the purpose of increasing recycling, as are lawful and appropriate. In any case this shall also include the proposal of a system and metrics, to measure and evaluate the effectiveness/benefit of each action toward increasing the County recycling rate.

The County shall consider a plan which coordinates with and utilizes all appropriate levels of government with authority or responsibility toward increasing the rate of recycling in the County.

The Department is available to assist the County in developing and implementing appropriate recycling compliance and other strategies to achieve mandated recycling goals.

### **C. Responsibilities**

#### Warren County

In consultation with the Solid Waste Advisory Council, the Board of Chosen Freeholders is responsible for developing policy for recycling by means of the Warren County Recycling Plan which is part of the Warren County District Solid Waste Management Plan (WCSWMP). The County's designated Recycling Coordinator must be Certified in accordance with the Recycling Enhancement Act. As a guide for what the County (District) Recycling Coordinator's responsibilities could be the NJ Civil Service job title description can be used and is found in the Appendix. This does not imply or suggest that the County/District Recycling Coordinator should be a Civil Service position. In accordance with the provisions of the New Jersey Mandatory Recycling Act, David K. Dech is designated as the Warren County Solid Waste Management District Certified Recycling Coordinator. He can be reached at:

Warren County Planning Department  
165 County Route 519  
Belvidere, NJ 07823  
908-475-6533

#### Municipalities

Governing bodies are responsible for appointing a Recycling Coordinator to ensure that the provisions of the County Recycling Plan and municipal source separation ordinances are carried out. The Municipal Recycling Coordinator does not need to be Certified; however, a Certified Recycling Coordinator must sign and file the municipal tonnage report with the NJDEP



documenting the amount and type of waste that is recycled in the community.

Lastly, municipalities are responsible for notifying all households, businesses, and institutions of the recycling requirements and the opportunities available to recycle. The NJ Civil Service job title description is found in the Appendix to be used as a guide for what the Municipal Recycling Coordinator's responsibilities could be.

### Haulers

Haulers are responsible for developing recycling collection and marketing systems for their institutional, industrial and commercial customers as well as residential customers, throughout Warren County. There is a great need for this service, particularly for the commercial and industrial sectors.

### Pollution Control Financing Authority (PCFA)

Under the authority of this recycling plan, the PCFA provides a recycling center for county residents to drop off traditional recycling designated recycling materials.

### Residents, Businesses, Institutions

All are responsible to ensure that the designated recyclables in the County Recycling Plan and municipal ordinance are separated from the waste stream and recycled. With the cooperation of all households, business and industry, schools, government buildings, and other institutions, the goal to recycle 50% of MSW can be reached.

## **II. WASTE COMPOSITION**

The municipal solid waste (MSW) stream includes household, residential, commercial institutional, yard waste, and other items, and are identified by the New Jersey Department of Environmental Protection as Waste Type 10 and Type 23 (vegetative waste). The total solid waste stream includes all municipal solid waste (ID 10) and the NJDEP designated waste types: 13 (bulky waste, including construction and demolition, automobiles/trucks and parts, scrap metal, furniture, tires, appliances, etc.), 25 (animal and food processing waste), and 27 (dry, non-hazardous industrial waste).

The 2007 Solid Waste Management Plan attempted to reconcile the waste categories and generation rates that were utilized in the NJDEP's Emergency Solid Waste Assessment Task Force Report from 1990 and the NJ Municipal Tonnage Report categories to estimate waste generation and recycling rates by waste category in each municipality. What resulted was that calculated recycling rates for some waste categories exceeded 100% in some municipalities.

For the current Plan, the waste characterization study conducted by the Mercer County Improvement Authority in 2013 and the USEPA study called Advancing Sustainable Materials Management: Facts and Figures 2014 are used as the most current sources for the composition of

materials discarded in the waste stream. The composition of waste types are shown in Table 7-A.

Attempts were made to make direct comparisons to the waste categories used by the NJDEP in its tonnage grant program, USEPA and the Mercer County study. But because of the inconsistency in defining waste categories no direct reliable comparisons can be made in this Plan. *To allow for better analysis and understanding of the changing waste stream over time when compared to national changes, it is recommended that the NJDEP conduct a waste categorization study to determine the percentage of waste in the waste stream by County. It is also recommended that the NJDEP use the same waste types used by the USEPA to attain national uniformity in calculating waste type generation and recycling.*

**TABLE 7-A COMPOSITION OF WASTE, 2013, by weight  
Mercer County and US Environmental Protection Agency**

Waste Type	Mercer County % Discarded	USEPA		Total Waste % Generated
		% Discarded	% Recovered	
Paper and Paperboard	21.3%	15.1%	63.3%	26.9%
Glass	2.4%	5.0%	27.3%	4.5%
Metals	3.5%	9.1%	34.2%	9.1%
Plastics	16.0%	17.7%	9.2%	12.8%
Textiles, Rubber, Leather	10.2%	11.6%	33.3%	9.3%
Wood	6.4%	8.0%	15.7%	6.2%
Yard Waste	6.0%	8.1%	60.2%	13.4%
Food Waste	24.8%	21.1%	5.0%	14.5%
Other organics	3.6%	1.6%	28.6%	1.7%
Miscellaneous Inorganic Waste/Hazardous Waste	5.8	2.3%	.05%	1.5%
<b>ALL WASTE</b>	<b>100.0%</b>	<b>99.6%</b>	<b>34.3%</b>	<b>99.9%</b>

**III. RECYCLING IN WARREN COUNTY 2001 to 2004 and 2012 to 2015**

To help identify where recycling efforts should be focused in Warren County, Table 7-B, displays the weights of recycled material by waste type, solid waste generated, and the estimated recycling rate for MSW, Other Waste, and Total Waste in the County for the years 2001 through 2004 and from 2012 to 2015. All of the County’s municipalities are depicted in the same formatted tables in the Appendix. When comparing the two periods on a countywide basis one can see that the MSW recycling rate has improved considerably from 20.96% to 35.50%. The recycling rate for total waste increased from 43.37% to 59.41%, nearly meeting the State goal of recycling 60% of total waste.

From the spreadsheets, it is evident that most municipalities will need to increase their recycling efforts. While the average MSW recycling rate over the 2001 through 2004 period was 20.96%, 6 of the county's 22 municipalities were above the county's average recycling rate. Three municipalities Belvidere, Hackettstown, and Mansfield were above the county's annual rate for all four years. The municipalities that had been performing above average have reported greater tonnages for yard waste, newspaper, and corrugated. A few municipalities also reported higher tonnages for food waste than others.

From 2012 to 2015, the average MSW recycling rate increased to 35.50%. Municipalities above the county average recycling rate are Allamuchy, Alpha\*, Belvidere, Greenwich\*, Hardwick\*, Lopatcong, Mansfield, Phillipsburg, Pohatcong, and White. Those with an \* have at least one year of an extremely high recycling rate which could be an anomaly thereby skewing the average rate higher. Five municipalities were above the county's annual rate for all four years. They are Alpha, Belvidere, Lopatcong, Mansfield, and White. Alpha's data may be inaccurate because recycling rates as high as 99% are reported. The municipalities that have been performing above average have reported greater tonnages for yard waste (leaves and brush) and corrugated. A few municipalities also reported higher tonnages for food waste than others.

Table 7-C compares Warren County recycling to the State's by material. The Table shows that Warren County lags behind in the rate of recycling for yard waste, food waste, and mixed office paper. Materials that seem to be above the State average are glass, aluminum and steel containers. When comparing the trend from 2000- 2004 and 2012-2015 the following can be concluded:

1. MSW recycling rate increased fifteen points from 20% to 35%. (Table 7-E shows that Warren County's recycling rate increase at faster rate than the State average.)
2. Newspaper and glass tonnages are decreasing
3. Most gains in the recycling rate has been in MSW while the rates in other waste have been approximately the same.
4. Electronic waste will increase in the recycling stream

To reach the 50% recycling goal, Warren County should target the traditional materials that make up most of the municipal solid waste stream of discarded materials. Tables 7-A and 7-C indicate that those materials are newspaper, corrugated, office and glossy paper, textiles, plastic, rubber/tires, food waste and yard waste. Together they make up approximately 70% of the municipal waste stream. The need to recycle and document these materials should be reinforced to attain the 50% goal and to collect the financial reward from the tonnage grants.

However, this Recycling Plan recognizes that recycling percentages for some wastes cannot be increased significantly because of the market, difficulty in collection, and difficulty in

reporting. Those wastes include yard and food wastes.

TABLE 7-B TREND IN AMOUNT OF MATERIAL RECYCLED BY TYPE, WARREN COUNTY, 2001 - 2004 and 2012 -2015												
Municipality	DEP ID	Material	Average MSW Recycling Rate 2012-2015	2015 Tons Final Report	2014 Tons Final Report	2013 Tons Final Report	2012 Tons Final Report	Average MSW Recycling Rate 2001-2004	2004 Tons Final Report	2003 Tons Final Report	2002 Tons Final Report	2001 Tons Final Report
<b>Total Warren County</b>												
		Municipal Solid Waste										
	01	Corrugated		6,076.55	6,481.32	10,211.64	7,579.10		6,980.60	5,799.38	11,697.10	3,945.34
	02	Mixed Office Paper		970.05	1,186.69	1,076.34	1,649.32		1,966.87	54.40	197.36	257.66
	03	Newspaper		1,442.67	1,974.14	1,871.96	3,099.10		2,629.77	2,401.36	2,803.42	2,378.76
	04	Other Paper/Mag./junk/Mail		1,329.21	1,728.44	1,955.91	2,977.07		906.25	1,483.69	853.14	1,239.15
	05	Glass Containers		2,137.79	2,291.72	3,822.17	4,069.72		1,999.78	2,050.32	2,023.79	1,657.06
	06	Aluminum Containers		371.86	271.63	466.61	501.20		168.21	350.97	168.69	409.37
	07	Steel Containers		773.34	2,753.98	6,809.49	799.64		389.01	288.47	504.90	499.89
	08	Plastic Containers		766.29	591.73	836.36	792.20		339.84	383.08	559.93	260.31
	12	Anti-freeze		140.80	48.13	85.53	25.95		21.19	172.59	705.93	691.4
	16	Used Motor Oil		1,308.93	707.26	887.51	817.20		455.16	952.28	1,017.59	95.00
	17	Brush/Tree Parts		5,470.92	1,145.71	2,591.62	1,934.69		914.63	1,352.76	1,242.52	408.63
	18	Grass Clippings		287.78	327.53	557.10	679.58		182.62	133.85	55.00	55.19
	19	Leaves		6,095.90	1,544.22	213.45	953.63		1,732.10	1,618.62	1,883.20	1,460.83
	21	Consumer Electronics		146.87	218.32	349.97	635.12		0.00	0.00	0.00	0.00
	23	Food Waste		371.47	733.82	2,030.77	2,061.61		2,106.36	673.21	849.98	1,761.84
	24	Batteries (Dry Cell)		0.00	0.00	0.00	0.00		22.00	14.39	12.90	10.58
	24	Fluorescent Lights		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	25	Other Glass		0.00	3.74	2,706.85	0.00		4.46	5.58	2.29	3.67
	26	Other Plastic		88.72	84.53	672.44	88.85		790.83	379.01	254.00	12.51
	29	Textiles		225.83	152.68	123.46	85.79		2.33	4.47	68.80	149.67
		<i>Total Municipal Solid Waste Recycled*</i>	<i>As Reported by NJDEP 2015</i>	<i>37,998.98</i>	<i>22,245.58</i>	<i>37,269.18</i>	<i>28,749.78</i>		<i>19,842.01</i>	<i>18,118.43</i>	<i>24,671.94</i>	<i>14,674.60</i>
		<i>Total Municipal Solid Waste Disposed*</i>		<i>54,726.00</i>	<i>47,984.23</i>	<i>49,206.26</i>	<i>61,304.80</i>		<i>75,983.38</i>	<i>75,765.52</i>	<i>72,712.34</i>	<i>66,983.43</i>
		<i>Total MSW Disposed and Recycled*</i>		<i>80,715.40</i>	<i>70,229.81</i>	<i>86,475.44</i>	<i>90,054.58</i>		<i>95,825.39</i>	<i>93,883.95</i>	<i>97,384.28</i>	<i>81,658.03</i>
		<i>Percent MSW Recycled*</i>		<i>34.61%</i>	<i>34.69%</i>	<i>43.10%</i>	<i>31.92%</i>		<i>20.71%</i>	<i>19.30%</i>	<i>25.33%</i>	<i>17.9%</i>
		<b>Average MSW Recycling Rate 2012 thru 2015</b>		<b>35.510%</b>				<b>20.96%</b>				
		Other Waste										
	09	Heavy Iron		5,996.96	10,004.42	11,622.08			17,822.46	13,714.36	18,457.82	8,191.76
	10	Nonferrous/Aluminum Scrap		2,543.93	2,912.76	6,506.36	4,784.63		2,263.18	1,109.86	1,214.95	885.55
	11	White Goods & Light Iron		2,189.20	2,993.87	3,330.39	2,956.75		8,260.77	4,555.95	4,715.09	4,135.09
	13	Batteries (Automobile)		138.84	145.08	139.67	161.36		426.55	318.64	346.52	274.88
	14	Automobile Scrap		1,474.50	1,231.46	1,810.27	700.20		4,895.33	3,526.59	3,509.69	3,908.02
	15	Tires		440.11	3,691.59	132.94	195.64		28.55	71.64	300.05	927.11
	20	Stumps		43.00	52.29	256.43	581.46		421.93	2,090.04	1,695.83	864.55
	22	Concrete / Asphalt / Brick / Block		40,751.86	45,087.94	24,456.36	18,701.23		28,316.54	40,362.59	11,818.29	4,890.39
	24	Other Material Not Listed		267.29	24,309.71	32,822.87	35,162.60		134.76	372.1	29.88	206.20
	24	STREET SWEEPINGS		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	27	Oil Contaminated Soil		17,472.79	14,842.58	4,195.26	2,052.02		1,846.42	4,502.25	7,053.58	6,523.48
	28	Process Residue		8.32	11.68	729.05	2,970.25		362.84	435.43	337.52	349.60
	30	Wood Stumps		1,754.48	1,136.23	1,609.17	1,015.53		467.21	6,298.06	1,134.68	651.07
		<i>Total Other Waste Recycled</i>	<i>As Reported by NJDEP 2015</i>	<i>71,860</i>	<i>106,419.59</i>	<i>87,610.85</i>	<i>74,633.13</i>		<i>65,246.54</i>	<i>77,012.62</i>	<i>50,613.90</i>	<i>31,807.70</i>
		<i>Total Other Solid Waste Disposed</i>		<i>25,728.70</i>	<i>24,456.57</i>	<i>28,781.21</i>	<i>25,728.70</i>		<i>25,728.70</i>	<i>25,728.70</i>	<i>25,728.70</i>	<i>25,728.70</i>
		<i>Total Other Disposed and Recycled</i>		<i>97,588.70</i>	<i>130,876.16</i>	<i>110,391.56</i>	<i>100,361.84</i>		<i>90,975.24</i>	<i>102,741.32</i>	<i>76,342.60</i>	<i>57,536.40</i>
		<i>Percent Other Waste Recycled</i>		<i>73.64%</i>	<i>81.31%</i>	<i>79.40%</i>	<i>72.17%</i>		<i>71.72%</i>	<i>74.96%</i>	<i>66.30%</i>	<i>55.28%</i>
		<b>Average Other Recycling Rate 2012 thru 2015</b>		<b>77.07%</b>				<b>68.58%</b>				
		<i>Total Solid Waste Recycled</i>		<i>101,080.00</i>	<i>128,665.17</i>	<i>124,880.03</i>	<i>103,382.90</i>		<i>85,088.55</i>	<i>95,131.05</i>	<i>75,283.84</i>	<i>46,482.30</i>
		<i>Total Solid Waste Disposed</i>		<i>80,454.70</i>	<i>72,440.80</i>	<i>71,936.97</i>	<i>90,086.01</i>		<i>101,712.08</i>	<i>101,494.22</i>	<i>98,441.04</i>	<i>92,712.13</i>
		<i>Total Solid Waste Disposed and Recycled</i>		<i>181,534.70</i>	<i>179,525.38</i>	<i>196,817.00</i>	<i>193,468.91</i>		<i>186,800.63</i>	<i>196,625.27</i>	<i>173,726.88</i>	<i>139,194.43</i>
		<i>Total Percent Recycled</i>		<i>55.68%</i>	<i>56.30%</i>	<i>63.98%</i>	<i>53.44%</i>		<i>45.55%</i>	<i>48.38%</i>	<i>43.34%</i>	<i>33.9%</i>
		<b>Average Total Recycling Rate 2012 thru 2015</b>		<b>59.41%</b>				<b>43.37%</b>				
		*** Total Warren County Figures do not match State Figures... Percentages for MSW are within tenth of percentage point with State Total Percentage are within 2 percentage points										

## Yard Waste

TABLE 7-C

### COMPARISON OF RECYCLING RATES BY MATERIAL STATEWIDE AND WARREN COUNTY, 2012, 2013, 2014, 2015

Material	2015 Tons Final Report				2014 Tons Final Report				2013 Tons Final Report				2012 Tons Final Report			
	STATE	WARREN COUNTY	STATE	WARREN COUNTY	STATE	WARREN COUNTY	STATE	WARREN COUNTY	STATE	WARREN COUNTY	STATE	WARREN COUNTY	STATE	WARREN COUNTY		
	Total Tons Recycled	% of final MSW Recycled	Total Tons Recycled	% of final MSW Recycled	Total Tons Recycled	% of final MSW Recycled	Total Tons Recycled	% of final MSW Recycled	Total Tons Recycled	% of final MSW Recycled	Total Tons Recycled	% of final MSW Recycled	Total Tons Recycled	% of final MSW Recycled		
<b>Solid Waste</b>																
Corrugated	952,222.22	21.76%	6,076.55	21.88%	839,613.97	20.96%	6,681.32	21.44%	936,542.29	20.89%	8,911.64	27.49%	847,141.12	19.02%		
Mixed Office Paper	29,980.15	6.85%	970.05	3.49%	22,467.40	5.68%	1,186.69	3.33%	26,276.56	6.09%	1,976.24	2.89%	22,930.40	5.16%		
Newspaper	28,827.58	2.85%	1,445.67	5.31%	29,958.88	7.59%	1,974.14	8.87%	33,841.71	7.85%	3,191.96	3.16%	32,443.20	7.49%		
Other Paper/Mag/unklunk	343,095.84	5.72%	1,329.21	4.79%	2,157.23	5.56%	1,728.41	7.77%	21,973.25	5.25%	1,955.91	2.26%	19,636.27	4.45%		
Glass Containers	244,642.25	5.68%	2,415.79	7.79%	253,444.69	6.40%	2,291.72	10.30%	290,786.23	6.74%	3,822.17	10.22%	297,466.27	6.70%		
Aluminum Containers	38,524.41	0.90%	371.86	1.34%	33,979.04	0.86%	271.63	1.22%	29,928.70	0.69%	0.39%	0.68%	30,236.15	0.68%		
Steel Containers	52,297.27	1.23%	773.34	2.78%	54,857.86	1.37%	2,553.98	3.92%	54,555.07	1.27%	0.54%	0.75%	46,654.04	1.05%		
Plastic Containers	98,284.43	2.31%	766.29	2.76%	89,499.08	2.26%	591.23	2.65%	88,185.61	2.05%	836.36	2.24%	93,930.00	2.12%		
Amb-beeze	4,440.65	0.10%	140.80	0.51%	5,019.55	0.25%	481.33	0.22%	4,125.51	0.10%	0.04%	0.19%	10,433.76	0.23%		
Used Motor Oil	72,806.78	1.70%	1,308.33	4.71%	71,844.82	1.81%	707.26	3.18%	57,762.89	1.34%	85.53	0.23%	73,402.24	1.65%		
Bread/Face Parts	862,058.87	20.28%	5,470.92	19.70%	547,520.91	13.83%	1,145.71	5.15%	798,096.86	18.51%	2,911.62	6.95%	1,025,639.10	23.71%		
Grass Clippings	130,167.23	3.06%	287.78	1.04%	124,479.80	3.14%	377.53	1.47%	124,864.11	2.99%	557.10	1.49%	129,977.89	2.91%		
Leaves	812,666.54	19.12%	6,095.90	21.95%	729,909.47	19.02%	7,239.33	6.45%	766,857.05	17.90%	21,345	65.71%	799,412.02	16.21%		
Consumer Electronics	36,917.55	0.87%	1,409.87	0.51%	37,142.17	0.95%	2,188.32	0.98%	35,179.17	0.82%	0.85%	0.40%	37,169.00	0.84%		
Food Waste	124,471.71	2.93%	371.47	1.34%	331,239.47	8.37%	733.82	3.30%	279,640.87	6.49%	2,030.77	5.85%	300,106.61	6.76%		
Fluorescent Lights	13,788.86	0.00%	0.00	0.00%	17,979.86	0.45%	0.00	0.00%	15,790.87	0.00%	0.00	0.00%	8,469.67	0.00%		
Other Glass	26,334.00	0.62%	0.00	0.00%	24,941.22	0.63%	84.53	0.38%	21,078.86	0.49%	672.44	1.80%	21,250.29	0.48%		
Other Plastic	26,688.32	0.63%	85.72	0.31%	23,643.86	0.60%	152.68	0.69%	34,911.53	0.81%	123.46	0.33%	15,513.59	0.35%		
Toxics		100.00%	225.83	100.00%	3,938,710.71	100.00%	22,245.58	100.00%	4,311,301.41	100.00%	37,269.18	100.00%	4,660,589.22	100.00%		
<b>Total Municipal Solid Waste Recycled*</b>	4,251,308.26	42.44%	27,733.15	33.66%	3,938,710.71	100.00%	22,245.58	100.00%	4,311,301.41	100.00%	37,269.18	100.00%	4,660,589.22	43.52%		
<b>Total MSW Disposed and Recycled*</b>	5,766,295.00		84,260.00		5,636,631.00		49,364.23		5,735,355.00		49,206.26		5,765,581.00			
<b>Total MSW Recycled*</b>	1,007,693.26	17.47%	33,668.15	41.17%	916,174.17	16.27%	70,229.81	31.68%	1,005,666.44	17.28%	86,743.44	43.10%	1,020,270.22	17.52%		
<b>msr</b>																
Heavy Iron	274,964.79	3.02%	5,996.96	8.31%	332,886.53	3.55%	10,084.42	9.40%	414,540.12	5.30%	11,622.08	13.27%	373,549.63	5.69%		
Non-Ferrous Aluminum Scrap	9,245.49	1.01%	245,939	3.48%	85,079.34	1.00%	2,912.76	2.23%	69,032.24	0.84%	6,506.36	7.45%	67,673.16	1.03%		
White Goods & Light Iron	262,494.66	2.88%	21,892.20	3.08%	310,149.53	3.49%	2,993.87	2.81%	393,892.62	5.04%	3,330.39	3.80%	393,461.92	5.17%		
Batteries (Automobile)	52,187.50	0.57%	13,884	0.19%	20,612.70	0.23%	145.08	0.14%	19,254.16	0.25%	1,967	0.16%	11,794.54	0.18%		
Automobile Scrap	85,157.54	0.93%	1,474.50	2.02%	104,088.16	1.17%	1,231.46	1.16%	122,625.38	1.57%	1,810.27	2.07%	106,313.20	1.62%		
Tires	53,721.30	0.59%	440.11	0.60%	53,977.35	0.61%	3,601.59	3.47%	52,091.11	0.66%	132.94	0.15%	42,622.17	0.65%		
Stumps	40,641.85	0.45%	43.00	0.06%	58,967.43	0.66%	52.29	0.05%	8,916.60	0.10%	256.43	0.23%	92,388.30	1.41%		
Concrete Asphalt Block/Block	570,448.65	6.26%	40,751.86	55.56%	518,515.96	6.37%	45,897.34	42.37%	503,735.44	67.90%	34,456.36	27.91%	407,067.98	61.08%		
Other Material Not Listed	28,211.14	0.31%	267.29	0.37%	17,240.06	1.94%	24,909.71	22.84%	16,181.28	2.14%	32,822.87	37.46%	15,245.72	2.67%		
Batteries (Dry Cell)	1,910.68	0.04%	0.00	0.00%	2,736.01	0.07%	0.00	0.00%	1,129.56	0.03%	0.00	0.00%	3,960.88	0.09%		
Oil Contaminated Soil	2,283,205.86	25.09%	17,472.79	23.91%	1,938,489.65	21.83%	14,842.58	13.95%	10,640.36	13.00%	4,195.26	4.79%	11,150.98	17.10%		
Process Residue	28,238.43	0.31%	832	0.01%	26,102.80	0.29%	11,688	11.34%	22,241.66	0.28%	729.05	0.83%	58,986.15	0.90%		
Wood Scraps	196,492.10	2.16%	1,754.48	2.40%	153,331.09	1.73%	1,136.23	1.07%	153,522.78	1.96%	1,409.17	1.84%	159,594.37	2.43%		
<b>Total Other Waste Recycled</b>	9,109,309.99	100.00%	73,681.28	73.96%	8,830,657.17	100.00%	106,419.59	100.00%	9,109,309.99	100.00%	87,610.05	79.40%	9,109,309.99	100.00%		
<b>Total Other Solid Waste Disposed</b>	3,151,064.00		25,229.00		2,565,602.00		24,965.57		3,183,526.00		22,970.71		3,429,663.00			
<b>Total Other Disposed and Recycled</b>	12,260,373.99		98,910.28	73.96%	11,246,339.17	78.96%	130,386.16	81.37%	10,999,483.51	71.06%	110,341.56	79.40%	9,999,562.00	65.67%		
<b>Percent Other Waste Recycled</b>	74.30%		73.96%		78.96%		81.37%		71.06%		79.40%		65.67%			
<b>Total Solid Waste Recycled</b>	13,360,706.25		100,854.63		12,839,957.88		128,665.17		12,127,363.95		124,880.63		11,000,068.22			
<b>Total Solid Waste Disposed</b>	8,917,359.00		80,655.00		8,022,131.00		72,440.80		8,897,991.00		71,956.97		9,192,264.00			
<b>Total Solid Waste Disposed and Recycled</b>	22,278,065.25		181,509.63		20,862,088.88		201,105.97		21,065,154.95		196,837.60		20,192,332.22			
<b>Total Percent Recycled</b>	59.97% **		55.63% ***		61.35% **		63.95%		57.57%		63.45%		54.48%			

\*\* The figures do not agree with other State figures for the tons recycled. Tons in this table are underreported and therefore show a lower recycling rate. For MSW accepted value is 43%. For total MSW recycled the accepted value is 65% recycled.

\*\*\* The figures do not agree with other County figures for the total recycled. Tons in this table are underreported and therefore show a lower recycling rate. The discrepancies are not as great as with the State figures for total waste recycled.

Based on the USEPA figures shown in Table 7-A, yard waste, paper and paperboard and food waste comprise of over 50% of the municipal solid waste stream. As shown in Table 7-C, Comparison of Recycling Rates by Material, Statewide and Warren County 2012 to 2015, leaves and grass, brush and tree parts, the percentage of yard waste recycled was 30-40% of the total recycled and while in Warren County it was 11 to 15%. As far as the percentage of MSW recycled, yard waste is approximately 4% of the total MSW recycled in Warren County vs 15% to 18% of the MSW total statewide. For the year 2015, a greater percentage of yard waste is reported in Warren County. It will be interesting to see if this trend continues. The wide difference between the two are reflective of the rural nature of the county, where yard waste is not collected and is simply left on the ground to biodegrade. Because leaves and grass are not collected for solid waste disposal, the amount collected for recycling can only increase rates for municipalities that do collect. Warren County believes that including yard waste in the calculation of waste recycled is biased against Warren County and other rural counties because in rural areas leaves are not collected and documented as recycled material. Instead they are left on the ground to decompose naturally. *In effect, including yard waste (leaves) as reportable recyclable material gives urbanized areas a “bonus” and increases recycling rates while communities that do not pick up leaves do not receive this “bonus”.* For this reason it is Warren County’s contention that yard waste should not be included in the calculation of recycling rates.

It is interesting to see how Warren County’s recycling rates compare to the statewide average if yard waste is removed from the calculations. Table 7-D shows that without yard waste factored into the recycling rate calculations, Warren County’s and the statewide average recycling rates are lower, but they are not as far apart. In fact in 2013 Warren County’s rate is higher than the Statewide average for MSW. This is evidence that the inclusion of yard waste discriminates against rural counties when comparing statewide averages.

### Food waste

According to the U.S. Environmental Protection Agency As much as 40 percent of the food that is grown, processed, and transported is never eaten. As depicted in Table 7-A food waste accounts for between 21 to 25% of the municipal solid waste stream discarded. In the past the State explored ways to develop a food waste recycling program through Rutgers University. Food waste can be used as alternative fuels and for organic fertilizer production. In July 2017 the Governor signed S-3027 that sets the goal to reduce the amount of food waste in New Jersey by 50 percent within the next 13 years. The law gives the state Department of Environmental Protection, in consultation with the Department of Agriculture, one year to develop and begin implementing a plan to accomplish the goal. When the NJDEP finalizes the food waste plan, Warren County will participate in reducing/recycling food waste to the extent practicable.



## Electronic Waste

On January 9, 2017, Governor Christie signed legislation that revised certain requirements of the State's electronic waste management program under the "Electronic Waste Management Act". The amended E-Waste Law defines a covered electronic device (CEDs) as, "a desktop or personal computer, computer monitor, portable computer, desktop printer, desktop fax machine, or television sold to a consumer". A consumer is defined as, "a person, State entity, school district, or local government unit who purchases a covered electronic device in a transaction that is a retail sale. Non-CEDs are not mandated for recycling under the new law, however reusing and recycling them is encouraged whenever possible. The Electronic Waste Management Act requires manufacturers to finance and implement the electronic waste recycling system in New Jersey. Manufacturers and Authorized Recyclers are prohibited from imposing any other recycling related requirements or costs on collection sites that collect CEDs from consumers. Operators of collection sites should not otherwise be incurring charges or providing services at collection sites beyond the requirements for universal waste handlers.

In the past, the Pollution Control Financing Authority held electronic waste collection events in conjunction with its household hazardous waste event at the Warren County Landfill. Due to deficiencies in the previous electronic waste act, the PCFA was not able to obtain an electronic waste collection vendor pursuant to the Act. No electronic collection events were held by the PCFA in 2016 and 2017. The amended Act of 2017 helped to ensure that Warren County and the PCFA was able to contract with a qualified vendor and reestablish an electronic waste collection program. In the Spring of 2018, the first PCFA collection was held pursuant to the Act where only the "covered electronic devices" were accepted. Over 141,000 pounds of covered computers, tv's, fax machines, and desk top printers were collected in one event. Another event was held in the Fall of 2018 where 50,000 pounds of covered electronics were collected.

Prior events collected more than just the covered electronics. Those events collected keyboards, VCRs, cables, radios, modems, telephones, typewriters, stereo equipment, etc. These "non-covered" items are not subject to "free" collection under the manufacturers plan according to the 2017 Electronic Waste Act. If collected, the vendor will need to be paid with another funding source.

While retail stores such as Best Buy, Staples, etc. continue to accept electronic equipment, it is recommended that the PCFA continue with the collection events. The PCFA has established a permanent collection site open during normal business hours.

## **IV DESIGNATED RECYCLABLE MATERIALS TO BE SOURCE SEPARATED**

Recyclable materials to be source separated and collected for recycling throughout Warren County by all residential, commercial, institutional and industrial waste generators are classified into traditional and non-traditional materials and are listed below. The collection of materials will take place for which markets have been secured.



### Traditional Materials

Aluminum cans  
Computer paper  
Glass bottles & jars – three colors  
(clear, green & brown)  
Corrugated cardboard  
High grade office paper – white  
Magazines & mixed paper  
Newsprint  
Plastic bottles  
1. PETE-clear & green (type #1)  
2. HDPE-clear & colored (type #2)  
Steel cans/tin cans

### Non-traditional Materials

Antifreeze  
Asphalt & concrete pavement, concrete bricks  
Automotive batteries (lead acid)  
Computers  
Florescent tubes  
Household batteries- Button cell, nickel cadmium, lithium and all types of rechargeable batteries.  
Alkaline in sizes AA, AAA, C, D, and 9 volt can be disposed of in the trash  
Laser & inkjet cartridges  
Latex paint – if the PCFA begins collection again  
Leaves & yard waste (brush, tree parts)  
Non-treated wood  
Oil Filters  
Propane Tanks  
Scrap metals (including junked autos)  
Source separated metal  
Stumps  
Textiles/Clothing  
Tires  
Used motor oil  
White goods (large appliances)

To accurately and sufficiently account for recyclables, it is necessary to understand the definition of the recyclable materials that are eligible under the NJDEP tonnage grant program. Accurately accounting for the recycling of these materials is important because they become part of the official numbers that the state rewards for demonstrating positive progress. The definitions that follow are taken directly from the Municipal Tonnage Grant Program Guide. In addition to

the definitions, local collection points are provided for where residents may drop off their designated recyclables if they are not picked up curbside.

The definitions are not meant to be all-inclusive, but rather attempt to identify the majority of materials reported in previous tonnage reports.

### Designated Traditional Materials

#### Paper

01 - **Corrugated** - *Containers and similar paper items usually used to transport supplies, equipment parts or other merchandise.*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

02 - **Mixed Office and Computer Paper** - *Any and all types of "office-type" paper including, but not limited to: computer paper, hi-grade white paper, typing paper, copier paper, onion-skin, tissue paper, notepad, envelopes, manila folders and colored paper, or any mix thereof.*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

03 - **Newspaper** - *All paper marketed as newsprint or newspaper and containing at least 70% newsprint or newspaper (American Forest and Paper Association grades #6, #7 and #8 news).*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

04 - **Other Paper/Magazines/Junk Mail** - *All paper, which is not defined, as corrugated, mixed office paper, computer paper or newspaper. Examples are as follows: magazine stock, telephone directories, wrapping paper, chip board, books and grocery bags. [papers coated with plastic, film or foil and paper contaminated with food should not be included]*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

#### Containers

05 - **Glass Containers** - *All glass containers used for packaging food or beverages.*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

06 - **Aluminum Cans** - *Food and beverage containers made entirely of aluminum.*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

07 - **Steel Cans** - *Rigid containers made exclusively or primarily of steel or tin-plated steel and steel and aluminum cans used to store food, beverages, paint and a variety of other household and consumer products including propane tanks and motor oil filters.*

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable. No propane tanks or motor oil filters.

Propane tanks of less than 1 lb. can be brought to Household Hazardous Waste Collection events at PCFA. Motor oil filters should be brought to car service stations. Propane tanks of 20lbs. should be returned to points of sale.

08 - **Plastic Containers** - *Containers such as polyethylene terephthalate (PETE - #1) soda bottles, high density poly ethylene (HDPE - #2) milk, water or detergent bottles, vinyl (V - #3), low density polyethylene (LDPE -#4) containers, or polyvinyl chloride (PVC - #5) bottles and rigid and foam polystyrene (PS - #6).*

Currently, polyethylene terephthalate - clear and green (Type #1) and high density polyethylene - clear and colored (Type #2) are designated in the Warren County Plan.

Local Collection Points: Curbside, Warren County Recycling Center, Municipal Recycling Centers if applicable.

## **NON- TRADITIONAL MATERIALS**

### **Metal**

09 - **Heavy Iron** - *All ferrous scrap is magnetic and rusts such as structural steel or cast iron components.*

Local Collection Points: Junk yards, Multiple Metal Processing, Warren County Convenience Center

10 - **Non-ferrous and Other Aluminum Scrap** - *All non-container aluminum,*

*stainless steel, copper, zinc, brass and other metals, which generally do not rust and are not magnetic.*

Local Collection Points: Junk yards, Multiple Metal Processing, Warren County Convenience Center

11 - **White Goods and Light Iron** - *All appliances such as washers, dryers, refrigerators, etc. as well as products made from sheet iron, such as shelving, file cabinets, metal desks, recycled or reconditioned steel drums and other non-structural ferrous scrap.*

Commonly used refrigerants— chlorofluorocarbons (CFCs) and hydrochlorofluorocarbon carbons (HCFCs)—must be recovered, as required by law, from appliances received at the WCDL for recycling. Most other places will also require the refrigerant to be evacuated legally before accepting them. An additional charge may be imposed for evacuation.

Local Collection Points: Junk yards, Multiple Metal Processing, Warren County Convenience Center. Call to confirm if item is acceptable.

## **Auto**

12 - **Anti-freeze** - *All automotive engine coolant consisting of a mixture of ethylene glycol and water or propylene glycol and water.*

Local Collection Points: Warren County Household Hazardous Waste Collection events, local service stations, call to confirm.

13 - **Batteries, Lead-Acid** - *Batteries from automobiles, trucks, other vehicles and machinery and equipment. THIS DOES NOT INCLUDE HOUSEHOLD BATTERIES .(see#21).*

Local Collection Points: Service stations that sell batteries will accept used automotive batteries as a trade in. Multiple Metal Processing, Advanced Autoparts, Autozone

14 - **Scrap Autos** - *Crushed or shredded automobile or truck bodies excluding auto shredder residue or "fluff".*

Local Collection Points: Junk Yards

15 - **Tires** - *Rubber-based scrap automotive, truck or specialty (e.g. forklift) tires. NOTE: This material must be recycled at a registered, exempted or pending*

*"Class B" recycling facility.*

Local Collection Points: Scrap yards, Warren County Recycling Center, Service stations and dealers. Call collection point for information. Fees may apply.

Funding for scrap tire collections has been available in the past through the NJDEP. It is recommended that the funding for the program be made available again. In addition to providing a solid waste benefit, removing the tires is a public health benefit as it helps in reducing the number of mosquito breeding sites thereby minimizing the spread of disease.

16 - **Used Motor Oil** - *A petroleum-based or synthetic oil which, through use, storage or handling, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties. Used motor oil filters shall be reported as item 7, steel containers.*

Local Collection Points: Service stations, call first.

### **Yard Material**

17 - **Brush/Tree Parts** - Branches and woodchips generated from residential and institutional sources (e.g. storm damage and pruning activities).

Local Collection Points: Many towns have cleanup days where homeowners may place these items outside for curbside pickup. Check municipality for dates. Riversedge Contracting in Harmony Twp. Green Rock Recycling in Clinton Twp.

Christmas trees are accepted at the Warren County District Landfill through in January each year.

18 - **Grass Clippings** - *Grass clippings derived from the mowing of lawns or other grassy areas.*

Local Collection Points: None. Use a mulching lawn mower, compost at home. Riversedge Contracting in Harmony Twp.

19 - **Leaves** - *Leaves and other yard debris excluding grass and brush, from residential, institutional, commercial or industrial sources.*

Local Collection Points: Riversedge Contracting in Harmony Twp. or Use a mulching lawn mower, compost at home. Doing this enhances the soil, provides fertilizer, and reduces the need for town wide collection of leaves and/or grass. Leaves and grass may not be disposed in the garbage.

20 - **Stumps** - *Unfinished wood from commercial land clearing activities. NOTE: This material must be recycled at a registered, exempted or pending "Class B" recycling facility.*

Local Collection Points: Rotondi, no residential drop offs, and Green Rock Recycling in Clinton Twp. Where possible it is recommended that stumps be left in place and grinded flush with the ground surface.

## **Other**

21 - **Consumer Electronics** - *A broad field of electronics that includes devices such as computers (including peripherals), TVs, Printers, Fax machines, DVD players, VCRs, radios, hi-fi stereo, home theater, handheld and software-based games as well as eBooks and Internet appliances.*

Covered Electronic items are designated. They are a desktop or personal computer, computer monitor, portable computer, desktop printer, desktop fax machine, or television. Non-covered electronic items; laser and inkjet cartridges are also designated.

Local Collection Points: PCFA Collection Events, many municipalities have drop off/collection weeks. Best Buy, Staples.

22 - **Concrete/Asphalt and Masonry/Paving Materials including Millings** - *Asphalt or asphalt-based roofing shingles, concrete, brick, cinder block, ceramic materials stones, other masonry materials and paving materials. NOTE: This material must be recycled at a registered, exempted or pending "Class B" recycling facility.*

Currently, asphalt and concrete pavement and concrete bricks are designated in the Warren County Plan, for commercial generators only.

Tilcon Quarry, Inc., accepts asphalt and concrete paving materials as part of the asphalt and concrete recycling operation from commercial operators only. This Plan recommends that drop off centers be established for homeowners and small contractors to bring their materials for no or a nominal fee.

24 - **Miscellaneous Recyclable Materials** - *Includes any other non-hazardous materials which would otherwise be classified as solid waste and is not otherwise defined in this section and documented as being recycled. Examples include: household batteries, paint, fluorescent lights, furniture, wallboard, carpeting, padding and insulation. **Construction and Demolition debris must be separated***

**into its various materials.** Any material labeled as C&D will be disallowed in the Tonnage Report.

Household Batteries - Any type of button, coin, cylindrical rectangular or other shaped enclosed device or sealed container which was utilized as an energy source for commercial, industrial, medical, institutional or household use. **THIS DOES NOT INCLUDE LEAD ACID BATTERIES FROM VEHICLES.**

Alkaline household batteries are no longer designated in the Warren County Plan. Rechargeable batteries including mercuric oxide, nickel-cadmium, button cells, and lithium batteries, oil based paint, fluorescent light bulbs are designated.

Local Collection Points: PCFA Household Hazardous Waste Collection Events, Lowes, Home Depot, Call2Recycle

In addition to the PCFA battery collection at Household Hazardous Waste Collection events, the Portable Rechargeable Battery Associates (PRBA) has developed a collection system in New Jersey for nickel-cadmium and small sealed lead-acid batteries found in cellular and cordless phones, cordless power tools, laptop computers, PDA's, two-way radios, camcorders, and remote control toys. In addition, the RBRC accepts cell phones of all makes and models. Retailers who sell these types of batteries can collect them separately from other types, and utilize the PRBA system to recycle them. This program, now known as the Call2Recycle® program, is administered by the industry funded Rechargeable Battery Recycling Corporation (RBRC), an independent, nonprofit public service organization.

Public agencies may participate in the program as well. To participate, a retailer, or public agency must register on the RBRC website and a recycling collection package with instructions will be sent free of charge. When the box is full, the box is sealed and shipped via the prepaid shipping label back to the RBRC

In addition, private programs such as Battery Solutions and EasyPak takes all household battery types. The costs range from \$49 for a 35-pound container and to \$104 for a 55-pound container. The cost includes the container and the shipping back to the facility. Also both programs provide documentation on the quantity (weight) of batteries recycled. Other private companies may offer similar services.

As with all programs, someone must be responsible for ensuring that the containers are returned to the company when full. While utilizing the private companies are more costly, the programs appear to be more convenient for the user since it takes all battery types, not just the rechargeable as with the RBRC.

To ensure that there are adequate collection sites in the County it is recommended that all municipalities, public libraries, and select county facilities participate in the programs. To pay for the private services, recycling enhancement grant money that is awarded to the county and municipalities should be used.

Currently, the Warren County Road Department recycles its used batteries through Battery Solutions.

Oil based paints are collected at the Household Hazardous Waste events semiannually.

Although not designated carpeting should be recycled by the installer.

29 - **Textiles** - *Cloth materials such as wool, cotton, linen, nylon or polyester derived from clothing, linens or cloth diapers.*

Currently, textiles and clothing are designated.

Local Collection Points: The use of church and shopping mall drop-off sites is encouraged as are various thrift stores. Municipal coordinators need to track the drop off sites and contact the bin owners in order to file an accurate tonnage report for their community.

30 - **Wood Scraps** - *Unfinished lumber. Included in this definition are wooden pallets. Utility Poles are **not** recyclable. NOTE: This material must be recycled at a registered, exempted or pending "Class B" recycling facility.*

Currently, non-treated wood is designated.

Local Collection Points: Green Rock Recycling, TM Pallet

#### **Items not designated for source separated recycling:**

23 - **Food Waste and Cooking Grease** – *Cooking oil, fryer grease, food plate wastes and food processing wastes. Food processing wastes include food processing waste, food processing residuals and animal processing wastes. If the material is transported and processed as animal feed, it should be identified as such. Materials generated in trimming and reject sorting operations from the processing of fruits and vegetables in canneries and similar industries, e.g. tomato skins, pepper cores, bean snips cranberry hulls, etc., should be classified as (28) process residue. (Note: This definition is used for Tonnage Grant purposes only, and does not reflect the definition as per the to-be-proposed solid waste and*



*recycling regulations.)*

Currently, not designated in the Warren County Plan. However, the Plan recommends that restaurants and homeowners compost and recycle as much food waste and cooking grease as possible to keep it out of the waste stream.

25 - **Other Glass** - *All non-container glass such as plate glass, drinking glasses and automotive glass.*

Currently, not designated.

26 - **Other Plastic** - *Low-density polyethylene (LDPE) film or bags, other film, shrink wrap, plastic closures, durable goods and plastic pallets (provided they are recycled and not simply reused).* Includes plastic from Verizon, PSEG, and most supermarkets.

Currently, not designated. The County Plan encourages supermarkets collect bags for recycling. The weight of the material should be reported to the municipal recycling coordinator.

27 - **Petroleum Contaminated Soil** - *Non-hazardous soils containing petroleum hydrocarbons resulting from spills, leaks or leaking underground storage tanks used for gasoline or any other commercial fuel and which are recycled in accordance with the requirements of N.J.A.C. 7:26A-1.1 et seq. NOTE: This material can be recycled at "Class B" facilities (for example, authorized asphalt manufacturers).*

Currently not designated. Contaminated soil is transported to permitted centers for recycling or disposal.

28 - **Process Residue** - *Includes ash recovered from any form of incinerator power plant and any other process residue (i.e. manufacturing scrap) which is non-hazardous and meets the definition of an ID-27 industrial waste. NOTE: Sludge is not included in this or any other definition.*

Currently not designated in the Warren County Plan

## **OTHER MATERIALS**

### **Household Hazardous Waste**

This program provides for the proper disposal of hazardous waste materials generated by Warren County households, agricultural establishments, small businesses and local governmental agencies (e.g. school chemistry labs) at licensed hazardous waste disposal facilities. The PCFA

sponsors two household hazardous waste collection days each year at the Warren County District Landfill. Among materials collected are commonly used items such as pesticides and herbicides, anti-freeze, caustic cleaners (ovens), oxidizers (pool chlorine), oil-based paint, paint thinners and solvents.

The feasibility of establishing a permanent household hazardous waste collection facility available to the public one or two days a week should be explored. The most likely site for such a facility is at the WCDL.

#### Burnt Metals

Ferrous metals, which are not recovered by source separation programs, were recovered after the combustion process at the RRF Facility and recycled. This process is part of a recycling program rather than a fuel quality program. Therefore, in order to improve fuel quality and the BTU content of the fuel, the goal is to recover as much metal as possible in source separation programs, thus keeping the metal out of the Facility's waste stream.

The NJDEP has determined that these metals are eligible for tonnage grant credit for the generating municipalities and the tonnage is reported by Covanta to sending municipalities each year. This program will continue as long as the RRF is operating.

#### Junked Automobiles/Trucks

Junked automobiles/trucks will be included as part of the 60 percent recovery goal. They will be recycled by private scrap metal dealers in Warren County

#### Debris Recovery

The model Municipal Recycling Ordinance contained in Appendix contains a requirement for a debris recovery plan for new construction, renovation, and demolition projects. If adopted in total or in part by the municipality, the municipal coordinator will need to obtain the amount of material recycled from the projects and report the amount in the tonnage grant forms

### **V. RECYCLING COLLECTION, PROCESSING AND MARKETING**

The NJDEP classifies recyclable material into four different classes (A through D) according to the type of material and manner of processing. They are defined in N.J.A.C. 7:26A-1.3 below:

"Class A recyclable material" means a source separated non-putrescible recyclable material specifically excluded from Department approval prior to receipt, storage, processing or transfer at

a recycling center in accordance with N.J.S.A. 13:1E-99.34b, which material currently includes source separated non-putrescible metal, glass, paper, plastic containers, and corrugated and other cardboard.

"Class B recyclable material" means a source separated recyclable material which is subject to Department approval prior to receipt, storage, processing or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, and which includes, but is not limited to, the following:

1. Source separated, non-putrescible, waste concrete, asphalt, brick, block, asphalt-based roofing scrap and wood waste;
2. Source separated, non-putrescible, waste materials other than metal, glass, paper, plastic containers, corrugated and other cardboard resulting from construction, remodeling, repair and demolition operations on houses, commercial, buildings, pavements and other structures;
3. Source separated whole trees, tree trunks, tree parts, tree stumps, brush and leaves provided that they are not composted;
4. Source separated scrap tires; and
5. Source separated petroleum contaminated soil.

"Class C recyclable material" means a source separated compostable material which is subject to Department approval prior to the receipt, storage, processing or transfer at a recycling center in accordance with N.J.S.A. 13:1E99.34b, and which includes, but is not limited to, organic materials such as:

1. Source separated food waste;
2. Source separated biodegradable plastic;
3. Source separated yard trimmings, including any biodegradable paper bags in which the yard trimmings are collected;
4. Source separated biomass; and
5. Lakeweed generated from the cleaning of aquatic flora from freshwater lakes.

"Class D recyclable material" means a source separated recyclable material which is subject to Department approval prior to receipt, storage, processing or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, and which includes, but is not limited to, the following:

1. Used oil, as defined in this section and which includes, but is not limited to, the

following:

- i. Used lubricant oil;
  - ii. Used coolant oil (non-contact heat transfer fluids);
  - iii. Used emulsion oil; and
  - iv. Any other synthetic oil or oil refined from crude oil, which has been used, and as a result of such use is contaminated by physical or chemical impurities;
2. Antifreeze;
  3. Latex paints;
  4. Lamps (light bulbs);
  5. Oil-based finishes;
  6. Batteries;
  7. Mercury-containing equipment; and
  8. Consumer electronics.

Recycling depot" means a facility designed and operated for receiving and temporarily storing, for a period not to exceed two months, Class A recyclable materials and/or non-container plastic materials prior to their transport to a recycling center or end-market

Most municipal drop off centers in Warren County are “Recycling Depots”.

Six municipalities maintain drop-off depots for recyclables. Two municipalities, Oxford, and Phillipsburg, conduct curbside collection of recyclables as a municipal service. Households in the remaining 20 municipalities pay for curb side recycling as a subscription service with their solid waste collection.

The following are approved Class A Recycling Centers and Depots in Warren County.

#### **CLASS A RECYCLING CENTERS AND DEPOTS**

**Franklin** - Municipal Drop-Off Tin, Plastic, Cardboard, Magazines, Alum. Glass Saturday 9AM-12 Noon Next to Twp. Garage, Block 45 Lot 15

**Greenwich** Municipal Drop-Off Alum., Metal, Glass, Plastic, Newspaper, Magazines 3rd Saturday of Month 9AM-12 Noon Old Stewartsville School, Block 23 Lot 31.01

**Mansfield** Municipal Drop Off Glass bottles, metal containers, food containers, plastic

bottles, newspaper 2nd Saturday of month, 8 AM to Noon 1710 Route 57, Block 1202 Lot 1.02, and at the Municipal Building, 100 Port Murray Road, Block 1502 Lot 1 for paper and cardboard materials only.

**Washington Twp.** Municipal Drop-Off Tin, Plastic, Aluminum, Metal, Newspaper, Cardboard, Electronics, April – December 9:00 AM-2:45 PM Jan –March, Second Saturdays 22 E. Front St. Block 43 Lot 10.01

**Warren County Recycling Center (White)** Drop off, Cardboard, newspaper, magazine, glass, aluminum scrap metal, clothing, empty aerosol cans, office paper, computer paper, plastic containers, steel cans 7 AM –2:30 PM Monday-Friday 7AM-11AM Saturday 500 Mt. Pisgah Ave Block 32, Lots 12

**Second Chance (Harmony)** Processing Center, Tin, Plastic, Alum, Glass, Newspaper, Cardboard Monday-Saturday 5 AM to 5 PM, 5 Hutchinson River Road Block 8, Lot 15

**Sanico (Knowlton)** Processing Class A, Tin, Plastic, Alum., Glass, Newspaper, Cardboard Monday – Friday 8 AM to 4 PM 77 Route 46 Block 55, Lots 17, 18

## **CLASS B RECYCLING CENTERS**

### **Tilcon Quarry, Inc.**

Tilcon Quarry, Inc., accepts concrete paving materials from commercial operators only as part of the concrete recycling operation. Asphalt is accepted pursuant to a regulatory exemption.

The process generates crushed asphalt and concrete aggregates which are then supplied to the Asphalt Plant located on Block 25, Lot 3, in Oxford Township for recycling. The end product is then used as road base material.

Tilcon is permitted to receive no more than 2,400 tons per day of concrete, no more than 12,000 tons per week. The hours of operation for receiving, storing, processing, or transferring source separated material is 7:30 am to 4:30 pm Monday through Friday. The maximum amount of unprocessed material that may be stored on site is 49,723 cubic yards. No more than 10,000 cubic yards of processed material may be stored on site.

This Plan recommends that a drop off center for homeowners and small contractors to bring their materials for no or a nominal fee.

## **CLASS B/C RECYCLING CENTERS**

**S. Rotondi and Sons** – Harmony Township, Block 7, Lots 12 and 14.02, 139 Reeder Road

This regional recycling center receives leaves, grass, wood chips brush in separated and mixed form from Harmony Township, other municipalities, and landscapers.

An administrative action to allow S. Rotondi and Sons to blend finished compost with soil was approved by the Board of Freeholders in a resolution dated July 28, 2004.

On February 11, 2015, the Board of Chosen Freeholders approved an amendment to include S. Rotondi and Sons as a Class B and Class C Recycling Center with 10 conditions. In a resolution approved November 24, 2015, it affirmed that Rotondi entered an Administrative Consent Order with the NJDEP as an alternative to meeting 2 of the conditions which are to reduce the amount of material stored on site and the need for off tract improvement.

As a Class C Recycling Center permitted materials include; leaves, grass, brush, and wood chips. As a Class B Recycling Center, the permitted materials include; whole trees, tree trunks, tree parts, trees stumps, brush, clean pallets, and unpainted and untreated wood.

For the Class C operation, no more than 80,000 cubic yards of yard waste may be placed in windrows, and 120,000 cubic yards of material may be placed in storage for a total of no more than 200,000 cubic yards, Staging areas for incoming unprocessed Class C material, may not exceed 32,000 cubic yards with no more than 8,000 cubic yards located in any one of the four staging areas depicted on the site plan dated with a last revision of August 28, 2014.

The Class B operation shall contain no more than 101,000 cubic yards of storage capacity, consisting of 45,000 cubic yards of unprocessed and 56,000 cubic yards of processed material. No more than 450 tons of Class B material may be delivered per day.

Its hours of operation are Monday through Saturday 6:00 AM to 8:00 PM  
The hours of operation for the tub grinder shall be 8:00 AM to 5:00 PM, Monday – Friday and 8:00 AM to 1:00 PM on Saturday.

The Center (Class B and C) may receive no more than 66 trucks per day.

## **CLASS C RECYCLING CENTERS**

**Natures Choice** – Closed, NJDEP General Approval terminated and Revoked

White Township, Block 21, Lot 11, 40 Foul Rift Road

Natures Choice is now closed and all material has been removed from the site. This regional recycling center received leaves, grass, wood chips, brush and tree branches from municipalities, transfer stations, garbage haulers and landscapers. Brush and tree branches of less than 4 inches in diameter were received and processed to produce wood chips to be used in combination with or in lieu of leaves in the compost process. Two years have now passed and the NJDEP has terminated and revoked its General Approval. Natures Choice is deleted from the Solid Waste Management Plan.

### **Morris County Utilities Authority**

The Town of Hackettstown had contracted with the Morris County Municipal Utilities Authority (MCMUA) to permit leaves and other vegetative matter collected in Hackettstown to be taken to the MCMUA site in Mount Olive Township, Morris County. The designation of the MCMUA composting site had been agreed upon by the Board of Chosen Freeholders in both Warren and Morris Counties and included in appropriate plan amendments

The Town of Hackettstown no longer utilizes the MCMUA site and instead transports its leaves to a farm for mulching.

### **Warren County District Landfill**

A portion of the landfill is designated for composting leaves and other acceptable vegetative waste which is now designated as Block 32, Lots 12 and 22, in White Township. This is not a permitted, operating site.

## **EXEMPT FACILITIES**

### **Riversedge Contracting, LLC,**

Riversedge Contracting is located at 126 Brainards Road, on a portion of Block 44, Lot 23 in Harmony Township consisting of approximately 8 acres;

It operates under N.J.A.C. 7:26A-1.4 (a) 3, and 13 where it may receive store, process, or transfer tree branches, tree limbs, tree trunks, brush and wood chips derived from tree parts, and receive no more than 10,000 cubic yards of yard trimmings (grass clippings, leaves, wood chips from tree parts, and brush) per year for composting.

Riversedge operating hours are 7:00 a.m. to 5:00 p.m. Monday through Saturday.

### **Other Facilities**

There are a number of facilities that are exempt from obtaining county solid waste plan

inclusion and from obtaining a NJDEP approval to operate. The Administrative Code found at N.J.A.C. 7:26A-1.4 allows for a variety of recycling activities ranging from smaller composting facilities to leaf mulching on farm fields.

Farm operators are encouraged to accept leaves as mulch on their farm fields with the requirement that the leaves be delivered un-bagged, must be spread within seven days of their receipt to a thickness not to exceed six inches and the leaves must be tilled into the soil the next tillage season. Mulching arrangements on farm fields are exempt from NJDEP permitting and the requirement for inclusion in the WCSWMP. However, operators of exempt activities must notify and certify to the NJDEP that they will abide by the rules or risk penalties and termination. The county and host municipality must be copied on the notification.

A list of exempt facilities is available from the County Solid Waste Coordinator and the County Health Department.

## **CLASS D RECYCLING CENTERS**

### **Global Computer Pro**

Global Computer Pro (GCP) was included in the Warren County Solid Waste Management Plan as a Class D recycling center. It is now closed. GCP was located in the Town of Phillipsburg at 125 Bronico Way, in the former Ingersoll Rand industrial park, also known as Block 3201, Lot 7.03. The entire site is now being redeveloped. Global Computer Pro is now deleted from the Solid Waste Management Plan as a Class D Recycling Center.

## **RECYCLING OUTLETS/MARKETS USED AS REPORTED IN MUNICIPAL TONNAGE REPORTS**

The Appendix contains a list of outlets that processed and marketed recyclables as reported in the 2017 Municipal Tonnage Grant Reports.

## **VI. STRATEGY TO ACHIEVE RECYCLING GOALS**

### **1. Source Reduction**

Source reduction of waste or waste avoidance must occur even before recycling activities are undertaken. Source reduction is the generation of less waste and the reduction of toxicity of waste. Reducing waste will necessitate an educational campaign to demonstrate to Warren County residents how to produce less waste. This will be achieved by means discussed in the following sections. In addition, State and national legislation to limit excess packaging and to discourage the utilization of toxic substances in the manufacturing of products, including packaging, which ultimately become part of the solid waste stream is needed and should be supported by the County.



As shown in Table 7-E, Trend in Solid Waste Generation and Recycling in Warren County and State, 2000 to 2004 and 2011 to 2015, Warren County has produced less waste than the state average, suggesting that residents and businesses may be engaging in source reduction and reuse strategies already. The table also suggests that while Warren County's recycling rate may be lower than the state average and should be improved, it has improved at a faster rate than the State average, signifying that Warren County's efforts to improve recycling has been very successful since the last SWMP was adopted in 2007. **Because Warren County is creating less need for disposal and recycling services than the State average, it is recommended that the Recycling Enhancement Grant program and Municipal Tonnage Grant program include a financial bonus for counties that generate less waste per person. This additional money would help to fund strategies to help further curtail the generation of waste.**

TABLE 7-E TREND IN SOLID WASTE GENERATION AND RECYCLING IN WARREN COUNTY AND NEW JERSEY

	WARREN COUNTY				
	2000	2001	2002	2003	2004
<b>Population</b>	102,437	105,201	106,774	108,163	108,491
<b>MSW Generated</b>	89,320	81,676	97,384	93,882	95,823
tons/person/year	0.87	0.78	0.91	0.87	0.88
MSW Recycled	16,834	14,693	24,671	18,116	19,840
% MSW Recycled	18.80%	17.99%	25.33%	19.30%	20.70%
<b>Other Waste Generated</b>	56,233	60,080	81,416	109,585	98,113
tons/person/year	0.55	0.57	0.76	1.01	0.90
Other Waste Recycled	30,213	32,787	51,003	77,397	65,831
% Other Recycled	53.70%	54.57%	62.64%	70.63%	67.10%
<b>Total Waste Generated</b>	145,553	141,756	178,799.42	203,468.83	193,936.00
tons/person/year	1.42	1.35	1.67	1.88	1.79
Total Waste Recycled	30,213	47,480	75,674	95,513	85,671
% Total Recycled	32.30%	33.49%	42.32%	46.94%	44.17%

  

	WARREN COUNTY				
	2011	2012	2013	2014	2015
<b>Population</b>	108,218	107,538	106,721	106,855	106,869
<b>MSW Generated</b>	100,175	90,055	86,475	70,230	83,947
tons/person/year	0.93	0.84	0.81	0.66	0.79
MSW Recycled	29,376	28,750	37,269	22,246	29,220.00
% MSW Recycled	29.32%	31.92%	43.10%	31.68%	34.81%
<b>Other Waste Generated</b>	159,917	103,414	110,342	130,876	97,589
tons/person/year	1.48	0.96	1.03	1.22	0.91
Other Waste Recycled	129,335	74,633	87,611	106,420	71,860
% Other Recycled	80.88%	72.17%	79.40%	81.31%	73.64%
<b>Total Waste Generated</b>	260,092	193,469	196,817	201,106.00	181,535.00
tons/person/year	2.40	1.80	1.84	1.88	1.70
Total Waste Recycled	158,711	103,383	124,880	128,665	101,080
% Total Recycled	61.02%	53.44%	63.45%	63.98%	55.68%

A. Per Container Fees

	NEW JERSEY				
	2000	2001	2002	2003	2004
<b>Population</b>	8,414,350	8,492,671	8,552,643	8,601,402	8,634,561
<b>MSW Generated</b>	9,181,578	9,334,914	9,347,268	9,741,117	10,185,352
tons/person/year	1.09	1.10	1.09	1.13	1.18
MSW Recycled	3,449,076.00	3,363,385.00	3,137,185.70	3,188,842.00	3,495,661.00
% MSW Recycled	37.60%	36.00%	34.00%	33.00%	34.30%
<b>Other Waste Generated</b>	8,470,581	9,530,475	9,961,319	10,064,255	11,585,796
tons/person/year	1.01	1.12	1.16	1.17	1.34
Other Waste Recycled	5,901,788	6,859,604	7,185,291	7,076,941	8,511,434
% Other Recycled	69.67%	72.00%	72.00%	70.31%	73.50%
<b>Total Waste Generated</b>	17,652,159	18,865,389	19,308,586.90	19,805,372.00	21,771,148.00
tons/person/year	2.10	2.22	2.26	2.30	2.52
Total Waste Recycled	9,350,864	10,222,989	10,322,476.90	10,265,783.00	12,007,095
% Total Recycled	53.00%	54.00%	54.00%	52.00%	55.20%

  

	NEW JERSEY				
	2011	2012	2013	2014	2015
<b>Population</b>	8,844,694	8,882,095	8,913,735	8,943,010	8,960,001
<b>MSW Generated</b>	9,907,342	10,202,770	10,065,666	9,615,142	10,079,885
tons/person/year	1.12	1.15	1.13	1.08	1.12
MSW Recycled	3,983,048	4,440,189	4,311,301	3,958,711	4,313,590.00
% MSW Recycled	40.20%	43.52%	42.83%	41.17%	42.79%
<b>Other Waste Generated</b>	11,248,445	9,989,563	10,999,489	11,246,339	13,742,800
tons/person/year	1.27	1.12	1.23	1.26	1.53
Other Waste Recycled	8,663,061	6,559,879	7,815,963	8,880,657	10,591,736
% Other Recycled	77.02%	65.67%	71.06%	78.96%	77.07%
<b>Total Waste Generated</b>	21,155,787	20,192,333	21,065,155	20,861,481.00	23,822,686.00
tons/person/year	2.39	2.27	2.36	2.33	2.66
Total Waste Recycled	12,646,109	11,000,068	12,127,264	12,839,368	14,905,326.00
% Total Recycled	59.78%	54.48%	57.57%	61.55%	62.57%

Population Figures for 2001 through 2004 are updated with the accepted intercensal estimate according to the NJ Dept. of Labor and Workforce Development

Where appropriate waste haulers are encouraged to consider a per container garbage fee as an impetus for more recycling and waste avoidance. Under such a fee system, the solid waste collector charges a fee based on the volume of each container of solid waste set out by the generator for collection rather than a flat fee for the collection of multiple containers. Many haulers now charge by the size and number of containers that a household uses.

#### B. Waste Audits (Recycling Surveys)

A waste audit is a study of quantity and composition of solid waste generated in a building. Waste is classified into reducible, recyclable and disposable components. They provide information that is useful in decision making related to the development of source reduction opportunities and the selection of the proper materials to target for recycling collection strategies and public information.

The purpose of waste audits is to alert waste generators to the opportunities for waste reduction through procurement, waste minimization, recycling, other appropriate solid waste management procedures, and to the opportunities to reduce or stabilize the costs of waste disposal. It identifies what materials should be recycled and how much is being generated by the day-to-day operations of a business or school. Reviewing the audit provides an immediate focus for reduction and recycling efforts. Office buildings will see the need to recycle paper products. Retail stores will find that corrugated cardboard is a prime recycling candidate. Food services will look at opportunities to recycle corrugated, glass and metal containers. The waste audit identifies the potential volume of recyclable materials and provides an estimate of how much material can be reused, thus cutting trash removal costs. Therefore, recycling can add profit to the bottom line in the form of cost savings by removing these recyclables from the waste stream generated each month.

Waste audits were performed at all municipal and county facilities in Warren County in the 1990's. They should be performed again in municipal and county facilities and in all institutions, businesses and industries with 100 or more employees. As new facilities and businesses meet the criteria, audits should be performed. Selection of the facilities should be done in coordination with the municipal recycling coordinators and facility operator. Recycling grant money can be used to pay for waste audits.

Audit procedures and guidance documents are available from the NJDEP Waste Wise Business Network and other websites such as the USEPA.

Waste audits also have an effect of removing undesirable waste from reaching the RRF. When combusted some waste types produce toxic emissions. A Fuel Quality Assurance Policy was developed to help prevent undesirable wastes from entering the waste stream. Section 15, the Fuel Quality Assurance Policy also discusses waste audits.

### C. Recycled Procurement

Currently, Warren County and many municipalities purchase products off of the NJ State contract. Warren County recommends that the State purchasing agent implement purchasing practices to favor recycled products where possible. It is recommended that schools, institutions, and private business also purchase products made from recycled material.

### D. Cut it and Leave it

The practice of leaving grass clippings and leaves on lawns as mulch will continue to be promoted to reduce the amount of yard waste entering the waste stream.

## 2. Reuse

Some household waste that is put into the waste stream contains old furniture, lumber, toys, etc. that can be brought to a centralized reuse center. For a nominal fee, residents could purchase used unwanted furniture or lumber; thereby keeping it out of the landfill. The center or centers could be run out of a church, non-profit agency or other group. The Salvation Army and Habitat for Humanity operate resale stores in Hackettstown and Washington Twp.

Garage and yard sales are ideal ways for residents to rid themselves of items that might otherwise be disposed at the landfill or the Resource Recovery Facility. Townwide garage/yard sales should be advertised on the recycling website as a way to promote visitation.

Other methods such as using reusable bags, printing on both sides of the paper, etc will be promoted through public education and promotional giveaways etc.

## 3. Source Separation Strategies

The purposes of source separation recycling programs are to recover or reuse materials, such as glass, aluminum, paper, used motor oil and to improve the quality of fuel (waste) entering the Resource Recovery Facility. Recycling programs, while mandated, rely on the cooperation and good will of the individual residents and commercial and industrial establishments to separate the recyclable materials from the materials in the waste stream which are not recyclable. In some cases, source separation programs will be used primarily to achieve fuel quality improvements rather than for its recycling value. Many of those materials are collected at the Household Hazardous Waste events held twice a year by the PCFA. These materials are removed from the waste stream to minimize environmental impacts and improve the quality of the Resource Recovery Facility's and landfill's waste stream.

Due to the rural and small town nature of Warren County, the onus to improve recycling must take a cooperative approach with the County taking the lead on many of the programs. However, the roles of the municipalities are equally as important as the recycling statute requires every municipality to implement a recycling program. N.J.S.A. 13:1E-99.16 concerns the

municipal recycling program and requires the following:

A. Municipal Statutory Responsibilities and General Strategies

*a. Each municipality shall provide for a collection system for the recycling of the recyclable materials designated in the district recycling plan as may be necessary to achieve the designated recovery targets set forth in the plan in those instances where a recycling collection system is not otherwise provided for by the generator or by the county, interlocal service agreement or joint service program, or other private or public recycling program operator.*

This plan provides for the curbside collection of traditional materials by private haulers through private subscription service, municipal contract, and/or municipal public works supplemented by municipal and PCFA operated drop-off depots in order to collect all designated traditional materials. Municipalities may also choose to continue or begin their own drop-off centers. Currently, PCFA's recycling center accepts single stream plastic bottles, tin cans, aluminum cans, glass containers, newspaper, mixed and white paper from residents.

To ensure better quality recyclables dual stream collection is preferred over single stream. Recent reports indicate that single stream recycling is resulting in contaminated recyclables that must be discarded as solid waste. Compounding the problem is that China is no longer accepting loads of recycling from the U.S. because of excessive contamination. Dual stream helps to ensure better quality materials and in turn a better paying market for the materials.

*b. The governing body of each municipality shall adopt an ordinance which requires persons generating municipal solid waste within its municipal boundaries to source separate from the municipal solid waste stream, in addition to leaves, the specified recyclable materials for which markets have been secured and, unless recycling is otherwise provided for by the generator, place these specified recyclable materials for collection in the manner provided by the ordinance.*

*The governing body of a municipality that adopts a recycling ordinance pursuant to subsection b. of this section may limit the collection of designated recyclable materials to specified operating hours in order to preserve the peace and quiet in neighborhoods during the hours when most residents are asleep.*

The model ordinance as prepared by the NJDEP was modified by the Warren County Solid Waste Advisory Council to make it more appropriate for Warren County municipalities and is included in the Appendix. All municipalities have adopted an ordinance.

*c. The governing body of each municipality shall, at least once every 36 months, conduct a review and make necessary revisions to the master plan and development regulations adopted pursuant to P.L.1975, c.291 (C.40:55D-1 et seq.), which revisions shall reflect changes in federal, State, county and municipal laws, policies and objectives concerning the collection, disposition and recycling of designated recyclable materials.*

*The revised master plan shall include provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance adopted pursuant to subsection b. of this section, and for the collection, disposition and recycling of designated recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more units of multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.*

In written correspondence, the Solid Waste Coordinator and Recycling Coordinator will inform municipal planning boards and governing bodies of changes in laws and regulations, particularly those that will require municipal action.

*d. The governing body of a municipality may exempt persons occupying commercial and institutional premises within its municipal boundaries from the source separation requirements of the ordinance adopted pursuant to subsection b. of this section if those persons have otherwise provided for the recycling of the recyclable materials designated in the district recycling plan from solid waste generated at those premises. To be eligible for an exemption pursuant to this subsection, a commercial or institutional solid waste generator annually shall provide written documentation to the municipality of the total number of tons recycled.*

A master list of those obtaining the exemption should be maintained by the municipal recycling coordinator. Using the list, the coordinator should inform the exempted of the requirement for the generator to provide the municipality the total number of tons recycled by type of material.

*e. The governing body of each municipality shall, on or before April 30 of each year, submit a recycling tonnage report to the New Jersey Office of Recycling in accordance with rules and regulations adopted by the department therefore.*

The county will provide seminars and workshops to inform municipal coordinators their roles and responsibilities in obtaining and filing tonnage reports.

*f. The governing body of each municipality shall, at least once every six months, notify all persons occupying residential, commercial, and institutional premises within its municipal boundaries of local recycling opportunities, and the source separation requirements of the ordinance. In order to fulfill the notification requirements of this subsection, the governing body of a municipality may, in its discretion, place an advertisement in a newspaper circulating in the municipality, post a notice in public places where public notices are customarily posted, include a notice with other official notifications periodically mailed to residential taxpayers, or any combination thereof, as the municipality deems necessary and appropriate.*

The County Recycling Plan recognizes that municipalities may not have the resources to notify all persons within their respective communities of their recycling responsibilities every six months. The County has been providing semiannual newsletters that include up to date

information on recycling events, human interest stories, and general information on how and where to recycle various materials. The Newsletter is distributed in the Express Times and Warren Reporter and distributed to municipal recycling coordinators and at other various locations throughout the County. To supplement the information in the County Recycling Newsletter, municipal coordinators could use a portion of their tonnage grant money to publish and distribute their own newsletters to all households, businesses and institutions within their jurisdiction.

A cost effective way distributing the notices can be to enclose the notices in the tax bills, sewer bills, and any other official communication that the municipality has with its residents and/or property owners.

## B. Public Education and Communication

Clearly the best way to increase recycling rates is to target the points of generation at the residential, commercial, office, and institutional level. A better education and communication strategy is needed to inform these generators of the requirements for recycling and of the environmental and the financial benefits. To keep residents informed, a newsletter was produced for distribution in newspapers, municipal buildings, and at events, provides the public with information on the semi-annual paper shredding events, household hazardous waste collection days, the PCFA's recycling center, the tire recycling program etc. Also, the County produces a calendar that is distributed through the newspapers and contains information about events and ongoing recycling programs.

### 1. Newsletters and Notices

Warren County publishes semi-annual recycling newsletters using grant funding provided through the Recycling Enhancement Grant program. These newsletters have been provided as inserts in the Express-Times and Warren Reporter which are circulated countywide, and are available for pickup in all county buildings, municipal buildings, libraries, and schools. To complement the requirements of the recycling statute, editions of the newsletter include contact information of all municipal recycling coordinators, and contains general recycling information that the public would need to know to meet the 50% goal such as the list of designated recyclable materials, dates of collection events and other collection sites for recyclables. Additionally, the newsletter can include material on why recycling makes environmental and financial sense.

It is believed that the commercial and institutional sector in Warren County do not recycle or report their recycling activities as much as they should. A concerted effort to promote recycling in these sectors is needed. Newsletters and notices will be developed and sent to the following in Warren County:

- A. Employers with 100 or more employees.
- B. Public and private schools, elementary, middle and high.
- C. Colleges
- D. Religious Institutions

- E. Government Buildings
- F. Libraries
- G. Shopping Centers and Malls
- H. Multi Family and Apartment Complexes
- I. Athletic Associations
- J. Major Event Coordinators for fairs, carnivals, and other public events
- K. Collector/haulers

## 2. Website

In 2017, the NJDEP contracted with Recycle Coach, a web based application download that provides information on what, where, how to recycle household items. The County and the Pollution Control Financing Authority have provided the link to Recycle Coach on their websites to supplement existing information already posted. Municipalities are encouraged to work with Recycle Coach personnel and place the application on their respective websites. Municipal involvement helps to ensure that the application is tailored to the needs of the municipality's residents. County and local websites should include up to date recycling information that residents would need to know to recycle properly such as the name of the recycling coordinator, and upcoming recycling events. The websites are [www.co.warren.nj.us/recycling](http://www.co.warren.nj.us/recycling) and [www.pcfawc.com](http://www.pcfawc.com).

## 3. Promotional Materials

As reminders and to promote recycling, the County has posted signs reading Our School Recycles, Warren County Recycles, Our Library Recycles, and "Municipality" Recycles. In addition, bumper stickers, and window stickers, and posters and reusable bags have been installed or given to residents, schools, institutions, and businesses for promotional purposes.

## 4. Inspections

The larger generators of traditional materials including the major private and governmental office buildings and institutions, schools, hospitals, and multi-family housing projects will be inspected more frequently. The county recycling coordinator, municipal recycling coordinator, and/or county health officer will meet with their authorized representatives to discuss how to improve recycling activities in those facilities.

To help facilitate the increase in number of inspections, the 2017 requirements of the Recycling Enhancement Grant was that at least 5% of the total Grant be spent on recycling enforcement/audit activities. For Warren County, at least \$7,150 of the grant must be devoted to enforcement/audit activities. The Warren County Health Department are performing recycling surveys at schools, apartment complexes, larger office buildings/Corporations, and larger Department Stores for compliance with the Warren County Solid Waste Plan. If the facility fails to recycle in accordance with the county plan a Notice of Violation (NOV) or letter (depending on the severity of the violation) will be issued instructing them to comply with the county plan. Completed surveys will be accompanied with pictures and educational materials will be provided at the time of the inspection. Copies of the surveys and non-compliance letters will be mailed to



the local recycling coordinator for a re-inspection if necessary. 40 inspections were conducted during the 2017 grant period. These types of inspections are expected to continue.

#### 5. Seminars and Educational Programs

With the assistance of various local groups, seminars should be held to discuss recycling matters. These matters would include information on the recycling statutes, source reduction, how to implement a recycling program, marketing, procurement, and other technical and educational assistance. The seminars target audience will use the employer listing provided by local chambers of commerce, business associations and school and municipal officials and coordinators.

An educational program can be developed to targeted audiences (residential, institutional, commercial and industrial) of what materials should be recycled. The program should:

1. stress the importance of and methods of waste reduction and recycling.
2. stress the need to keep hazardous wastes and other unacceptable materials out of the waste disposal stream.
3. discuss how to dispose of items : such as household hazardous waste collection days, electronic waste collection programs, tire collection programs for managing these waste materials,
4. provide information concerning the Fuel Quality Assurance Program inspection and enforcement program
5. provide tours of the waste disposal and recycling facilities located in the County.

#### 6. Hauler and Recycling Center Operator Workshops

Workshops with haulers and recycling center operators should be held. These workshops should reinforce the county recycling plan, pertinent recycling statutes and regulations and provide guidance on completing the annual tonnage reports that must be provided to the municipal coordinators.

#### 7. Media Releases and Coverage

The media will be contacted for coverage of recycling events held at schools, non-profit and government events, and private events and businesses and for print releases of the events or other topics.

#### C. Recycling Containers

Recycling containers containing logos stating Warren County Recycles or some equivalent should continue to be provided for the following:

1. Along the streets of the county's central business districts to complement the receptacles provided for garbage. These containers could be purchased with a variety of funding sources, and should be coordinated with the haulers responsible for picking up the garbage containers.
2. Public events such as fairs, athletic events, community days, etc. Because the containers would not be needed throughout the entire year, they could be warehoused and made available during the year as the events are scheduled.
3. To supplement private recycling efforts, containers for recycling should be provided to the county's households. They could be paid for by the haulers, or through grants, or other funding.
4. For public buildings and schools

#### D. Professional Development

Municipal recycling coordinators that are not certified pursuant to the requirements of the Recycling Enhancement Act of 2007 should still be trained on how to do the Coordinator's job as effectively as possible. There are single day and half day seminars/classes that can be taken at various venues in the State. Realizing that municipal budgets and the current stipend for recycling coordinators are nominal, sending a coordinator to the full 21 credit certification classes would be infeasible. However, two options are possible.

1. A four day alternate course is available as an option to the 21 credit certification course for those that have been in the recycling field for a specified amount of time. Time and expense to obtain certification will be much lower than if the full course is taken.
2. The uncertified municipal coordinator could attend only the classes that pertain to their specific responsibility.
3. Invite professionals from the NJDEP, other counties, private recyclers, other municipalities and tailor workshops using available personnel for the municipal coordinators.

Certified Coordinators need to earn 20 continuing education credits over a two year period to maintain their certification. Warren County Solid Waste Advisory Council meetings held six times per year, the seminar held with municipal coordinators in the spring, and the recycling networking breakfast meeting have qualified for at least 1 continuing education credit each. Professional seminars held locally will be encouraged and coordinators will be informed of seminars held elsewhere in the State so that they can meet the CE credit and learn more about the recycling industry.

#### D. Awards

Recognition of local recycling coordinators with an award for their efforts. The award is presented at the breakfast seminar conducted in the spring of each year. The county should consider expanding the number of awards to recognize efforts of the private sector, and institutions. Public recognition of individuals, institutions, and private business, will help propel the importance of recycling into the public eye.

### **VI. Enforcement**

#### A. Municipal Enforcement

In accordance with the 2006 State Solid Waste Plan and recycling statutes, municipalities were required to adopt an updated recycling ordinance similar to the model ordinance provided by the NJDEP. One of the key components of the ordinance is that municipalities were required to designate the appropriate personnel to enforce their recycling ordinance. All municipalities in Warren County have adopted an ordinance similar to the one found in the Appendix which is the NJDEP model recycling ordinance as modified by the SWAC.

The responsibility of enforcement at the municipal level should concentrate on ensuring that the residents, commercial establishments, office buildings, and other governmental and school buildings are indeed recycling. Municipal recycling enforcement should focus its attention on residential and smaller commercial and institutional buildings.

#### B. County Enforcement

The County Health Department's role in recycling enforcement will be limited to the recycling activities assigned to the department on a yearly basis by the NJDEP and will include the enforcement of recycling centers and recycling generators as specified in the yearly solid waste fee activity work plan and in the annual Recycling Enhancement Act grant.

##### 1. County Environmental Health Act (CEHA)

In the past the County Health Department conducted approximately 100 random inspections per year of governmental, school, larger multi-family developments, commercial facilities and recycling centers. The number of future inspections will be determined by the CEHA annual contract with the State. County enforcement would supplement municipal efforts by focusing on the larger establishments and employers, larger multifamily developments, and recycling centers located within the county.

The work program for enforcement is governed in part by the amount collected through the solid enforcement fee that the Board of Chosen Freeholders imposes on a ton of waste delivered to the landfill. As deliveries to the landfill decline, the fee per ton to maintain existing levels of enforcement would have to increase. If the County Health Department does not receive solid waste

fees the department's role in recycling and solid waste activities will be significantly reduced from the current work plan.

All Warren County solid waste enforcement including transportation and recycling enforcement activities will be exercised under the powers delegated to the County Health Department in the County Environmental Health Act (N.J.S.A. 26:3A2-21 et seq.) to enforce provisions of the Solid Waste Management Act, (N.J.S.A 13:1E-1 et seq.) and rules at N.J.A.C 7:26-1 et seq., N.J.A.C. 7:26A-1 et seq.

Penalty assessments for violations are authorized to be issued in the form of a Violation/Penalty Assessment in accordance with the Grace Period Law, N.J.S.A. 13:1D-125 et seq., under the Solid Waste Rules N.J.A.C. 7:26 and Recycling Rules 7:26A. These powers are delegated to the County Health Department through the County Environmental Health Act. In the event the party does not comply, the County Health Department will sign a complaint in municipal court for compliance with these regulations and penalties.

## 2. Recycling Enhancement Act

According to the requirements of the 2017 Recycling Enhancement Act grant, at least 5% of the grant amount awarded to the County must be used for enforcement/waste audits. The 2017 REA grant calls for the County Health Dept to conduct 40 inspections of schools, apartment complexes, larger office buildings/Corporations, and larger department stores for compliance with the Warren County Solid Waste Plan. If the facility fails to recycle in accordance with the county plan a Notice of Violation (NOV) or letter (depending on the severity of the violation) will be issued instructing them to comply with the county plan. Completed surveys will be accompanied with pictures and educational materials will be provided at the time of the inspection. Copies of the surveys and non-compliance letters will be mailed to the local recycling coordinator for a re-inspection if necessary. These types of inspections are expected to continue.

### C. PCFA and Covanta Enforcement

The inspection procedure consisting of a visual inspection of incoming waste loads should continue. If the inspection results in a violation, a written record should be made of the detection, including the name of the hauler, vehicle registration number, and municipality of origin. A copy of these records should be provided to the County Recycling Coordinator and the appropriate municipal recycling coordinator for appropriate action as specified in the municipal recycling ordinance.

### D. Hauler Enforcement

It is noted that the Solid Waste Utility Regulations at N.J.A.C. 7:26H-1 et seq. prohibit haulers/collectors of solid waste from collecting commingled loads of solid waste and designated source separated materials. N.J.A.C. 7:26H-4.4(a)6 states "Collectors are prohibited from collecting commingled loads of solid waste and designated source separated recyclable materials,

except in those instances where a specific municipal exemption has been granted to the generator of those materials as provided by N.J.S.A. 13:1E-99.16(d). Each solid waste management district plan contains a definition of the district's designated recyclable materials. Collectors are prohibited from disposing of leaves in any manner that differs from that outlined in N.J.S.A. 13:1E-99.21.”

Haulers/collectors are expected to do their share in enforcement. If the driver of the truck sees that a load that contains designated recyclables, the driver should place a notice on the offending load stating that it contains recyclable material and must be separated from the load of solid waste.

Section 12 of the Solid Waste Utility Regulation states “The collector shall have the right to refuse pick-up of waste for any of the following reasons: (*see x. below*)

- i. Waste is not placed in proper containers;
- ii. Waste is not placed at designated pick-up location;
- iii. Waste contains hazardous material (as defined in N.J.A.C. 7:26), or other matter that is likely to cause injury to the public or the collector's personnel;
- iv. Waste is not placed out for collection on the scheduled day;
- v. Passage on the street or into the property is obstructed in any way by the operations to pave the street, by the digging of water or sewer lines or other type of construction. Pick up will be provided on the next regularly scheduled collection day;
- vi. The collector is asked to move the collection vehicle by an authorized government official or a member of the local police or fire department because the customer, either residential, commercial or industrial, has not provided either adequate or legal parking for the collection of garbage, refuse or solid waste. Under these circumstances, the collector may leave and not be obligated to return until the next regularly scheduled collection day;
- vii. Containers exceed prescribed weight limits as prescribed in the collector's tariff;
- viii. Containers are over filled or overflowing;
- ix. The particular service and/or waste type is not included in the collector's tariff; or
- x. Solid waste is commingled with designated source separated recyclable material. “

Item x. addresses the issue of contaminated recyclables. The public education campaign to clearly define what is and what is not recyclable is very important. For instance, there is a critical need to remove plastic bags from the curbside recycling stream because these bags get caught in

the recycling machinery causing delays and expense. Warren County is encouraging people to use reusable cloth bags and have been giving them out to residents at various venues.

Section 13 then reads “ Collection services may be restored upon proper application when the conditions under which such service were discontinued are corrected, and upon the payment of all proper charges due from the customer as provided in the collector's tariff. “

#### E. Standardization of Materials and Collection Methods

Currently designated recyclables varies from county to county and the methods of preparing recyclable material varies from hauler to hauler. To simplify recycling for all State residents, the State should designate which recyclables should be source separated and how they are to be prepared. In addition, to improve the quality of materials, the recyclables should be collected dual stream rather than single stream. The fact that China is no longer a major market for our recyclables because of their poor quality signifies that the US needs to change its collection methods. Warren County can recommend dual stream although enabling legislation to require it would be essential. A statewide mandate would be most effective.

### **VII. Funding**

The county health department has a limited amount of funding and personnel through its CEHA program to conduct facility inspections and then follow up on them. For enforcement to be most effective it should be carried out as locally as possible. However, in Warren County most municipalities do not have the funding to pay for an additional part-time person part time to inspect residential, commercial, and institutions in their communities. It is recommended that grants offered by the State, County, PCFA, or other sources be targeted for enforcement of the local recycling ordinance and County Solid Waste Plan.

The Recycling Enhancement Act provides for the collection of a fee of \$3.00 per ton to be charged on all solid waste originating in state or being brought in from out of state and imposed at landfills and resource recovery facilities to help fund recycling activities. In 2017, \$14.3 million was awarded to local governments Statewide. The County of Warren was awarded \$143,000.

The public education and communication program should reinforce the need to recycle and document the amount of waste recycled and the financial reward in tipping fees saved and grant award from the State Municipal Tonnage Grant program. In 2015 the state was paying varying rates for MSW recycled averaging \$2.78 per ton and \$.17 per ton for other waste recycled. Using these payout rates, had the 50% recycling goal been attained by recycling an additional 12,359 tons, \$112,079 could have been granted countywide instead of \$77,757 that was actually distributed for MSW and another \$12,577 for other waste recycled that was actually distributed.

## **Section 8: District Solid Waste Disposal Strategy**

### **Implementation**

The County of Warren is designated as the implementing agency of the Warren County Solid Waste Management Plan in cooperation with the Pollution Control Financing Authority (PCFA) of Warren County

In coordination with the Solid Waste Advisory Council the Solid Waste Coordinator is responsible for reviewing and processing amendments to the Solid Waste Plan including facility inclusion and policy changes to the plan. The county recycling coordinator is responsible for promoting the recycling strategies contained in the Plan.

### **Background**

The objectives of the Warren County Solid Waste Management Plan (WCSWMP) remained the same despite the invalidation of New Jersey's waste flow system on November 10, 1997 in the US Supreme Court decision *Atlantic Coast Demolition and Recycling v. Board of Chosen Freeholders of Atlantic County*. These objectives address the waste management needs of the people of the county, minimize adverse environmental impacts, give appropriate weight to economic viability and social acceptability. Although the objectives remain unchanged, the methods were modified to achieve them.

It is noted that Warren County devised its first SWMP to build the RRF and the landfill based the legislative authority of the State of New Jersey that created waste flow. When waste flow was deemed invalid in the Atlantic Coast decision, the legislature should have provided a statewide solution. In lieu of statewide solution, the Board of Chosen Freeholders and the PCFA, with the advice of the Warren County SWAC, sought out waste management strategies that reflected the most current and appropriate practices within the constraints of what the people of Warren County could afford. The Warren County Landfill is owned and operated by the Pollution Control Financing Authority of Warren County but the land it occupies is owned by the County of Warren. Similarly the now closed Resource Recovery Facility is owned and was operated by Covanta Energy but land it occupies is owned by the County of Warren.

On April 30, 2007 in the U.S. Supreme Court Decision of *United Haulers Association, Inc et al v. Oneida-Herkimer Solid Waste Management Authority et. al.* the Court held that counties flow control ordinances that direct waste to government owned facilities do not discriminate against interstate commerce. The court said that the commerce clause is not intended to control public efforts to enact flow control ordinances because waste disposal is typically and traditionally a function of local government exercising its police powers. The higher tipping fees that normally accompany waste flow will fall onto the citizens of the jurisdiction of the publicly owned facility it serves.

Given the facts of the United Haulers decision the County of Warren and the PCFA are reviewing the viability of imposing waste flow requirements to the landfill. The decision to require waste flow will be made in a future plan amendment.

## **The Strategy**

### **Recycling**

The highest priority in Warren County's strategy for managing its solid waste stream is through source reduction, reuse, and recycling. As discussed in the County's Recycling Plan , Section 7, reduction of waste through less packaging, longer product life, and reuse will continue to be encouraged. The expansion of recycling efforts will continue to be considered in both the number of materials that will be recycled and in the ability to reach and service household, commercial and industrial generators of recyclable materials. Warren County and the PCFA will continue to implement programs, such as the recycling center, scrap tire collection subject to available funding, household battery recovery for non-alkaline batteries only, household hazardous waste and electronic waste collection for covered devices. Non-covered devices will be considered for collection if funding through the REA or other grant sources are available. The County and PCFA will continue to explore implementing programs for carpet and foam padding recycling, construction and demolition materials, and other programs. This, in turn, will maximize recycling, reduce landfill needs, enhance environmental quality as well as ensure the long-term economic viability of the Warren County solid waste facilities.

Upon the recommendation of the Solid Waste Advisory Council in a report dated November 7, 2013, to maximize recycling and extend the life of the landfill, the PCFA was directed to study the feasibility of conducting an enhanced recycling operation at the Recycling Center to accept various types of ID 13 waste including not limited to wood, metal, carpet, drywall, etc. and to evaluate the feasibility of providing for the year round collection of electronic equipment. Providing an enhanced recycling facility at the recycling center to accept this waste could increase the county's recycling figures, provide a local disposal site for residents and businesses, and help extend the life of the landfill. Enhanced recycling should be a priority of the County and should be pursued regardless of whether the landfill is expanded or not.

Expanding public education and market development will play a key role in the expansion of recycling opportunities in Warren County. To more fully address enforcement at the local level, a model recycling ordinance is provided as part of this plan and is intended to be used as guide for Warren County municipalities to update their existing recycling ordinances and to add requirements for debris recycling for construction, renovation, and demolition projects. The model ordinances were provided by the NJDEP and modified by SWAC. In addition, under the REA grant requirements the County Health Dept. will be increasing the number of inspections at commercial and institutional locations throughout the County.



## **Solid Waste Disposal**

According to a letter dated September 28, 2018 from Covanta, the Resource Recovery Facility would have temporarily suspended operations effective April 1, 2019. Actually, the RRF ceased receiving waste on March 2, 2019. Two years have now passed since the RRF has closed and pursuant to the Solid Waste Regulations at N.J.A.C. 7:26 -6.10(b)9, 6.11(b)7 which provides for the deletion of a facility not in operation for more than two years, Warren County is deleting the RRF from its Solid Waste Management Plan as it no longer plays an active and productive role in the management of I.D. 10 waste generated within Warren County.

### Short Term Disposal

From the present time until early 2022, ID 10 waste generated within Warren County may be transported to the two nearest available in-State disposal facilities in Hunterdon and Somerset Counties. The Hunterdon County Transfer Station is owned by the County of Hunterdon and operated by Waste Management is located at 11 Petticoat Lane, Annandale, NJ, The Somerset County Transfer Station, known as Bridgewater Resources Inc, (BRI) is owned by Interstate Waste Services and is located at 15 Polhemus Lane in Bridgewater, NJ. Both are permitted to receive ID 10, 13, 13C, 23, 25, 27 wastes. Morris and Sussex Counties are “flow control” counties and cannot accept out of county waste at their facilities. Correspondence from the four counties confirming their status are in the Appendix.

Additionally, because Warren County is not a flow control county, waste generated within Warren County may be also be disposed of at any permitted disposal site outside the State of New Jersey or at any permitted disposal site within New Jersey subject to applicable laws, regulations, and contracts.

ID 13,13C, 23, 25, 27, and 27I waste generated within Warren County may be disposed of at the Warren County District Landfill or at another permitted disposal site in-state or out of state.

### Long Term Disposal

The long term strategy is that when the first phase construction of Cell 7 of the landfill is complete in early 2022, all acceptable permitted waste generated within Warren County may be disposed of at the Warren County District Landfill. It is estimated that the completion of Cell 7 and Cell 6 will extend the landfill’s capacity to the year 2061. Provided that any contractual restrictions are resolved between the PCFA and Covanta, the Warren County District Landfill is permitted for the disposal of ID 10, 13, 13C, 23, 25, 27, and 27I wastes. Alternatively, ID 10, 13,13C, 23, 25, 27, and 27I waste generated within Warren County may be disposed of at other permitted disposal sites in-state or out of state.

## Waste Flow

It is the intention of the County of Warren to discourage the disposal of waste originating from outside of Warren County into the landfill. One way to accomplish this goal and in light of the U.S. Supreme Court Decision from April 30, 2007 is to reinstate flow control, where all or a portion of currently permitted solid waste generated within Warren County would be delivered to the Warren County District Landfill for disposal. Enactment of flow control would have to take place in a future plan amendment.

To discourage the disposal of waste from outside of Warren County in the landfill is for the PCFA to offer discounted rates to Warren County customers. Out of county customers would be charged a higher rate to discourage out of county customers.

In the event that the PCFA encounters financial shortfalls, it may enter into agreements to receive waste from outside of Warren County. The Warren County Board of Chosen Freeholders shall be notified at least six months in advance of the projected shortfall and be notified of the proposed course of action.

### **Regulated Medical Waste**

In 1995, under State mandate, the SWAC examined the needs and methods for disposal of Regulated Medical Waste (RMW) generated within the County in order to develop a plan for the management of the County's RMW as required by the New Jersey Comprehensive Regulated Medical Waste Act of March 1989.

The Comprehensive Regulated Medical Waste Management Plan established a long term program for the regulation of medical waste under the control of the NJDEP and the New Jersey Department of Health (NJDOH). The Comprehensive Act mandated a regulatory program that would guide the management of all RMW in the state and established a planning process for RMW management similar to the planning process for solid waste management. In both processes, counties have a central role in the development of waste management plans in accordance with state guidelines. To meet its responsibility, the Warren County Board of Chosen Freeholders retained the services of William C. Finn Associates, Inc. to develop alternatives and a plan for the management of RMW disposal. In April 1995, a public hearing on this plan was held by the Board of Chosen Freeholders and was rejected unanimously.

The plan addressed the following six issues: 1) Self-Sufficiency Analysis, 2) General Strategy, 3) Regional Management of RMW, 4) RMW Disposal at Existing Facilities, 5) Sharp Disposal, and 6) Municipal Solid Waste (MSW) Source Reduction and Recycling.

Now that the uncertainties regarding control of waste flows that were prevalent when the RMW amendment was presented in 1995 have been resolved in the United States Supreme Court

decision, *Atlantic Coast Recycling and Demolition v. Board of Freeholders of Atlantic County* on November 10, 1997, decision makers can intelligently review proposals for regulated medical waste disposal.

The strategy for the disposal of RMW is that all RMW generators shall dispose of their RMW outside of Warren County.

### **Sludge and Septage**

To assist the county in dealing with sludge management issues, the Warren County Board of Chosen Freeholders created a task force in 1997 and it released a report of its findings in September 1999. On November 10, 1999, the Warren County Board of Chosen Freeholders accepted and adopted the report entitled “Review of Sludge Issues, Warren County, New Jersey”.

**Section 9 thru Section 16: No Change**

These sections were prepared when the landfill and resource recovery facility were being planned. SECTION 16: Regulated Medical Waste was added in the 2000 SWMP and is summarized in the current plan in SECTION 8: Solid Waste Disposal Strategy. They are incorporated by reference.

**Section 9: Solid Waste Management Facility Siting**

**Section 10: Solid Waste Management Facility Financing**

**Section 11: Solid Waste Taxes**

**Section 12: Proposed Implementation Schedule**

**Section 13: Completed and Planned Solid Waste Studies 1979 to Present**

**Section 14: Solid Waste Management Contingency Plan**

**Section 15: Fuel Quality Assurance Policy**

**Section 16: Regulated Medical Waste**

## **APPENDIX**

