

HURON COUNTY SOLID WASTE MANAGEMENT DISTRICT



2018 – 2032 DRAFT SOLID WASTE MANAGEMENT PLAN UPDATE

March 9, 2017

Prepared by:



HURON COUNTY SOLID WASTE MANAGEMENT DISTRICT

2018 – 2030 DRAFT PLAN UPDATE

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I. Introduction

A. Plan Approval Date, Counties in District, and Planning Period Length

1. Under current approved plan:

Date of Ohio EPA approval
or order to implement: May 4, 2011

Counties within district: Huron

Years in planning period: 15

2. Plan to be implemented with approval of this document:

Counties within District: Huron

Years in planning period: 13

Year 1 of the planning period: 2018

B. Reason for Plan Submittal

Mandatory five-year plan update.

C. Process to Determine Material Change in Circumstances and Amend the Plan

Ohio law [ORC Section 3734.56(D)] requires the District's *Solid Waste Management Plan* to be updated when the Huron County Solid Waste Management District (District) Board of Directors (Board) determines that there has been a material change in circumstances from the circumstances addressed in the approved *Plan*. If a plan update is required due to a material change in circumstances, the plan update must address those portions of the plan that need to be modified due to the material change in circumstances.

In the event that a new or undesignated solid waste transfer, disposal, recycling or resource recovery facility is subsequently designated by the Board, or a new or undesignated facility is granted a waiver which permits the undesignated facility to accept solid waste generated within the District, and such designation or waiver is documented in a designation or waiver agreement, the Board may not determine that a material change in circumstances has occurred. The Board, as part of the consideration of its assessment of a new or undesignated facility on the Plan, may consider

whether to change its tiered disposal fees, establish a generation fee or modify its contract fee.

In determining whether a material change in circumstances has occurred, the Board will consider the following:

- a. An assessment of changes in waste generation;
- b. Capacity availability for disposal, transfer, composting, and management of restricted waste streams;
- c. Strategies for waste reduction and/or recycling;
- d. Substantial changes in the availability of waste reduction and recycling opportunities available to District residents;
- e. The availability of revenues for plan implementation;
- f. Procedures to be followed for plan implementation;
- g. Timetable for implementation of programs and/or activities;
- h. Facility designations and the flow of waste (the addition or removal of a facility from the designated list is not a material change in circumstances); and
- i. Any other factor that the Board considers relevant.

The Determination Criteria will be evaluated on the basis of the District Policy Committee's annual review of the approved Plan, and/or information obtained through the District Staff's monitoring program. The staff monitoring program includes the following:

- a. Quarterly analysis of District revenues;
- b. Analysis of information acquired by District Staff for preparation of the Annual District Report;
- c. Information acquired by District Staff through follow-up investigations of citizen complaints which indicate the existence of deviations from or noncompliance with the District Plan; and
- d. Analysis of information voluntarily provided to the District Staff by state or local officials and employees, or owners and operators of solid waste collection, disposal, transfer, recycling activities, or resource recovery facilities, which indicate the existence of major deviations from and/or noncompliance with the District's Plan.

The Policy Committee or the District's Staff will immediately notify the Board of any reliable information that suggests that a change in circumstances has occurred that warrants the Board's consideration of whether a material change in circumstances has occurred.

Within 10 days from receipt of notification from the Policy Committee or the District Staff that there may be a material change in circumstances, the District's Board of Directors will request the District Staff to prepare a report which discusses the events or conditions that have changed as identified in

the notice to the Board and apply the criteria listed in paragraph 1, above. The District Staff will prepare the report and submit it to the Board of Directors within 30 days of the Board's request. Within 10 days after the receipt of the District Staff's report, the Board will determine whether additional information is necessary for the Board to determine whether a material change has occurred. If the Board determines that additional information is required, the District Staff will revise its report to include such additional information and submit its revised report within 20 days from the Board's request for additional information.

Within 60 days after the Board's receipt of the District Staff's revised and final report, the Board will make a determination of whether the changed circumstances are material pursuant to the criteria listed in paragraph 1, above. The Board may obtain such additional information from sources other than the District Staff as the Board deems necessary and appropriate to assist the Board in its determination of whether a material change in circumstances has occurred.

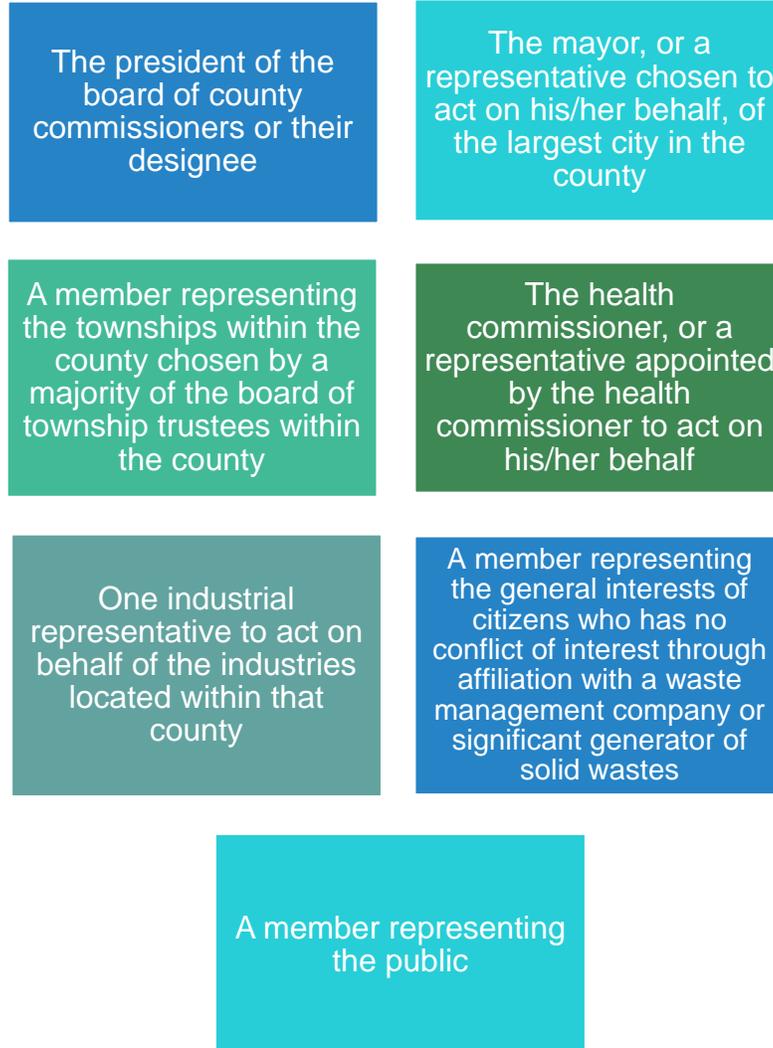
Upon the Board's determination that a material change in circumstances has occurred, the Board shall notify the District Policy Committee and the Director of the Ohio Environmental Protection Agency, in writing, within 10 days of the Board's determination. The Board's notice to the Policy Committee shall request the District Policy Committee to prepare a draft amended solid waste plan, pursuant to ORC 3734.56 (D), that addresses those portions of the District's Plan that the Board has determined may be affected, directly or indirectly, by the material change in circumstances.

D. District Formation and Certification Statement

The District formed in March 1989 as a joint solid waste district with Erie County. The District later separated from Erie County to form a single-county district in July 1993 and then formed as a single-county district in that same year. A copy of the resolution to establish the District is submitted in Appendix A. All public notices in local newspapers publicizing hearings and comments on the *Plan Update* are included in Appendix B. A certification statement signed by members of the Board asserting that the contents of the *Plan Update* are true and accurate is included in Appendix C. The certification statement was signed by a majority of the Board members for both the draft amended Plan. Appendix C will also include resolutions by the Board adopting the *Plan Update* prior to ratification and certifying that the *Plan Update* has been properly ratified. A list of all political jurisdictions in the District which voted on the *Plan Update* ratification, their populations, and the percentage of the population represented by the political jurisdictions which ratified the *Plan Update* will be included in Appendix C.

E. Policy Committee Members

The Policy Committee for the District is comprised of seven representatives, including:



The following Policy Committee members are listed in accordance with the political jurisdictions and constituencies they represent:

Policy Committee Member	Representing
Joe Hintz (Chair)	County Commissioners
Robert Duncan	Interests of the City of Norwalk
Tim Hollinger	Interests of the Health District
Richard Wiles	Interests of Townships
John Swartz	Public
Chris Hipp	General Interests of Citizens
Jim Stavropulos	Interests of Industries

F. Board of Directors

Board Member	Role
Terry Boose	County Commissioner
Joe Hintz	County Commissioner, President
Bruce Wilde	County Commissioner

G. District Address and Phone Number

Address: Huron County Solid Waste Management District
 180 Milan Avenue
 Norwalk, Ohio 44857

Contact: Mr. Peter Welch
 District Coordinator

Phone: (419) 668-3092, extension 109
 Fax: (419) 663-8059
 Email: petewelch@huroncountyswmd.com

H. Technical Advisory Council and Other Subcommittees

The District did not establish a Technical Advisory Committee during the preparation of the *Plan Update*.

I. Policy Committee Review of Plan Update

The Policy Committee shall annually review implementation of the *Plan Update* under section 3734.55 of the Ohio Revised Code and report its findings and recommendations regarding implementation of the Plan to the District’s Board of Directors.

II. Executive Summary

The Huron County Solid Waste Management District (District) is required by Section 3734.54 of the Ohio Revised Code (ORC) to periodically update its solid waste management plan (*Plan Update*). This *Plan Update* will cover a fifteen-year planning period beginning in 2018 and ending in 2032. This *Plan Update* includes a description of District programs and projections for solid waste generation, recycling and disposal for fifteen years. It also identifies the District's strategies for managing the District's facilities and programs and provides an assessment on achieving statewide recycling and waste reduction goals. This *Plan Update* follows Ohio EPA's Format version 3.0. The Format requires specific narrative information and data tables. There are nine major sections to the Plan Format.

Section I

- Includes basic information about the District and an important section on determining when material changes would require an amendment to the *Plan Update*.

Section II

- An Executive Summary which includes brief narrative descriptions of each section in the *Plan Update*.

Section III

- Includes an inventory of facilities, activities, and haulers used by the District in the reference year (2014).

Section IV

- Includes the reference year statistics for the *Plan Update* including population data, waste generation and waste reduction estimates for the residential/commercial sector and the industrial sector.

Section V

- Includes projections of population, waste generation and waste reduction for each year of the planning period.

Section VI

- Includes the District's management of facilities and programs to be used by the District throughout the planning period.

Section VII

- Presents how the District meets the state waste reduction and recycling goals.

Section VIII

- Includes a presentation of the financial resources of the District necessary to implement this Plan.

Section IX

- District rules proposed, approved and authorized for adoption are presented by the District

This Executive Summary provides an overview of each section of the *Plan Update*.

A. Section I. Introduction

The District formed in March 1989 as a joint solid waste district with Erie County. The District later separated from Erie County to form a single county district in July 1993 and then formed as a single county district in that same year. A copy of the resolution to establish the District is submitted in Appendix A. The District includes incorporated and unincorporated territory in Huron County, with the exception of the City of Bellevue and the Villages of Milan and Plymouth.

The Board of County Commissioners of Huron County governs the District in their capacity as the Board of Commissioners of the Huron County Solid Waste Management District (hereinafter referred to as the “Board”).

The current Plan was approved by Ohio EPA on May 4, 2011 and includes a fifteen-year planning period. The planning period for this *Plan Update* is 2018 to 2032.

Policy Committee Members

The Policy Committee prepares the solid waste management plan, monitors implementation of the Plan and adjusts the District fees as appropriate. The Policy Committee members include:

Policy Committee Member	Representing
Joe Hintz (Chair)	County Commissioners
Robert Duncan	Interests of the City of Norwalk
Tim Hollinger	Interests of the Health District
Richard Wiles	Interests of Townships
John Swartz	Public
Chris Hipp	General Interests of Citizens
Jim Stavropulos	Interests of Industries

Board of Directors of the Huron County Solid Waste Management District

The Board is responsible for implementing the solid waste plan developed by the Policy Committee.

Board Member	Role
Terry Boose	County Commissioner
Joe Hintz	County Commissioner, President
Bruce Wilde	County Commissioner

Process to Determine Material Change in Circumstances and Amend the Plan

Section I of the *Plan Update* outlines the process which will be used by the District to determine when a material change in circumstance has occurred. If a material change in circumstances occurs, a plan amendment is required by Ohio law (ORC Section 3734.56 (D)). The District plan must be updated "...when the board of county commissioners....or board of directors...determines that circumstances materially changed from those addressed in the approved initial or amended plan of the district..."

A material change in circumstances is defined by Ohio EPA as changes in any of the following which would be judged to significantly interfere with District achievement of *Plan Update* goals in the context of statutory requirements:



In accordance with ORC 3734.56(D), the *Plan Update* must be revised if the Board has determined that "circumstances materially changed from those addressed in the approved initial or amended plan of the district." A material change in circumstances shall be defined as a change that adversely affects the ability of the Board to: (1) assure waste disposal capacity during the planning period; (2) maintain compliance with applicable waste reduction or access goals; or (3) adequately finance implementation of the *Plan Update*. This process is described in detail in Section I of this *Plan Update*.

B. Section III. Inventories

Section III provides an inventory of facilities, programs and activities during the reference year (2013) of the *Plan Update*.

Inventories include the following:

- Landfills
- Transfer Facilities
- Incinerators and Waste-to-Energy Facilities
- Recycling Programs
- Collection Programs
- Composting Facilities and Programs
- Open Dumps and Waste Tire Dumps
- Ash, Slag and Foundry Sand Disposal Sites
- Solid Waste Haulers

C. Section IV. Reference Year Population, Waste Generation and Waste Reduction**1. Reference Year Population**

The District's population estimate of 58,714 was calculated using estimates and projections prepared by the Ohio Development Services Agency's (ODSA) Office of Research. Based upon Ohio Revised Code requirements, the populations of the City of Bellevue, the Village of Milan, and the Village of Plymouth were removed from the County total since the majority of residents in these political subdivisions reside outside Huron County. The resulting total District population is 53,875 for 2014.

2. Waste Generation

Residential and commercial waste generation was calculated to be 36,649 tons in 2014, which included 32,252 tons landfilled (see Tables III-1 through III-3) and 13,665 tons recycled, which includes composting and volume reduction (see Table IV-5). Based on the District population, this is 4.67 pounds per person per day of residential/commercial waste generation.

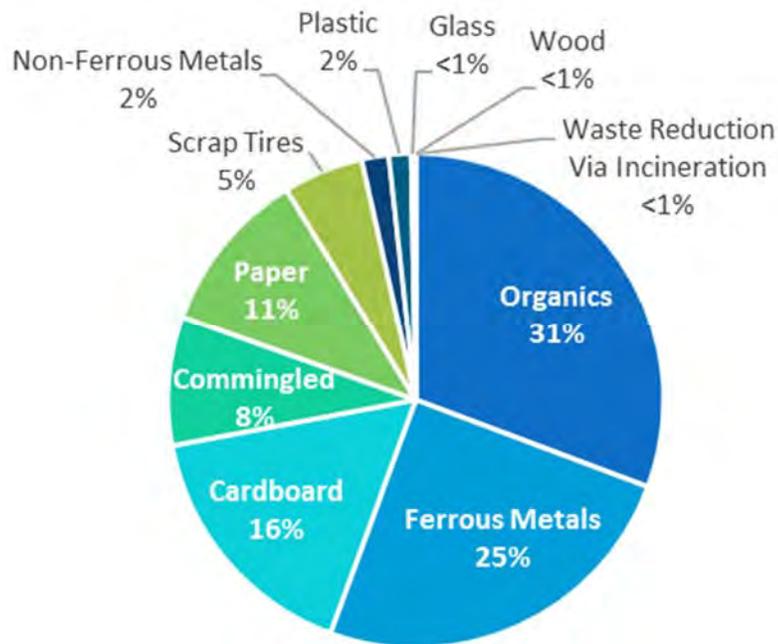
Industrial waste generation in 2014 was 70,600 tons. This includes 7,752 tons landfilled (see Table III-1) and 62,849 tons recycled (see Table IV-6). Based on the District population, this is 7.18 pounds per person per day of industrial waste generation.

3. Reference Year Waste Reduction

Residential/commercial waste reduction that occurred in the District during the reference year is summarized in Table IV-5. The residential/commercial waste reduction includes residential recycling activities such as curbside and drop-off collection, appliance collection, commercial recycling completed by commercial entities operating within the District, and composting.

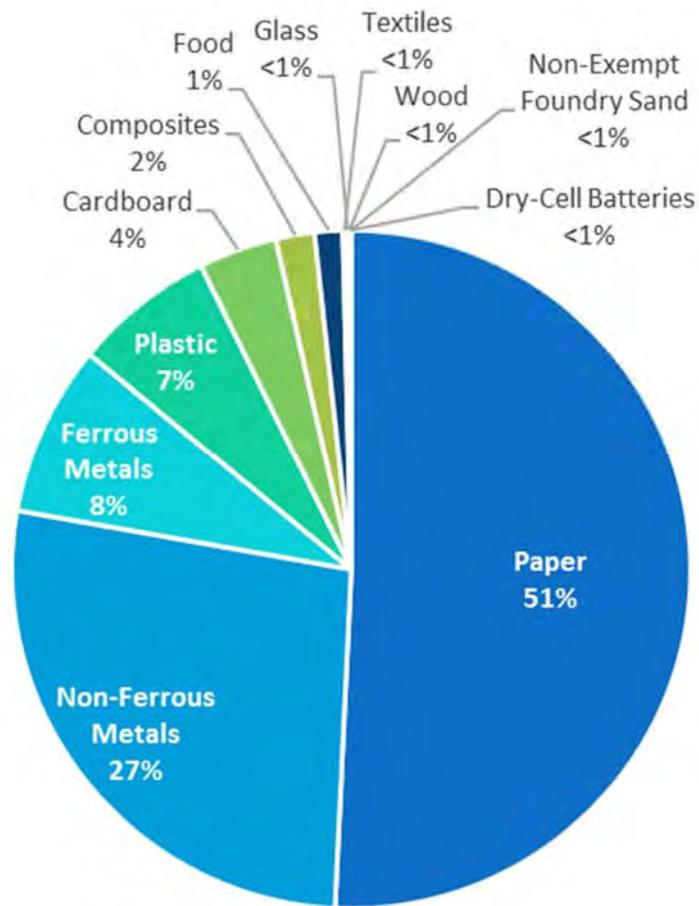
The following graph depicts the residential and commercial waste reduction totals as a percentage for 2014:

2014 Residential/Commercial Waste Reduction



Industrial waste reduction activities that occurred during the reference year are summarized in Table IV-6. The following figure presents the industrial waste reduction totals as a percentage for 2014.

2014 Industrial Waste Reduction



Section IV also provides specific details for the existing waste reduction/recycling activities for the residential/commercial and industrial sectors.

D. Section V. Planning Period Projections and Strategies

Section V includes a summary of projections of population, waste generation and recycling for the planning period (2018 – 2032). New programs and changes to existing programs are presented in this section.

1. Population Projections

The District anticipates population will continue to decrease over the fifteen-year planning period by 2.8%. The rate of population change is based on populations projections provided by the Ohio Development Services Agency. The District is projecting a total population of 51,990 by 2032, which is a decrease of 1,480 residents over the planning period.

2. Waste Generation Projections

Residential/Commercial Sector

The total residential/commercial waste generation estimate for 2014 is 45,917 tons. Beginning in 2018, the first year of the planning period, residential/commercial waste is projected to be 48,868 tons. Generation is expected to decrease to 48,316 tons by 2032, representing an 1.1% decrease during the planning period.

Industrial Sector

Industrial waste generation is projected for industries categorized in Standard Industrial Classification (SIC) codes 20, and 22 through 39. Table V-3 presents the industrial waste generation projections from the reference year through the end of the planning period.

In the reference year, the industrial sector generated 70,600 tons. This tonnage is projected to decrease to a low of 67,670 tons in 2022, then remain flat. The top five manufacturing plants in the District, in terms of total tons generated, have been in operation for more than 5 years, and the District is not aware of any discussions or plans to close any of the facilities. Industrial sector activities in the District are relatively mature and stable, which support the flat projections from 2022 to 2032.

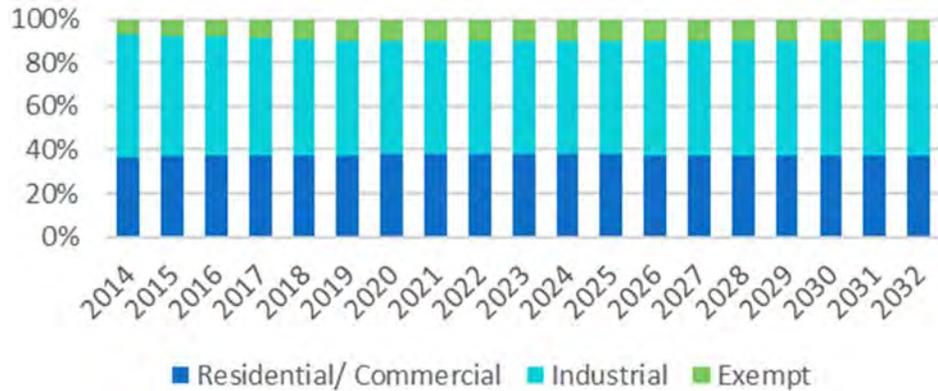
Total Waste Generation

The total waste generation estimate for the 2014 reference year is 124,836 tons. Detailed estimates are as follows:



The following figure depicts the waste generation per sector as a percentage of the total waste generation.

District Total Waste Generation (2014 – 2032)



3. Waste Reduction and Recycling Strategies through the Planning Period

The District must continue to develop recycling and waste reduction strategies to meet the goals established in the *1995 State Plan*.

Residential/Commercial Waste Reduction/Recycling and Education Strategies

The District projects that the residential/commercial waste reduction strategies will remain stable throughout the planning period.

This *Plan Update* continues the existing programs listed in Section IV and includes several new and/or revised programs. Specific changes to existing programs and details of new programs are provided in Section V.

Industrial/Commercial Waste Reduction/Recycling and Education Strategies

The District projects industrial recycling will remain flat throughout the planning period since there are no major changes in programming and no known changes to the number of industries operating in the District at this time. This *Plan Update* continues the existing programs listed in Section IV, but includes a number of expanded initiatives for these programs in order to address the challenges identified in Section IV. Specific changes to existing programs and details of the new programs are provided in Section V.

E. Section VI. Methods of Management: Facilities and Programs to be Used

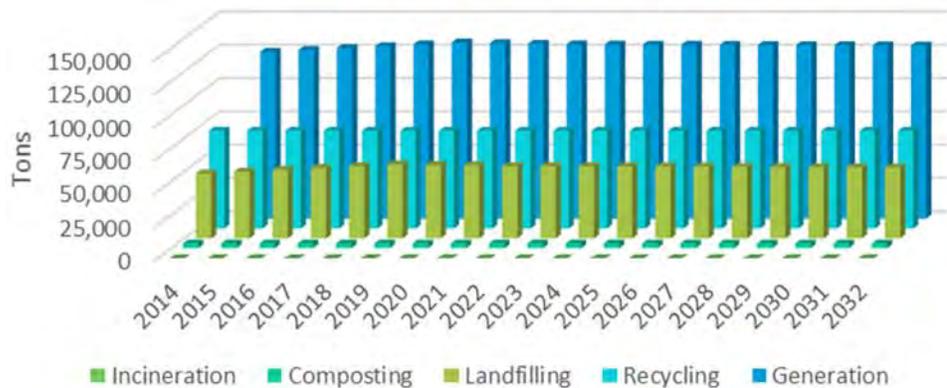
Section VI presents the District’s methods for managing solid waste. It includes management methods, a siting strategy, and a demonstration of capacity for the planning period 2018 – 2032.

1. District Methods for Management of Solid Waste

The District managed approximately 124,837 net tons of solid waste in 2014. Approximately 130,645 net tons of solid waste will need to be managed in 2018 (the first year of the planning period) and 130,375 net tons will need to be managed by 2032 (the final year of the planning period).

The majority of the District’s waste will continue to be managed through recycling during the planning period. Recycling is projected to account for approximately 56 percent of the total waste managed in 2018; this proportion remains flat over the course of the planning period.

Total Generation and Management Methods



2. Demonstration of Access to Capacity

During 2014, eleven out-of-district landfills and one out-of-state landfill managed 48,322 tons of solid waste generated by District residents, businesses and industries.

Regional Capacity Analysis

The landfills used by the District in 2014 had sufficient permitted airspace to dispose of an estimated 179,916,904 tons of solid waste. The Erie County Sanitary Landfill, which currently manages the majority of the District’s waste, has enough permitted capacity to

manage the entirety of the waste generated within the District from the reference year to the end of the planning period. Overall, the landfills used by the District in 2014 had an average remaining lifespan of more than 46 years.

3. Identification and Designation of Facilities

In the approved Plan under which the District is currently operating, the District is authorized to establish facility designations in accordance with Sections 343.013, 343.014, and 343.015 of the Ohio Revised Code. The District has designated the Huron County Transfer Station as the only facility to which municipal solid waste generated in the District may be taken. Section VI includes details about the District's waiver process for the use of undesignated facilities.

4. Siting Strategy for Facilities

The District does not, as a part of this Plan, intend to site any District owned or operated facilities for the transfer or disposal of municipal solid waste. A siting strategy is, however, included in Section VI.

5. Contingencies for Capacity Assurance and District Program Implementation

The District has assessed the recycling processing capacity in the District and within reasonable transportation distances and finds that there is private recycling processing capacity which could be utilized to process the materials collected through the District drop-off program. If, for any reason, one or more of the service providers that the District presently utilizes is unable or unwilling to provide the service the District requires, the District will immediately seek to enter into agreements with other businesses or solid waste districts to provide the necessary services.

F. Section VII. Measurement of Progress Toward Waste Reduction Goals

1. Compliance with Goal #1

The District will continue to comply with Goal #1: Access to Waste Management Opportunities. The District shall provide access to recycling and waste minimization opportunities for municipal solid waste to its residents and businesses.

For 2018, the first year of the planning period, the District is projected to exceed a 100% recycling access rate for the residential sector.

Overall, the District's annual waste reduction rate for the reference year (2014) was 66 percent. The waste reduction rate is expected to remain flat throughout the planning period.

G. Section VIII. Cost of Financing Plan Implementation

1. Funding Mechanisms

a. District Disposal Fees

The District does not utilize disposal fees as a funding mechanism at this time.

b. Transfer Station Revenue

The District received \$1,920,441 in transfer station revenue in 2014 and \$1,766,798 in 2015. Revenue consists of gate fees collected at the transfer station for solid waste processed and transported to a landfill. The District does anticipate the gate rate to increase by 10% in 2022 and by another 10% in 2028. Any gate rate adjustments will be conducted under the requirements of ORC 343.08. Approval of this *Plan Update* does not approve the gate rate adjustments as the ORC 343.08 process would be conducted separately.

Starting in 2018, with the approval of this *Plan Update*, the District will no longer provide a \$25,000 gate rate reduction for the City of Norwalk per an agreement signed by the City and the District in 2011.

c. Transfer Station User and Miscellaneous Fees

The District receives user fees for special materials delivered to the transfer station such as Freon-containing appliances, tires, and yard waste. Other miscellaneous fees charged at the transfer station include digout fees for vehicles that become stuck, pull fees for drop-off recycling containers, fees for recyclable bags, etc. Revenue from these sources ranged from \$62,000 to \$82,000 from 2014 to 2016. Revenue from 2014 to 2016 was averaged to project a flat annual revenue amount of \$70,006 from 2017 to 2032.

d. Generation Fee

The District receives a fee for each ton of solid waste that is generated in the District. The generation fee in 2014 was

\$4.50 per ton. No increases are expected until 2023, when the fee is projected to increase to \$5.00 per ton. The next projected increase is anticipated to occur in 2028, when the generation fee will be raised to \$6.00 per ton. The projected increases in the generation fee will not be approved as a part of this *Plan Update* and the associated ratification process. If the fee increases are needed during the time projected in this *Plan Update* or anytime in the future, the District will either conduct a separate ratification process or include in a future Plan Update process.

e. Township Fees for Recycling Services

The District receives approximately \$11,550 annually in township fees for recycling services. This revenue is projected to remain flat throughout the planning period.

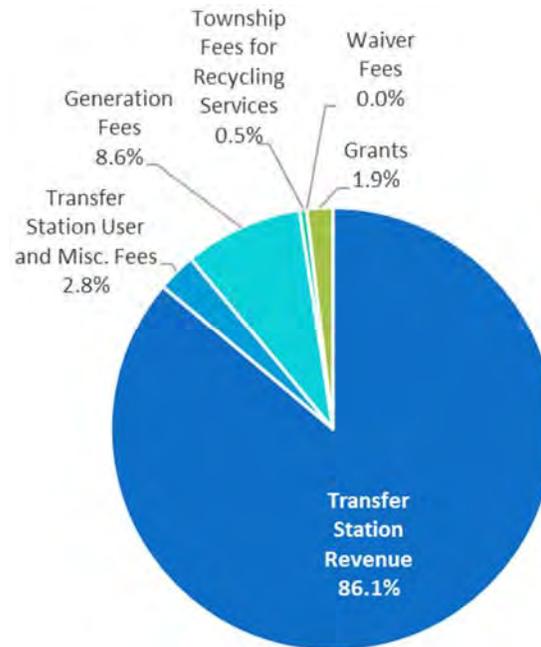
f. Grants

The District received \$42,000 in grant funding in 2014, \$44,622 in grants in 2015, and has been granted \$14,000 that will be received during 2016. Grant funding is competitive and not guaranteed, so no further revenue from grants has been projected.

g. Total District Revenue

Total revenues are anticipated to increase from \$2,142,550 (\$204,182 for District and \$1,938,368 for the transfer station/landfill) in the first year of the planning period (2018) to \$2,520,178 (\$254,412 for District and \$2,265,766 for the transfer station/landfill) in 2032. The following figure presents the percentage of revenue generated by each funding mechanism used in 2014.

Percentage of Revenue Generated in 2014 by Each Funding Mechanism

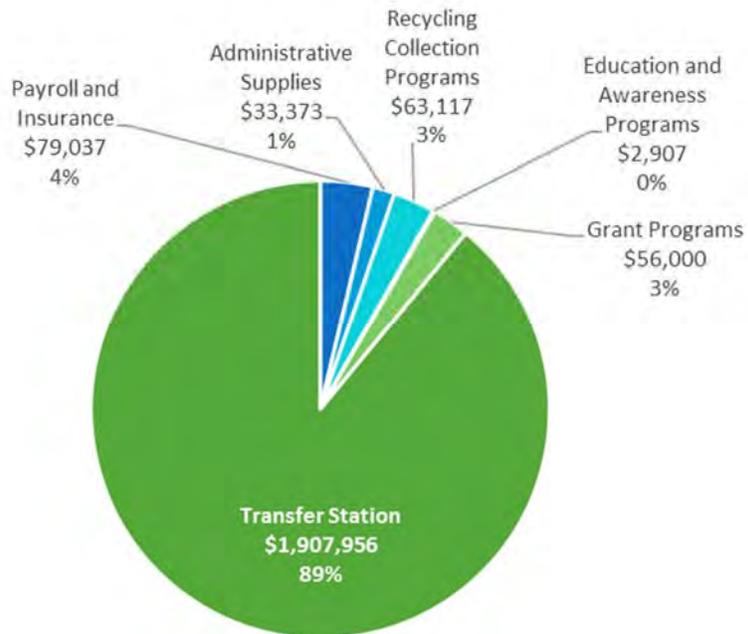


2. Cost of Plan Implementation

The District had existing debt for the County Landfill Transfer Station Improvement Bonds. In 2014, the District’s remaining principal balance was \$315,000. The District paid a total of \$15,000 toward the principal and \$13,545 toward the interest. The debt is expected to be retired in 2030.

Section VIII includes the strategies, facilities, activities and programs that the District will use to implement the *Plan Update*. The District Director will allocate these funds with the approval of the County Commissioners. The following charts depict the major expenditures and percentage of the total budget for 2014:

2014 District and Transfer Station/Landfill Expenses



3. Contingent Funding

The Policy Committee and District Board of Directors do not consider funding to be an issue of concern during this planning period. However, the Board would consider increasing the generation fee or developing other funding options. This would occur if the District's revenues and/or expenses were creating excessive budgetary shortfalls that reduced the District's operational fund balance to below \$100,000 without a projected short-term recovery.

4. Summary of Costs and Revenues

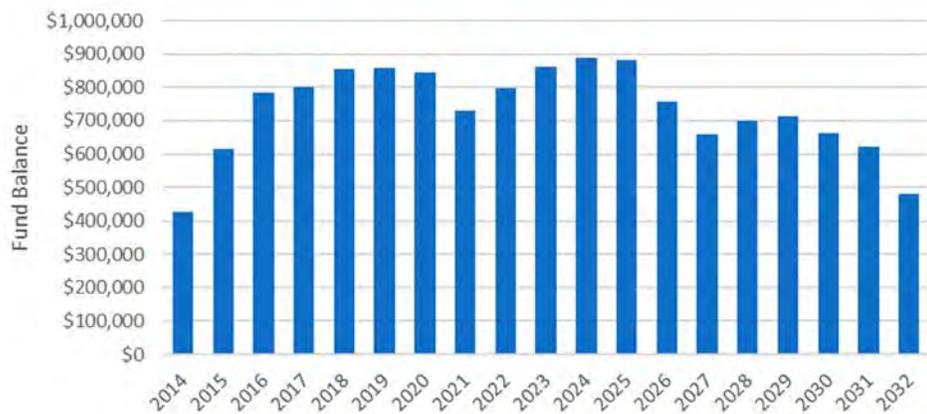
Revenue is projected to increase from \$2,142,550 in 2018 to \$2,520,178 in 2032. Expenditures are projected to be \$2,090,052 in 2018 and \$2,661,928 in 2032, the final year of the planning period. Throughout the planning period, expenditures will average \$2,366,974. The following figure presents the District's and transfer station/landfill actual and projected revenue and expenditures from 2014 to 2032.

District Revenue and Expenses (2014 – 2032)



The District and transfer station/landfill are projected to begin the planning period with a carryover balance of \$801,925, and conclude the planning period with a balance of approximately \$48,678. Each year of the planning period is projected to have ample funding for each of the programs. The following figure presents the District’s ending balance from 2014 to 2032.

2014 – 2032 District Fund Balance



H. Section IX. District Rules (ORC Section 3734.53(C))

1. Existing Rules

The District maintains the authority to adopt rules consistent with the solid waste management plan adopted by the District in accordance and pursuant to Section 3734.53 (C)(1) through (C)(4) of the Revised Code. Rules adopted by the District are summarized in this section and include:

- Rule 15-1 – Delivery of Solid Waste to Designated Facilities
- Rule 15-2 – Waiver from Designation

2. Proposed Rules

At the time that this *Plan Update* was developed, the District was not proposing any new rules. The District may, as they deem appropriate, amend or rescind the existing rules or may adopt any additional rules that are necessary to implement the ratified and approved Solid Waste Management Plan Update.

**Table ES-1
General Information**

District Name: Huron County Solid Waste Management District		
District ID # (for OEPA use only)	Reference Year: 2014	Planning Period: 2018-2032
Plan Status (underline one)		
D	RD	DR Approved (date) / / OI (date) / / DA
		Reason for Plan Submittal: Mandatory five year update

Abbreviations: D=draft; RD=ratified draft, DR=draft revised, OI=ordered to be implemented, DA=draft amended

**Table ES-2
District/Coordinator/Office**

Name: Mr. Peter Welch		
Address: 180 Milan Avenue		
City: Norwalk	State: Ohio	Zip: 44857
Phone: (419) 663-8059	Fax: (419) 744-9400	

**Table ES-3
Plan Data Summary**

Plan Data		2014 (Reference Year)	2022 (Year 5)	2027 (Year 10)
Population		53,875	53,066	52,560
Generation	Industrial	70,600	67,670	67,670
	Res/Comm	45,917	49,316	48,846
	Exempt	8,318	13,384	13,384
Total Generation (tons)		124,836	130,370	129,900
Waste Reduction	Industrial Source Reduction	0	0	0
	Industrial Recycling	62,849	62,849	62,849
	Res/Comm Source	0	0	0
	Res/Comm Recycling	10,085	10,075	10,068
	Yard Waste Composting	3,580	3,600	3,600
	MSW Composting	0	0	0
	Incineration	1	1	1
Total Waste Reduction (tons)		76,514	76,524	76,517
Disposal	In-District Landfills	0	0	0
	Out-of-District Landfills	48,322	53,846	53,383
	Out-of-State Landfills	0.1	0.1	0.05
Total Landfill (tons)		48,322	53,846	53,383
Waste Reduction Rate	Industrial	89.0%	92.9%	92.9%
	Residential/Commercial	29.8%	27.7%	28.0%

Source(s) of information: Tables IV-1, IV-5, IV-6, V-2, V-3, V-4 , V-6, and VI-4A

**Table ES-4
Existing Disposal Facilities**

Name	County	District Tons	Total Tons	Years Left
In-District Landfills				
None				
Out-of-District Landfills				
Erie County Sanitary Landfill	Erie	42,086	134,706	32.10
Port Clinton Landfill	Ottawa	2,862	99,627	75.10
Noble Rd. Landfill	Richland	1,691	870,340	9.10
Crawford County Sanitary Landfill	Crawford	1,541	188,410	10.00
Sunny Farms Landfill	Seneca	46	952,243	24.40
Lorain County Landfill	Lorain	38	1,073,904	14.50
Evergreen Recycling & Disposal	Wood	36	168,002	43.40
Hancock County Sanitary Landfill	Hancock	17	122,575	33.40
County Environmental of Wyandot	Wyandot	4	226,790	117.40
American Landfill	Stark	1	904,030	74.90
Pine Grove Regional Facility	Fairfield	1	202,830	72.60
Out-of-State Landfills				
Southside Landfill	Marion (IN)	0.1	DNR	DNR
Total/Average		48,322	4,943,456	46.08

Source(s) of information: 2014 Ohio Facility Data Report Tables, Table III-1, and Table VI-4A

III. Inventories

[ORC Section 3734-53(A)(1)-(4)]

This section of the *Plan Update* provides a review of the solid waste management system during the 2014 reference year. The reference year is the baseline year used for data collection for solid waste programs, facilities and activities in the *Plan Update*. Projections developed in later sections in this *Plan Update* are based on the reference year inventories.

This section of the *Plan Update* describes how solid waste was collected, reduced, recycled, disposed, and ultimately managed in the Huron County Solid Waste Management District during 2014.

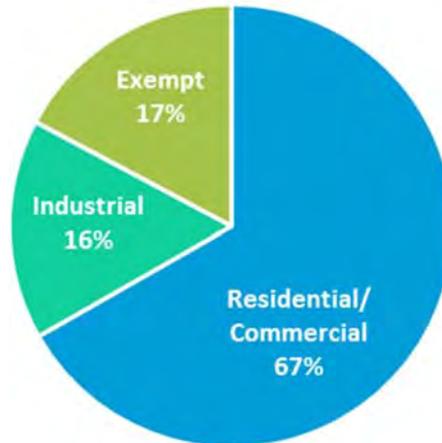
A. The Reference Year

The District will use calendar year 2014 as a reference year for all subsequent projections in the Plan.

B. Existing Solid Waste Landfills

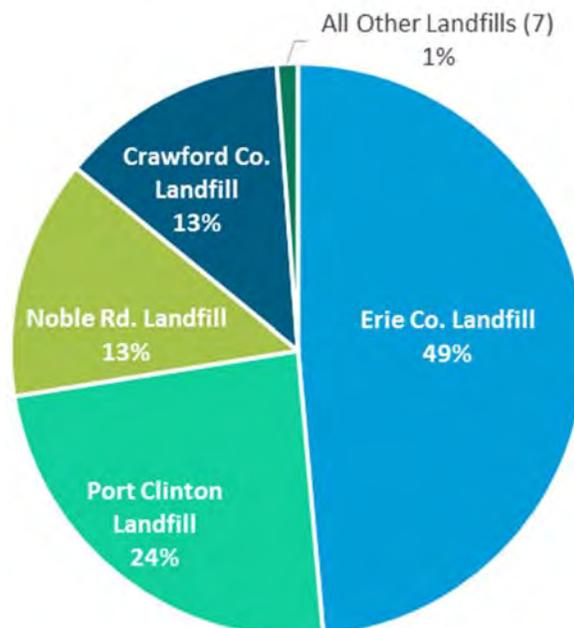
Table III-1, "Landfills Used by the District" presents a list of the landfills that received directly hauled solid waste from the District. There are currently no operating MSW landfills located in the District. District-generated solid waste that was directly hauled (versus transferred) was managed at eleven out-of-district landfills. Approximately 11,989 tons of solid waste was directly hauled to landfills for disposal in 2014. The residential/commercial sector generated 67% of the waste that was directly hauled and the industrial sector generated 16% of all directly hauled waste. Exempt waste represented approximately 17% of the waste that was directly hauled. Exempt waste can include earth or materials from construction, mining, or demolition operations, nontoxic fly ash, nontoxic bottom ash, or slag. The following figure presents the percent of direct hauled solid waste generated by each sector in 2014:

2014 Percentage of Directly Hauled Solid Waste Generated by Sector



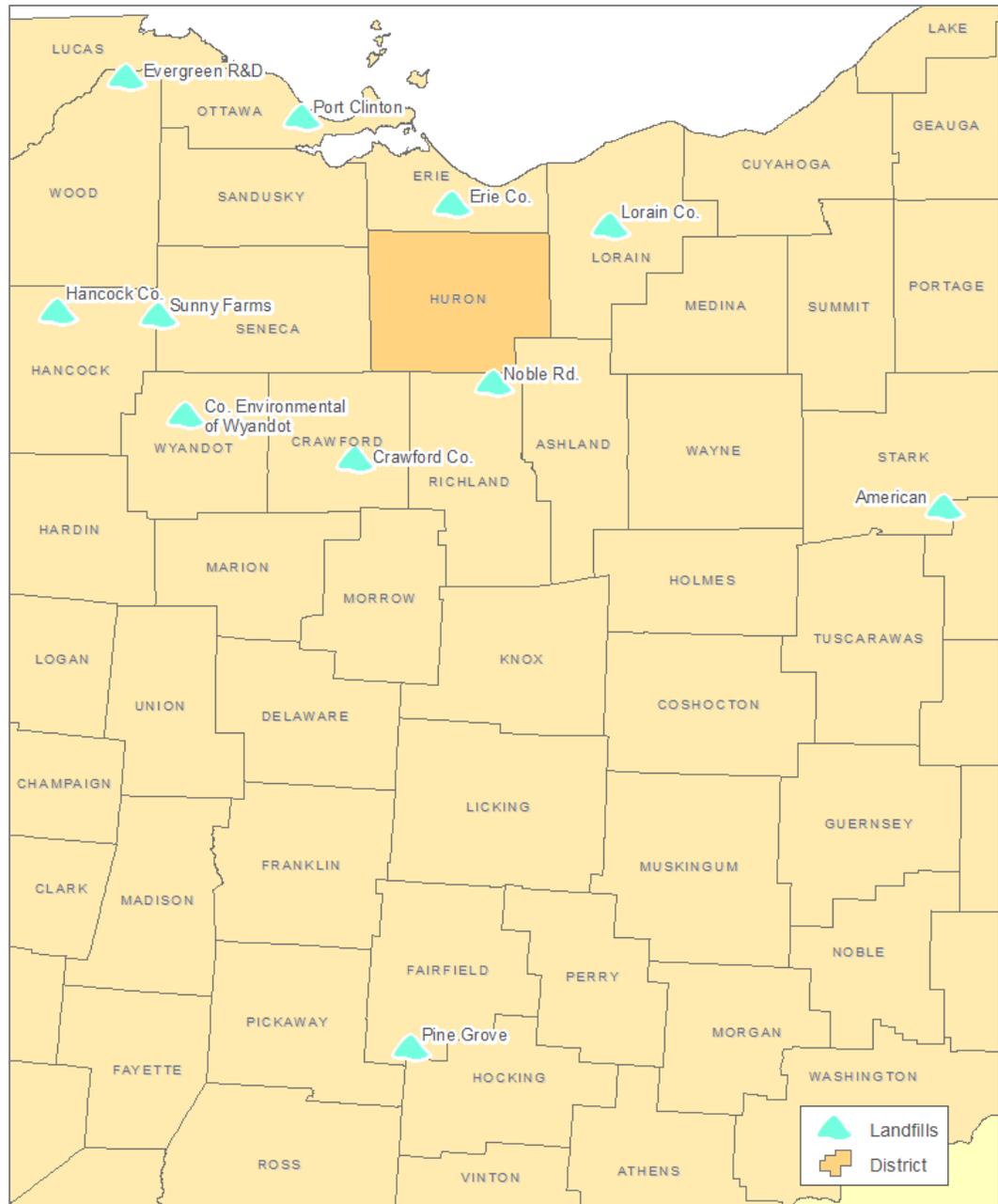
The Erie County Sanitary Landfill received the largest portion of directly hauled solid waste (approximately 49%), followed by the Port Clinton Landfill (24%) in Ottawa County, the Noble Road Landfill (13%) in Richland County and the Crawford County Sanitary Landfill (13%). The remaining waste, which represented approximately 1% of the directly hauled solid waste, was managed at seven landfills, including Sunny Farms Landfill, the Lorain County, Evergreen Recycling and Disposal Facility, Hancock County Sanitary Landfill, County Environmental of Wyandot, American Landfill, and Pine Grove Regional Facility. The following figure presents the percentage of total tons directly hauled to each landfill for disposal.

2014 Percentage of Total Tons Directly Disposed by Landfill



The following map presents the locations of landfills that accepted directly hauled solid waste generated in the District.

2014 Landfills that Accepted Directly-Hauled Solid Waste



C. Existing Incinerators and Resource Recovery Facilities

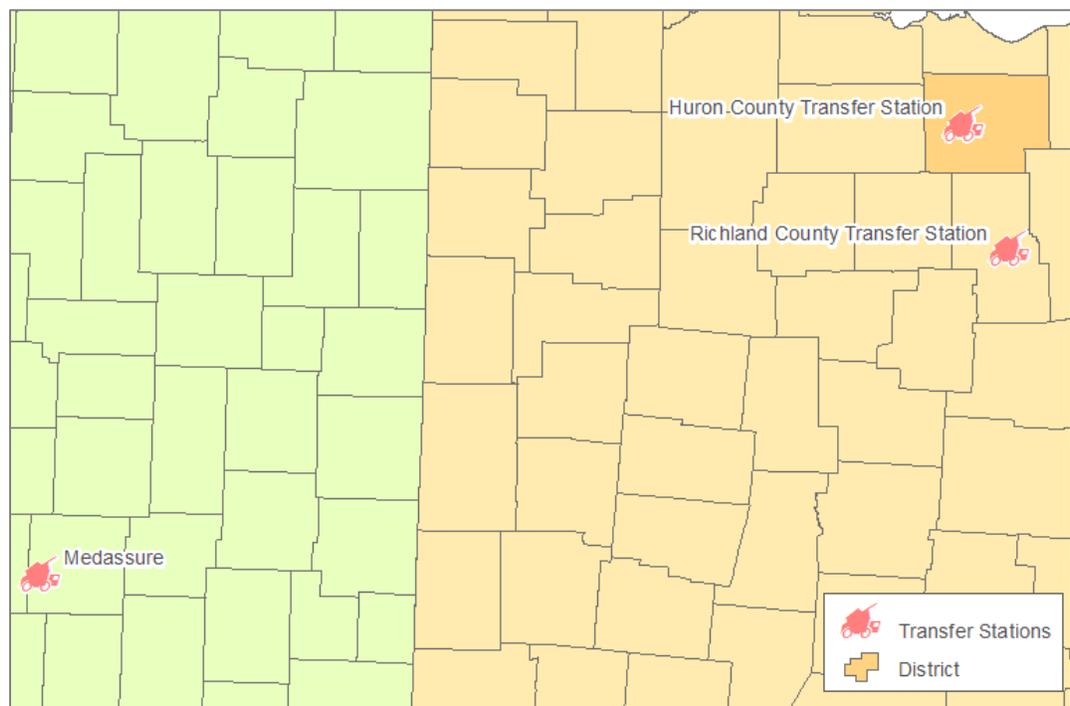
Table III-2, “Solid Waste Incinerators and Waste-to-Energy Facilities Used by the District,” presents solid waste incinerators or waste-to-energy facilities used by the District. The District used one in-state medical waste

incinerator to manage a negligible quantity (less than one ton) of solid waste during the reference year.

D. Existing Transfer Facilities

Table III-3, “Solid Waste Transfer Facilities Used by the District,” presents a listing of transfer facilities that accepted District-generated waste in 2014. Approximately 36,333 tons of waste were managed by transfer stations. One transfer station located within the District managed nearly all (99.8%) of the transferred waste. The remaining 0.2% was managed at one out-of-district transfer station and one treatment facility located in Indiana. The out-of-state treatment facility is categorized as a transfer station for the purposes of this Plan because waste is accepted from haulers, treated or processed, then ultimately sent to a landfill. The following map presents the locations of transfer stations used by the District.

2014 Transfer Stations Used by the District



Transferring waste was the primary method of waste disposal. Approximately 75% of waste was first delivered to a transfer station before being hauled to a landfill. The remaining 25% of waste was disposed by being directly hauled to a landfill. Less than one percent was managed at a medical waste incinerator. The following figure presents the methods used to manage solid waste by percentage of the total waste disposed.

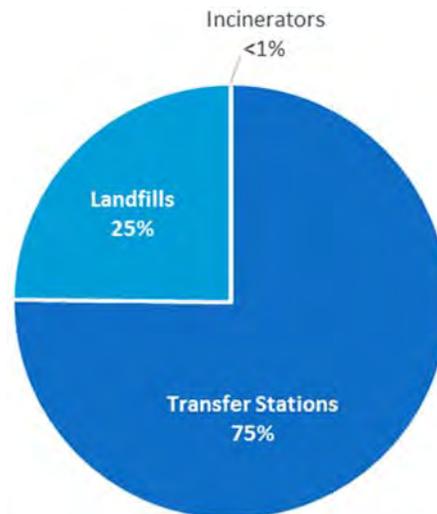
2014 Solid Waste Management Methods by Percentage of Total Tons**E. Existing Recycling and Household Hazardous Waste Collection Activities**

Table III-4, “Residential Curbside Recycling Activities Used by the District,” presents residential curbside recycling activities operating in the District. During the reference year, there were two non-subscription curbside recycling programs and one subscription curbside recycling program. Details regarding individual curbside recycling programs are discussed in Section IV of this *Plan Update*.

In 2014, a total of 1,020 tons of recyclables were collected and processed by curbside programs in the District. The following maps present areas that had access¹ to curbside recycling in 2014:

¹ The Village of New London operated a non-subscription recycling program. The program does not count toward Ohio’s access goal because less than four materials were accepted for recycling.

2014 District Curbside Recycling Programs

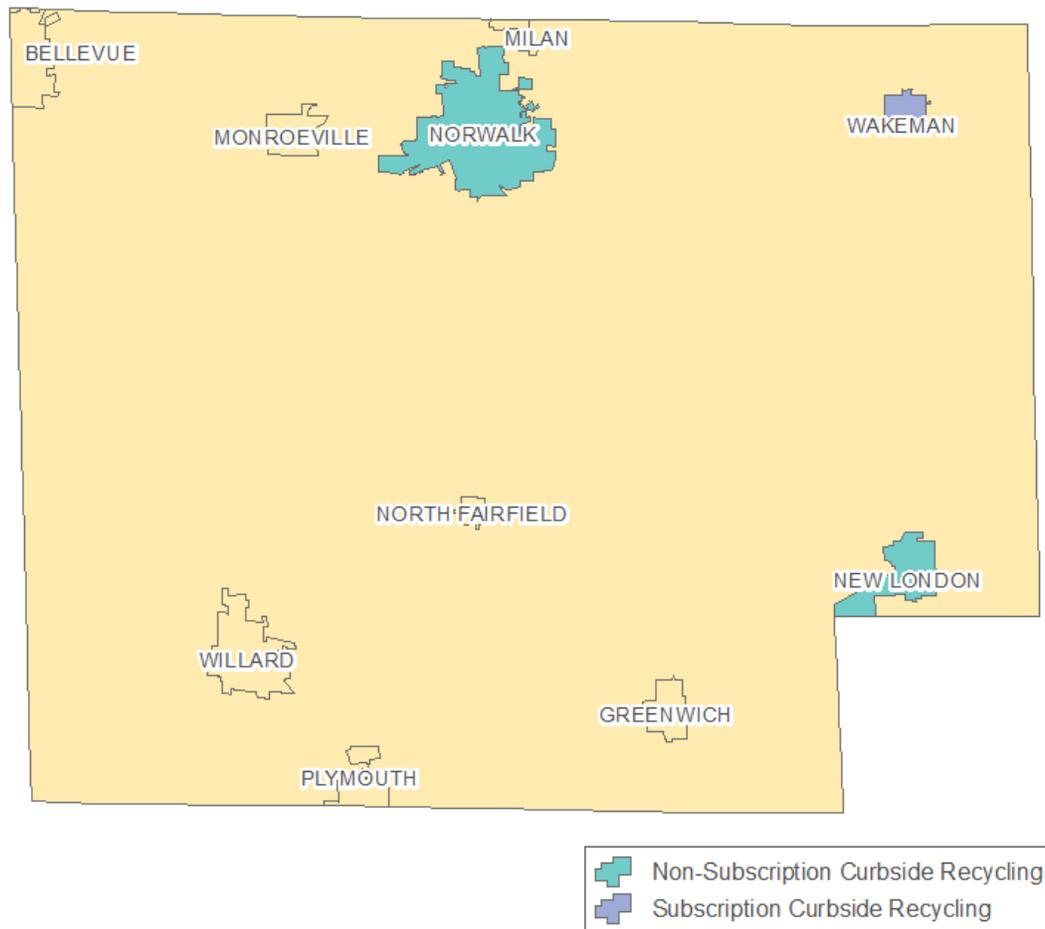
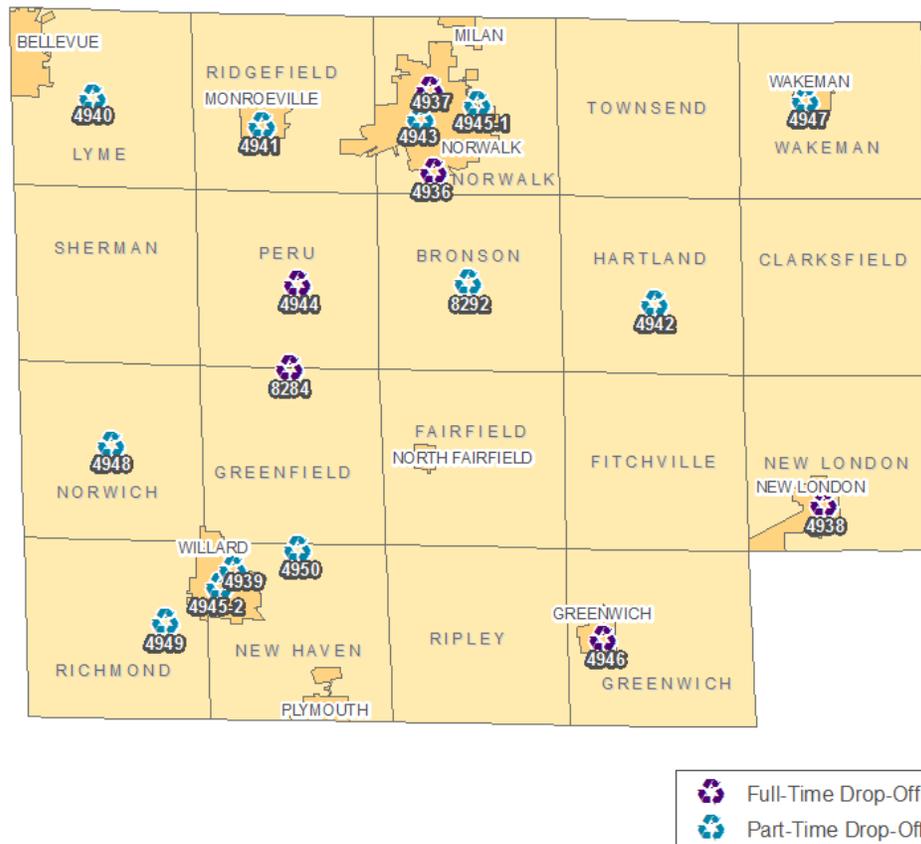


Table III-5, “Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District,” contains a list facilities and activities used by the District. Information in this table is based on results of surveys, facility records and direct inquiry.

There were 6 full-time recycling drop-offs and 12 part-time recycling drop-offs operating in the District during 2014. Full-time status indicates that drop-offs are available to the public at least 40 hours per week. Full-time drop-offs accepted at a minimum mixed papers (newspaper, office paper, magazines), cardboard, aluminum cans (beverage cans), and steel cans (soup cans, etc.). Materials accepted at part-time drop-offs varied; details are included in Table III-5. The following figure presents the locations of each full-time and part-time drop-off facility that operated during 2014. The four-digit number accompanying each recycling drop-off icon in the following map represents the identification number issued by Ohio EPA that is published in the District’s Implementation Schedule. Hyphenated numbers indicate that two locations were given the same Ohio EPA ID.

2014 Huron County Drop-Off Recycling Facilities



Three private sector haulers collected recycling from residents, businesses, and industries. In addition, there were 10 scrap yards, processors, and brokers that accepted recycled materials generated in the District. Four commercial box chain stores (Walmart, Dollar General, Big Lots, and Aldi) located throughout the District operated recycling programs. Ten major tire recyclers were also used by the District.

Additional recycling conducted at businesses and industries that was managed by haulers, brokers, and processors not listed in Table III-5 was listed as “Other Recycling Reported on Surveys” in Table III-5.

F. Existing Composting/Yard Waste Management Facilities

Compost facilities that are located within the District are presented in Table III-6, “Composting/Yard Waste Management Activities used by the District.” There was one Class III compost facility and three to four Class IV compost facilities operating in Huron County during 2014.

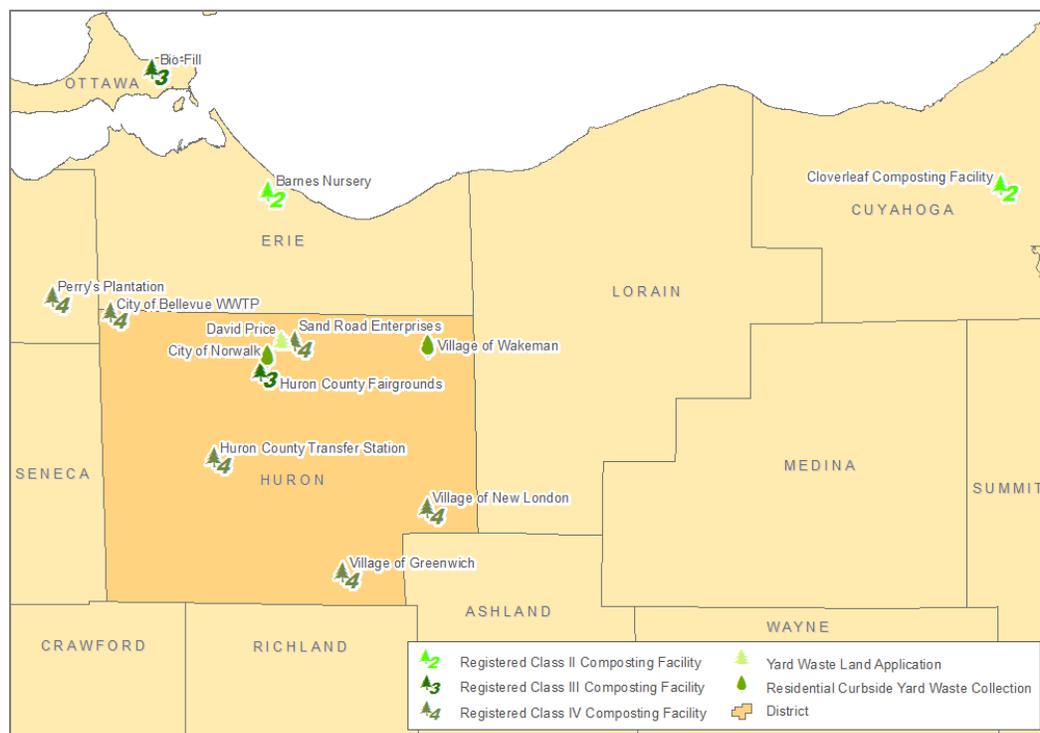
One of the Class IV compost facilities, the Village of Greenwich Composting Site, is included in Table III-6; however, it was not listed in the

2014 Ohio EPA Compost Report. The Village of Greenwich Composting Site was previously located at Townsend Street & Acy Railroad. The 2012 Ohio EPA Compost Report was the most recent report to mention this site. It was absent from Ohio EPA Compost Reports from 2012-2014. In 2015, it was listed at a new address (Court St.). This facility is presented although it is possible that it was not operational during the 2014 reference year.

Organics were also managed at five out-of-District registered compost facilities and one non-registered in-District facility that land-applied the materials. A total of 3,579.9 tons of yard waste were managed at registered and non-registered facilities and 617.4 tons of food waste. The overall organics composted by the District totaled 4,197.3 tons. An additional 839 tons of food by-product generated at a Huron County industry was recycled by a processor into a high-energy, highly palatable dried component for livestock feed. This tonnage is not included in Table III-6 because the processor did not compost the food waste, nor was the facility a registered composting operation.

The following map presents the locations of registered composting facilities used to manage organics generated in the District, as well as other yard waste diversion activities throughout the District:

2014 Registered Yard Waste Facilities and Activities



G. Facilities Used by the District Which are Located Outside Ohio

One treatment facility in Indiana was used to manage waste generated in the District (see Table III-7).

H. Existing Open Dumps and Waste Tire Dumps

There is one known open dump site and no waste tire dumps located in the District (Table III-8).

I. Ash, Foundry Sand, and Slag Disposal Sites

There are no known ash, foundry sand, or slag disposal sites located in the District (Table III-9).

J. Map of Facilities and Sites

A full size map of the District's facilities is included in Appendix E. The following map, which is smaller than the version included in Appendix E, has been included for reference.

District Facilities and Sites



K. Existing Collection Systems – Haulers

Table III-10, “Solid Waste Haulers Operating in the District,” contains the public and private sector waste haulers providing service to waste generators in the District.

There were sixteen private sector haulers and two public sector haulers that provided collection services within the District.

**Table III-1
Landfills Used by the District**

Facility Name and Owner/Operator	Type	Location		Waste Received from the SWMD (TPY)				Total
		County	State	Residential/ Commercial	Industrial	Exempt		
In-District Landfills								
None								-
Out-of-District Landfills								
Erie County Sanitary Landfill	GO, PA	Erie	OH	1,345.8	4.0	4,475.3		5,825.1
Port Clinton Landfill	PO, PA	Ottawa	OH	508.4	2,275.5	78.0		2,862.0
Noble Rd. Landfill	PO, PA	Richland	OH	280.7	116.7	1,221.4		1,618.8
Crawford County Sanitary Landfill	GO, PA	Crawford	OH	-	-	1,541.3		1,541.3
Sunny Farms Landfill	PO, PA	Seneca	OH	2.5	-	43.4		45.9
Lorain County Landfill	PO, PA	Lorain	OH	-	38.5	-		38.5
Evergreen Recycling & Disposal	PO, PA	Wood	OH	2.3	1.9	31.5		35.6
Hancock County Sanitary Landfill	GO, PA	Hancock	OH	16.9	-	-		16.9
County Environmental of Wyandot	PO, PA	Wyandot	OH	-	3.7	-		3.7
American Landfill	PO, PA	Stark	OH	-	-	0.7		0.7
Pine Grove Regional Facility	PO, PA	Fairfield	OH	-	0.6	-		0.6
Out-of-State Landfills								
None								-
Direct Haul to Landfill Total				2,156.6	2,440.9	7,391.6		11,989.1
Incinerator/Waste-to-Energy Facility Disposal Total (see Table III-2)				0.5	-	-		0.5
Transfer Station Total (see Table III-3)				30,095.0	5,310.7	926.9		36,332.5
Disposal Total				32,252.1	7,751.6	8,318.5		48,322.2

PA = publicly available, PO = privately operated, GO = government operated, INCL = captive industrial landfill, N/A = not

Note: Transfer Station Annual Operational Report Data is included in this table to demonstrate the total amount landfilled in 2014.

Source(s) of information: 2014 Annual Operational Reports for Landfills and Annual District Review Forms

**Table III-2
Solid Waste Incinerators and Waste-to-Energy Facilities Used by the District**

Facility Name and Owner/Operator	Type	Location		Waste Received from the SWMD (TPY)				Total Ash Disposed
		County	State	Residential/Commercial	Industrial	Exempt	Total	
In-District Facilities								
None				-	-	-	-	-
Out-of-District Facilities								
Stericycle	INCIN-MED	Geauga	OH	0.5	-	-	0.5	0.16
Out-of-State Facilities								
None				-	-	-	-	-
Totals				0.5	-	-	0.5	0.2

INCIN-MED = medical waste incinerator, W2E = waste-to-energy, N/A = not applicable

Source(s) of information: Ohio EPA Annual District Review Form for 2014

**Table III-3
Solid Waste Transfer Facilities Used by the District**

Facility Name and Owner/Operator	Type	Location		Waste Received from the SWMD (TPY)				Total
		County	State	Residential/Commercial	Industrial	Exempt		
In-District Facilities								
Huron County Transfer Station	GO, PA	Huron	OH	30,077.3	5,310.7	872.5		36,260.5
Out-of-District Facilities								
Richland County Transfer Station	PO, PA	Richland	OH	17.6	0.0	54.3		71.9
Out-of-State Facilities								
Medassure of Indiana Treatment Facility	PO, PA	Marion	IN	0.1	0.0	0.0		0.1
Totals				30,095.0	5,310.7	926.9		36,332.5

PA = publicly available, PO = privately operated, GO = government operated

Source(s) of information: Ohio EPA Annual Operating Reports for 2014, Annual District Review Form for 2014; Indiana Department of Environmental Management, 2014 Complete Solid Waste Quarterly Report Database

**Table III-4
Residential Curbside Recycling Activities Used by the District**

Community Name Service Provider	Type	Population Served	Collection Frequency	# Households	Community	Types of Materials Accepted								Recyclables Processed from SWMD (TPY)
						AC	GL	PL	ONP	OCC	SC	Mag	MxP	
Non-Subscription Curbside Recycling														
City of Norwalk														
City of Norwalk Sanitation Department	NS	16,898	Weekly	6,028	Norwalk	X	X	X	X	X	X	X	X	810
Village of New London														
Village of New London Sanitation Department	NS	2,395	Weekly	977	New London	X			X	X				210
Non-Subscription Curbside Recycling Total														
Subscription Curbside Recycling														
Village of Wakeman Republic Services	S	1,038	Biweekly	225	Wakeman	X	X	X	X	X	X	X	X	N/A
Subscription Curbside Recycling Total														
Curbside Recycling Total														
1,020														

NS = non-subscription, S = subscription-based, PAYT = pay-as-you-throw/volume-based
 AC = aluminum containers, GL = glass containers, PL = plastic containers, ONP = newspaper, OCC = cardboard, SC = steel containers, Mag = magazines, MxP = mixed paper, Oth = other

Source(s) of information: 2014 Annual District Report Implementation Schedule

Note: Under subscription curbside recycling, the population served refers to the total population where subscription curbside recycling is available; the number of households refers to the estimated number of households that have subscribed to the service.

Table III-5
Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities and HHW Collection Used by the District

Facility	Type	Types of Materials Accepted												Service Areas			Hours Open to Public	Special Fees Processed	% of Material from Sector			
		Types of Materials Accepted												County	City/Twp	Population Served						
		AC	GL	PL	DMF	OCC	SC	LAB	Mag	ORF	StyP	Sty	Rsp							DM	DB	
[4943] Norwalk City Hall 38 Whittlesey Norwalk, OH 44857	PA, DO	X	X	X	X	X	X	X	X	X	X	X					Huron	Norwalk Twp.	3,513	DNR		
[4941] Ridgefield Twp. Office 47 S. Ridge St. Monroeville, OH 44847	PA, DO	X	X	X	X	X	X	X	X	X	X	X					Huron	Ridgefield Twp./Monroe	2,304	Last Mon & Tues/month		
[4947] Wakeman Village Hall 59 Hyde St. Wakeman, OH 44889	PA, DO	X							X								Huron	Wakeman Twp.	2,676	2nd Sat/month	See full-time drop off table	100% R/C
[4939] Willard WWTP 540 Central Ave. Willard, OH 44890	PA, DO	X						X	X	X	X	X					Huron	Willard	8,094	Wed: 11AM-1PM Sat-Sun: 12PM-1PM		
Electronics, Freon, Buy Back Centers																						
Sandusky Steel 1943 Milan Rd. Sandusky, OH 44870 419-626-4245	PA, SY	X															Huron	All	53,875	Mon-Fri: 8AM-4:30PM Sat: 8AM-12PM	100.0	100% C
Norwalk Waste Materials 4957 US Highway 250 N Norwalk, OH 44857 419-668-3341	PA, SY	X															Huron	All	53,875	DNR	9,200.0	60% L, 40% R/C
Christie Lane Industries 306 S Norwalk Rd. W Norwalk, OH 44857 (419) 668-8940	PR, BR	X															Huron	All	53,875	Mon-Fri: 9AM-2PM	3,361.0	71% L, 29% R/C
River Valley Paper Co. 120 E Mill St. Ste. 337 Akron, OH 44308 (330) 635-1001	BR, PR																Huron	All	53,875	N/A	922.5	100% I
Milliron Iron & Metal 2375 OH-39 Mansfield, OH 44903 (419) 747-4566	PA, SY	X															Huron	All	53,875	Mon-Sun: 9AM-6PM	41.4	100% I
ReConservs Of Ohio 2295 Innovation Dr. Marion, OH	PR																Huron	All	53,875	N/A	838.6	100% I
Heritage Environmental 1600 Harvard Ave. Newburgh Hts, OH 44105 (216) 641-8328	PR																Huron	All	53,875	DNR	6.1	100% I

**Table III-6
Composting/Yard Waste Management Activities Used by the District**

Facility or Activity	Class	County	Facility Address	Tons Received from SWMD		
				Yard Waste	Food Waste	Total Organics
<i>In-District Registered Compost Facilities</i>						
Huron County Transfer Station	IV	Huron	2415 Townline Rd. 131 W Willard, OH	0.0	0.0	0.0
Huron County Fairgrounds	III	Huron	940 Fair Rd. Norwalk, OH	20.0	0.0	20.0
Village of Greenwich*	IV	Huron	Court Street Greenwich, Ohio 44837	DNR	DNR	DNR
Village of New London	IV	Huron	W. Fir St. New London, OH	209.7	0.0	209.7
Sand Road Enterprises	IV	Huron	4352 Sand Rd. Norwalk, OH	136.0	0.0	136.0
Subtotal				365.7	0.0	365.7
<i>Out-of-District Registered Compost Facilities</i>						
City of Bellevue WWTP**	IV	Erie	500 Great Lakes Pkwy. Bellevue, OH	DNR	DNR	0.0
Cloverleaf Composting Facility	II	Cuyahoga	E. of Old Brecksville Rd. Independence, OH	132.2	349.6	481.8
Perry's Plantation	IV	Erie	1479 County Rd. 288 Bellevue, OH	7.7	0.0	7.7
Bio-Fill	III	Ottawa	8530 E. Harbord Rd. Marblehead, OH	20.3	0.0	20.3
Barnes Nursery	II	Erie	1630 Camp Rd. Huron Twp., OH	0.0	100.0	100.0
Subtotal				160.2	449.6	609.8
<i>Other Activities</i>						
Village of Wakeman Residential Yard Waste Collection	N/A	Huron	David Price Metal Services 360 Eastpark Dr. Norwalk, OH	12.0	0.0	12.0
City of Norwalk Residential Yard Waste Collection	N/A	Huron		3,042.0	0.0	3,042.0
Food Waste Haulers and Walmart	N/A	N/A	N/A	0.0	167.8	167.8
Subtotal				3,054.0	167.8	3,221.8
Grand Total				3,579.9	617.4	4,197.3

*The Greenwich Village Composting Site is included in Table III-6 for reference, but it was not listed in the 2014 Ohio EPA Compost Report. The Greenwich Village Composting Site was previously located at Townsend St & Acy Railroad. The 2012 Ohio EPA Compost Report was the most recent report to mention this site. It was absent from Ohio EPA Compost Reports from 2012-2014. In 2015, it was listed at a new address (Court St.).

**The City of Bellevue WWTP is located inside Huron County, but due to politically adjusted borders based on population, the City of Bellevue is not considered part of the District. The City of Bellevue is considered part of the Ottawa, Sandusky, Seneca Joint Solid Waste Management District because the majority of the population resides in Sandusky County.

Notes: Huron County Fairgrounds did not submit tonnage to Ohio EPA, but submitted tonnage to the District. This tonnage has been included in Table III-6. A Huron County industry reported sending 100 tons of food waste to Barnes Nursery. This was included in Table III-6, but removed from the general "Food Waste Haulers and Walmart" total to avoid double counting.

**Table III-7
Facilities Used by the District Which are Located Outside Ohio: Additional Data**

Facility Name	Facility Address	Facility Owner Contact Information	Facility Operator Contact Information	Daily Waste Receipt Limit, (TPD)	Number of Days Facility Open/Year
Medassure of Indiana Treatment Facility	1013 S. Girls School Rd. Indianapolis, IN 46231	Medassure of Indiana Izekiel Mendlowitz 1013 S. Girls School Rd. Indianapolis, IN 46231	Joseph Delloiacovo 732-363-7444	N/A	260

Source(s) of information: Indiana Department of Environmental Management (IDEM) Permitted Solid Waste Facilities List, February 2, 2015

**Table III-8
Open Dumps and Waste Tire Dumps Located in the District**

Site Location (description)	Land Owner Contact Information	Description of Materials Dumped	Approximate Size of Site	Time Period Site has Existed	Status
<i>Open Dump Sites</i>					
Gibson Open Dump 1391 SR 224 Willard, Ohio 44890	Not Available	Not Available	Not Available	Not Available	Not Available
<i>Waste Tire Dump Sites</i>					
None.	None.	None.	None.	None.	None.

Source(s) of information:

Huron County Health Department and Ohio EPA

**Table III-9
Ash, Foundry Sand, and Slag Disposal Sites Used by the District**

Site Location (describe briefly)	Land Owner Mailing Address/Phone	Description of Materials Dumped	Approximate Size of Site (in Acres)	Time Period Site has Existed
None.				

Source(s) of information: Huron County Health Department

**Table III-10
Solid Waste Haulers Operating in the District**

Hauler	Mailing Address	Service Area	Materials Collected	Tons from District	Name of Facility Used by Hauler
<i>Private Sector Haulers</i>					
Republic	Debbie Feichtner 11164 County Highway 4 Carey, OH 43316 419-396-3581	Huron County	Residential/commercial (87%), industrial (12%), and exempt (5%) refuse	11,530.77	Huron County Transfer Station
Armatrout	224 W Emerald St. Willard, OH 44890 419-935-1122	Huron County	Residential/commercial (94%), industrial (<1%), and exempt (5%) refuse, recycling (<1%)	4,324	Huron County Transfer Station
Rumpke	2175 Stiving Rd. Mansfield, OH 44903 (419) 747-6900	Huron County	Residential/commercial (99%) and industrial (<1%) refuse	2,792	Huron County Transfer Station
Norwalk Waste Materials	4957 US Highway 250 N Norwalk, OH 44857 419-668-3341	Huron County	Residential/commercial (15%), industrial (84%), and exempt (1%) refuse	2,173	Huron County Transfer Station
F.S.I. Disposal	Mike Walski/Kendra Fultz 330 Elm Street Clyde, OH 43410 419-547-9365	Huron County	Residential/commercial (99%) and industrial (1%) refuse	1,332	Huron County Transfer Station
Milliron	1700 N Main St. Mansfield, OH 44903 419-747-6565	Huron County	Residential (14%), industrial (85%), and exempt (1%) refuse	1,176	Huron County Transfer Station
Sonic Hauling Ltd.	Jeff Larick PO Box 376 Republic, OH 44867 419-618-2822	Huron County, Seneca County	Residential/commercial refuse	34	Huron County Transfer Station
Kurtzman Sanitation	725 W Main St. Crestline, OH 44827 419-683-3921	Huron County, Crawford County, Richland County	Residential/commercial (9%), industrial (90%), and exempt (1%) refuse	1,024	Huron County Transfer Station
R.R. Donnelly	DNR	Huron County	Refuse	DNR	Huron County Transfer Station
D&D Hauling	Duane Durst 7762 Twp. Rd. 103 Kansas, OH 44841 419-986-5995	Huron County	Refuse	DNR	Huron County Transfer Station
N.A.T. Transportation	Michael Torok 11101 Pemberville Rd. Bradner, OH 43406 419-288-2082	Huron County	Refuse	DNR	Huron County Transfer Station
Karl's Hauling	Vicki or Jeff Turco 1590 S. SR 53 Tiffin, OH 44883 419-447-5227	Huron County	Refuse	DNR	Huron County Transfer Station
Joe's Hauling	Joe Elchert 3668 W. CR 52 Tiffin, OH 44883 419-447-6159	Huron County	Refuse	DNR	Huron County Transfer Station
G.I.B.S. LLC	Larry Lundy PO Box 1355 Findlay, OH 45840 419-435-4427	Huron County	Refuse	DNR	Huron County Transfer Station
Top of the Line Dumpsters (TDL)	419-499-3867	Huron County	Residential/commercial refuse	287	Huron County Transfer Station
Waste Management	Ed Mjkonowicz/Kim Ware 6525 Wales Rd. Northwood, OH 43619 419-662-3063	Huron County	Residential/commercial (71%), industrial (17%), and exempt (12%) refuse	536	Huron County Transfer Station
<i>Public Sector Haulers</i>					
City of Norwalk Sanitation Department	3845 Laylin Road Norwalk, OH 44857 (419) 668-7122	Norwalk	Refuse (100% of tonnage listed), recyclables, yard waste, bulk items	4,316	Huron County Transfer Station
Village of New London	Shawn Pickworth 115 E. Main St. New London, OH 44851 419-929-4091 (office)	Village of New London	Residential refuse, recycling	1,869	Huron County Transfer Station
<i>Other</i>					
Small haulers, townships, and cash customers	N/A	Huron County	All sector refuse, compost, and recycling	5,762.91	Huron County Transfer Station
Total				37,158	

Source(s) of information: 2014 Huron County Transfer Station Material Activity Report

IV. Reference Year Population, Waste Generation and Waste Reduction [ORC Section 3734.53(A)(5)-(6)]

This section of the *Plan Update* presents information regarding the District's population, waste generation, and waste reduction estimates for the reference year.

A. Reference Year Population and Residential/Commercial Waste Generation

Table IV-1, "Reference Year Population and Residential/Commercial Generation," presents an estimate of the District's population and projected residential/commercial waste generation for 2014. The District's population estimate of 58,714 was calculated using estimates and projections prepared by the Ohio Development Services Agency's (ODSA) Office of Research. This population estimate was not adjusted for political subdivisions located in more than one solid waste district.

Population Adjustments

In accordance with Ohio law, the entire population of political subdivisions located in more than one solid waste district must be credited to the district containing the largest portion of the jurisdiction's population. The following adjustments were made for political subdivisions located partially within the District and partially within surrounding solid waste districts:



The City of Bellevue had less than 50% of the population living inside the District and more than 50% living inside Sandusky Co. The population of the City of Bellevue in Huron Co. (3,593) was subtracted from the District's population total.



The Village of Milan had less than 50% of the population living inside the District and more than 50% living inside Erie Co. The population of the Village of Milan in Huron Co. (358) was subtracted from the District's population total.



The Village of Plymouth had less than 50% of the population living inside the District and more than 50% living inside Richland Co. The population of the Village of Plymouth in Huron Co. (888) was subtracted from the District's population total.

The District's total adjusted 2014 population was 53,875 residents.

The total tons of waste generated by the residential/commercial sector in 2014 was estimated using the District's historical data, which is summarized in the following table:

Year	Waste + Recycling	Population	Per Capita Generation Rate	Change in Per Capita Generation
2009	36,717	54,750	3.67	--
2010	35,859	54,906	3.58	-2.62%
2011	38,120	54,711	3.82	6.68%
2012	36,065	54,561	3.62	-5.13%
2013	36,833	54,345	3.71	2.53%
2009-2013 Average Change in Per Capita Generation Rate:				0.37%

Residential/commercial waste generation data from 2009 to 2013 was taken from the District's Annual District Reports. Per capita generation increased an average of 0.37% annually from 2009 to 2013. The 2014 per capita generation rate of 3.73 pounds per person per day (PPD) was projected by increasing the 2013 per capita generation rate (3.71 PPD) by the average increase from 2009 to 2013 (0.37%).

The residential/commercial sector was projected to generate 36,649 tons of waste and recyclables in 2014 based on the projected per capita generation rate of 3.73 PPD and District population. This estimate was 9,268 tons less than the actual residential/commercial waste generation of 45,918 tons recorded by landfills, waste-to-energy facilities, and transfer stations (32,252 tons) plus reported recycling/reduction (9,469 tons) and organics composting (4,197 tons). For further discussion on reconciling the waste generation values see Section IV.H of this *Plan Update*.

B. Industrial Waste Generation

The District conducted a solid waste and recycling survey of its local industries to gather data on reference year (2014) recycling and waste generation. A total of 65,194 tons of waste disposed (2,345 tons) and recycling (62,848 tons) was reported by industries. A summary of industrial survey results is included in Appendix F.

Table IV-2 presents a summary of the industrial sector's 2014 total generation based on survey responses, as well as the estimated total for the District's entire industrial sector broken down by Standard Industrial Classification (SIC) code. A total of 145 industries in SIC codes 20 and 22-39 were identified throughout the District. Approximately 11% of the industries representing 47% of the District's industrial sector workforce were represented in the survey responses received.

The following table presents the types of industries that reported the highest per capita solid waste generation rates:

SIC Code	Description	Solid Waste Generation Rate (Tons/Employee)	Total Tons Reported on Survey
33	Primary Metal Industries	203.06	5,483
30	Rubber and Miscellaneous Plastics Products	41.62	3,080
27	Printing, Publishing, and Allied Industries	38.32	35,257

Two of the three types of industries that reported the highest per capita solid waste generation rates (SIC codes 27 and 33) were also in the top three types of industries with the highest overall tons reported. Industries with a SIC code of 35 (Industrial and Commercial Machinery and Computer Equipment) reported the second highest tonnage out of the industry groups that responded to the survey. Industries with a SIC code of 35 had a per capita solid waste generation rate that was 64% higher than the average generation rate for that group.

To estimate total industrial waste generated, a list was compiled that contained all industrial sector businesses located in the District and the total number of employees by SIC code. The District determined the quantity of industries and employees that were not represented in the survey responses. Average per capita generation rates by SIC code from Appendix JJ of the Ohio EPA Plan format were used to project the total tons generated by industries that did not respond to the District's survey. Using this projection methodology, a total of 31,332 tons of industrial waste were generated in the District by industries that did not respond to the survey. The resulting estimated total is 96,526 tons generated by both responding and non-responding industries.

C. Exempt Waste

Exempt waste is material that is not defined as solid waste, such as earth or materials from construction, mining, or demolition operations, nontoxic fly ash, nontoxic bottom ash, or slag. Exempt wastes can be managed in landfills that have different and often less stringent environmental control requirements. Table IV-3 shows that the total exempt waste generated by the District was 8,318 tons. This includes the exempt waste reported by the landfills and transfer stations receiving the District's waste in Table III-1. The generation rate was 0.85 pounds per person per day (PPD).

Exempt waste does not have a direct correlation to population or market/economic factors. The District's exempt waste increased over the 5-year period from 2009 to 2014 from 4,266 tons to 8,318 tons.

D. Total Waste Generation

Table IV-4, "Reference Year Total Waste Generation for the District," presents the projected total waste generated based on historic District trends, survey responses, and industrial generation estimates. Using this calculation method, an estimated 141,493 tons of waste was generated. The per capita daily total generation rate was 14.39 pounds. This includes 36,649 tons of residential/commercial sector waste (Table IV-1), 96,526 tons of industrial sector waste generation (Table IV-2) and the actual tons of exempt waste (8,318 tons) reported by landfills and transfer stations (Table IV-3). The total waste generation listed in Table IV-4 was 16,657 tons more than the total generation presented in Table IV-8, which was calculated by using actual data reported by landfills, waste-to-energy facilities, transfer stations, and recycling facilities. For further discussion on reconciling the waste generation values see Section IV.H.

E. Reference Year Waste Reduction

The District surveyed communities, businesses, recycling facilities, haulers and brokers to obtain data on residential, commercial, institutional and industrial recycling for 2014. Residential/commercial waste reduction reported in Table IV-5 and industrial waste reduction reported in Table IV-6 was obtained from these surveys.

Totals in Table IV-5 and Table IV-6 differ from the 2014 Annual District Report. Totals in these tables have been revised to include updated survey data and recycling tonnage provided by Ohio EPA. The District was careful to eliminate double counting as described in the sections below.

Residential Data

The District annually records quantities of recycling from residential collection programs such as curbside recycling and drop-off recycling. The District also surveyed brokers and MRFs (material recovery facilities). Tonnage managed by the same MRF or broker was removed to avoid double counting.

Commercial/Institutional Data

A survey of commercial businesses and institutions completed in the spring of 2015 to gather 2014 recycling data. The letter explained the purpose of the inquiry and requested that recipients complete the enclosed survey and return it using the provided envelope. The results of these individual surveys were used to compile recycling by commercial businesses and institutions. Brokers, haulers, and MRFs were also

surveyed. These surveys requested only tonnage that was generated within the District.

Data from businesses was not blended with data from brokers, haulers, or MRFs when calculating the total tons for the majority of materials. The District typically used the greatest total tons reported by either businesses, brokers, haulers, or MRFs but not a combination of totals to avoid double counting.

Data blending was only used in rare instances when the District was confident that double counting would not occur. For example, the total tons of yard waste composted was calculated using Ohio EPA's totals reported in the 2014 Annual Compost Report plus tonnage reported by municipalities that reported using a processor to manage yard waste that is not a registered compost facility and land applies the materials.

Industrial Data

The District sent industries a cover letter and survey in the spring of 2015 to gather 2014 recycling. The letter explained the purpose of the inquiry and requested that recipients complete the enclosed survey and return it using the provided envelope. The results of these individual surveys were used to compile industrial sector recycling.

Data from haulers, brokers, or MRFs was used infrequently and only if the District could ensure that tonnage was not double counted. Disposal data was not requested on the original survey and was obtained by conducting a telephone survey to the industries that responded to the recycling survey.

2014 ADR Data vs Plan Data

The District was not satisfied with the recycling data obtained from the 2015 survey process for 2014 data. The District conducted additional phone surveys and follow-up calls to obtain additional data after the 2014 ADR was submitted to Ohio EPA. The data represented in this *Plan Update* is the most accurate and newest available and supersedes the data submitted in the 2014 ADR.

Residential/Commercial Waste Reduction

Table IV-5, "Reference Year Residential/Commercial Waste Reduction in the District," shows that the District's residential and commercial sectors diverted 13,667 tons of materials from landfills in 2014 by recycling, waste reduction via incineration, and composting.

Organics (food and yard waste) represented the most diverted material based on weight (4,197 tons), followed ferrous metals (3,401 tons), cardboard (2,245 tons), commingled (1,154 tons), and paper (1,474 tons). The following table summarizes the residential and commercial recycling totals by commodity:

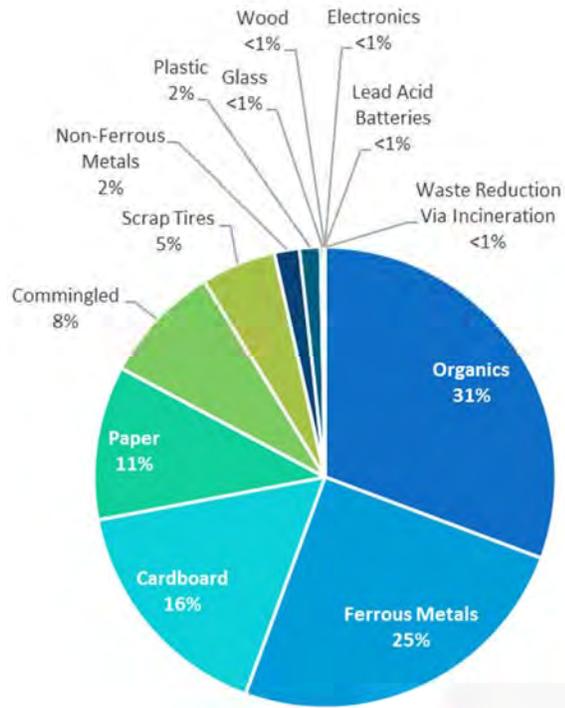
2014 Residential/Commercial Sector Recycling Tonnage by Commodity/Reduction Method

Commodity	2014 Tons
Organics	4,197
Ferrous Metals*	3,401
Cardboard	2,245
Commingled	1,154
Paper	1,474
Scrap Tires	715
Non-Ferrous Metals	241
Plastic	199
Glass	36
Wood	3
Electronics	1.5
Lead Acid Batteries	1.4
Waste Reduction Via Incineration	0.4
Total	13,667

*Included white goods from District Transfer Station

The following figure presents the waste reduction percentages for the residential/commercial sector.

2014 Residential/Commercial Waste Reduction



The largest increase in from the 2014 ADR was in ferrous metals which was reported by a processor in Norwalk. The data was verified by the District as to its origin of generation and from the residential/commercial sector and that no double counting of materials was represented by this data.

The second largest increase from the 2014 ADR was in paper. The District was able to obtain additional data from its generators and processors through the follow-up and phone survey conducted in 2015. The data was verified to be accurate and was not double counted.

Industrial Waste Reduction

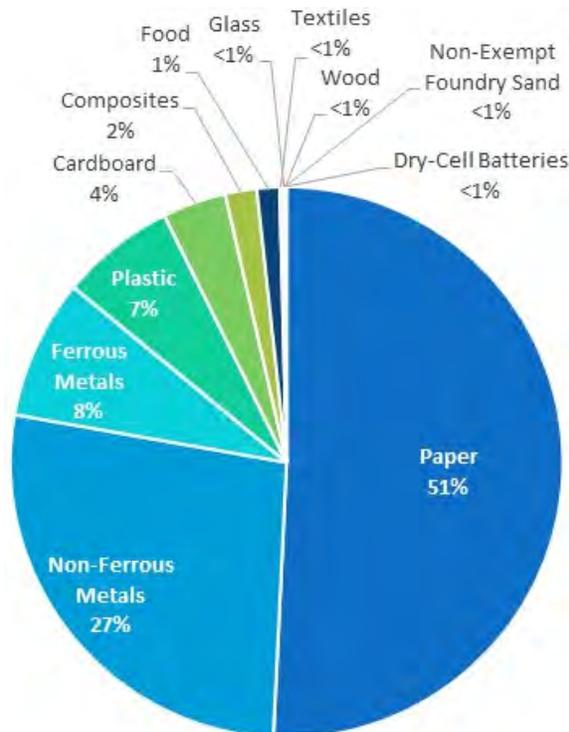
Table IV-6, "Reference Year Industrial Waste Reduction in the District" shows that industries located in the District recycled 62,849 tons of materials in 2014. Paper represented approximately 51% of the industrial sector's recycling. Other significant components of the industrial sector's 2014 recycling included non-ferrous metals (16,974 tons), ferrous metals (5,153 tons) and plastic (4,222 tons). The following table summarizes the industrial recycling totals by commodity:

2014 Industrial Sector Recycling Tonnage by Commodity

Commodity	2014 Tons
Paper	31,907
Non-Ferrous Metals	16,974
Ferrous Metals	5,153
Plastic	4,222
Cardboard	2,343
Composites	1,160
Food	839
Textiles	130
Glass	54
Wood	40
Non-Exempt Foundry Sand	20
Dry-Cell Batteries	6
Total	62,849

The following figure presents the commodities recycled by the industrial sector in 2014.

2014 Industrial Waste Reduction in the District



F. Existing Waste Reduction/Recycling Activities for the Residential, Commercial and Industrial Sectors

The strengths and challenges of District programs are presented following each program description.

RESIDENTIAL/COMMERCIAL RECYCLING PROGRAMS

1. Curbside Recycling

The District had a total of two communities that offered non-subscription residential curbside recycling in 2014 and one community that had subscription curbside recycling.

Non-subscription curbside recycling means that residents do not have to opt-in or pay additional fees to participate. Non-subscription curbside recycling is provided to all residents in single-family homes and some low-volume (i.e., duplex-style) multi-family homes that have waste collection for no additional charge.

Subscription curbside recycling means a solid waste district receives 25% population credit when a subscription service is offered by waste haulers operating in the political subdivision. Subscription curbside recycling is a service that is paid directly by the resident similar to a magazine subscription. The resident chooses to subscribe to a hauler that provides the recycling service. The credit for subscription service can be higher than 25% if the District can demonstrate that more than 25% of households participate in the subscription service.

A. Non-Subscription Curbside Recycling Programs

City of Norwalk

The City of Norwalk's Sanitation Department operates a non-subscription curbside recycling program. The following materials are accepted:

- Glass food and beverage containers (any color)
- Aluminum food and beverage cans
- #1 and #2 Plastic bottles and jugs
- Steel/bi-metal food and beverage cans
- Mixed paper, including newspaper, office paper, magazines
- Corrugated cardboard

The City of Norwalk's curbside recycling program has some volume-based components, but it is not operated as a true

pay-as-you-throw (PAYT) style program. Each week, residents are permitted to set out an unlimited quantity of recycling and up to 3 cans or bags of waste per household. Cans or bags of waste cannot exceed 33 gallons in size or weigh more than 40 pounds each.

Stickers must be placed on each bag of waste that exceeds the three bag/can limit and bulky items. Stickers for excessive waste cost \$3.00 and bulky large item stickers cost \$10.00. The stickers may be purchased at the Utility Billing Window at City Hall located at 38 Whittlesey Avenue during normal business hours (8AM-4:30PM).

Trash and bulky items (furniture, mattress, large items) are collected weekly with two routes per day for each day of the week (Monday-Friday). Each route utilizes a rear load packer truck with two employees.



Recycling must be placed in trash bags and identified with a yellow sticker, which can be obtained for no cost at City Hall or numerous stores throughout town. Large amounts of cardboard may be flattened and bound instead of bagged.



City crews collect recyclables (paper, plastic, glass, steel and aluminum cans) weekly with two routes per day for each day of the week (Monday-Friday). Each route utilizes a rear load packer truck with one full time employee. One route collects only paper products and the other route collects commingled recyclables (plastic, glass, steel and aluminum cans).

Residents place their paper products (cardboard, newspaper, junk mail, magazines) in a City-provided 18-gallon recycling bin. Commingled recyclables can be placed into any plastic garbage bag but must have a separate recycling sticker to indicate that the bag contains recyclables and not trash.



The City only services single family homes, mobile homes and multi-family homes up to 3 units. All residential households that are

4 units or more are considered commercial and are not picked-up by the City. Residents are provided with manual collection services for garbage (or trash), and recyclables each week, and weekly collection of yard waste from May through October. In addition, the City pays the Streets Department to provide leaf collection in the fall. Bulk items are also collected on the trash routes.

The City of Norwalk transports all materials collected from the curbside recycling and waste program to the Huron County Transfer Station.

The City of Norwalk provides recycling education to residents on its webpage:

www.norwalkoh.com/Departments/sanitation.html#Trash_Collection

Fees for the Sanitation Department’s services, which also include seasonal yard waste, brush, and leaf collection, are funded by a 0.25% income tax.

Village of New London

The Village of New London’s Sanitation Department provides non-subscription curbside recycling to residents in the village and township. The Village services 977 village homes and 189 township homes. The District analyzed the volumes of recyclables collected by the Village for each of their customer base (Village and Township). For the Village customers, cardboard, newspaper, aluminum cans, and steel cans are accepted and totaled 210 tons in 2014. The Village used to accept glass and plastic but was unable to continue including the materials due to cost and staffing limitations.

The following table presents the total recycling collected by each program:

2014 Curbside Recycling Totals

Program	2014 Tons	Household	Pounds Per Household Per Year	Pounds Per Household Per Month
City of Norwalk	810	6,028	269	22
Village of New London*	210	977	429	36

*Village totals only, does not include township.

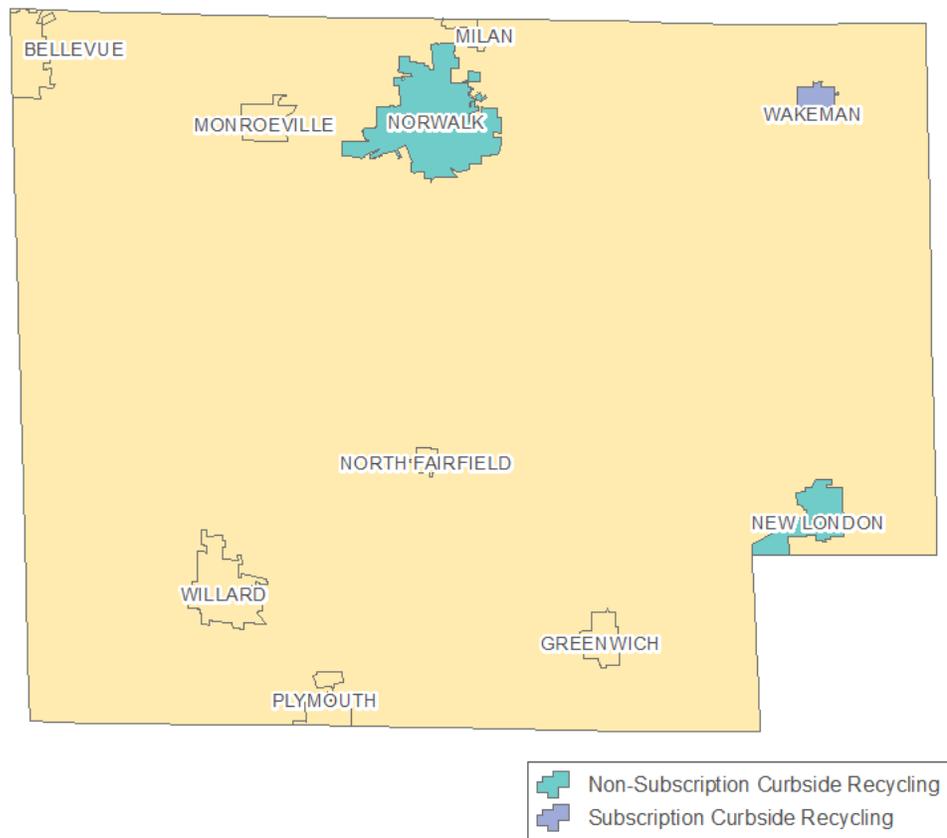
B. Subscription Curbside Recycling Programs

Village of Wakeman

Republic Waste Services offers a subscription curbside trash and recycling for the residents of the Village of Wakeman. The recycling program accepts cardboard, newspaper, aluminum cans, steel and bi-medical cans, #1-7 plastic containers and glass and began operation in March of 2014.

The following map presents areas that had access to curbside recycling in 2014:

2014 District Curbside Recycling Programs



The following table summarizes the program details.

HC-1: Curbside Recycling Program Summary	
Description	Details
Ohio EPA Program ID	1846, 1847, 3905
Entity Maintaining Program	Political Subdivisions

HC-1: Curbside Recycling Program Summary	
Description	Details
Service Area	City of Norwalk, Village of New London and Village of Wakeman
Materials Recycled	Aluminum and steel cans, glass, #1-#2 plastic containers, mixed paper, cardboard
2014 Recycled Tonnage	1,020
Annual District Program Costs	\$0
Program Operator/Contractor	City and Village Sanitation Departments

Strengths of the program include:

- Provides a convenient way for residents to recycle.
- High per household recycling rates indicate residents in both communities participate in the programs.

Challenges of the program include:

- Non-subscription curbside recycling is not economically feasible in all areas.
- No communities have competitively bid curbside trash and recycling services.
- Not all residents may be aware of the details on how each curbside program operates.

2. Drop-Off Recycling Program

The District operated a drop-off recycling program during 2014. Commingled drop-offs accepted the following materials:

Mixed Paper (Newspaper, Magazines, Office Paper, Shredded Paper, Junk Mail, Phone Books)	Corrugated Cardboard, Paperboard, Brown Paper Bags
Aluminum Food & Beverage Containers	Steel Food & Beverage Containers
#1 & #2 Plastic Bottles and Jugs	Glass Food & Beverage Containers

Source-separated drop-offs did not accept glass or plastic.

In 2014, there were 6 full-time publicly available recycling drop-offs and 12 part-time publicly available recycling drop-offs located throughout the District. Full-time means the drop-off was open for at least 40 hours per week. Many full-time drop-offs were open 24 hours a day. Part-time drop-offs were typically available for a few days each month. In 2014, the District expanded the existing drop-off program by adding an additional full-time and part-time drop-off.

The District charges \$150.00 per pull for commingled boxes to some of the Township drop-off sites. Other sites pay an annual fee of \$600.00 for drop-off services (Norwalk Township and City of Willard). Any site that has a cardboard/paper box are not charged a per pull or annual fee. All revenue listed above is collected by the Huron County Landfill/Transfer Station. To cover Landfill/Transfer Station operating costs (processing and transportation), the District pays the \$100/pull that is incurred for transporting recyclables to the contracted processor.

The following table presents the list of drop-off sites available in 2014, the operating status (full-time/part-time) and the materials accepted at each location.

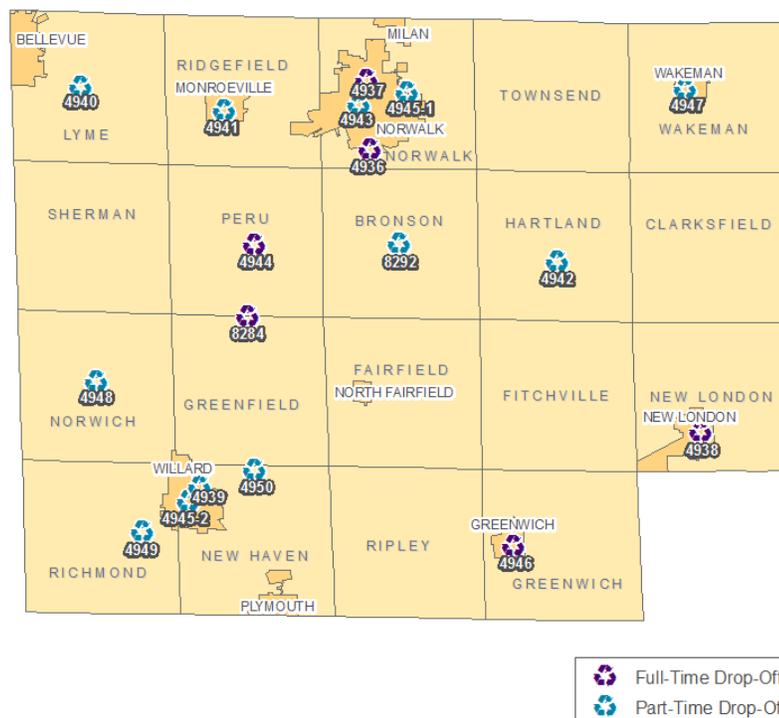
2014 Recycling Drop-Off Sites

OEPA ID	Location	Type	Materials Accepted
8284	Huron County TF 2415 Townline Rd. 131 W Willard, OH 44890	Full-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans, metals
4937	Huron Co. Admin. Bldg. 180 Milan Ave. Norwalk, OH 44857	Full-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
4944	Greenfield Twp. Hall 1314 Peru Center Rd. Monroeville, OH 44847	Full-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
4938	New London Village Hall 115 E. Main St. New London, OH 44851	Full-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
4936	Co. Sheriff's Office 255 Shady Lane Dr. Norwalk, OH 44857	Full-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
4946	Village Admin. Bldg. 45 Main St. Greenwich, OH 44837	Full-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
8292	Bronson Twp. Bldg. 1337 Old State Rd. N Norwalk, OH 44857	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4950	New Haven Twp. Hall 2744 Peru Center Rd. Willard, OH 44890	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4948	Norwich Twp. Hall 1330 Section Line Rd. 30 S Willard, OH 44890	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4949	Richmond Twp. Hall 4520 Bullhead Rd. Willard, OH 44890	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4942	Hartland Twp. Hall 1064 Hartland Center Rd. Collins, OH 44826	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4940	Lyme Twp. Hall 5646 Young Rd. Bellevue, OH 44811	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4945-1	Norwalk Twp. Hall 111 Townsend Ave. Norwalk, OH 44857	Part-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans

OEPA ID	Location	Type	Materials Accepted
4945-2	Willard City Hall 631 S. Myrtle Ave. Willard, OH 44890	Part-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
4943	Norwalk City Hall 38 Whittlesey Ave. Norwalk, OH 44857	Part-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans
4941	Ridgefield Twp. Office 47 S. Ridge St. Monroeville, OH 44847	Part-Time	Plastic, glass, paper, cardboard, aluminum cans, steel/bi-metal cans
4947	Wakeman Village Hall 59 Hyde St. Wakeman, OH 44889	Part-Time	Cardboard, steel and aluminum only
4939	Willard WWTP 540 Central Ave. Willard, OH 44890	Part-Time	Paper, cardboard, aluminum cans, steel/bi-metal cans

The following figure presents the locations of drop-off centers that operated during 2014:

Huron County Drop-Off Recycling Sites



The District owns the recycling containers used at each drop-off site. Containers are set-up to accept three streams of materials

that are source-separated. The following figure presents an example of the containers placed at drop-off sites.

Labeled, Multi-Compartment Trailers at District Drop-Offs



In addition, the District provides weekly recycling to the following schools in the City of Norwalk:

- Norwalk Middle School
- Main Street School
- League Street School
- Norwalk High School

The schools recycled a total of 24,000 pounds during 2014.

Limited material drop-offs were available at New London High School and Western Reserve High School. Limited material drop-offs describe recycling sites that accept less than the required number of materials to be counted toward the goal of providing recycling opportunities to at least 90% of the community. New London High School collected mixed paper and metal cans; Western Reserve High School collected paper and cardboard.

The following table summarizes the program details.

HC-2: Drop-Off Recycling Program Summary	
Description	Details
Ohio EPA Program ID	4936-4950, 8292
Entity Maintaining Program	District
Service Area	District

HC-2: Drop-Off Recycling Program Summary	
Description	Details
Materials Recycled	Aluminum and steel cans, glass, plastic, mixed paper, cardboard
2014 Recycled Tonnage	573
Annual District Program Costs	\$72,770 <u>-\$21,653 (revenue)*</u> \$51,117
Program Operator/Contractor	District

*Revenue is from the fees charged to the Townships for the drop-off program and some recycling revenue for the sale of cardboard which is included in the transfer station revenue budget line item.

Strengths of the program include:

- Provides recycling opportunities where curbside is not available or economically feasible.
- Full-time drop-offs provide residents the availability to empty recyclables on a convenient, as needed basis.
- Provides recycling opportunities in areas where private waste services companies will not.
- Not all areas are serviced by the drop-off program and there are some rural areas with no service.

Challenges of the program include:

- Providing access in rural areas is costly and yields low tonnage with higher volumes of contaminants and/or non-marketable recyclable materials.
- Due to the volatile market for recyclables, the drop-off program is financially unsustainable without the District's support since it cost more to operate the program than it generates in revenue.
- Some drop-offs are only available every other month. During off-months, residents either need to store recycling or choose another drop-off, which may dissuade some residents from consistently using the program.
- The drop-off program does not collect the same materials from site to site.

- Operating a roll-off style collection program is inefficient which requires a District driver to be on the road almost every day switching out containers.

3. Yard Waste Management Program

Yard waste management infrastructure provided sufficient capacity for managing organics generated throughout the District.

Supplemental Information

Four types of registered compost facilities in the state of Ohio include:

- *Class I:* Permitted to accept mixed solid waste for composting
- *Class II:* Permitted to accept source-separated yard waste, agricultural waste, animal waste, and food scraps for composting
- *Class III:* Permitted to accept source-separated yard waste, agricultural waste, and animal waste for composting
- *Class IV:* Permitted to accept source separated yard waste for composting

Registered Facilities

In 2014, there were five registered compost facilities in the District. Four of the sites located in the District were Class IV facilities and one was a Class III facility. A total of 366 tons of yard waste was managed at these facilities in 2014.

Four of the sites located in-district were publicly operated. The Huron County Transfer Station was one of the registered Class III sites in the District. Yard waste including leaves, grass clippings, tree branches, (less than 4" diameter), straw and holiday trees were accepted at the transfer station for \$20 per ton.

The Village of New London operated a registered Class IV site. Village crews collect brush trimmings from residents on a seasonal basis and compost at the site.

The Village of Greenwich operates a Class IV site but no data was available for 2014.

The Huron County Fairgrounds operates a Class III facility and reported 20 tons of material composted in 2014.

Sand Road Enterprises operated a Class IV compost site in the City of Norwalk. In 2014, there was a total of 136 tons of yard waste composted.

Out-of-district compost facilities managed a total of 160 tons of yard waste that was generated in the District. The City of Bellevue WWTP is located inside Huron County, but due to politically adjusted borders based on population, the City of Bellevue is not considered part of the District. The City of Bellevue is considered part of the Ottawa, Sandusky, Seneca Joint Solid Waste Management District because the majority of the population resides in Sandusky County.

Other Yard Waste Reduction Activities

Two communities, the Village of Wakeman and the City of Norwalk, operated yard waste collection programs. Materials from these programs were managed at a facility that produces mulch but is not a registered compost facility. Tonnage from these programs totaled 3,054 tons.

The Village of Wakeman collects yard waste and stages into piles until they are taken away by a third-party contractor.

The City of Norwalk operates a non-registered yard waste drop-off site. Residents were permitted to drop-off yard waste, brush, dirt, and rocks for no charge. The site operated seasonally and was open April through November, Friday through Sunday, from 10AM to 6PM. Materials collected that are organic are staged in large piles and then periodically the City contracts with a company to grind the organics into mulch which is then made available to residents and the City for use.

The City's Sanitation Department operated semi-annual city-wide brush pick-ups in the Spring and Fall, typically during May and October. The following are the City's rules for the semi-annual collection:

- Brush must be placed on curb on regular trash pick-up day.
- Entire large trees or bushes will not be picked up.
- Brush must be stacked neatly with no roots, stumps, or soil attached.
- Branches are to be no longer than 6 feet.

- Residents on narrow boulevards may place brush neatly on the back side of the sidewalk.
- No more than one pickup truck load will be collected from a residence.
- Brush will only be collected once. No return trips will be made.

Curbside leaf collection was also performed by Norwalk's Sanitation Department. Un-bagged leaves were collected for one week in November on the day following residents' regular trash collection.

In the Spring, mulch produced from the organic materials collected was available at no cost to residents and for use by the City.

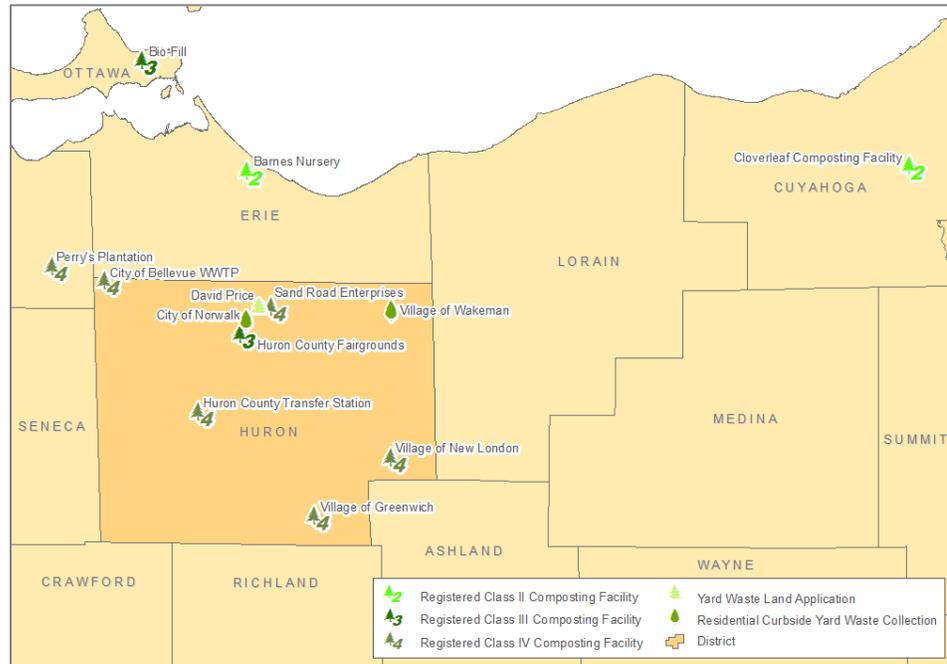
Food Waste Composting

Out-of-district compost facilities managed a total of 449.6 tons of food waste that was generated in the District. Food waste haulers and a large commercial department store chain reported composting an additional 167.8 tons of food waste generated in Huron County.

Overall, a total of 4,197 tons of organics were composted in 2014.

The following figure presents the locations of registered compost facilities located throughout the District.

2014 District Registered Compost Facilities



The following table summarizes the program details.

HC-3: Yard Waste Management Program Summary	
Description	Details
Ohio EPA Program ID	4960-4962
Entity Maintaining Program	District, Facility operators
Service Area	District
Materials Recycled	Yard waste, organics
2014 Recycled Tonnage	Yard waste: 3,579.9 tons <u>Food waste: 617.4 tons</u> 4,197.3
Annual District Program Costs	\$0
Program Operator/Contractor	Various

Strengths of the program include:

- Existing programs and facilities in the District divert a significant quantity of yard from landfills at minimal cost to District.

Challenges of the program include:

- None.

4. Household Hazardous Waste Management Program

The District annually evaluates whether opportunities for partnerships may allow the District to offer household hazardous waste (HHW) collection events. In 2014, the District was unable to host an HHW collection due to budgetary constraints.

Proper HHW disposal information is provided to residents through the District's publications and phone inquiries. The District also maintains a list of locations that accept used oil. This list was incorporated in the District's educational materials and also available upon request.

The following table summarizes the program details.

HC-4: Household Hazardous Waste Collection Program Summary	
Description	Details
Ohio EPA Program ID	4964, 4967, 8288
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	0
Annual District Program Costs	\$0
Program Operator/Contractor	District

Strengths of the program include:

- A variety of local businesses accept used oil from residents.

Challenges of the program include:

- Collection events are costly so the District only educates on HHW management.
- The HHW brochure is out of date.
- District website and publications only offer options for used oil and lead acid battery outlets.

5. Scrap Tire Collection

Tires were accepted at the Huron County Transfer Station for a reasonable fee. The fees for different types of tires were as follows:

- Lawn Mower: \$3.00
- Car: \$3.00
- Truck: \$4.00
- Semi: \$10.00
- Tractor: \$25.00

Tire collection events that are free for residents are typically held every other year in odd-numbered years when adequate grant funding is available.

The District does apply for scrap tire grants on an every-other-year cycle. No grants were applied for in 2014. When a grant is applied for and awarded, the District conducts special collections in targeted areas. The following listed the last several collection events conducted:

- 2009 – District Transfer Station
- 2011 – New London
- 2013 – Monroeville
- 2015 – Wakeman

During these special collection events, the District also encourages the Townships to bring their accumulated scrap tires from illegal dumping activities.

Residents may also recycle tires at any tire retailer. The following table summarizes the program details.

HC-5: Scrap Tire Collection Program Summary	
Description	Details
Ohio EPA Program ID	4959
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Scrap tires
2014 Recycled Tonnage	715
Annual District Program Costs	\$12,000 *
Program Operator/Contractor	District

*2013 Monroeville collection costs paid in 2014.

Strengths of the program include:

- Scrap tires are accepted year-round at the Transfer Station, which is more convenient than an annual collection event.

- Privately owned businesses provide ample opportunities for residents to recycle scrap tires, usually at the point of sale when new tires are purchased to replace spent tires.

Challenges of the program include:

- None.

6. Lead-Acid Battery Collection

Lead-acid batteries (LABs) were accepted year-round at the Transfer Station for no charge. The District also maintained an updated list of facilities that accepted lead-acid batteries and included information on proper LAB disposal in its educational materials.

The following table summarizes the program details.

HC-5: Lead-Acid Battery Collection Program Summary	
Description	Details
Ohio EPA Program ID	4965-4966
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Lead-acid batteries
2014 Recycled Materials	1.4
Annual District Program Costs	\$0 (included in transfer station operations budget)
Program Operator/Contractor	District, Rumpke

Strengths of the program include:

- LABs were collected and properly managed, protecting human and environmental health.
- The program is offered at no charge to residents.
- LABs were accepted year-round at the Transfer Station, which was more convenient than an annual collection event.

Challenges of the program include:

- None.

7. Appliance Collection

The District accepted white goods (appliances) year-round at the Transfer Station. Most appliances are accepted for no charge. Appliances containing Freon such as refrigerators, freezers, and dehumidifiers are accepted for a fee of \$20.00 per item. The Huron County HVAC technician is registered to remove Freon from appliances. The following table summarizes the program details.

HC-7: Appliance Collection Program Summary	
Description	Details
Ohio EPA Program ID	4958
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Appliances/white goods
2014 Recycled Tonnage	53.2
Annual District Program Costs	\$0 (included in transfer station operations budget)
Program Operator/Contractor	District, County HVAC Technician

Strengths of the program include:

- Appliances, including those containing Freon were collected and properly managed, protecting human and environmental health.

Challenges of the program include:

- None.

8. Electronics Recycling

Computers and televisions contain precious metals and valuable components that can be reused or recycled. Materials commonly found in these devices such as cadmium, mercury, chromium, and barium can pollute water and air if they are not properly disposed or recycled.

In 2014, the District referred residents to Goodwill, Christy Lane Industries, and Mid-Ohio Electronics to recycle e-waste at no charge. The District does accept electronics at the Transfer Station that are comingled with trash but they are not separated to be recycled

The following table summarizes the program details.

HC-8: Electronics Recycling Program Summary	
Description	Details
Ohio EPA Program ID	5404
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Electronics
2014 Recycled Tonnage	1.5
Annual District Program Costs	\$0
Program Operator/Contractor	District, Goodwill, Christy Lane Industries, Mid-Ohio Electronics

Strengths of the program include:

- Electronics accepted by Goodwill, Christy Lane Industries, and Mid-Ohio Electronics were properly managed, protecting human and environmental health.
- Publicly and privately operating enterprises throughout Huron County accept electronics for recycling at no cost to the District.

Challenges of the program include:

- Collection of source separated electronics does not occur at the transfer station.

RESIDENTIAL SECTOR EDUCATION AND AWARENESS PROGRAMS

The District utilizes a variety of efforts to provide education and awareness to all sectors in the County for both youth and adult audiences. The District utilizes the administrative specialist at the District to either conduct the activities in this section or arrange, coordinate or manage the activities. The following section summarizes the District's education and awareness programs for 2014.

1. Public Awareness

The objective of the District's public awareness program is to increase residents' knowledge of District programs and recycling activities. The District utilizes a variety of methods to reach as many residents as possible.

The District's website (www.HuronCountySWMD.com) was maintained and updated on a regular basis during 2014. The following figure is a screenshot of the District's website:



Information on the website was organized into the following areas:

About Us

- Brief history of HB 592
- District funding mechanisms
- Policy Committee and Board of Directors member list

What to Recycle

- Materials accepted at most drop-offs and curbside programs
- Tips for reducing carbon footprint

Locations

- Drop-off recycling site locations, schedule, and materials accepted at each facility

Transfer Station

- Transfer Station address, contact information, and hours
- Price list for materials accepted for a fee

Contact Us

- District Contact information
- Online information request form

In addition to the website, the District advertises its programs and collection events using multiple forms of media. In 2014, the District regularly published a column in the local newspaper. The column included addresses and operating hours, as well as materials accepted at drop-off locations. Approximately 15 radio and cable ads were also run in 2014 to promote the drop-off

program and other recycling opportunities. Press releases were used to publicize events and recycling or litter prevention activities.

The District also updated, printed, and distributed brochures listing township drop-offs and oil recycling brochures. Copies were available at numerous public buildings throughout the District.

The following table summarizes the program details.

HC-9: Public Awareness Program Summary	
Description	Details
Ohio EPA Program ID	4956, 8290
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$2,094
Program Operator/Contractor	District, Norwalk Reflector, Sandusky Register, New London Record, Willard Times Junction, WLKR Radio Station

Strengths of the program include:

- The website provides an effective and efficient means for distributing information and notifying residents about programs and upcoming collection events.

Challenges of the program include:

- Advertising is costly and free advertising opportunities are extremely limited.
- The District website lacks details on recycling outlets in the region.
- Printed materials are not up to date and lack details.

2. Environmental Education

The District provides a variety of educational opportunities and programming for students, youth groups, and civic groups.

Presentations for students, youth groups, and civic groups are performed by request. Presentations cover recycling, reuse, and litter prevention topics.

During 2014, presentations were conducted at a variety of venues covering a broad audience, including:

- Pre-schools
- Norwalk Green Team
- Migrant Day Camp
- Easter Seals Camp Bellevue
- 4-H Camp (two sessions)
- EnviroThon (District 5)
- Clover Bud Camp
- County FFA Chapter meetings (4)
- Willard Chamber of Commerce meeting
- New London Rotary meeting
- United Methodist Women’s Group meeting
- Home School presentations

The District partnered with the Huron County Soil and Water Conservation District to provide yard waste composting education classes.

Additionally, the District worked with high school students on a community recycling project.

The following table summarizes the program details.

HC-10: Environmental Education Program Summary	
Description	Details
Ohio EPA Program ID	4955, 4963
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$0
Program Operator/Contractor	District, Huron County Soil and Water Conservation District

Strengths of the program include:

- Multiple age groups are targeted with audience specific presentation content.
- The education program consistently receives positive feedback from teachers, schools, students, and local civic organizations.

Challenges of the program include:

- The District does not conduct enough presentations in schools especially in certain school districts.

3. Environmental Events

In 2014, the District interacted with the community by participating in special events, including:

- Earth Day events (for county, cities, and schools)
- Arbor Day event (2nd grade class)
- Safety Day (New London Schools)
- Parks and Recreation programs
- Science Fair
- EnviroDays (4th grade class)
- Imagine Norwalk
- Fall Fun Fest
- Clean Sweep
- Norwalk Green Fair

District staff were on site to answer questions from the public at events during 2014.

In addition, the District provides brochures and flyers at the environmental events which cover topics such as recycling, and used oil recycling.

The following table summarizes the program details.

HC-11: Environmental Events Program Summary	
Description	Details
Ohio EPA Program ID	4954, 4956
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$812
Program Operator/Contractor	District, Huron County Soil and Water Conservation District

Strengths of the program include:

- Increased awareness of recycling opportunities by providing comprehensive recycling resources for the public.

Challenges of the program include:

- None.

COMMERCIAL/INDUSTRIAL SECTOR EDUCATION, AWARENESS, AND TECHNICAL ASSISTANCE

1. Waste Audits and Assessments

Waste audits and assessments were available to businesses, organizations, and industries upon request for no charge. Following an audit or assessment, the District identifies opportunities for maximizing waste diversion and discusses customized strategies for implementing or expanding recycling activities. In 2014, a waste audit was completed for Lakepark Industries in Greenwich, Ohio. Lakepark Industries is a 200,000 square foot plant that manufactures metal stampings. The District performed an audit and identified recyclable materials generated by Lakepark Industries. The results of the audit listed the materials identified, current methods of managing each recyclable material, and local opportunities to manage recyclables currently not being diverted.

The following table summarizes the program details.

HC-12: Waste Audits and Assessments Program Summary	
Description	Details
Ohio EPA Program ID	4970
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$0
Program Operator/Contractor	District

Strengths of the program include:

- Program provides free, individualized technical assistance to local businesses, institutions, and industrial entities to promote the establishment or expansion of recycling programs.

- Program provides an opportunity for the District to meet, interact with, and develop relationships with local generators.

Challenges of the program include:

- The minimal number of annual requests for audits or assessments may indicate that businesses, organizations, and industries are unaware of this program.

2. Recycling Assistance

The District maintains and updates lists of recycling options for used oil, lead-acid batteries, and other materials. In 2014, the District compiled the lists of recycling outlets into a brochure and distributed it at various locations including the fair, county offices, libraries, the Transfer Station, and the Chamber of Commerce.

The following table summarizes the program details.

HC-13: Recycling Assistance Program Summary	
Description	Details
Ohio EPA Program ID	4971
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Varies
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$0
Program Operator/Contractor	District

Strengths of the program include:

- The pamphlet provides residents, businesses, and industries with information about recycling opportunities, including opportunities to recycle special materials.

Challenges of the program include:

- All the printed materials are out of date and lack modern presentation formats.

3. Commercial/Industrial Workshops

Workshops were held by the District upon request. Workshops may focus on the benefits of source reduction and recycling or recycling opportunities in Huron County. In 2014, the District held a workshop at the Willard Chamber of Commerce on commercial

recycling. A total of 8 attendees representing 7 businesses participated in the event. The presentation emphasized cost savings by recycling versus disposal and environmental sustainability.

The following table summarizes the program details.

HC-14: Commercial/Industrial Workshops Program Summary	
Description	Details
Ohio EPA Program ID	4974
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$0
Program Operator/Contractor	District

Strengths of the program include:

- Program provides free, individualized workshops to local businesses, institutions, and industrial entities to assist with the waste disposal and recycling collection.

Challenges of the program include:

- The minimal number of annual requests for workshops may indicate that businesses, organizations, and industries are unaware of this program.

4. Commercial/Industrial Newsletter

Newsletters containing information about source reduction and recycling opportunities are prepared for commercial and industrial sector generators and posted on the District’s website from time to time although none were posted in 2014. The District also worked with the Chamber of Commerce to reach commercial and industrial sector entities by providing informational flyers and brochures on recycling and waste reduction opportunities to the Chamber. The Chamber has also agreed to include recycling information in packets sent to new members.

The following table summarizes the program details.

HC-15: Commercial/Industrial Newsletter Program Summary	
Description	Details
Ohio EPA Program ID	4972

HC-15: Commercial/Industrial Newsletter Program Summary	
Description	Details
Entity Maintaining Program	District
Service Area	District
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$0
Program Operator/Contractor	District

Strengths of the program include:

- Newsletters reach generators directly and raise their awareness about the District and its programs.

Challenges of the program include:

- Budgetary constraints limit the District’s ability to distribute physical copies of the newsletter annually.

GRANT PROGRAMS

1. Recycling Incentive Grant

The District provided financial assistance to the City of Norwalk to aid with their non-subscription curbside recycling program. Financial assistance was provided from 2011 to 2015. During the 2014 reference year, the District provided \$10,000 to the city.

The following table summarizes the program details.

HC-16: Norwalk City Recycling Incentive Grant Program Summary	
Description	Details
Ohio EPA Program ID	8293
Entity Maintaining Program	District
Service Area	City of Norwalk
Materials Recycled	N/A
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$20,000 *
Program Operator/Contractor	District

*The District paid an additional \$10,000 to the City of Norwalk in 2014 for the 2013 grant year.

Strengths of the program include:

- Financial assistance made it possible for the City to maintain and improve its curbside recycling program.
- After providing financial assistance to the City for 5 years, the program should not require further financial assistance from the District.

Challenges of the program include:

- Financial assistance is not offered to other communities in the District.

DISTRICT FACILITIES

1. Huron County Transfer Facility/Landfill

Transfer Station



The District owns and operates the Huron County Transfer Facility, which is located at 2415 Townline Road 131 West in Willard, Ohio. The Huron County Transfer Station began receiving mixed solid waste in September 1998. Prior to that date, the facility operated as a material recovery facility for recyclables

and a solid waste landfill. The transfer station has continued to process waste and a small amount of recyclables, with more than 98 percent of the mixed solid waste (or trash) originating from Huron County. The facility is open Monday through Friday from 7am to 4pm and on Saturday from 7am to noon. The transfer station accepts the following materials:

- Solid waste for disposal at \$54.00/ton
- Scrap tires for recycling at \$3.00 for lawn mower tires, \$3.00 for car tires, \$4.50 for truck tires, \$10.00 for semi-truck tires and \$25.00 for tractor tires
- Freon appliances at \$20.00 each for refrigerators, freezers and dehumidifiers
- Yard waste at \$20.00 per ton

A variety of recycling and disposal opportunities are available at the transfer facility. Each day, a drop-off is available to the public that accepts paper, cardboard, cans, and metal. Residents also have the opportunity to recycling lead acid batteries. All recyclables are transferred to third party buyers or processors. Cardboard and mixed paper are baled and sold to buyers or brokers in truck load quantities. All commingle recyclables (bottles, cans and plastic) are sent by the District loose to the processors that charge the District to manage the materials. No sorting occurs at the transfer station for recyclables.



Landfill



The County operated a municipal solid waste landfill from 1969 to 1998. The now closed landfill is maintained by the County until 2028 when the post closure care requirement expires

The following table summarizes the program details.

HC-17: Huron County Transfer Station Summary	
Description	Details
Ohio EPA Program ID	8284
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Cardboard, paper, aluminum and steel cans, scrap metal, batteries, electronics, motor oil
2014 Recycled Tonnage	457.6 (from above categories)
Annual District Program Costs	\$0 (included in transfer station operations budget)
Program Operator/Contractor	District

All revenue is managed by the transfer station (County employees). Revenue distribution, either because of set fee like the District generation fee or other fees, occurs through the County finance system.

Strengths of the program include:

- Regional resource for solid waste disposal, recycling of general commodities plus appliances and scrap tires.

Challenges of the program include:

- Post closure care of the closed landfill at the transfer station site including leachate disposal and management.
- Debt service on the landfill.
- Revenue and expense accounting for the landfill and transfer station along with the District is inefficient and cumbersome to manage.
- Some materials like electronics accepted at the Transfer Station are not recycled.

2. Huron County Composting Facility

The District owns and operates a registered Class IV composting facility located on the grounds of the Huron County Transfer Facility. The facility is open Monday through Friday from 7AM to 4PM and on Saturday from 7AM to noon.

Yard waste, brush, and grass clippings are accepted at the composting facility. At this time, no composting operations occur, rather the yard waste materials delivered to the site are staged and then transported to a third-party yard waste facility. The District reserves the right to operate the facility either as a compost site or a transfer site based on economics, volume or other factors.

The following table summarizes the program details.

HC-18: Huron County Composting Facility Summary	
Description	Details
Ohio EPA Program ID	8286
Entity Maintaining Program	District
Service Area	District
Materials Recycled	Yard waste
2014 Recycled Tonnage	N/A
Annual District Program Costs	\$0 (included in transfer station operations budget)
Program Operator/Contractor	District

Strengths of the program include:

- Regional resource for solid waste composting.

Challenges of the program include:

- None.

OTHER PROGRAMS

1. Punch Card Program

Many townships in Huron County stopped providing curbside waste and recycling collection. To assist residents of these townships, the District implemented an alternative program by installing a central drop box for waste disposal and recycling at the transfer station. The system is accounted for through punch cards which are provided by the participating communities. The District does not operate the punch card system. The following summarizes the details of the program:

- Punch cards are issued through the township.
- Townships are charged each month for the trash brought in by residents through the program. The charge is issued against the purchased punch cards for each individual township.
- Punch cards do not expire, some cards have been used that are over 5 years old.
- Residents receive a punch card good for five punches annually.
- Residents may dispose of up to 250 pounds of trash per punch.
- Recyclables brought to the transfer station drop-box are free of charge.
- Punch card costs varies by community. The District does not charge the residents directly for the punch cards or for the disposal of waste.
- The number of punch cards provided by the communities to their residents is not known by the District.
- The amount of solid waste and recyclables delivered by residents using the punch card system is not tracked.

The following table summarizes the program details.

HC-19: Punch Card Program Summary	
Description	Details
Ohio EPA Program ID	4951
Entity Maintaining Program	District
Service Area	Various District townships
Materials Recycled	N/A
2014 Recycled Tonnage	Included in drop-off tonnage
Annual District Program Costs	\$0
Program Operator/Contractor	District

Strengths of the program include:

- Provides residents with waste disposal and recycling program for households in townships that no longer provide sanitation services.

Challenges of the program include:

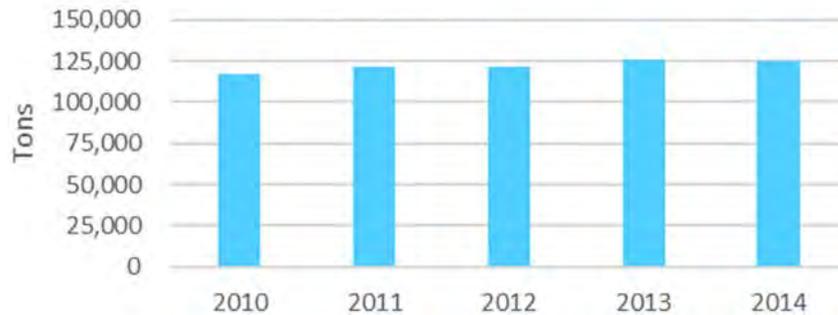
- Not all townships utilize the punch card system.
- Residents may not know about the program.

G. Total Waste Generation: Historical Trends Plus Waste Reduction

Table IV-7 presents the District's total waste generation patterns over a five-year period spanning from 2010 to 2014. Total waste generation is calculated by summing the total waste landfilled (either by direct disposal or transfer), total tons recycled, and total tons composted. Some values may differ from the values reported on Annual District Reports; this is due to new information received from a political subdivision, and revisions to District records.

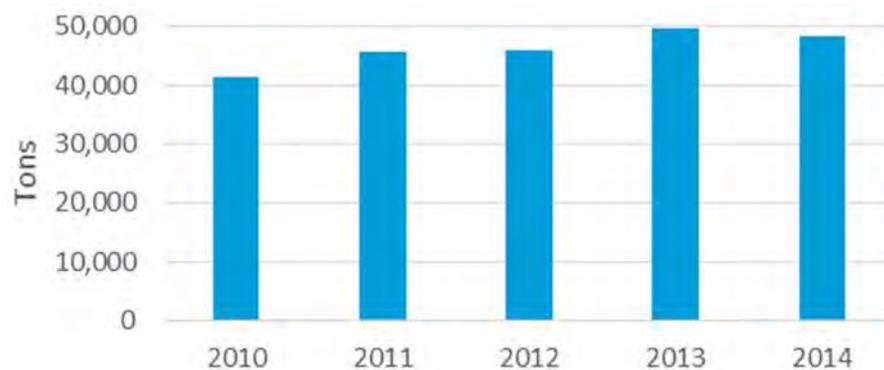
An examination of the District's total waste generation patterns over the five-year period reveals that in 2013, a high of 126,367 tons was generated and in 2010, a low of 117,095 tons was generated. Waste generation steadily increased from 2010 to 2013. The following figure presents the District's historical total waste generation.

District Historical Waste Generation



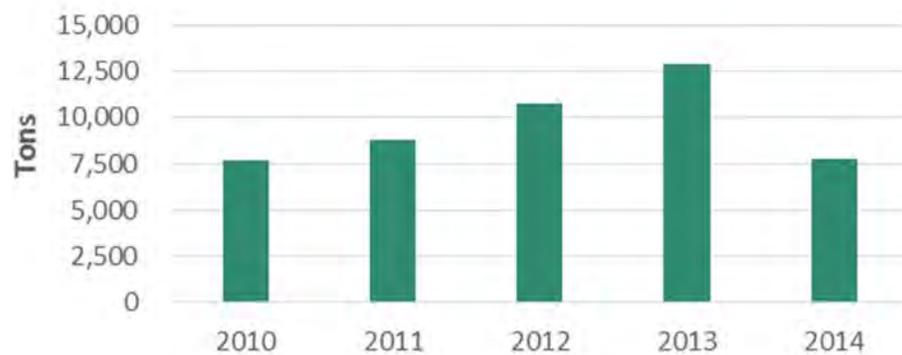
Landfilled waste tonnage was based on actual tonnage reported by landfills, transfer stations, and incinerators from 2010 to 2014. Landfilled waste increased annually from 2010 to 2013, then decreased modestly in 2014. Landfill disposal ranged from a low of 41,298 tons in 2010 to a high of 49,748 tons in 2013. The following figure presents the historical landfill totals from 2009 through 2013.

District Historical Landfill Disposal



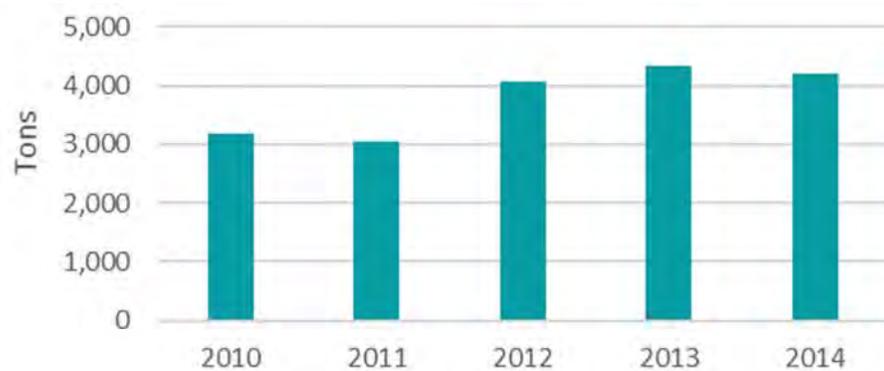
The industrial sector presented the greatest variability in terms of tons landfilled annually. Throughout the five-year period, the industrial sector's disposal ranged from a low of 7,673 tons in 2010 to 12,903 tons in 2013.

District Historical Industrial Sector Disposal



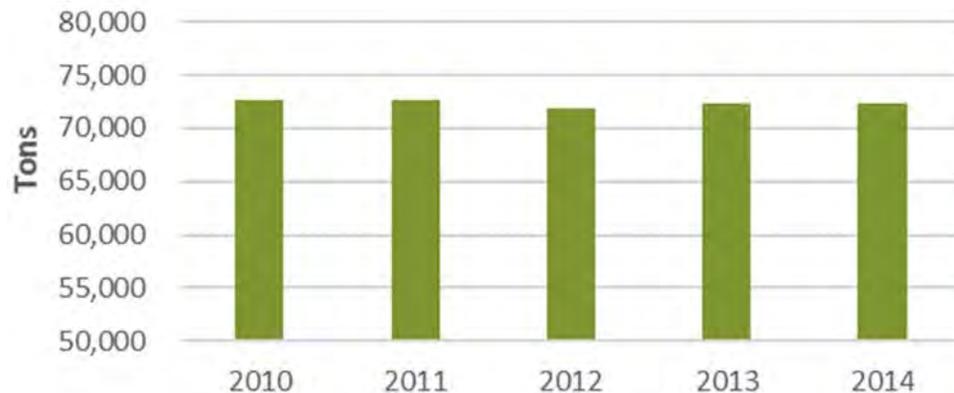
Organics composting generally increased from 2010 to 2014. Throughout the five-year period, organics composting ranged from a low of 3,041 tons in 2011 to a high of 4,349 tons in 2013.

District Historical Yard Waste Management



Total waste reduction/recycling (excluding composting) in the District from 2010 to 2013 was based reported values in the Annual District Report. The District used the same value for industrial sector recycling from 2010 to 2013 due to challenges associated with gathering new information. The average annual recycling reported from 2010 to 2014 was 72,364 tons. Actual recycling based on reported values from generators, MRFs, haulers, and brokers/processors in 2014 was 72,317 tons, which is slightly below average compared to the five-year period. The following figure presents the historical waste reduction and recycling totals from 2010 through 2014.

District Historical Waste Reduction/Recycling



H. Reconciliation of Waste Generation

Table IV-8, “Adjusted Reference Year Total Waste Generation for the District”, presents adjusted reference year total waste generation for the District. This is based on actual reported recycling and disposal.

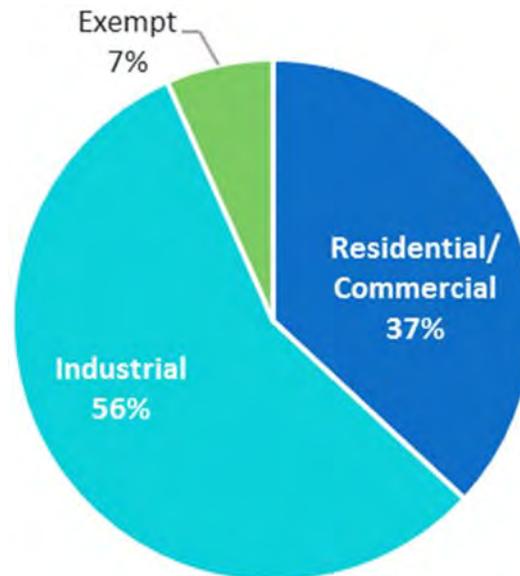
The District calculated waste generation using two methods. The first method outlined in Part D of this Section uses statewide generation estimates to determine industrial waste generation projections. Residential/commercial generation was determined based upon the rate of change in generation rate observed within the District during the past several years. Finally, exempt waste was obtained from actual landfill and transfer station operating reports. Using this methodology, the District estimated 141,493 tons of solid waste generated in 2014. The resulting total generation rate was 14.39 pounds per person per day (Table IV-4).

The second method used to calculate solid waste generation is based on actual reported recycling and disposal in the District during the reference year (Table IV-8). District residents, businesses, and industry generated 124,836 tons in 2014. The total generation rate was 12.70 pounds per person per day (Table IV-8), which includes recycling and waste disposal from all sectors. The residential/commercial sector generated 45,917 tons or 4.67 pounds per person per day, which includes recycling and yard waste composting. The industrial sector generated 70,600 tons or approximately 7.18 pounds per person per day. Exempt waste generation was 8,318 tons or approximately 0.85 pounds per person per day.

The District selected the second method as the most accurate method of projecting waste generation because waste at the landfills and transfer stations is weighed. The first method of projecting waste generation is based on projections and secondary data sources, which are generally not as accurate as actually weighing the materials. The following figure

presents the reference year waste generation by sector based upon using the second method of calculating waste generation.

2014 District Adjusted Waste Generation by Sector

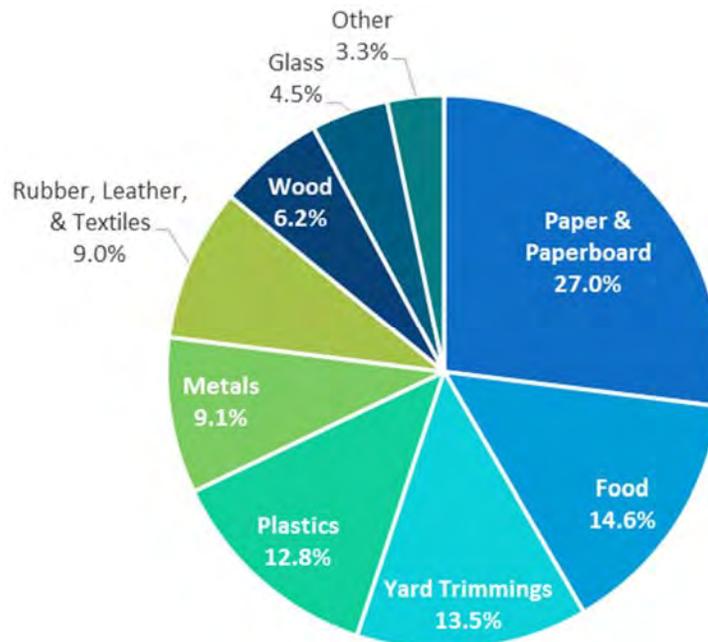


I. Waste Composition

Residential/commercial waste stream composition is defined using average percentages reported by the U.S. EPA (Table IV-9). The main purpose of reviewing the waste composition is to evaluate the types of materials generated and determine if programs are adequate to manage the diversion of the largest components of the waste stream.

Paper and paperboard made up the largest component of the residential/commercial waste stream with an estimated 12,398 tons. All of the curbside recycling programs and drop-offs collected this material. Other significant portions of the waste stream include food scraps (6,704 tons), yard trimmings (6,1996 tons), and plastics (5,877 tons). The following figure presents the estimated residential/commercial waste composition for the reference year.

2014 District Estimated Residential/Commercial Waste Stream Composition

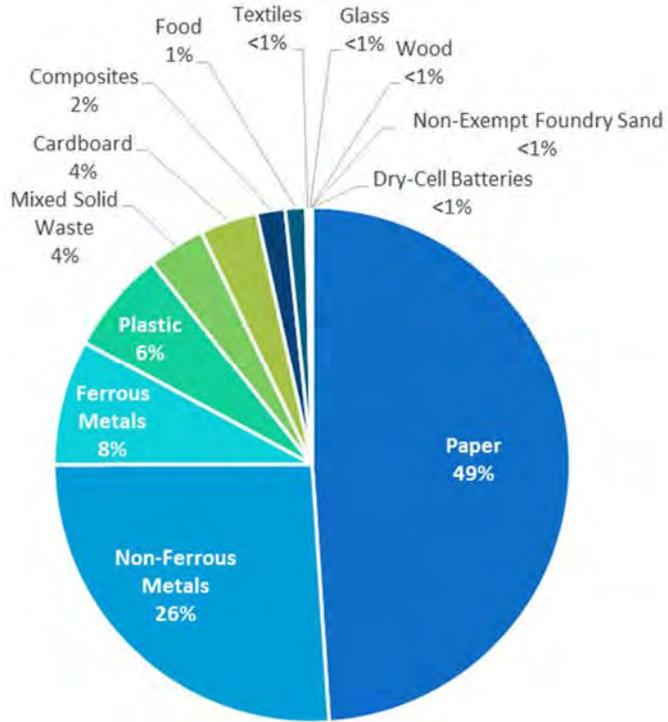


Similar to the residential/commercial waste stream, the purpose for reviewing the industrial waste stream is to determine what types of materials comprise the largest volumes and then determine if the necessary programs are in-place to manage these materials.

Industrial waste composition was estimated based on the amount of industrial waste that was landfilled and recycled (Table IV-10). Information for recycling was obtained from industrial facilities responding to the survey effort. Non-hazardous waste, concrete, ash and sludge were eliminated from the acceptable waste materials for recycling calculations only. All recycled materials are provided as actual totals. The remainder of material disposed in the landfill is categorized as general solid waste.

The largest component of the District’s industrial solid waste stream was paper (34,553 tons). Non-ferrous metals (18,382 tons), ferrous metals (5,580 tons), and plastics (4,572 tons) were the next most significant portions of the industrial sector waste stream. The remaining materials each represented 4% or less of the industrial waste stream. The following figure presents the industrial waste composition for the reference year.

2014 District Estimated Industrial Waste Stream Composition



**Table IV-1
Reference Year Population and Residential/Commercial Generation**

County/Community Name	2014 Population		2014 Generation Rate (lbs/person/day)	2014 District Residential/Commercial Generation (Tons)
	Before Adjustment	After Adjustment		
Huron County	58,714	58,714		
City of Bellevue <i>Majority residing in Sandusky County</i>	3,593	55,121		
Village of Milan <i>Majority residing in Erie County</i>	358	54,763	3.73	36,649
Village of Plymouth <i>Majority residing in Richland County</i>	888	53,875		
Total		53,875		

Source(s) of information:

Population - Ohio Development Services Agency Office of Research, "2014 Population Estimates by County, City, Village, and Township," May 2015.
 Generation Rate - 2014 residential/commercial generation rate was calculated using the District's average absolute change in residential/commercial sector tonnage 2009 - 2013 as reported on Ohio EPA's ADR Review Forms.

Example calculations:

2014 Residential/commercial generation = (2014 Population x 2014 generation rate x 365 days) ÷ 2,000 lbs/ton

36,649 tons = (53,875 residents x 3.73 lbs/person/day x 365 days) ÷ 2,000 lbs

**Table IV-2
Industrial Waste Generation Survey Respondents vs. Unreported**

Standard Industrial Classification (SIC) Code	Survey Respondents			Amounts Based Upon Secondary Data (Unreported)				Total Industrial Waste Generated	
	# of Industries	# of Employees	Tons of Waste Generated	Generation Rate (T/employee)	# of Industries	# of Employees	Generation Rate (T/employee)		Tons of Waste Generated
20	1	560	2,096	3.74	6	318	13.92	4,427	6,523
22	0	0	0	0.00	1	30	9.99	300	300
23	0	0	0	0.00	6	83	2.80	232	232
24	1	27	20	0.72	9	54	51.62	2,787	2,807
25	0	0	0	0.00	2	859	1.79	1,538	1,538
26	1	35	1,126	0.00	2	32	17.50	560	1,686
27	2	920	35,257	38.32	15	91	6.70	610	35,866
28	0	0	0	0.00	2	77	12.43	957	957
29	0	0	0	0.00	1	6	7.33	44	44
30	3	74	3,080	41.62	7	779	7.29	5,679	8,759
31	0	0	0	0.00	0	0	3.41	0	0
32	1	47	5	0.11	4	167	10.55	1,762	1,767
33	2	27	5,483	203.06	1	98	36.93	3,619	9,102
34	1	100	2	0.00	16	358	11.16	3,995	3,997
35	2	1,791	16,775	9.37	26	383	5.72	2,191	18,965
36	0	0	0	0.00	3	24	2.98	72	72
37	0	0	0	0.00	8	472	3.21	1,515	1,515
38	1	38	1,198	0.00	3	72	1.74	125	1,323
39	1	5	154	0.00	17	199	4.62	919	1,073
Total	16	3,624	65,194	17.99	129	4,102	N/A	31,332	96,526

Source(s) of information:

2014 District Industrial Surveys
Total number of industries and employees from ReferenceUSA
Appendix JJ-2 was used to calculate unreported data.

Example calculations (SIC 20):

Survey Respondents:

$$\text{Annual Per Capita Generation Rate} = \frac{\text{Waste Generated}}{\text{\# of Employees}}$$

$$3.74 \text{ Tons Per Employee} = \frac{2,096 \text{ tons}}{560 \text{ employees}}$$

Non-Respondents:

$$\text{Generation Rate} \times \text{Number of Employees (Unreported)} = \text{Tons of Waste Generation}$$

$$13.92 \times 318 = 4,427 \text{ Tons}$$

**Table IV-3
Exempt Waste Generated in the District
and Disposed in Publicly Available Landfills**

Type of Waste Stream	Generation Rate (lb/person/day)	Total Exempt Waste Generation (TPY)
Exempt	0.85	8,318
Total	0.85	8,318

Source(s) of information:

2014 Landfill and Transfer Station Operation Reports; Table III-1

$$\text{Generation Rate (lbs/person/day)} = \frac{\text{Total Exempt Waste (tons/yr)} \times 2,000 \text{ (lb/ton)}}{\text{Population} \times 365 \text{ days/yr}}$$

Example calculation:

$$0.85 = \frac{8,318 \times 2,000}{53,875 \times 365}$$

**Table IV-4
Reference Year Total Waste Generation for the District**

Type of Waste	Generation Rate (lbs/person/day)	Tons/Year
Residential/Commercial	3.73	36,649
Industrial	9.82	96,526
Exempt	0.85	8,318
Total Waste Generation	14.39	141,493

Source(s) of information:

Residential/Commercial- Table IV-1

Exempt -Table IV-3

Industrial- Tons/yr-Table IV-2

Example calculation (Industrial):

$$\text{Generation Rate (lbs/person/day)} = \frac{\text{Total Industrial Waste (tons/yr)} \times 2,000 \text{ (lb/ton)}}{\text{Population} \times 365 \text{ days/year}}$$

Example calculation:

$$9.82 = \frac{96,526 \times 2,000}{53,875 \times 365}$$

**Table IV-5
Reference Year Residential/Commercial Waste Reduction in the District**

Type of Waste Source Reduced	TPY	Type of Waste Recycled	TPY	Incineration, Composting, Resource Recovery		
				Total Waste Received	Residual Landfilled	Net Waste Reduced
None	0	Ferrous Metals	3,401	Incineration	Ash	Net Incineration
		Cardboard	2,245	0.53	0.16	0.37
		Paper	1,474	Organics Composted	Residuals	Net Compost
		Commingle	1,152	4,197	0	4,197
		Scrap Tires	715	Resource Recovery	Ash	Net Resource
		Non-Ferrous Metals	241	0	0	0
		Plastic	199			
		Glass	36			
		Wood	3			
		Electronics	2			
		Lead Acid Batteries	1			
Subtotal	0		9,469	4,198	0	4,198
Grand Total						13,667

Note: Organics composted include food waste and yard waste. Totals differ slightly from values reported in the ADR. The values presented in this table are based on the most up-to-date revised figures and should supercede values in the 2014 ADR.

Source(s) of information:
2014 Huron County Annual District Report and District Surveys

**Table IV-6
Reference Year Industrial Waste Reduction in the District**

Type of Waste Source Reduced	TPY	Type of Waste Recycled	TPY	Incineration, Composting, Resource Recovery		
				Total Waste Received	Residual Landfilled	Net Waste Processed
None	0	Paper	31,907	Incineration	Ash	Net Incineration
		Non-Ferrous Metals	16,974	0	0	0
		Ferrous Metals	5,153	Resource	Ash	Net Resource
		Plastic	4,222	0	0	0
		Cardboard	2,343	Composting	Residuals	Net Composted
		Composites	1,160	0	0	0
		Food	839			
		Textiles	130			
		Glass	54			
		Wood	40			
		Non-Exempt Foundry Sand	20			
		Dry-Cell Batteries	6			
Subtotal	0		62,849	0	0	0
Grand Total						62,849

Source(s) of information:
2014 Huron County Annual District Report, Annual District Surveys

**Table IV-7
Total Waste Generation Based Upon Disposal Plus Waste Reduction**

Year	Management Method Used (TPY)										Total Waste Generation
	Source Reduction & Recycling			Organics Composting	Landfill Disposal			Total			
	Res/Com	Industrial	Total		Res/Com	Industrial	Exempt				
2010	3,326	69,297	72,623	3,174	29,359	7,673	4,266	41,298	117,095		
2011	3,389	69,297	72,686	3,041	31,690	8,816	5,049	45,555	121,282		
2012	2,628	69,297	71,925	4,079	29,358	10,770	5,800	45,928	121,932		
2013	2,973	69,297	72,270	4,349	29,511	12,903	7,334	49,748	126,367		
2014	9,469	62,849	72,318	4,197	32,252	7,752	8,318	48,322	124,837		

Source(s) of information:
2010-2014 Annual District Reports, District records

Sample calculation (2014):

$$\text{Total Waste Generation} = \text{Total Source Reduction \& Recycling} + \text{Yard Waste Composting} + \text{Total Landfill Disposal}$$

$$124,837 \text{ tons} = 72,318 \text{ tons} + 4,197 \text{ tons} + 48,322 \text{ tons}$$

**Table IV-8
Adjusted Reference Year Total Waste Generation for the District**

Type of Waste	Generation Rate (lbs/person/yr)	Tons/Year
Residential/ Commercial	4.67	45,918
Industrial	7.18	70,600
Exempt	0.85	8,318
Total Waste Generation	12.70	124,837

Source(s) of information:

Exempt -Table IV-3

Residential/Commercial and Industrial - Tables III-1, IV-5 and Table IV-6

Example calculation (Industrial):

$$\text{Generation Rate (lbs/person/day)} = \frac{\text{Total Waste (tons/yr)} \times 2,000 \text{ (lb/ton)}}{\text{Population} \times 365 \text{ days/yr}}$$

$$7.18 = \frac{70,600 \times 2,000}{53,875 \times 365}$$

**Table IV-9
Estimated Residential/Commercial Waste Stream
Composition for the District for the Reference Year**

Waste Stream Type	Percentage of the Waste Stream	Tons
Paper & Paperboard	27.0%	12,398
Food	14.6%	6,704
Yard Trimmings	13.5%	6,199
Plastics	12.8%	5,878
Metals	9.1%	4,179
Rubber, Leather, & Textiles	9.0%	4,133
Wood	6.2%	2,847
Glass	4.5%	2,066
Other	3.3%	1,515
Totals	100.0%	45,918

Source(s) of information:

Total tons - Table IV-8

This table estimates the composition of total residential/commercial waste generation. Therefore, waste stream percentages were taken from Figure ES-3. Materials Generation in MSW, 2013 (before recycling) from *US EPA Advancing Sustainable Materials Management: Facts and Figures 2013*, June 2015.

**Table IV-10
Estimated Industrial Waste Composition for the Reference Year in the District**

Waste Stream Type	TPY	Waste Stream Type	TPY	Waste Stream Type	TPY
Cardboard	2,538	Plastic	4,572	Mixed Solid Waste	2,540
Paper	34,553	Food	908		
Wood	43	Dry-Cell Batteries	7		
Ferrous Metals	5,580	Textiles	141		
Non-Ferrous Metals	18,382	Non-Exempt Foundry Sand	22		
Glass	58	Composites	1,256		
Subtotal	61,154	Subtotal	6,906	Subtotal	2,540
Grand Total					70,600

Source(s) of information:

Appendix F

Each industrial waste component was projected using the adjustment factor to account for nonrespondent industries.

Example Calculation:

$$\text{Adjustment Factor} = \frac{\text{Total Industrial Waste Generated (Table IV-8)}}{\text{Total Industrial Waste Generated (Table IV-2 - Survey)}}$$

$$\text{Adjustment Factor} = 1.0829 = 70,600 \text{ tons} \div 65,194 \text{ tons}$$

$$\text{Type of Industrial Waste Generated (tons)} = \text{Type of Industrial Waste Generated (Appendix F)} \times \text{Adjustment Factor}$$

$$2,538 \text{ (tons of cardboard)} = 2,343.24 \text{ (tons of cardboard from Appendix F)} \times 1.0829$$

V. Planning Period Projections and Strategies [ORC Section 3734.53(A)(5)-(6)]

This Section of the *Plan Update* details (1) population projections for the District during the planning period; (2) projections and estimates for solid waste generation; (3) projected recycling rates for the planning period; and (4) existing District programs and activities that are assumed to be continuing will be presented and analyzed. Detailed descriptions of existing programs can be found in Section IV. Details for planned new programs and activities are described in this section of the *Plan Update*.

A. Planning Period – January 1, 2018 through December 31, 2032

Solid waste management plans must provide projections for population, waste generation, waste reduction, and current and anticipated waste management programs for a planning period of at least ten years. Due to the nature of the District, it was determined that the *Plan Update* should be based on a fifteen-year planning period to better reflect the planning needs of the District. Therefore, the planning period for this *Plan Update* is January 1, 2018 to December 31, 2032. To provide additional context, projections and tables in this *Plan Update* also include the years 2014 through 2017.

B. Population Projections

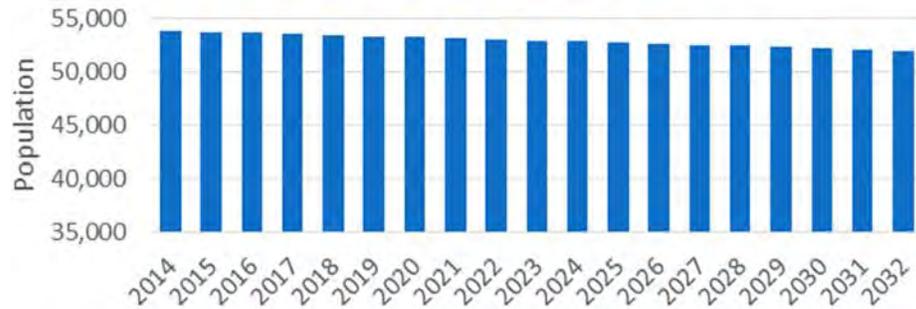
The District's population projections from the reference year (2014) through the end of the planning period are presented in Table V-1. The Ohio Development Services Agency's (ODSA) 2014 population estimates by county, city, village, and township were used to calculate a base population for the District. Using a second ODSA publication (Ohio County Profiles) which presents population projections by county in 10-year intervals from 2010 to 2040, the District population was projected across intermediate years using a straight-line average.

Ohio Law requires that the population of a political subdivision that lies within two or more solid waste management districts shall be credited to the district where the majority of the population resides. The District's reference year population was adjusted from the base population of 58,714 by subtracting the population living in Huron County in the City of Bellevue, the Village of Milan, and the Village of Plymouth because the majority of the population in each of these political subdivisions resided outside of Huron County. The District's total adjusted reference year population was 53,875.

Population is anticipated to decrease annually throughout the planning period. Population is expected to decrease by 1,480 residents or 2.8%

from 2018 to 2032. The District is projected to begin the planning period in 2018 with a population of 53,572 and end in 2032 with a total population of 51,990. The following figure presents the estimated District population from the reference year to the end of the planning period.

2014 – 2032 District Population Projections



C. Waste Generation Projections

1. Residential/Commercial Sector

The District’s residential/commercial waste generation projections are presented in Table V-2, “District Residential/Commercial Waste Generation (TPY).” Waste generation is presented for the 2014 reference year and each subsequent year through 2032. In 2014, the District calculated the per capita generation rate based on Ohio EPA’s Facility Data Reports for disposal and from the District’s 2014 Annual District Report and survey results for recycling. The following data was used for this calculation:



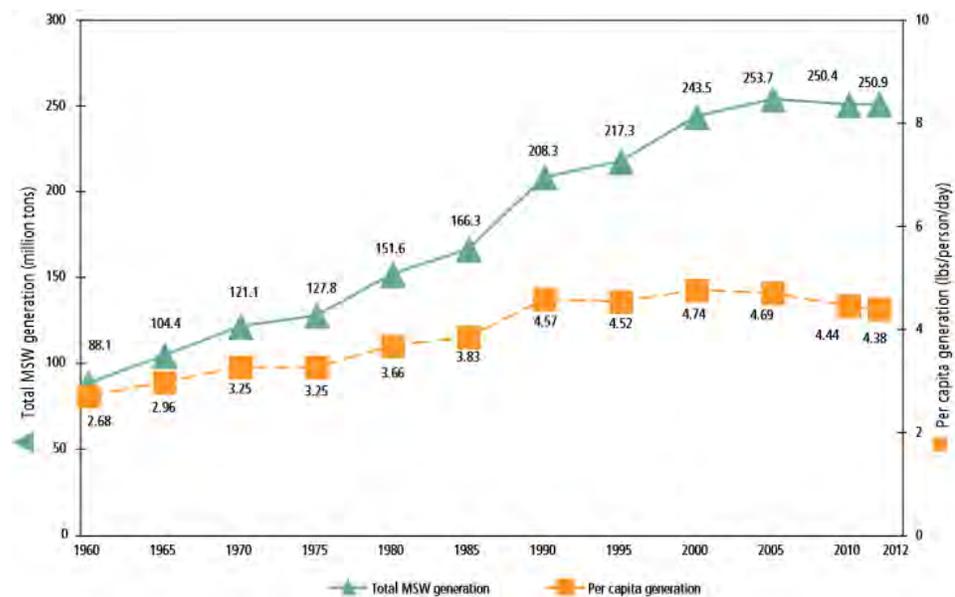
The total residential/commercial waste generation for 2014 (which includes recycling/reduction plus disposal) was 45,917 tons. Overall per capita residential/commercial sector waste generation increased approximately 0.42 pounds from 2010 to 2014, or an average of 0.084 pounds annually. This average was used to project the average increase in per capita generation rates from 2015 to 2019, then rates are projected to remain flat.

Nationwide residential/commercial waste generation rates show generation rates moving toward a stabilized or flat rate. The following figure presents the U.S. EPA's national statistics from 2000 to 2012¹:

Year	2000	2005	2008	2010	2011	2012
Overall Generation	4.74	4.69	4.55	4.44	4.40	4.38
Percent Change		-1.1%	-3.0%	-2.4%	-0.9%	-0.5%

The following figure from the U.S. EPA's *2012 Facts and Figures Fact Sheet* presents the per capita waste generation and per capita generation rates from 1960 to 2012:

1960 – 2012 Total U.S. Municipal Waste Generation

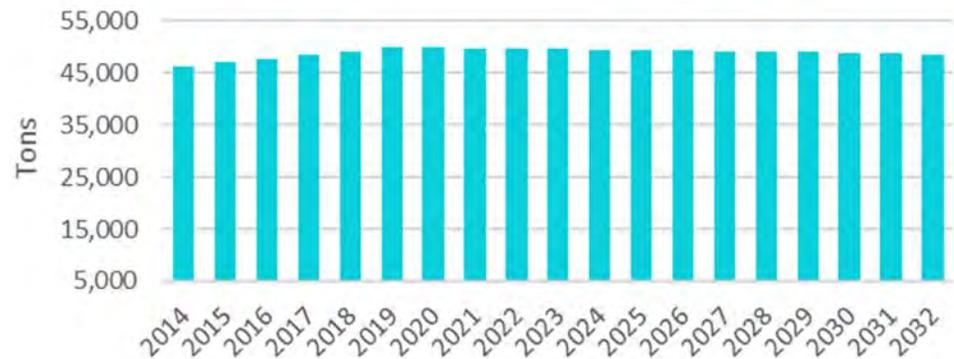


In 2018, the first year of the planning period, residential/commercial waste is projected to be 48,868 tons. Residential/commercial waste generation is projected to peak in 2019 at 49,598 tons, then decrease to 48,316 tons in 2032, the final year of the planning period. The decrease is mainly a result of population decline.

The following figure presents the estimated residential/commercial waste generation throughout the planning period.

¹ U.S. EPA. *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012*. Web. Accessed February 10, 2015.

2014 – 2032 Residential/Commercial Waste Generation



2. Industrial Sector

The District’s industrial waste generation projections are presented in Table V-3. Industrial waste generation is presented by Standard Industrial Classification (SIC) code for the 2014 reference year through 2032.

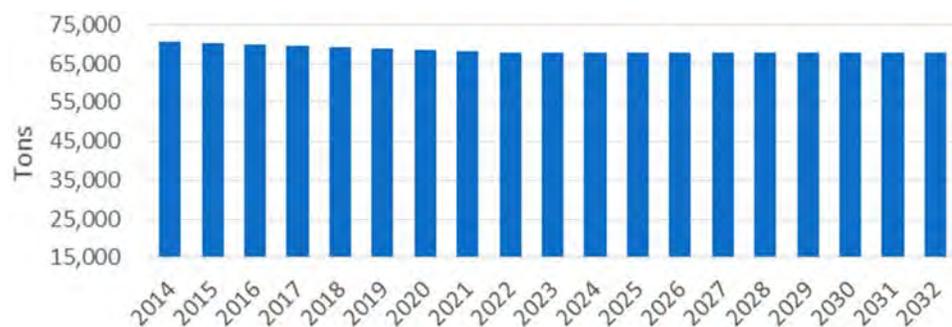
The industrial waste generated by each SIC code in 2014 is based on the ratio of waste reported by industries in industrial SIC codes in Table IV-2. The totals have been adjusted to correspond to the total industrial waste generation in Table IV-8, which is based on volumes recorded by landfills, transfer stations, waste-to-energy facilities, plus recycling and composting.

Industrial waste generation projections are based on the Ohio Department of Job and Family Services’ (ODJFS) publication, *Regional Manufacturing Population from Jobs Ohio Regions to 2022: Northeast Ohio*. The publication provides industry and occupational projections for the Northeast JobsOhio Region from 2012 to 2022. The Northeast JobsOhio region includes Huron County.

Employment in the manufacturing sector in the Northeast JobsOhio Region is projected to decrease 8.3% from 2012 to 2022. Industrial sector waste generation is influenced by employment trends but does not directly correlate. Decreases in industrial sector employment can lead to increases in productivity; this phenomenon could result in decreases in waste generation that are not as pronounced as the decreases in the industrial sector workforce. For this reason, the total tonnage in 2022 was calculated by decreasing the total tonnage in 2014 by half the rate of industrial sector employment loss (4.15%). Intermediate years (2015-2021) were projected based on a straight-line average. Tonnage is projected to remain flat after 2022.

In the reference year, the industrial sector generated 70,600 tons. This tonnage is projected to decrease to a low of 67,670 tons in 2022, then remain flat. The top five manufacturing plants in the District, in terms of total tons generated, have been in operation for more than 5 years, and the District is not aware of any discussions or plans to close any of the facilities. Industrial sector activities in the District are relatively mature and stable, which support the flat projections from 2022 to 2032. The following figure presents the estimated industrial waste generation throughout the planning period.

2014 – 2032 Industrial Generation



3. Total Waste Generation

Total waste generation projections for the District during the planning period are presented in Table V-4. The total waste generation calculation for the 2014 reference year was 124,836 tons. This includes residential/commercial waste (45,917 tons), industrial waste (70,600 tons), and exempt waste (8,318 tons).

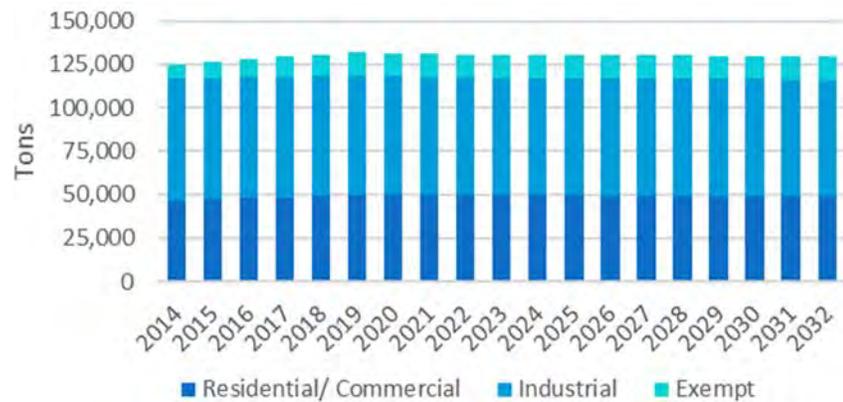
Exempt waste does not have a direct correlation to population or market/economic factors. Exempt waste is a term used to describe construction and demolition debris, nontoxic fly ash and bottom ash, spent nontoxic foundry sand, slag, and other materials excluded from the definition of solid waste in the Ohio Revised Code (ORC) § 3734.01(E). Exempt waste increased an average of 1,013 tons annually from 2010 to 2014. Exempt waste was projected to increase 1,013 tons annually for the next five-year period (2015-2019). Exempt waste is projected to remain flat after 2019.

The overall generation rate which includes residential/commercial, industrial, and exempt waste generation in pounds per person per day (PPD) for the reference year is 12.70. The projected per capita generation rate will increase to 13.57 PPD in the final year of the planning period. Total waste generation is projected to decrease

1,003 tons over the fifteen-year planning period (2018-2032) from 130,374 tons to 129,371 tons, a 0.77% change.

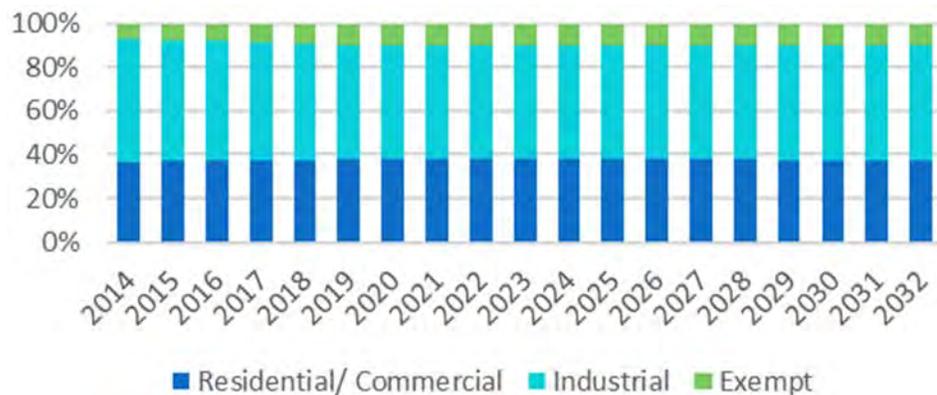
The following figure presents the District’s total waste generation projections throughout the planning period.

Total District Waste Generation (2014 – 2032)



The following figure presents waste generation by sector as a percentage of the District’s total waste generation.

Total District Waste Generation by Sector (2014 – 2032)



D. Projections for Waste Stream Composition

The District does not anticipate any major changes in the composition of the waste stream during the planning period. However, a change in economic conditions or the closure of a plant could greatly impact the industrial as well as residential/commercial projections.

Responses to the District’s annual survey should alert the District to any major changes in the industrial sector. Any significant changes in waste stream composition will be noted in the Annual District Report (ADR).

E. Waste Reduction and Recycling Strategies through the Planning Period

The District must continue to develop recycling and waste reduction strategies to meet goal #1 or goal #2 and goals #3 through #7 established in the *1995 State Plan*. The goals include:

- Goal #1**

 - Ensure the availability of reduction and recycling opportunities/programs for residential/commercial waste.
- Goal #2**

 - Reduce and/or recycle at least 25% of the residential/commercial waste generated and 50% of the industrial waste generated.
- Goal #3**

 - Provide informational and technical assistance on source reduction.
- Goal #4**

 - Provide informational and technical assistance on recycling, reuse and composting opportunities.
- Goal #5**

 - Develop strategies managing scrap tires and household hazardous waste (HHW).
- Goal #6**

 - Districts are required to submit an annual report to Ohio EPA.
- Goal #7**

 - Prepare a market development strategy (optional).

The following table summarizes all of the District strategies for meeting the 1995 State Plan Goals:

Program	Program #	1995 State Plan Goals						
		#1	#2	#3	#4	#5	#6	#7
Curbside Recycling	HC-1	✓	✓					
Drop-Off Recycling	HC-2	✓	✓					
Yard Waste Management	HC-3		✓		✓			
Household Hazardous Waste Management Program	HC-4					✓		
Scrap Tire Collection	HC-5					✓		
Lead-Acid Battery Management	HC-6					✓		
Appliance Collection	HC-7		✓					
Electronics Collection	HC-8		✓					
Public Awareness	HC-9			✓	✓			
Environmental Education	HC-10			✓	✓			
Environmental Events	HC-11			✓	✓			
Waste Audits and Assessments	HC-12			✓	✓			
Recycling Assistance	HC-13			✓	✓			
Commercial/Industrial Workshops	HC-14			✓	✓			
Commercial/Industrial Newsletter	HC-15			✓	✓			
Recycling Incentive Grant	HC-16							
Huron County Transfer Facility	HC-17	✓	✓					
Huron County Composting Facility	HC-18	✓	✓					
Punch Card Program	HC-19	✓	✓					
Number of Strategies Per Goal		5	8	7	8	3	0	0

Residential/Commercial Waste Reduction/Recycling and Education Strategies

The District’s residential/commercial waste reduction strategies are presented in Table V-5. Actual tonnage was used for the 2014 reference year. Diversion for each program from 2015 to 2031 was projected using the following assumptions:

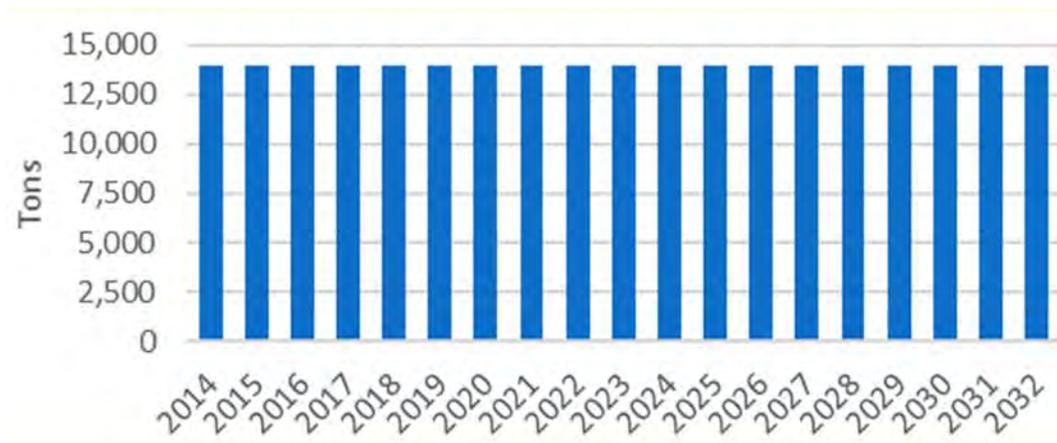
- Curbside Recycling (HC-1), Drop-Off Recycling (HC-2), Huron County Transfer Facility (HC-17), Appliance Collection (HC-7), Commercial Box Stores Reporting Directly to Ohio EPA, and Other

Reported Commercial Recycling from Surveys are projected to remain flat to be conservative. The District realizes that based on the initiatives in this *Plan Update*, that curbside recycling could increase but not enough information was available during this *Plan Update* to prepare projections that show increases when the District does not control the curbside recycling programs currently operating or new ones that may begin operation. Any new programs that may develop will be tracked by the District to measure their success and to document for future planning work.

- Yard Waste Management (HC-3) is projected to increase approximately 20 tons in 2015 to account for an additional composting site that began operating. Tonnage is projected to remain flat for the remainder of the planning period. Food waste is not included in this projection and can be found in the other commercial recycling category.
- Scrap Tire Collection (HC-5), Lead-Acid Battery Management (HC-6), and Waste Reduction via Incineration are projected to change at the same rate as population.
- Electronics Collection (HC-8) is projected to increase 2.5% annually from 2015 to 2018, 1% in 2019, and 0.5% annually from 2020 to 2031. This is to reflect the increasing use of electronics by the residential/commercial sector.

The District anticipates that residential/commercial recycling will remain relatively flat throughout the planning period. In 2014, the residential/commercial sector recycled 13,665 tons; in 2032, 13,661 tons are projected. The following figure presents the residential/commercial sector recycling from 2014 to the end of the planning period.

2014 – 2031 Residential/Commercial Waste Reduction



The following strategies address many of the challenges that the District identified with their current solid waste management programs.

RESIDENTIAL/COMMERCIAL RECYCLING AND COLLECTION PROGRAMS

1. HC-1 – Curbside Recycling (State Plan Goals #1 and #2)

This program will continue during the planning period. Based on observations made by the District on the implementation of this program to date, the challenges of this program include:

- Non-subscription curbside recycling is not economically feasible in all areas.
- No communities have competitively bid curbside trash and recycling services.
- Not all residents may be aware of the details on how each curbside program operates.

To address these challenges, the District will design, implement, review, and improve the following strategies:

Initiative HC-1.1: Curbside Recycling Promotion

The District will implement targeted promotional activities to residents that have curbside recycling to accomplish the following results:

- Increase participation through promotion of the program.
- Decrease contamination in the recycling stream through assisting the service providers in educating residents on the acceptable materials for their program.

Promotional activities could include the following:

- Expanding information on District website regarding community-specific curbside recycling programs.
- Working with communities to post curbside recycling information on city, village, or township websites and/or newsletters.

The District will review on a continuing basis the effectiveness of these promotional activities and may, depending on results, identify and implement additional or replacement strategies designed to meet the State goals.

Notifications to District communities and or residents of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, web site announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018-2032

Initiative HC-1.2: Curbside Recycling Technical Assistance

The District will provide technical assistance to cities, villages, or townships that express interest in implementing a curbside recycling program. Technical assistance to political subdivisions could include the following:

- Support with the development of requests for proposals from service providers (haulers).
- Attending public meetings to answer questions from residents.
- Assistance with coordinating a consortium bidding process amongst multiple interested political subdivisions within Huron County.
- Providing information to public officials on curbside recycling funding options.

The District will make political subdivisions aware of the availability of this technical assistance by adding a section to its website specifically for community officials.

Implementation: 2018-2032

2. HC-2 – Drop-Off Recycling
(State Plan Goals #1 and #2)

The District will continue the Drop-Off Recycling program. The following program changes have occurred since the reference year:

- Village of Wakeman's recycling drop-off upgraded to full-time status.

Based on historic experience with this program, that District has identified the following challenges in this program:

- Providing access in rural areas is costly and yields low tonnage with higher volumes of contaminants and/or non-marketable recyclable materials.
- Due to the volatile market for recyclables, the drop-off program is financially unsustainable without the District's support since it cost more to operate the program than it generates in revenue.
- Some drop-offs are only available every other month. During off-months, residents either need to store recycling or choose another drop-off, which may dissuade some residents from consistently using the program.
- The drop-off program does not collect the same materials from site to site.
- Operating a roll-off style collection program is inefficient which requires a District driver to be on the road almost every day switching out containers.

To address these challenges, the District will implement the following strategies:

Initiative HC-2.1: Drop-Off Location Monitoring

The District will monitor a variety of elements regarding drop-off recycling sites. The District will monitor the following key operational areas:

- Location of drop-off
- Collection hours
- Material accepted
- Participant feedback on program
- Estimated tonnage collected
- Excessive abuse of drop-off sites from contamination or dumping
- Underutilization of drop-off bins
- Collection frequency that does not meet public needs (i.e. issues with over-flow)

Based on this continual monitoring process, the District may adjust the drop-off program on an as-needed basis when improvements are identified or changes are required including the need to move, create or eliminate a site are recommended. Any changes to the drop-off program in the District will be made to ensure that the District has a 90% or greater recycling access credit.

Implementation: 2018-2032

Initiative HC-2.2: Drop-Off Location Expansion

The District has determined that additional drop-off sites may be needed based on past experience and the identification of underserved areas of the County through the planning process. The District is targeting the following potential communities for new drop-off site development:

- Fairfield Village/Township
- Townsend Township
- Ripley Township

The District will begin discussions with the communities listed above to determine if the proposed new drop-off site development is feasible. If the District and community agree and an appropriate site is identified, the District will implement the drop-off site. If sites cannot be found or agreements are not made, the District may look to other communities to implement new sites.

Notifications to District communities and or residents of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, web site announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018 – Meetings with Townships
2019 – Site Implementation

Initiative HC-2.3: Improving Program Consistency

The District will expand the materials accepted at sites where limited materials are accepted so all sites will accept the same materials. Materials accepted will include cardboard, newspaper, mixed paper, plastic (#1 and #2), paper, cardboard, aluminum cans and tin/steel cans.

Implementation: 2018-2020

Initiative HC-2.4: Improving Program Availability

A portion of the District's drop-off sites are available only during even or off months. The availability for each drop-off will be expanded so each site will be available on at least a monthly basis.

Implementation: 2018-2020

Initiative HC-2.5: Advertising Drop-Off Schedule

The District will work with political subdivisions to post information on their websites about the availability of drop-off sites and when the sites are available. The District will provide suggestions to political subdivisions about other ways the drop-off program could be advertised at the community level, such as including a note or reminder on utility bills.

The District will also update its webpage containing information about the drop-off program to make it more user-friendly for residents.

Notifications to District communities and or residents of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, web site announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018-2032

Initiative HC-2.6: Drop-Off Efficiency Study

The District will conduct a detailed cost accounting of the drop-off program operation to determine the exact cost to operate the program. The costs will then be compared to operating the program under the following scenarios:

- Private and public sector operation for the following collection and recycling formats:
 - ✓ Rear load compactor collection with single stream recycling
 - ✓ Rear load compactor collection with dual stream recycling

- ✓ Front load compactor collection with single stream recycling
- ✓ Front load compactor collection with dual stream recycling
- ✓ Roll-off boxes with single stream recycling
- ✓ Roll-off boxes with dual stream recycling with revenue
- ✓ Roll-off boxes with dual stream recycling without revenue
- ✓ Other collection system and recycling system as identified during the study

The District will conduct the study within the first two years of the new planning period (2018-2020). Based on the results of the study, the District will determine if a change in the drop-off program operation can be made under the current *Plan Update* or whether it will be recommended for the next Plan Update. Considerations for the determination may include the cost of capital equipment and other factors.

Implementation: 2018-2020

3. HC-3 – Yard Waste Management
(State Plan Goals #1, #2, #3, and #4)

The District will continue this program. No challenges were identified.

4. HC-4 – Household Hazardous Waste Management
(State Plan Goals #1, #2, #4, and #5)

This program will continue. This program's challenges include:

- Collection events are costly so the District only educates on HHW management.
- The HHW brochure is out of date.
- District web site and publications only offer options for used oil and lead acid battery outlets.

To address these challenges, the District will implement the following strategies:

Initiative HC-4.1: Promoting Reduction of Household Hazardous Waste Generation

The District's long term goal is to reduce the amount of HHW materials that residents dispose that are still usable. Materials that are truly household hazardous waste (and not household hazardous products that are still usable) include the following materials:

- Used oil;
- Used antifreeze;
- Spent household and automotive batteries;
- Empty propane cylinders;
- Empty aerosol containers; and
- Other non-usable household hazardous products that, through their normal use according to the manufacturer, have become contaminated, depleted or otherwise unusable.

Materials that contain hazardous constituents but if entirely used as intended by their manufacturer do not end up as waste products, include the following materials:

- Paint products, sealers and coatings
- Certain automotive car care products
- Household cleaners
- Pesticides, herbicides and insecticides
- Fertilizers
- Pool chemicals

To accomplish this long-term goal, the District will enhance its education and awareness program to include the following:

- Teach students and adults the value of products that contain hazardous constituents, to buy what is needed and use the entire product for its intended purpose.
- Promote the use of alternative non-hazardous products such as latex paint, plant-based cleaners, or other non-hazardous alternatives.
- Promote project planning for the efficient use of paint products (i.e., coverage formulas on District website).
- Add HHW management techniques to adult education presentations.

Implementation: 2018-2023 (Reevaluate effectiveness at next Plan Update)

Initiative HC-4.2: Improve HHW Management Education

The District will update its website and publications on HHW management to include proper disposal practices and a list of companies to manage HHW materials in addition to used oil and lead-acid batteries, such as household cleaners and pesticides.

Notifications to District communities and or residents of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, web site announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018-2020

5. HC-5 – Scrap Tire Collection
(State Plan Goals #1, #2, and #4)

The District will continue this program. No challenges were identified.

The District will only conduct collection events every other year if funding from the Ohio EPA grant program is obtained for the given year a collection is planned. If the grant program is not offered or the District applied but did not receive a grant, then the collection program for that given year will not occur. For this reason, expenditures are not projected into the planning period.

6. HC-6 – Lead-Acid Battery Management
(State Plan Goals #1, #2, and #4)

This program will continue. No challenges were identified.

7. HC-7 – Appliance Collection
(State Plan Goals #1, #2, and #5)

This program will continue. No challenges were identified.

8. HC-8 – Electronics Collection
(State Plan Goals #1, #2, and #4)

This program will continue. Based on the District's experience, the following challenges with this program need to be addressed:

- Collection of source separated electronics does not occur at the transfer station.

To address these challenges, the District will implement the following strategies:

Initiative HC-8.1: Accepting Electronics at the Transfer Station

The District will evaluate options to collection of source separated electronic waste at the transfer station that include reuse and recycling of the collected materials. Once the District has identified an R2 licensed and certified processor that is cost effective, the District will then roll-out the recycling program to the public. The District will begin the evaluation by determining if the local handlers of electronic waste such as Goodwill, Christy Lane Industries, and Mid-Ohio Electronics are R2 Certified or can become R2 Certified. If these facilities cannot meet this requirement, the District will investigate other options in the region.

Notifications to District communities and or residents of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, website announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018 Evaluation
2019 Implementation of Recycling Program

RESIDENTIAL SECTOR EDUCATION AND AWARENESS PROGRAMS

1. HC-9 – Public Awareness
(State Plan Goals #1, #2, and #4)

The District will continue this program. Based on the District's experience, the following challenges with this program need to be addressed:

- Advertising is costly and free advertising opportunities are extremely limited.

- The District website lacks details on recycling outlets in the region.
- Printed materials are not up-to-date and lack details.

To address these challenges, the District will implement the following strategies:

Initiative HC-9.1: Improve and Promote Website

The District will improve its website by expanding the content currently posted. Information about each District program and regional recycling outlets will be included on the website in a format geared to the target audience.

The District will promote the website by encouraging cities, villages, and townships to include a link to the District's website on their websites.

Notifications to District communities and or residents of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, web site announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018-2022

Initiative HC-9.2: Outreach to Local Newspapers and Other Media Sources

The District will work with local newspapers and media sources to identify opportunities to publish articles on waste related topics and provide press releases to the media about upcoming District events.

Implementation: 2020-2022

2. HC-10 – Environmental Education
(State Plan Goals #1, #2, and #4)

This program will continue. Based on the District's experience, the following challenges with this program need to be addressed:

- The District does not conduct enough presentations in school especially in certain school districts.

To address these challenges, the District will implement the following strategies:

Initiative HC-10.1: Establishing Quantitative Goals and Measuring Improvements

The District's goal is to increase the following:

- The overall number of presentations given annually
- The number of schools that receive presentations
- The number of students/residents reached

The District's goal is to conduct increasing numbers of presentations and field trips each year. The goal for the first year of the planning period (2018) will be to complete 25 presentations/field trips. For years 2018-2013, the District will increase the number of presentations through the implementation of the procedure listed in this program.

The District currently employs an Administrative Specialist that also has educational and program coordination responsibilities. The Administrative Specialist acting as an Education Specialist will first create a brochure of education services provided by the District. The Education Specialist will also develop an education presentation scheduling form on the District's website for online presentation requests.

The following procedure will then be used by the Education Specialist to engage schools with the goal of conducting presentations:

- The Education Specialist may send letters, emails or make phone calls to schools explaining that presentations on solid waste management and related environmental issues can be scheduled. The education services brochure will also be sent to each school contacted. The initial contact, whether via letter, email or phone call, with each school will explain that the Education Specialist is available to work with individual teachers to specialize the presentation to compliment lesson plans or curriculum. During this initial contact, the District will identify a time frame that a follow up phone call will be made to schedule visits.
- The Education Specialist will request that the schools gather a list of teachers who could utilize the Education Specialist's services and have that list ready for when the follow up call will

be made. This list will also be used to engage the teachers directly to promote the education services offered by the District. The list should include the teacher's name, class size and grade, address, email address and phone number.

- Upon completion of each presentation conducted, the Education Specialist will investigate other opportunities to conduct presentations and update the teacher contact list while still on the school property.
- At the end of each month, the Education Specialist shall send each teacher, who received a presentation, a thank you card for allowing the District the opportunity to conduct a presentation to their class.
- Each year prior to the school year beginning, the District will mail, email or fax the education brochure to all schools in the District to promote the education services offered by the District.
- As the teacher email list is developed and increased over time, the Education Specialist shall develop an email notification system to engage teachers on educational topics relating to solid waste management.

Prior to scheduling the first presentation under this new *Plan Update*, the Education Specialist will develop an evaluation form which will be completed by the teacher whose class received a presentation by the Education Specialist. The Teacher will complete the form at the end of each presentation. The form will be designed to capture important feedback to continually improve the program, specifically:

- Date of presentation
- School presentation conducted at
- County where school resides
- Teacher name
- Grade of students and number of students presented to
- Number of adults in the presentation
- Subject matter presented
- Number of presentations conducted
- Comments from the teacher based on performance criteria

The following is an example of the evaluation and tracking form:

 2017 - 2018 Education and Awareness Program School Presentations Evaluation			
Description	Detail	Description	Detail
Name of Speaker		Teacher Name	
Date of Presentation		Teacher Phone	
Presentation Topic		Teacher Email	
School Name		Grade Level for Presentation	
School Address		% of Students In Attendance	
School Phone		% of Adults In Attendance	
County in Which School is Located		# of Presentations Conducted	
Please rate the speaker on each item, using the following scale for Content of Presentation: 5=Excellent, 4=Good, 3=Avg, 2=Fair, 1=Poor		Please rate the speaker on each item, using the following scale for Content of Presentation: 5=Excellent, 4=Good, 3=Avg, 2=Fair, 1=Poor	
Speaker introduced the topic and objectives clearly		Speaker used visual aids effectively	
Main points of the presentation were clear		Materials provided were pertinent	
Speaker's presentation skills were engaging		Presentation had interest	
Main points were well-supported by examples		Learning outcome was what was intended	
Speaker was prepared for the presentation		Hand-outs were useful and will be returned to be used	
Speaker provided a link to CWA's website		Thanking the audience will be a definite, standard courtesy	
Through feedback received, speaker adjusted the presentation		Wishes/requests for presentation	
Speaker developed a rapport with the audience and responded to individual needs		Would like to make presentation more relevant	
General Comments from Teacher: What one piece of advice would you give to the speaker for presentation improvement? What information was gained from today's presentation?			

On a quarterly basis, the District Coordinator will review the progress of the Education Specialist toward achieving the District's goal of completing at least 25 presentations annually. The District Coordinator will also review the evaluations from the presentation conducted and work with the Education Specialist on areas of improvement. If the quarterly evaluation indicates that the goal may not be achieved based on the current rate of completed presentations, the District Director will determine if a change in strategy is needed.

Implementation: 2018-2032

3. HC-11 – Environmental Events
 (State Plan Goals #1, #2, and #4)

This program will continue. No challenges were identified.

COMMERCIAL/INDUSTRIAL SECTOR EDUCATION, AWARENESS, AND TECHNICAL ASSISTANCE

1. HC-12 – Waste Audits and Assessments
 (State Plan Goals #3 and #4)

The District will continue this program. The challenge facing this program is:

- The minimal number of annual requests for audits or assessments may indicate that businesses, organizations, and industries are unaware of this program.

To address these challenges, the District will implement the following strategy:

Initiative HC-12.1: Business and Industry Outreach

The District will promote the availability of waste audits and assessments and District-led workshops by including information on the website and working with the Huron County Chamber of Commerce to promote the services to their members. The District will also compile a list of the largest commercial and industrial generators (based on employment) in Huron County and directly promote applicable District services and programs available via email and/or a direct mailing.

Notifications to District businesses of activities, promotions, changes in programs, opportunities to recycle or other communication initiatives will occur through mail, newspaper advertisements, newsletters, website announcements, public service announcements or other mechanisms utilized by the District and or its partners.

Implementation: 2018-2032

2. HC-13 – Recycling Assistance
(State Plan Goals #1, #2, and #4)

This program will continue. The District has addressed the challenges listed for this program in other areas of this *Plan Update*, specifically: HC-9.1 and HC-9.2.

3. HC-14 – Commercial/Industrial Workshops
(State Plan Goals #1, #2, and #4)

The District will continue this program. The challenge facing this program is:

- The minimal number of annual requests for audits or assessments may indicate that businesses, organizations, and industries are unaware of this program.

This challenge will be addressed by Initiative HC-12.1.

4. HC-15 – Commercial/Industrial Newsletter
(State Plan Goals #1, #2, and #4)

The District will continue this program. The challenge facing this program is:

- Budgetary constraints limit the District's ability to distribute physical copies of the newsletter annually.

To address this challenge, the District will implement the following strategy:

Initiative HC-15.1: Electronic Commercial/Industrial Newsletter

The District will develop newsletters for the commercial and industrial sectors on at least a quarterly basis. The newsletters will be posted on the District's web page.

Implementation: 2020-2022

GRANT PROGRAMS

1. HC-16 – Recycling Incentive Grant
(State Plan Goals #1, #2, and #4)

This program will continue. The last year of grant funding under the old program requirements will be provided to the City of Norwalk during calendar year 2016. After 2016, financial assistance will continue to the City at the current rate, at a minimum, until the next Plan is updated which would be 5 years after this Plan is approved. The City will have to complete an application each year for the funding under the new program grant guidelines.

The challenge facing this program is:

- Financial assistance is not offered to other communities in the District.

To address this challenge, the District will implement the following strategy:

Initiative HC-16.1: Expansion to Other Communities

The District will evaluate whether other communities would be available for funding in this *Plan Update*. To accomplish this first step, the District will send out a notification of the program to each

community in the District to gauge their interest. If it is determined that the communities have interest in the funding, then the District will develop a grant application to allow communities to apply for funding under the criteria determined by the District. The criteria will be included in a grant manual that details the program. This manual will be developed after concurrence that the communities are interested in this program expansion. If the communities are not, then the grant program will continue for the City of Norwalk with a reduced grant application process until the next Plan is approved.

The main criteria of the program will be to create curbside recycling programs through competitively bid contracts with the private sector. At a minimum, the contracts would need to include a non-subscription curbside recycling program collecting the designated materials (cardboard, newspaper, aluminum cans and steel cans) and operate for at least three years to receive any funding from the District. Trash collected from any contract would need to be delivered to the Huron County Transfer Station per the flow control requirements of the District. Recyclables collected may be processed by any third-party processor. The grants will be one-time project specific grants with the exception of the City of Norwalk grant. If a community wants to only bid out curbside recycling, that would be acceptable.

Potential funding can be used for the following:

- Recycle containers
- Advertisement and promotion of the curbside and drop-off recycling program
- Contract bid document preparation

The District would consider other funding options as determined by the District based on grant applications that are submitted.

The final grant criteria will be developed by the District and included in a grant application document.

Implementation: 2018: Evaluation
 2019: Grant manual creation and
 implementation of funding program if
 feasible

DISTRICT FACILITIES

1. HC-17 – Huron County Transfer Facility/Landfill (State Plan Goals #3 and #4)

The District will continue this program. The following challenges were identified:

- Post closure care of the closed landfill at the transfer station site including leachate disposal and management.
- Debt service on the landfill.
- Revenue and expense accounting for the landfill and transfer station along with the District is inefficient and cumbersome to manage.
- Some materials like electronics accepted at the Transfer Station are not recycled.

To address this challenge, the District will implement the following strategy:

Initiative HC-17.1: District Accounting and Consolidation

The District will evaluate the option of consolidating all operations of the District, Transfer Station and post closure care of the landfill into the District and its accounting system. This would include all employees being District employees. The evaluation will review legal and liability issues and accounting options. The intent of this review is to determine if the consolidation will aid in the management of the District as a whole and allow for more efficient management and operations and accounting functions.

Under the current system, there are District employees, County employees, consultants/contractors for the District, consultants/contractors for the County and a manager/District Coordinator that oversees the operation of the District, transfer station, landfill closure care, Class IV compost facility and the individual budgets for each of the above operations. The transfer of funds, scheduling of employee tasks, sharing of employees between operations and other factors creates a management issue that could be inefficient. The incorporation of all activities, facilities, employees and accounting system may be beneficial to the overall management of the system.

For the purposes of this *Plan Update*, the District has included the transfer station and landfill budget as well as the District budget in Section 8. The transfer station and landfill expenses are shown but are currently managed by County employees and accounted for in the County system under separate accounts.

Implementation: 2019: Evaluation
2020: Implementation of Changes if Feasible

2. HC-18 – Huron County Composting Facility
(State Plan Goals #3 and #4)

The District will continue this program. Yard waste, brush, and grass clippings are accepted at the composting facility. At this time, no composting operations occur, rather the yard waste materials delivered to the site are staged and then transported to a third-party yard waste facility. The District reserves the right to operate the facility either as a compost site or a transfer site based on economics, volume or other factors. There were no challenges identified.

OTHER PROGRAMS

1. HC-19 – Punch Card Program
(State Plan Goals #3 and #4)

The District will continue this program. The following challenge was identified:

- Not all Townships utilize the punch card system.
- Residents may not know about the program.

To address this challenge, the District will implement the following strategy:

Initiative HC-19.1: Promotion of Punch Card System

The District will promote the availability of the punch card system by including information on the website. The District will also compile a list of the non-participating townships, cities and villages in Huron County and directly promote the punch card system via email and/or a direct mailing.

Implementation: 2018-2032

Industrial Waste Reduction/Recycling and Education Strategies

The District's industrial waste reduction strategies are presented in Table V-6. Actual tonnage was used for the 2014 reference year. Historical waste reduction totals were not available; the District reported the same tonnage from 2010 to 2013 on the Annual District Report. Tonnage was projected to remain flat throughout the planning period since a trend could not be identified and because the planned initiatives may produce varying, unpredictable impacts to the total tons recycled. A total of 62,849 tons is projected annually from 2015 to 2032.

Programs and strategies discussed earlier in this Section that target the industrial sector include Waste Audits and Assessments (HC-12), Recycling Assistance (HC-13), Commercial/Industrial Workshops (HC-14), and Commercial/Industrial Newsletter (HC-15).

**Table V-1
District Population Projections**

Year	Huron County Population	- City of Bellevue Population	- Village of Milan Population	- Village of Plymouth	Total District Population
2014	58,714	3,593	358	888	53,875
2015	58,604	3,586	357	886	53,774
2016	58,494	3,580	357	885	53,673
2017	58,383	3,573	356	883	53,572
2018	58,273	3,566	355	881	53,470
2019	58,163	3,559	355	880	53,369
2020	58,053	3,553	354	878	53,268
2021	57,942	3,546	353	876	53,167
2022	57,832	3,539	353	875	53,066
2023	57,722	3,532	352	873	52,965
2024	57,612	3,526	351	871	52,863
2025	57,501	3,519	351	870	52,762
2026	57,391	3,512	350	868	52,661
2027	57,281	3,505	349	866	52,560
2028	57,171	3,499	349	865	52,459
2029	57,060	3,492	348	863	52,358
2030	56,950	3,485	347	861	52,256
2031	56,805	3,476	346	859	52,123
2032	56,660	3,467	345	857	51,990

Source(s) of information: 2014 Population - Ohio Development Services Agency Office of Research, 2014 Population Estimates by County, City, Village & Township, May 2015.

Population projections for 2030 and 2040 - Ohio Development Services Agency, Ohio County Profiles

District Percent Change 2014-2032	District Percent Change 2018-2032
-3.50%	-2.77%

Sample calculations:

2014 Population = Huron County - City of Bellevue - Village of Milan - Village of Plymouth

$$53,875 = 58,714 - 3,593 - 358 - 888$$

2015 Huron County population = 2014 Huron County population - (2014 Huron County population - 2030 Huron County population) ÷ 16 years)

$$58,604 = 58,714 - ((58,714 - 56,950) \div 16)$$

**Table V-2
District Residential/Commercial Waste Generation (TPY)**

Year	District Population	Per Capita Generation Rate	Total Residential/Commercial Waste Generation (TPY)
2014	53,875	4.67	45,917
2015	53,774	4.75	46,659
2016	53,673	4.84	47,399
2017	53,572	4.92	48,135
2018	53,470	5.01	48,868
2019	53,369	5.09	49,598
2020	53,268	5.09	49,504
2021	53,167	5.09	49,410
2022	53,066	5.09	49,316
2023	52,965	5.09	49,222
2024	52,863	5.09	49,128
2025	52,762	5.09	49,034
2026	52,661	5.09	48,940
2027	52,560	5.09	48,846
2028	52,459	5.09	48,752
2029	52,358	5.09	48,658
2030	52,256	5.09	48,564
2031	52,123	5.09	48,440
2032	51,990	5.09	48,316

Source(s) of information:

District Population- Table V-1

Per Capita Generation Rate- IV-8 (2014)

Sample calculation (2014):

(District population x per capita generation rate (lb/person/day) x 365 days) ÷ 2,000 lbs = Total residential/commercial generation (tons)

(53,875 residents x 4.67 lbs/person/day x 365 days) ÷ 2,000 lbs/ton = 45,917 tons

**Table V-3
Projected Industrial Waste Generation**

SIC Category	Year																			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
20	4,771	4,746	4,721	4,697	4,672	4,647	4,622	4,598	4,573	4,573	4,573	4,573	4,573	4,573	4,573	4,573	4,573	4,573	4,573	4,573
22	219	218	217	216	215	214	212	211	210	210	210	210	210	210	210	210	210	210	210	210
23	170	169	168	167	166	166	165	164	163	163	163	163	163	163	163	163	163	163	163	163
24	2,053	2,042	2,032	2,021	2,010	2,000	1,989	1,979	1,968	1,968	1,968	1,968	1,968	1,968	1,968	1,968	1,968	1,968	1,968	1,968
25	1,125	1,119	1,113	1,107	1,101	1,095	1,090	1,084	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078
26	1,233	1,227	1,221	1,214	1,208	1,201	1,195	1,189	1,182	1,182	1,182	1,182	1,182	1,182	1,182	1,182	1,182	1,182	1,182	1,182
27	26,233	26,097	25,961	25,825	25,689	25,553	25,417	25,281	25,144	25,144	25,144	25,144	25,144	25,144	25,144	25,144	25,144	25,144	25,144	25,144
28	700	696	693	689	686	682	678	675	671	671	671	671	671	671	671	671	671	671	671	671
29	32	32	32	32	32	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
30	6,406	6,373	6,340	6,307	6,273	6,240	6,207	6,174	6,140	6,140	6,140	6,140	6,140	6,140	6,140	6,140	6,140	6,140	6,140	6,140
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	1,292	1,286	1,279	1,272	1,266	1,259	1,252	1,245	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239
33	6,657	6,623	6,588	6,553	6,519	6,484	6,450	6,415	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381
34	2,923	2,908	2,893	2,878	2,863	2,847	2,832	2,817	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802	2,802
35	13,872	13,800	13,728	13,656	13,584	13,512	13,440	13,368	13,296	13,296	13,296	13,296	13,296	13,296	13,296	13,296	13,296	13,296	13,296	13,296
36	52	52	52	51	51	51	51	50	50	50	50	50	50	50	50	50	50	50	50	50
37	1,108	1,102	1,097	1,091	1,085	1,079	1,074	1,068	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062
38	968	963	958	953	948	943	938	933	928	928	928	928	928	928	928	928	928	928	928	928
39	785	781	777	773	768	764	760	756	752	752	752	752	752	752	752	752	752	752	752	752
Totals	70,600	70,234	69,868	69,501	69,135	68,769	68,403	68,037	67,670											

Source(s) of information:

Generation by SIC Code for 2013 from Table IV-2 adjusted to correspond to total industrial waste on Table IV-8

2022 Projected decrease in manufacturing - Ohio Department of Job and Family Services, *Regional Manufacturing Population from Jobs Ohio Regions to 2022*. Northeast Ohio. Web. Accessed November, 2015. Projected change in employment from 2012-2022 (-8.3%) was divided in half and used to calculate 2022. The total tons in 2022 are 4.15% lower than in 2014.

Sample calculation:

2022 Industrial generation = 2014 total + (2014 total x half of projected change in employment from 2012-2022)

67,670 tons = 70,600 tons + (70,600 tons x -4.15%)

Table V-4

Total Waste Generation for the District During the Planning Period (in TPY)

Year	Residential/ Commercial	Industrial	Exempt	Total Waste	Generation Rate (lbs/person/day)
2014	45,918	70,600	8,318	124,837	12.70
2015	46,661	70,234	9,332	126,226	12.86
2016	47,400	69,868	10,345	127,613	12.98
2017	48,136	69,501	11,358	128,996	13.14
2018	48,869	69,135	12,371	130,375	13.31
2019	49,599	68,769	13,384	131,752	13.48
2020	49,505	68,403	13,384	131,292	13.45
2021	49,411	68,037	13,384	130,832	13.43
2022	49,317	67,670	13,384	130,371	13.41
2023	49,223	67,670	13,384	130,277	13.43
2024	49,129	67,670	13,384	130,183	13.44
2025	49,035	67,670	13,384	130,089	13.46
2026	48,941	67,670	13,384	129,995	13.47
2027	48,847	67,670	13,384	129,901	13.49
2028	48,753	67,670	13,384	129,807	13.51
2029	48,659	67,670	13,384	129,713	13.52
2030	48,565	67,670	13,384	129,619	13.54
2031	48,441	67,670	13,384	129,496	13.55
2032	48,318	67,670	13,384	129,372	13.57

Source(s) of information:

Residential/Commercial Table V-2

Industrial Table V-3

Exempt (2013) - Table IV-8

Exempt waste was projected to increase 1,013.12 tons annually from 2014-2019, then remain flat. The 1,013.12 ton increase was calculated by taking the average increase in exempt tonnage from 2010-2014.

Sample calculation (2014):

Total waste = Residential/commercial + industrial + exempt

124,837 tons = 45,918 tons + 70,600 tons + 8,318 tons

$$\text{Generation rate (lb/person/day)} = \frac{\text{Total waste generated (tons)} \times 2,000 \text{ pounds per ton}}{\text{Population} \times 365 \text{ days/year}}$$

$$12.70 = \frac{124,836 \text{ tons} \times 2,000 \text{ pounds per ton}}{53,875 \text{ residents} \times 365 \text{ days}}$$

**Table V-5
Residential/Commercial Waste Reduction Strategies**

Program	Program #	Type of Material Reduced and/or Recycled	Tons of Waste Reduction																		
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Reduction via Incineration/Waste-to-Energy Processes																					
Waste Reduction via Incineration	N/A	MSW	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Subtotal			0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Residential/Commercial Recycling and Collection Programs																					
Curbside Recycling	HC-1	AC, GL, PL, ONP, OCC, SC, Pbd, MXP	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020
Drop-Off Recycling	HC-2	AC, GL, PL, ONP, OCC, SC, Pbd, MXP	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573
Yard Waste Management	HC-3	YW	3,580	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600
Scrap Tire Collection	HC-5	ST	715	714	712	711	710	708	707	706	704	703	702	700	699	698	696	695	694	692	690
Lead-Acid Battery Management	HC-6	LAB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Appliance Collection	HC-7	WG	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
Electronics Collection	HC-8	EW	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Huron County Transfer Facility	HC-17		458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458	458
Commercial Box Stores Reporting Directly to Ohio EPA	N/A	AC, GL, PL, SC, MXP, FW, Oth	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101	1,101
Other Reported Commercial Recycling from Surveys (Not Linked to District Programming)	N/A	Varies	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163	6,163
Subtotal			13,665	13,684	13,683	13,681	13,680	13,679	13,677	13,676	13,675	13,673	13,672	13,671	13,669	13,668	13,667	13,665	13,664	13,662	13,660
Grand Totals			13,665	13,684	13,683	13,682	13,680	13,679	13,678	13,676	13,675	13,674	13,672	13,671	13,670	13,668	13,667	13,666	13,664	13,663	13,661

AC = Aluminum Containers; GL = Glass Containers; PL = Plastic Containers; ONP = Old Newspaper; OCC = Corrugated Cardboard; SC = Steel Containers; Pbd = Paperboard; MXP = Mixed Paper; ST = Scrap Tires; WG = White Goods/Appliances; Oth = Other, YW = Yard Waste, EW = Electronic Waste, n/a = not applicable

Source(s) of information:

District records, Annual District Reports

**Table V-6
Industrial Waste Reduction Strategies**

Strategy	Program #	Type of Material Reduced/Recycled	Tons of Source Reduction/Recycling																			
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
Industrial Sector Technical Assistance and Education Programs: Recycling																						
Industrial Recycling	n/a	FM, NFM, PL, OCC, MxP, W, GL, R, FW, XS, WG, Oth	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849
Total			62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849	62,849

FM=Ferrous Metals; NFM=Non-Ferrous Metals; PL= Plastic; OCC=Cardboard; MxP=Mixed Paper; W=Wood; GL=Glass, R=Rubber, FW=Food Waste, XS=Non-Exempt Foundry Sand, WG=Appliances, Oth=Other

Source(s) of information:
District records, Annual District Reports

VI. Methods of Management: Facilities and Programs to be Used [ORC Section 3734.53(A)(7)-(12)]

This section of the *Plan Update* demonstrates that the District has capacity through facilities and its programs to manage the waste generated for the planning period. A regional capacity analysis provides information to demonstrate the District meets or exceeds capacity requirements under Ohio law. The District will continue to exercise flow control provisions (to direct waste to appropriate facilities). The designation of facilities is a power granted to SWMDs under Ohio law allowing the District to designate where solid waste generated within or transported into the District shall be taken for disposal, transfer, resource recovery, or recycling.

Additionally, this section of the *Plan Update* includes a detailed siting strategy for new proposed facilities.

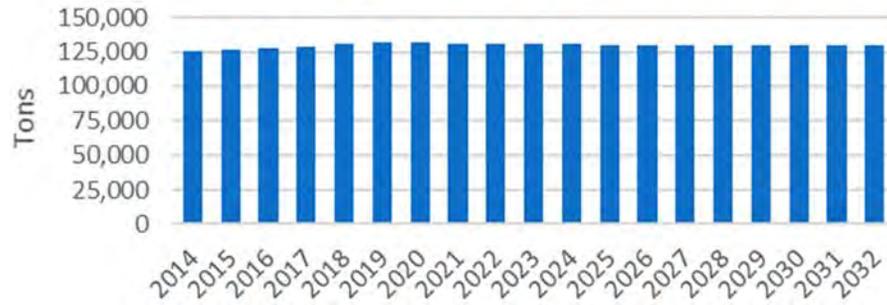
A. District Methods for Management of Solid Waste

Table VI-1 presents the waste management methods used and capacity needed for each year of the planning period. The District managed approximately 124,837 net tons of solid waste in 2014. Approximately 130,375 net tons of solid waste will need to be managed in 2018 (the first year of the planning period) and 129,372 net tons will need to be managed by 2032 (the final year of the planning period).

The District will manage the projected waste through recycling, yard waste composting, incineration, the use of transfer stations, and landfilling. In Table VI-1, the total tons landfilled in 2014 (48,322 tons) was calculated by subtracting recycling, yard waste composting, and the volume of waste reduced by incineration. The District projects a need of 53,843 tons of landfill capacity in 2018 and 52,851 tons in 2032.

The following figure shows the projected total net tons to be managed by the District throughout the planning period.

2014 – 2032 Net Tons to be Managed by the District



The following figure shows the projected tons to be landfilled throughout the planning period.

2014 – 2032 Total Landfill Tons to be Managed by the District

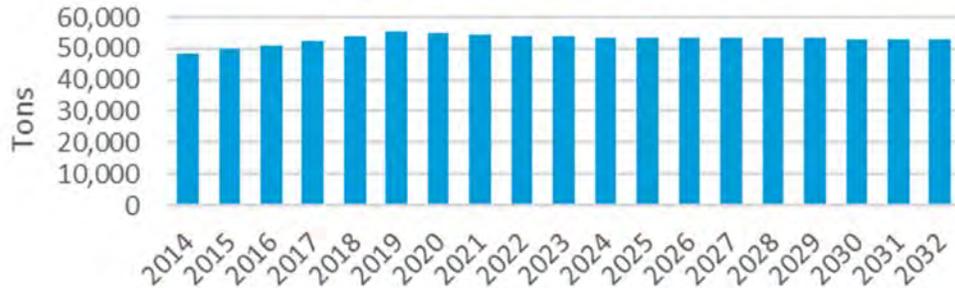


Table VI-2 presents a summary of waste management methods for residential/commercial solid waste generated by the District. Recycling, yard waste composting, transferring, incineration, and landfilling. In 2014, the residential/commercial sector generated a total of 46,190 tons. This sector is projected to generate 49,139 tons of solid waste at the beginning of the planning period and 48,580 tons of solid waste by the end of the planning period. The following figure presents the management methods used to manage residential/commercial waste generation throughout the planning period.

2014 – 2032 Residential/Commercial Sector Waste Management Methods

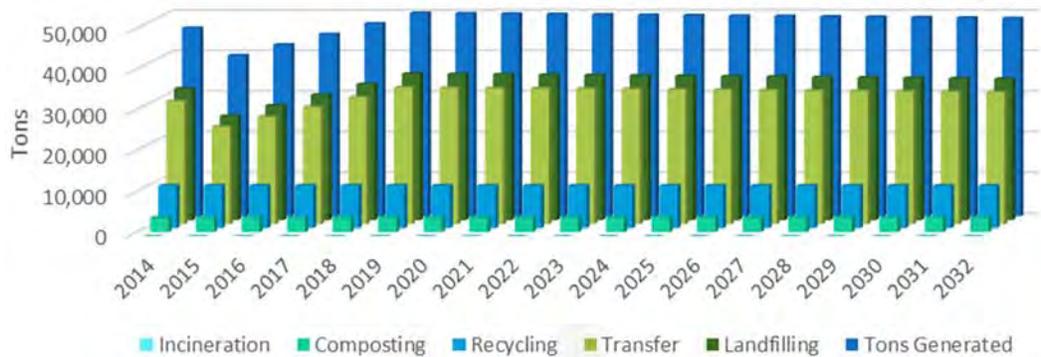


Table VI-3 presents a summary of waste management methods for industrial solid waste generated by the District. This sector’s waste was managed by recycling, transferring, and landfilling. In 2014, the industrial sector generated a total of 70,600 tons. The industrial sector is projected to generate 69,135 tons of solid waste at the beginning of the planning period and 67,670 tons of solid waste by the end of the planning period. Total annual waste generation will decrease 1,465 tons or 2.1% from 2018 to 2032.

The following figure presents the management methods used to manage industrial waste generation throughout the planning period.

2014 – 2032 Industrial Sector Waste Management Methods

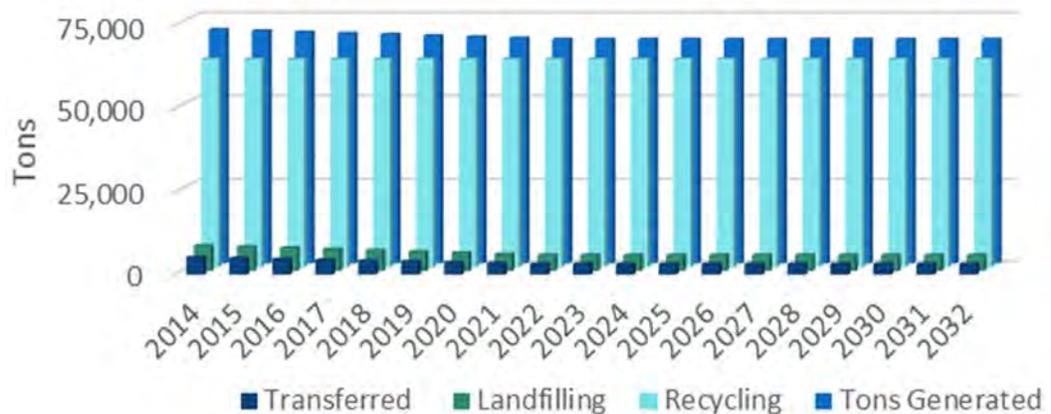


Table VI-4A, “Waste Management Method: Landfill,” presents the reference year landfill capacity utilization and anticipated landfill capacity needs throughout the planning period. The projections in Table VI-4A present the landfill capacity demands from 2014 to 2032. Total tons landfilled includes waste that was directly hauled to landfills, transferred waste, and ash produced through incineration.

Twelve landfills received waste generated in the District during the reference year, including waste that was first accepted at incinerators or transfer stations. For the purposes of the analysis in Table VI-4A and future year projections on landfill capacity, the District assumes that each facility that managed District waste during the reference year will manage the same percent of total tons as during the reference year unless a landfill ceases operations or runs out of permitted airspace before the end of the planning period.

There are no in-district landfills. Eleven of the landfills were located in Ohio and one landfill was located in Indiana. Eight of the Ohio landfills have sufficient remaining airspace to manage 100% of the District's landfilling needs throughout the planning period.

Table VI-4B, "Waste Management Method: Incineration," presents the total tons projected to be managed by incineration throughout the planning period. The District used one medical waste incinerator in the reference year to manage less than a ton of waste. The total tons of waste managed by incineration are projected to change at the same rate as population. The overall tonnage managed by incineration annually from 2018 to 2032 is projected to remain essentially flat.

Table VI-4C, "Waste Management Method: Transfer," presents the total tons projected to be managed at transfer stations. In the first year of the planning period, the District projects approximately 38,518 tons of solid waste will be managed by one in-district and two out-of-district transfer facilities. This decreases to 37,124 tons during the final year of the planning period. Transfer stations manage approximately 72% of the District's landfilled waste.

Table VI-4D, "Waste Management Method: Recycling," presents the total tons projected to be managed by recycling. The District is projected to recycle an average of 73,193 tons of material annually throughout the planning period.

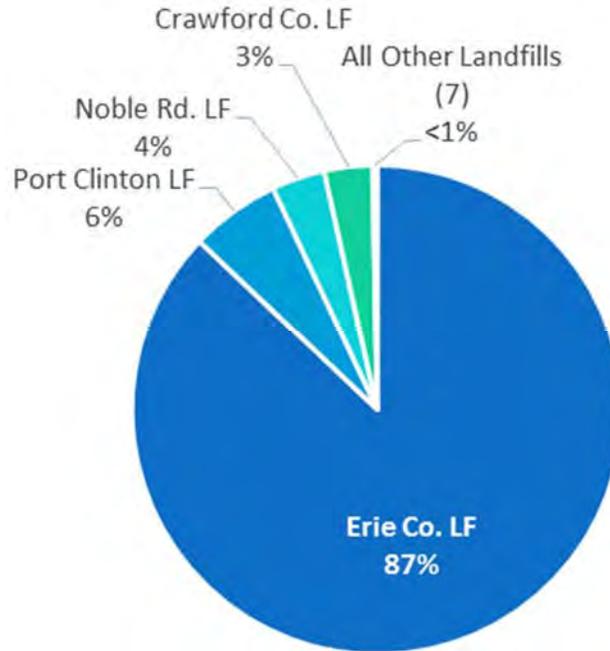
Table VI-4E, "Waste Management Method: Composting," presents the total tons projected to be managed by composting. Composting was projected as a flat average of 3,600 tons annually from 2015 to 2032. The District does not anticipate any major changes to facilities or programs operating during the reference year.

B. Demonstration of Access to Capacity

During 2014, eleven out-of-district landfills and one out-of-state landfill managed 48,322 tons of solid waste generated by District residents, businesses and industries.

The following figure presents the landfills used by the District in 2014, and the percentage of District-generated waste landfilled at each facility.

2014 Landfills Used by District



Regional Capacity Analysis

The purpose for the regional capacity analysis is to evaluate and demonstrate that the District has access to adequate disposal capacity during the planning period. The District’s assessment of regional landfill capacity demonstrates there is sufficient permitted capacity available to manage the District’s solid waste until December 31, 2032.

The District projects an average need of approximately 53,678 tons or 80,518 cubic yards of landfill capacity annually throughout the planning period. The District will dispose of approximately 805,175 tons or 2.4 million cubic yards of solid waste. Using a 3:1 conversion factor for cubic yards to tons and applying an average 2:1 compaction ratio for landfilled solid waste, the District will need approximately 1.2 million cubic yards of airspace capacity over the fifteen-year planning period.

The landfills used by the District in 2014 had sufficient permitted airspace to dispose of an estimated 179,916,904 tons of solid waste. The Erie County Sanitary Landfill, which currently manages the majority of the District’s waste, has enough permitted capacity to manage the entirety of the waste generated within the District from the reference year to the end

of the planning period. Overall, the landfills used by the District in 2014 had an average remaining lifespan of more than 46 years.

C. Schedule for Facilities and Programs: New, Expansions, Closures, Continuations

Table VI-5, Implementation Schedule for Facilities, Strategies, Programs and Activities: Dates and Description, presents descriptions and dates of operation for each facility, program or activity presented in the *Plan Update*.

Programs for residential/commercial recycling, source reduction and awareness, the recycling, reuse and composting program, grants, industrial source reduction/recycling and awareness and other programs are presented in Table VI-5. These programs are discussed in detail in Sections IV and V.

D. Identification and Designation of Facilities

Table VI-6 includes the Facilities Identified and Current Designations. In the approved Plan under which the District is currently operating, the District is authorized to establish facility designations in accordance with Sections 343.013, 343.014, and 343.015 of the Ohio Revised Code. The District has designated the Huron County Transfer Station as the only facility to which municipal solid waste generated in the District may be taken.

E. Authorization Statement to Designate

The Board of Directors of the District is hereby authorized to establish facility designations in accordance with Sections 343.013, 343.014, and 343.015 of the Ohio Revised Code. The District current designates the Huron County Transfer Facility. Section IX includes a complimentary rule (15-1) that requires all solid waste generated within Huron County must be delivered to the Huron County Transfer Facility. The facility listed above in Section VI.D of this Section is the only facility designated for the disposal or transfer of municipal solid waste generated in this District. Any solid waste transfer, disposal, recycling or resource recovery facilities that are not designated will require designation or a waiver to accept solid waste generated within the District.

F. Waiver Process for the Use of Undesignated Facilities

The Board of Directors of the District developed the procedure established in a resolution adopted by the Board of Directors in 2014 and set forth in Section IX rule number 15-2, for a waiver process to allow exempt or other wastes to be disposed of at facilities other than those designated under Section E of this section.

The Board, pursuant to Section 343.01(l)(2) of the Ohio Revised Code, and subject to the terms and conditions set forth herein, will grant a contractor a waiver from the District's facility designations for the purpose of authorizing the contractor to deliver the solid waste identified in the contract's waiver request to the facility or facilities specified in the waiver request, provided that at no time shall such solid waste be delivered to a facility that lacks the necessary governmental permits and licenses to operate. The waiver agreement does not apply to any solid waste other than the solid waste identified in the contractor's waiver request. The following are obligations of any contractor that enters into a waiver agreement with the District:

- Contractor agrees to pay the District a waiver fee of \$12.00 per ton for each ton of solid waste generated within the District that contractor delivers or causes to be delivered to a facility other than the Huron County Transfer Station. The waiver fee is subject to change at the discretion of the Board of Directors.
- Contractor shall forward payment of the waiver fee to the District on a monthly basis, on or before the last day of the month following the month in which the solid waste was delivered.

Contractor shall submit with its waiver fee payment a completed waiver fee statement, on a form prescribed by the District, that certifies and identifies the tonnage of Solid Waste generated within the District that contractor delivers or causes to be delivered to a facility other than the Huron County Transfer Station, and the amount of the waiver fee required to be paid on such tonnage pursuant to the agreement. Contractor shall submit with its completed waiver fee statement copies of weight slips or load tickets from the receiving facility verifying the weight of the solid waste delivered pursuant to the waiver agreement.

G. Siting Strategy for Facilities

The District does not, as a part of this Plan, intend to site any District owned or operated facilities for the transfer or disposal of municipal solid waste. The following addresses the possibility that another party wishes to site a solid waste transfer, disposal, recycling or resource recovery facility in any location that is located in this District.

The District Board of Directors shall review general plans and specifications under the rules adopted by the Board and determine whether the solid waste facility proposal complies with the Plan. If the Board decides that it will facilitate the review process, the Board may appoint a Siting Committee within sixty days of receipt of plans and specifications under the siting rules. The Siting Committee may include the individuals, or their representatives listed herein, in addition to any

other individuals that the Board determines would provide information relevant to the Board's determination of whether the proposed solid waste transfer, disposal, recycling or resource recovery facility or a proposal to modify an existing facility complies with the Plan. The Board may designate a Committee Chair, who will be responsible to facilitate the work of the Siting Committee and to prepare a report to the Board if requested.

The Siting Committee may include the following representatives:

- A representative from each of the three County Boards of Commissioners;
- A representative of each County Board of Health; and
- A representative of each County Planning Commission.
- If a location proposed for the facility is within a township or townships, the Board may appoint at least one trustee from the proposed host township(s).
- If the proposed location is within a municipality, at least one municipal official from that municipality may be appointed to the Siting Committee.
- The use of a consultant and/or support for the committee by District staff or other staff from any of the counties may be considered.

The purpose of the Siting Committee is to assemble and organize information relevant to the Board's determination under the siting rule and to forward that information to the Board for use in making its determination. The Siting Committee has no decision-making authority. The Board may require the Siting Committee to prepare a report summarizing the information it has compiled. The information may include the following:

1. The District Solid Waste Management Plan;
2. The District rules;
3. Current Ohio and U.S. EPA rules and regulations governing the siting of the appropriate type of facility;
4. Maps and data for the county showing political jurisdictions, natural features such as rivers, streams, wetlands, flood plains, watershed and aquifer boundaries, geology, and topography;

5. Maps and data for the county showing land use, such as public and private utilities, archeological and historical sites, parks and recreation areas, threatened species habitat, transportation patterns, airports, etc.; and
6. Zoning maps.

The Siting Committee, upon appointment, shall conduct its data compilation duties within sixty to ninety days. The Board may grant the Siting Committee an additional thirty days to fulfill its obligation.

H. Contingencies for Capacity Assurance and District Program Implementation

The District has assessed the recycling processing capacity in the District and within reasonable transportation distances and finds that there is private recycling processing capacity which could be utilized to process the materials collected through the District drop-off program. If, for any reason, one or more of the service providers that the District presently utilizes is unable or unwilling to provide the service the District requires, the District will immediately seek to enter into agreements with other businesses or solid waste districts to provide the necessary services.

The District is currently under contract with the Erie County Landfill to provide disposal capacity for all flow controlled solid waste destined for the Huron County Transfer Station. The Erie County Sanitary Landfill, which currently manages the majority of the District's waste, has enough permitted capacity to manage the entirety of the waste generated within the District from the reference year to the end of the planning period. Overall, the landfills used by the District in 2014 had an average remaining lifespan of more than 46 years. If for some reason, the Erie County Landfill is no longer able to accept District solid waste or the District and/or Erie County cease their contractual relationship, the District will immediately solicit bids for solid waste disposal at other licensed and qualified landfills. The same procedure would be used for composting and recycling services if the private sector open market is unable to provide District generators with these services.

The District Director will make a recommendation to the Board on the course of action to take within 120 days of confirmation of an interruption of landfill capacity or composting and recycling services. Additionally, the District will develop an alternative source of revenue if there is an interruption in landfill capacity. The Board will direct the District Coordinator to develop alternatives for revenue generation to assure program implementation as part of the management plan for the disposal of District solid waste.

**Table VI-1
Waste Management Methods Used and Processing Capacity Needed for Each Year of the Planning Period**

Year	Tons of SW Generated	Tons Source Reduced	Net Tons to be Managed by SWMD	Management Method Used and Processing Capacity Required in TPY					
				Recycling	Transfer	Yard Waste Composting	Gross Incineration	Waste Reduced via Incineration	Landfilling
2014	124,837	0	124,837	72,935	36,333	3,580	1	0.4	48,322
2015	126,226	0	126,226	72,934	36,869	3,600	1	0.4	49,692
2016	127,613	0	127,613	72,933	37,422	3,600	1	0.4	51,079
2017	128,996	0	128,996	72,932	37,972	3,600	1	0.4	52,464
2018	130,375	0	130,375	72,930	38,520	3,600	1	0.4	53,845
2019	131,752	0	131,752	72,929	39,064	3,600	1	0.4	55,223
2020	131,292	0	131,292	72,928	38,727	3,600	1	0.4	54,764
2021	130,832	0	130,832	72,926	38,389	3,600	1	0.4	54,305
2022	130,371	0	130,371	72,925	38,052	3,600	1	0.4	53,846
2023	130,277	0	130,277	72,924	37,965	3,600	1	0.4	53,754
2024	130,183	0	130,183	72,922	37,879	3,600	1	0.4	53,661
2025	130,089	0	130,089	72,921	37,792	3,600	1	0.4	53,568
2026	129,995	0	129,995	72,920	37,706	3,600	1	0.4	53,475
2027	129,901	0	129,901	72,918	37,619	3,600	1	0.4	53,383
2028	129,807	0	129,807	72,917	37,533	3,600	1	0.4	53,290
2029	129,713	0	129,713	72,916	37,446	3,600	1	0.4	53,197
2030	129,619	0	129,619	72,914	37,360	3,600	1	0.4	53,105
2031	129,496	0	129,496	72,913	37,246	3,600	1	0.4	52,983
2032	129,372	0	129,372	72,911	37,132	3,600	1	0.4	52,861

Source(s) of information:

- Tons of SW Generated - Table V-4
- Tons Waste Reduction and Yard Waste Composting - Tables V-5 and V-6
- Tons Transferred - Tables III-2, VI-2, and VI-3
- Tons of Gross Incinerated and Waste Reduced by Incineration - Tables VI-2

Sample calculation (2014):

Landfilling = Net tons to be managed by SWMD - (recycling + yard waste composting) - waste reduced by incineration
 48,322 tons = 124,837 tons - (72,935 tons - (72,935 tons + 3,580 tons) - 0.4 tons

**Table VI-2
Summary for Residential/Commercial Waste Management Methods**

Year	Tons Generated	Management Method in TPY						Transfer	Landfilling
		Recycling	Gross Incineration	Waste Reduced by Incineration	Ash Disposed from Incineration	Composting			
2014	45,918	10,086	0.5	0.4	0.2	3,580	30,095	32,252	
2015	46,661	10,086	0.5	0.4	0.2	3,600	30,770	32,975	
2016	47,400	10,084	0.5	0.4	0.2	3,600	31,461	33,715	
2017	48,136	10,083	0.5	0.4	0.2	3,600	32,149	34,453	
2018	48,869	10,082	0.5	0.4	0.2	3,600	32,834	35,187	
2019	49,599	10,080	0.5	0.4	0.2	3,600	33,517	35,918	
2020	49,505	10,079	0.5	0.4	0.2	3,600	33,430	35,826	
2021	49,411	10,078	0.5	0.4	0.2	3,600	33,344	35,733	
2022	49,317	10,076	0.5	0.4	0.2	3,600	33,257	35,640	
2023	49,223	10,075	0.5	0.4	0.2	3,600	33,171	35,548	
2024	49,129	10,074	0.5	0.4	0.2	3,600	33,084	35,455	
2025	49,035	10,072	0.5	0.4	0.2	3,600	32,998	35,362	
2026	48,941	10,071	0.5	0.4	0.2	3,600	32,911	35,270	
2027	48,847	10,070	0.5	0.4	0.2	3,600	32,825	35,177	
2028	48,753	10,068	0.5	0.4	0.2	3,600	32,738	35,084	
2029	48,659	10,067	0.5	0.4	0.2	3,600	32,652	34,992	
2030	48,565	10,066	0.5	0.4	0.2	3,600	32,565	34,899	
2031	48,441	10,064	0.5	0.4	0.2	3,600	32,451	34,777	
2032	48,318	10,062	0.5	0.4	0.2	3,600	32,338	34,655	

Source(s) of information:

Tons Generated - Table V-2

Recycling, Waste Reduced by Incineration, and Composting - Table V-5

Sample calculation (2014):

Landfilling = Tons generated - recycling - waste reduced by incineration - composting
 32,252 tons = 45,918 tons - 10,086 tons - 0.4 tons - 3,580 tons

**Table VI-3
Summary for Industrial Waste Management Methods**

Year	Tons Generated	Management Method in TPY		
		Recycling	Transferred	Landfilling
2014	70,600	62,849	5,311	7,752
2015	70,234	62,849	5,060	7,385
2016	69,868	62,849	4,809	7,019
2017	69,501	62,849	4,558	6,653
2018	69,135	62,849	4,307	6,287
2019	68,769	62,849	4,056	5,920
2020	68,403	62,849	3,805	5,554
2021	68,037	62,849	3,554	5,188
2022	67,670	62,849	3,303	4,822
2023	67,670	62,849	3,303	4,822
2024	67,670	62,849	3,303	4,822
2025	67,670	62,849	3,303	4,822
2026	67,670	62,849	3,303	4,822
2027	67,670	62,849	3,303	4,822
2028	67,670	62,849	3,303	4,822
2029	67,670	62,849	3,303	4,822
2030	67,670	62,849	3,303	4,822
2031	67,670	62,849	3,303	4,822
2032	67,670	62,849	3,303	4,822

Source(s) of information:

Tons Generated - Table V-4

Recycling and Waste Reduced by Incineration - Table V-6

Sample calculation (2014):

Landfilling = Tons generated - recycling

7,752 tons = 70,600 tons - 62,849 tons

Table VI-4A
Waste Management Method: Landfill

Facilities Used by District	County	Average Daily Waste (Tons)	Remaining Capacity		Airspace		Tons of District SW Managed																			
			Years	Data Source	Gross (YD ³)	Net (tons)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
							2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
Erie County Sanitary Landfill	Erie	440	32.1	OEPA	6,055,223	4,331,652	42,086	43,279	44,487	45,692	46,894	48,094	47,694	47,294	46,894	46,813	48,609	50,233	50,145	50,058	49,971	49,883	49,796	49,731	49,616	
Port Clinton Landfill	Ottawa	383	75	OEPA	9,676,598	7,487,088	2,862	2,943	3,025	3,107	3,189	3,271	3,243	3,216	3,189	3,178	3,178	3,172	3,167	3,161	3,156	3,150	3,145	3,138	3,130	
Noble Rd. Landfill	Richland	3,350	9	OEPA	9,056,400	7,969,600	1,691	1,739	1,787	1,836	1,884	1,932	1,916	1,900	1,884	1,881	0	0	0	0	0	0	0	0	0	0
Crawford County Sanitary Landfill	Crawford	690	10	OEPA	2,290,577	1,877,523	1,541	1,585	1,629	1,673	1,717	1,761	1,747	1,732	1,717	1,714	1,711	0	0	0	0	0	0	0	0	0
Sunny Farms Landfill	Seneca	3,401	24.4	OEPA	30,948,016	23,211,012	46	47	49	50	51	52	52	52	51	51	51	51	51	51	51	51	51	50	0	0
Lorain County Landfill	Lorain	3,755	14.5	OEPA	185,303,570	15,592,283	38	40	41	42	43	44	44	43	43	43	43	43	43	43	43	42	42	42	42	42
Evergreen Recycling & Disposal	Wood	656	43.4	OEPA	8,979,687	6,335,169	36	37	38	39	40	41	40	40	40	40	40	39	39	39	39	39	39	39	39	39
Hancock County Sanitary Landfill	Hancock	436	33.4	OEPA	5,647,377	4,091,192	17	17	18	18	19	19	19	19	19	19	19	19	19	19	19	19	19	19	18	18
County Environmental of Wyandot	Wyandot	886	117.4	OEPA	21,334,508	26,610,681	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
American Landfill	Stark	3,150	74.9	OEPA	81,734,287	67,675,990	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pine Grove Regional Facility	Fairfield	792	72.6	OEPA	19,634,734	14,726,734	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Southside Landfill	Manion (IN)	DNR	DNR	IDEM	DNR	DNR	0.11	0.11	0.11	0.11	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	
Total					380,660,977	179,916,904	48,322	49,691	51,078	52,462	53,843	55,220	54,761	54,302	53,842	53,749	53,656	53,563	53,469	53,376	53,283	53,190	53,097	52,974	52,851	

Note: Reflects tonnage directly hauled, transferred, and ash disposed at landfills as a result of incineration.

Source(s) of information:
 2014 tons - Table III-1
 2015 - 2032 tons - Table VI-1
 Projected value for each landfill is calculated as a ratio based on the 2014 distribution.
 Years of remaining capacity as of 12/31/2014 based on the 2014 rate of receipts in 2014 Ohio EPA Facility Data Report.

Sample calculation:
 Port Clinton Landfill $\frac{\text{Port Clinton Landfill 2014}}{\text{Total 2014}} \times \text{Total 2015}$
 $2,943 \text{ tons} = \frac{2,862 \text{ tons}}{48,322 \text{ tons}} \times 49,691 \text{ tons}$

**Table VI-4B
Waste Management Method: Incinerator**

Facilities Used by		Tons of District SW Managed																		
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
District	County																			
Stericycle	Geauga	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Totals		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Table VI-4C
Waste Management Method: Transfer

Facilities Used by District	County	Tons of District SW Managed																		
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Huron County Transfer Station	Huron	36,261	36,796	37,347	37,896	38,441	38,984	38,647	38,310	37,973	37,886	37,799	37,712	37,625	37,539	37,452	37,365	37,278	37,164	37,050
Richland County Transfer Station	Richland	71.9	73.0	74.1	75.2	76.2	77.3	76.6	76.0	75.3	75.1	75.0	74.8	74.6	74.4	74.3	74.1	73.9	73.7	73.5
Medassure of Indiana Treatment Facility	Marion	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total		36,333	36,869	37,421	37,971	38,518	39,062	38,724	38,386	38,048	37,961	37,874	37,787	37,700	37,613	37,526	37,439	37,352	37,238	37,124

Source(s) of information:

2014 Tons - Table III-3

2014 - 2025 Tons - Table VI-1

Projected value for each transfer station is calculated as a ratio based on the 2014 distribution.

Sample calculation:

$$\text{Huron County Transfer Station 2015} = \frac{\text{Huron County Transfer Station 2014}}{\text{Total 2014}} \times \text{Total 2015}$$

$$36,796 \text{ tons} = \frac{36,261 \text{ tons}}{36,333 \text{ tons}} \times 36,869 \text{ tons}$$

Table VI-4D
Waste Management Method: Recycling

Facilities Used by District Name	Tons of District SW Managed																			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
Huron County TF	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512	512	
District Drop-Off Recycling Sites	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573	
Sandusky Steel	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Nowalk Waste Materials	9,200	9,200	9,200	9,200	9,199	9,199	9,199	9,199	9,199	9,199	9,198	9,198	9,198	9,198	9,198	9,198	9,197	9,197	9,197	
Christie Lane Industries	3,361	3,361	3,361	3,361	3,361	3,361	3,361	3,361	3,361	3,360	3,360	3,360	3,360	3,360	3,360	3,360	3,360	3,360	3,360	
River Valley Paper Co.	923	922	922	922	922	922	922	922	922	922	922	922	922	922	922	922	922	922	922	
Milliron Iron & Metal	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	
ReConserve Of Ohio	839	839	839	839	839	839	839	839	838	838	838	838	838	838	838	838	838	838	838	
Heritage Environmental	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
David Price Metals	102	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	
Pipo, Inc	3,053	3,053	3,053	3,053	3,053	3,053	3,053	3,053	3,053	3,053	3,052	3,052	3,052	3,052	3,052	3,052	3,052	3,052	3,052	
Gateway	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	
Walmart	807	807	806	806	806	806	806	806	806	806	806	806	806	806	806	806	806	806	806	
Dollar General	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	
Big Lots	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
Aldi Inc. Hincley Division	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	
Bob's Tire Services	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
ECHO Tire Recycling	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	
Entech Inc.	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	
Enviro Tire Recycling	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	
Gen-Tire LLC	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
Kelbly Tire Recycle	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	
Liberty Tire Service of Ohio	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	
Lightner Tire Company	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
R. Willig Tire Distributors	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	
Rumpke Transportation	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Rumpke	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Republic	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	
Armatrout Sanitation	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	
Other Recycling Reported	52,412	52,411	52,411	52,410	52,409	52,408	52,407	52,406	52,405	52,404	52,403	52,402	52,401	52,400	52,399	52,398	52,397	52,396	52,395	
Total	73,207	73,206	73,205	73,203	73,202	73,201	73,199	73,198	73,197	73,195	73,194	73,193	73,191	73,190	73,189	73,187	73,186	73,184	73,182	

Source(s) of information:

The total recycled is from Table VI-1.

Projected value for each Recycling Facility is calculated as a ratio based on the 2013 distribution

Sample calculation:

$$\text{Huron Co. TF 2015} = \frac{\text{Huron Co. TF 2014}}{\text{Total 2014}} \times \text{Total 2015}$$

$$512 \text{ tons} = \frac{512 \text{ tons}}{73,207 \text{ tons}} \times 73,206 \text{ tons}$$

Table VI-4E
Waste Management Method: Composting

Facilities Used by District	County	Tons of District SW Managed																		
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Huron County Fairgrounds	Huron	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Village of New London	Huron	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
Sand Road Enterprises	Huron	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
Cloverleaf Composting Facility	Cuyahoga	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132
Perry's Plantation	Erie	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Bio-Fill	Ottawa	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Village of Wakeman Residential Yard Waste Collection	Huron	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
City of Norwalk Residential Yard Waste Collection	Huron	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042	3,042
New Program - TBA	N/A	N/A	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Total		3,580	3,600																	

Note: Table includes yard waste only; food waste has been excluded from this table.

Source(s) of information:

2014 tons - Table III-6

2015-2032 tons - Table VI-1

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration		
				Begin	Cease	
RESIDENTIAL/COMMERCIAL COLLECTION PROGRAMS						
Curbside Recycling	HC-1	City of Norwalk, Village of New London, Village of Wakeman	The District had a total of 2 communities that provided non-subscription residential curbside recycling in 2014 and one community that had subscription curbside recycling. These programs are expected to continue operating.	Ongoing	Ongoing	
			Initiative HC-1.1: <i>Curbside Recycling Promotion</i>	The District will implement targeted promotional activities to residents that have curbside recycling. The District will review on a continuing basis the effectiveness of these promotional activities and may, depending on results, identify and implement additional or replacement strategies designed to meet the State goals.	2018	2032
			Initiative HC-1.2: <i>Curbside Recycling Technical Assistance</i>	The District will provide technical assistance to cities, villages, or townships that express interest in implementing a curbside recycling program. The District will make political subdivisions aware of the availability of this technical assistance by adding a section to its website specifically for community officials.	2018	2032
Drop-Off Recycling	HC-2	District-Wide	The District will operate full-time and part-time drop-off sites to provide at least 90% of residents with access to recycling. Additionally, the District will service drop-off sites for select schools in the City of Norwalk.	Ongoing	Ongoing	
			Initiative HC-2.1: <i>Drop-Off Location Monitoring</i>	The District will monitor a variety of elements regarding drop-off recycling sites. Based on results of the ongoing monitoring, the District may adjust the program on an as-needed basis when improvements are identified or changes are required including the need to move, create or eliminate a site are recommended.	2018	2032

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration	
				Begin	Cease
Initiative HC-2.2: <i>Drop-Off Location Expansion</i>			The following communities were identified as underserved areas in the District: Fairfield Village/Twp., Townsend Twp., and Ripley Twp. The District will determine with the communities identified whether siting a drop-off site is feasible. If the District and community agree and an appropriate site is identified, the District will implement the drop-off site. If sites cannot be found or agreements are not made, the District may look to other communities to implement new sites.	2018	2032
Initiative HC-2.3: <i>Improving Program Consistency</i>			The District will expand the materials accepted at sites where limited materials are accepted so all sites will accept the same materials.	2018	2032
Initiative HC-2.4: <i>Improving Program Availability</i>			A portion of the District's drop-off sites are available only during even or off months. The availability for each drop-off will be expanded so each site will be available on at least a monthly basis.	2018	2032
Initiative HC-2.5: <i>Advertising Drop-Off Schedule</i>			The District will work with political subdivisions to post information on their websites about the availability of drop-off sites. The District will provide suggestions to political subdivisions about other ways the drop-off program could be advertised at the community level, such as including a note or reminder on utility bills. The District will also update its webpage containing information about the drop-off program to make it more user-friendly for residents.	2018	2032
Initiative HC-2.6: <i>Drop-Off Efficiency Study</i>			The District will conduct a detailed cost accounting of the drop-off program operation to determine the exact cost to operate the program. Costs will be compared to different operational scenarios. Based on the results of the study, the District will determine if a change in the drop-off program operation can be made under the current Plan Update or whether it will be recommended for the next Plan Update.	2018	2020

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration	
				Begin	Cease
Yard Waste Management	HC-3	District-Wide	The registered composting facilities and yard waste collection programs reported in 2014 are expected to continue operating.	Ongoing	Ongoing
Initiative HC-3.1: <i>Organic Waste Management Technical Assistance</i>			The District will reach out to the Huron County Jail to discuss interest in implementing a food waste or yard waste composting program. If the jail is interested in implementing an organics recycling program, the District will provide technical assistance.	2018	2022
Household Hazardous Waste Management	HC-4	District-Wide	The District will annually evaluate whether opportunities for partnerships exist that would allow the District to offer HHW collection events.	Ongoing	Ongoing
Initiative HC-4.1: <i>Promoting Reduction of Household Hazardous Waste Generation</i>			The District's long term goal is to reduce the amount of HHW materials that residents dispose that are still usable by enhancing its education and awareness program.	2018	2032
Initiative HC-4.2: <i>Improve HHW Management Education</i>			The District will update its website and publications on HHW management to include proper disposal practices and a list of companies to manage HHW materials.	2018	2032
Scrap Tire Collection	HC-5	District-Wide	Tires will continue to be accepted at the Huron County Transfer Station for a reasonable fee. Free tire collection events will continue to be held biannually in off-numbered years when grant funding is available.	Ongoing	Ongoing
Lead-Acid Battery Management	HC-6	District-Wide	Lead-acid batteries (LABs) will continue to be accepted at the Transfer Station for no charge. The District will also maintain an updated list of facilities that accept LABs and include information on proper LAB disposal in its educational materials.	Ongoing	Ongoing
Appliance Collection	HC-7	District-Wide	Appliances will continue to be accepted at the Transfer Station. Most will be accepted for no charge. Appliances containing Freon will be accepted for a fee.	Ongoing	Ongoing
Electronics Collection	HC-8	District-Wide	The District will refer residents to organizations that accept and recycle e-waste for no charge.	Ongoing	Ongoing

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration	
				Begin	Cease
Initiative HC-8.1: <i>Accepting Electronics at the Transfer Station</i>			The District will evaluate options to collect electronics at the transfer station. Once the District has identified an R2 licensed and certified processor that is cost effective, the District will then roll-out the recycling program to the public.	2018	2032
RESIDENTIAL SECTOR EDUCATION AND AWARENESS					
Public Awareness	HC-9	District-Wide	The District will continue to use a variety of methods to reach residents, including the District website, regular column entries in the newspaper, cable and television ads, press releases, and brochures.	Ongoing	Ongoing
Initiative HC-9.1: <i>Improve and Promote Website</i>			The District will improve its website by expanding the content currently posted. The District will promote the website by encouraging cities, villages, and townships to include a link to the District's website on their websites.	2018	2032
Initiative HC-9.2: <i>Outreach to Local Newspapers and Other Media Sources</i>			The District will work with local newspapers and media sources to identify opportunities to publish articles on waste related topics and provide press releases to the media about upcoming District events.	2018	2032
Environmental Education	HC-10	District-Wide	The District will continue providing presentations to students, youth groups, and civic groups.	Ongoing	Ongoing
Initiative HC-10.1: <i>Establishing Quantitative Goals and Measuring Improvements</i>			The Education Specialist will increase the number of presentations given annually, the number of schools that receive presentations, and the number of students/residents reached by following the developed procedure. Progress will be tracked using evaluation forms and will be reviewed with the District Coordinator quarterly. If the review indicates that annual goals may not be achieved based on the current rate of completed presentations, the District Director will determine if a change in strategy is needed.	2018	2032

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration	
				Begin	Cease
Environmental Events	HC-11	District-Wide	The District will continue interacting with the community by participating in special events throughout the year. The District will answer questions and distribute informational brochures at the events.	Ongoing	Ongoing
COMMERCIAL/INDUSTRIAL SECTOR EDUCATION AND AWARENESS					
Waste Audits and Assessments	HC-12	District-Wide	The District will continue to provide waste audits and assessments to businesses, organizations, and industries upon request for no charge. Audit results include a listing of the waste materials identified, current methods of managing each recyclable material, and local opportunities to manage recyclables currently not being diverted.	Ongoing	Ongoing
Initiative HC-12.1: <i>Business and Industry Outreach</i>			The District will promote the availability of waste audits and assessments and District-led workshops by including information on the website and working with the Huron County Chamber of Commerce to promote the services to their members. The District will also compile a list of the largest commercial and industrial generators (based on employment) in Huron County and directly promote applicable District services and programs available via email and/or a direct mailing.	2018	2032
Recycling Assistance	HC-13	District-Wide	The District will continue to maintain a list of recycling options for used oil, lead-acid batteries, and other materials. The list is typically distributed at various locations including the fair, county offices, libraries, the Transfer Station, and the Chamber of Commerce.	Ongoing	Ongoing
Commercial/Industrial Workshops	HC-14	District-Wide	The District will continue to hold workshops for the commercial and industrial sector upon request.	Ongoing	Ongoing
Commercial/Industrial Newsletter	HC-15	District-wide	The District will continue to develop newsletters for the commercial and industrial sectors and work with the Chamber of Commerce to provide information to members.	Ongoing	Ongoing

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration	
				Begin	Cease
Initiative HC-15.1: <i>Electronic Commercial/Industrial Newsletter</i>			News letters will be developed on at least a quarterly basis. The news letters will be posted on the District's webpage.	2018	2032
GRANT PROGRAMS					
Recycling Incentive Grant	HC-18	District-wide	The District will continue to provide financial assistance to the City of Norwalk to aid with their curbside recycling program.	Ongoing	Ongoing
Initiative HC-16.1: <i>Expansion to Other Communities</i>			If it is determined that the District can provide funding to other communities and/or there is interest from other communities in the funding, then the District will develop a grant application to allow communities to apply for funding under the criteria determined by the District.	2018	2032
DISTRICT FACILITIES					
Huron County Transfer Facility/ Landfill	HC-17	District-wide	The District will continue to own and operate the Huron County Transfer Facility.	Ongoing	Ongoing
Initiative HC-17.1: <i>District Accounting and Consolidation</i>			The District will evaluate the option of consolidating all operations of the District, Transfer Station and post closure care of the landfill into the District. The evaluation will review legal and liability issues and accounting options. The intent of this review is to determine if the consolidation will aid in the management of the District as a whole and allow for more efficient management and operations and accounting functions.	2019	2032
Huron County Composting Facility	HC-18	District-Wide	The District will continue to own and operate a yard waste facility that is a registered class IV composting facility. At this time, no composting operations occur, rather the yard waste materials delivered to the site are staged and then transported to a third party yard waste facility. The District reserves the right to operate the facility either as a compost site or a transfer site based on economics, volume or other factors.	Ongoing	Ongoing

**Table VI-5
Implementation Schedule for Facilities,
Strategies, Programs and Activities: Dates and Description**

Program Name	ID #	Location	Description of Program/Facility	Duration	
				Begin	Cease
OTHER PROGRAMS					
Punch Card Program	HC-19	District-Wide	The District will continue to operate this program, which provides township residents who do not have access to curbside waste and recyclables collection to deliver materials to the transfer station for no cost 5 times annually using a punch card.	Ongoing	Ongoing
Initiative HC-19.1: <i>Promotion of Punch Card System</i>			The District will promote the availability of the punch card system by including information on the website. The District will also compile a list of the non-participating townships in Huron County and directly promote the punch card system via email and/or a direct mailing.	2018	2032

**Table VI-6
Facilities Identified and Current Designations**

Facilities Identified	
None	
Designated Facilities - ORC 343.14	
Facility	County
Huron County Transfer Station	Huron

VII. Measurement of Progress Toward Waste Reduction Goals [ORC Section 3734.53(A)]

The Ohio EPA *1995 State Plan* establishes seven goals solid waste management districts (SWMDs) are required to achieve in their solid waste management plans. These goals are as follows:

Goal #	Description
#1	Ensure the availability of reduction, recycling and minimization alternatives for municipal solid waste by ensuring 90% of residents have access to curbside and drop-off programs. The District must also demonstrate that there are adequate opportunities for industrial businesses to recycle.
#2	Reduce and/or recycle at least 25% of the total waste generated by the residential/commercial sector and 50% of the total waste generated by the industrial sector.
#3	Provide informational and technical assistance on source reduction.
#4	Provide informational and technical assistance on recycling, reuse, and composting opportunities.
#5	Strategies for scrap tires and household hazardous wastes.
#6	Annual reporting of plan implementation.
#7	Market development strategy (optional).

SWMDs are encouraged to meet Goal #1 and Goal #2, but are only required to demonstrate compliance with one goal or the other. Goals #3 through #6 are mandated goals to which SWMDs must demonstrate compliance, and Goal #7 is optional. This section will cover the goal selected by the District, its progress toward achieving the goal, and plans to maintain compliance throughout the planning period.

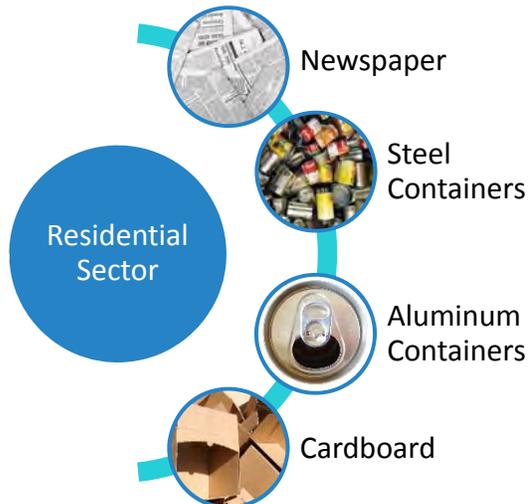
A. Compliance with Goal #1

The District will continue to comply with Goal #1 of the *1995 State Plan*, which states that the District will ensure the availability of recycling and other waste reduction methods that are alternatives to landfilling for residential/commercial solid waste.

B. Demonstration of Compliance with Goal #1

Table VII-1, Materials Designated to Demonstrate Compliance with Goal #1, presents four materials designated for the residential sector and four materials designated for the commercial/industrial sector. The four materials designated for the residential sector are newspaper, steel, aluminum and cardboard.

Designated Materials for the Residential Sector



The four materials designated for the commercial/industrial sector are cardboard, office paper, plastic, and wooden pallets/packaging.

Designated Materials for Commercial/Institutional Sector



1. Residential Sector

The Plan Format prescribes a formula for solid waste management districts to use to determine the percentage of the population which has access to curbside and drop-off recycling services. The types of services offered within the District are listed below and include an explanation of the population credit assigned to each type of service.

Non-Subscription Curbside Recycling

A solid waste district receives 100% population credit when all residential single family households receive curbside recycling service. In order to qualify, all residents must receive the curbside recycling service whether they use the service or not. Typically, payment for the service is made by the resident to the political subdivision or directly to the hauler or by the political subdivision through local taxes.

Subscription Curbside Recycling

A solid waste district receives 25% population credit when a subscription service is offered by waste haulers operating in the political subdivision. Subscription curbside recycling is a service that is paid directly by the resident similar to a magazine subscription. The resident chooses to subscribe to a hauler that provides the recycling service. The credit for subscription service can be higher than 25% if the District can demonstrate that more than 25% of households participate in the subscription service.

Recycling Drop-Offs

Each full-time recycling drop-off located in an urban area is credited with serving 5,000 persons. Full-time recycling drop-offs in rural areas are credited with serving 2,500 persons per location.

Rural areas are defined as any municipality or township with less than 5,000 in population. An urban area is defined as any municipality or township equal to or greater than 5,000 in population.

A full-time drop-off is a site that is open to the public at least 40 hours per week which manages the four materials designated for the residential sector (newspaper, steel, aluminum, and plastic).

A part-time drop-off is a site that is open to the public less than 40 hours per week; however, the site is available at a regularly scheduled time at least once per month. Part-time drop-offs must also handle the four materials designated for the residential sector in order to receive a population credit. A credit for serving 2,500 persons can be counted for each rural drop-off.

a. Service Area

The service area includes all areas within Huron County, with the exception of the City of Bellevue and the Villages of Milan and Plymouth, which are in another SMWD's jurisdiction.

b. Access

Residents in the District have access to waste reduction and recycling services through non-subscription curbside recycling and the drop-off recycling program. Tables VII-2 presents the access credit calculations for the District during the 2014 reference year and 2018, the first year of the planning period. The following section will discuss the residents with access to curbside recycling and the drop-off recycling program.

Curbside Recycling Access Results

There were two non-subscription curbside recycling programs operating in 2014. These programs are expected to still be in operation during 2018. One program, the Village of New London, did not accept all four of the materials designated in Table VII-1 for the residential sector, so it was not counted toward the District's access credit. The following table presents a summary of the population with access to curbside recycling.

Curbside Recycling Population Access

Service Area	2014 Curbside Recycling Access	2018 Curbside Recycling Access
Huron County	16,898	16,771
	31%	31%

Drop-Off Recycling Access Results

In 2014, there were 6 full-time drop-offs and 10 part-time drop-offs located throughout the District. Drop-offs are open to anyone in the District. The drop-offs accepted the minimum four materials designated for the residential sector as highly amenable to recycling, as well as additional materials. All District drop-offs accepted mixed paper, cardboard, aluminum cans, and metal cans. Many drop-offs also accepted plastic

and glass. The following table presents a summary of the population with access to recycling drop-offs:

Drop-Off Recycling Access

Service Area	2014 Drop-Off Recycling Access	2018 Drop-Off Recycling Access
Huron County	47,500	47,500
	88%	89%

Overall Recycling Access Results

The following table presents a summary of the overall access credits for the District during the reference year and the first year of the planning period.

Service Area	Reference Year Access (2014)	First Year of Planning Period Access (2018)
Huron County	64,398	64,271
	120%	120%

Access calculations that exceed 100% indicate that residents may have access to multiple recycling opportunities, such as non-subscription curbside recycling and a full-time drop-off, or multiple drop-offs.

The curbside recycling program and all of the drop-off locations that operated during the reference year are expected to continue through the first year in the planning period. The District will continue to exceed the goal of providing 90% of the population with access to recycling programs in 2018.

c. Participation

The strategies identified in Sections IV and V address the requirements for education and awareness to demonstrate participation. The District will continue to conduct education and awareness programs as planned. The existing education and community awareness programs meet or exceed State Plan requirements and include the following:

- A website
- Publications (newspaper column)
- Public advertisements (radio and cable TV)
- Educational presentations upon request
- Participating in environmental events throughout District

d. Financial Incentives

The District provides the Recycling Incentive Grant (HC-14) to the City of Norwalk to aid with their non-subscription curbside recycling program. Financial assistance is provided on a case-by-case basis. Offering the Recycling Incentive Grant is at the discretion of the District, based on availability of funds, need, and other circumstances.

2. Commercial/Institutional Sector

Solid waste management districts must demonstrate that commercial and industrial generators have access to recycling or other alternative management methods for at least four materials identified in the *1995 State Solid Waste Management Plan* as being highly amendable to recovery from solid waste generated by commercial and industrial generators.

a. Service Area

The service area includes all areas within Huron County, with the exception of the City of Bellevue and the Villages of Milan and Plymouth, which are in another SMWD's jurisdiction.

b. Access

Methods of providing access for commercial/industrial entities include hauler pickup and drop-off (or buyback) availability. The District designated four materials as highly amenable to recycling for the commercial and industrial sectors including cardboard, office paper, plastic, and wooden pallets and packaging.

Districts must demonstrate at least one of the following collection options:

- At least one drop-off or buyback available.
- Haulers which will pick up recyclables for a fee or at no charge.
- At least one MRF receiving commercial/industrial waste and recovering recyclables from waste received.

The District’s drop-offs are publicly available and open to commercial and industrial generators. Drop-off centers accept two to three of the required materials that are designated as highly amenable to recycling for the commercial/industrial sector (cardboard, office paper, and at some drop-offs, plastic).

The following tables present haulers and drop-off locations that provide District businesses and industries with opportunities to recycle each of the four materials designated for the commercial and industrial sectors.

Cardboard Access Demonstration

Service Area	Hauling Services Available	Drop-Off Service Available
Huron County	River Valley Paper Co., Gateway, Rumpke, Republic	District drop-offs, Norwalk Waste Materials, Christie Lane Industries

Office Paper Access Demonstration

Service Area	Hauling Services Available	Drop-Off Service Available
Huron County	River Valley Paper Co., Gateway, Rumpke, Republic	District drop-offs, Norwalk Waste Materials, Christie Lane Industries

Plastic Access Demonstration

Service Area	Hauling Services Available	Drop-Off Service Available
Huron County	Gateway, Rumpke, Republic	District drop-offs

Wooden Packaging and Pallet Access Demonstration

Service Area	Hauling Services Available	Drop-Off Service Available
Huron County	Rumpke, IFCO Systems	N/A

Information on hauling services and drop-offs available to the commercial and industrial sectors was obtained through surveying.

c. Participation

Education and Awareness

The education and awareness programs articulated in Sections IV and V of this *Plan Update* address this requirement. The District’s Waste Audits and Assessments (HC-12) program assists commercial and industrial establishments with identifying opportunities for maximizing waste diversion and developing customized strategies for implementing or expanding recycling activities. The District maintains a list of recycling resources for commercial and industrial businesses through its Recycling Assistance program (HC-13) and prepares and distributes a commercial/industrial newsletter (HC-15) when there is sufficient budget. The District also provides workshops on source reduction, recycling, or other waste reduction topics upon request (HC-14).

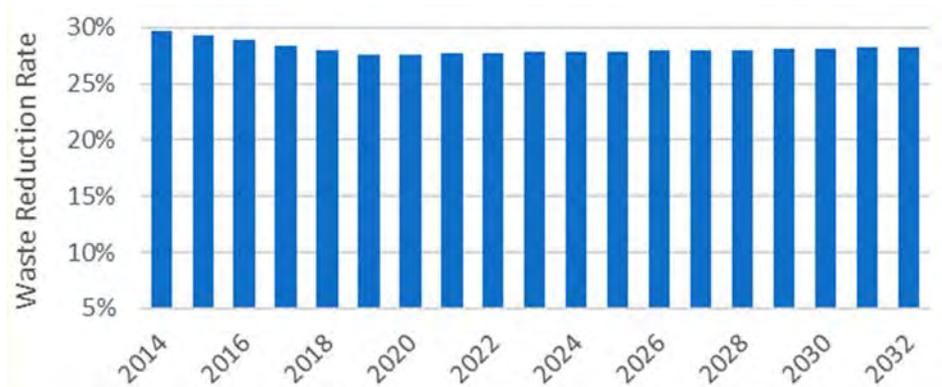
C. Targets for Reduction and Recycling

1. Residential and Commercial Sectors

Table VII-3, “Annual Rate of Waste Reduction: Residential/Commercial Waste”, presents the methods used to reduce waste and the annual waste reduction rates for residential and commercial waste. The District’s residential/commercial sector had a waste reduction rate of 30% in the reference year (2014).

Waste reduction is projected to decrease slightly throughout the planning period, ending in 2032 with a projected waste reduction rate of 28%. The following figure presents the District’s residential/commercial waste reduction projections throughout the planning period.

2014 – 2032 District Residential/Commercial Waste Reduction



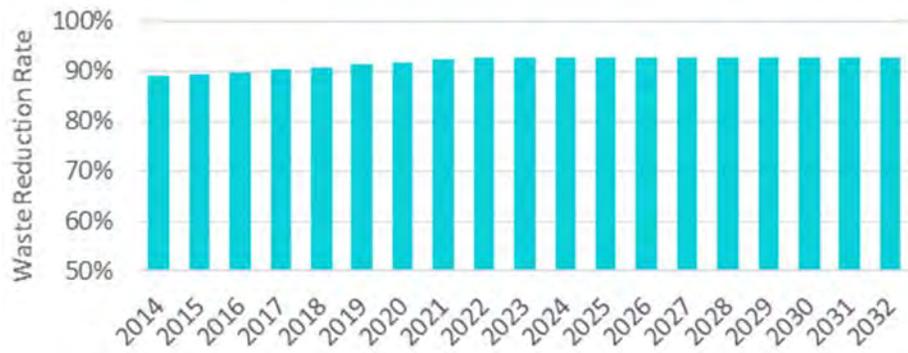
Recycling is projected to remain mostly flat throughout the planning period. Overall waste generation is projected to increase at a faster rate than recycling, leading to a decrease in the waste reduction rate. In 2014, the per capita waste reduction rate was 1.39 pounds per day. The per capita waste reduction rate increases to 1.44 pounds per day by 2032, a 3.6% increase.

2. Industrial Sector

Table VII-4, “Annual Rate of Waste Reduction: Industrial Waste,” presents the annual waste reduction rate for industrial waste. The District’s industrial sector had a waste reduction rate of 89% in the reference year (2014). The waste reduction rate is projected to increase to 93% by the end of the planning period (2032). The District anticipates that actual industrial sector recycling is higher, but has faced challenges obtaining recycling data from industries.

The following figure presents the District’s industrial waste reduction projections throughout the planning period. In 2014, the per capita waste reduction rate was 6.39 pounds per day. The per capita waste reduction rate is projected to increase to 6.62 pounds per day by 2032, a 3.6% increase.

2014 – 2032 District Industrial Waste Reduction

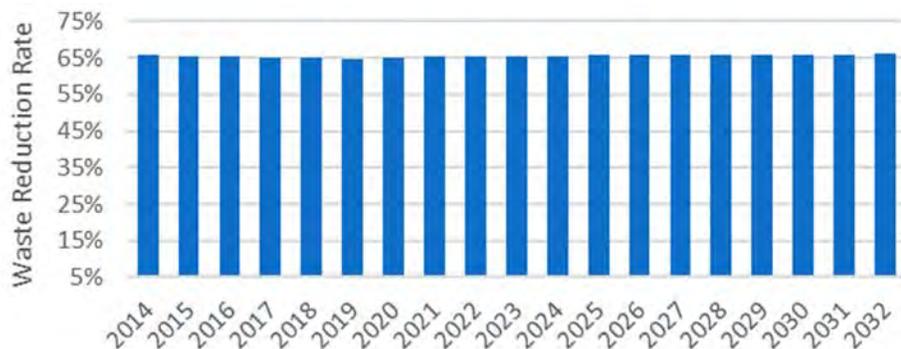


3. District Total

Table VII-5, “Annual Rate of Waste Reduction: Total District Solid Waste”, presents annual waste reduction rates for the residential/commercial and industrial sectors. The District’s waste reduction rate for the reference year (2014) was 66% and is expected to be 66% at the end of the planning period.

Daily per capita waste reduction rates are expected to increase from 7.78 pounds in 2014 to 8.06 pounds in 2032, which is a 3.6% increase. The following figure presents the District’s total waste reduction throughout the planning period.

2014 – 2032 District Total Waste Reduction Percentage



**Table VII-1
Materials Designated to Demonstrate Compliance with Goal #1**

Materials Highly Amenable to Recycling	Four Materials Designated for the Residential Sector	Four Materials Designated for the Commercial/Industrial Sector	Number of Times Materials are Designated
Corrugated cardboard	X	X	2
Office paper		X	1
Newspaper	X		1
Glass containers			
Steel containers	X		1
Aluminum containers	X		1
Plastic containers		X	1
Wood packaging & pallets		X	1
Lead-acid batteries			
Major appliances			
Yard wastes			
Totals			8

**Table VII-2
Calculation of Access for Residential Sector**

Program	Reference Year (2014)		Year 2018	
	Population	Population with Access	Population	Population with Access
Non-Subscription Curbside				
City of Norwalk	16,898	16,898	16,771	16,771
Subtotal Non-Subscription Curbside		16,898		16,771
Subscription Curbside				
None		0		0
Subtotal Subscription Curbside		0		0
Full-Time Drop-Off				
[8284] Huron County TF 2415 Townline Rd 131 W Willard, OH 44890	6,094	5,000	6,048	5,000
[4937] Huron Co. Admin. Bldg. 180 Milan Avenue Norwalk, OH 44857	16,898	5,000	16,771	5,000
[4944] Greenfield Twp. Hall 1314 Peru Center Rd. Monroeville, OH 44847	1,372	2,500	1,362	2,500
[4938] New London Village Hall 115 E. Main St. New London, OH 44851	3,184	2,500	3,160	2,500
[4936] Co. Sheriff's Office 255 Shady Lane Dr. Norwalk, OH 44857	16,898	5,000	16,771	5,000
[4946] Village Admin. Bldg. 45 Main Street Greenwich, OH 44837	1,033	2,500	1,025	2,500
Total Full Time Drop-Off		22,500		22,500

Table VII-2 (Continued)
Calculation of Access for Residential Sector

Program	Reference Year (2014)		Year 2018	
	Population	Population with Access	Population	Population with Access
Part-Time Drop-Off				
[8292] Bronson Twp. Bldg. 1337 Old State Rd. N Norwalk, OH 44857	16,898	2,500	16,771	2,500
[4950] New Haven Twp. Hall 2744 Peru Center Rd. Willard, OH 44890	6,094	2,500	6,048	2,500
[4948] Norwich Twp. Hall 1330 Section Line Rd 30 S Willard, OH 44890	6,094	2,500	6,048	2,500
[4949] Richmond Twp. Hall 4520 Bullhead Rd. Willard, OH 44890	6,094	2,500	6,048	2,500
[4942] Hartland Twp. Hall 1064 Hartland Center Rd. Collins, OH 44826	1,088	2,500	1,080	2,500
[4940] Lyme Twp. Hall 5646 Young Rd. Bellevue, OH 44811	842	2,500	836	2,500
[4945-1] Norwalk Twp. Hall 111 Townsend Ave. Norwalk, OH 44857	16,898	2,500	16,771	2,500
[4945-2] Willard City Hall 631 S. Myrtle Ave. Willard, OH 44890	6,094	2,500	6,048	2,500
[4941] Ridgefield Twp. Office 47 S. Ridge St. Monroeville, OH 44847	2,304	2,500	2,287	2,500
[4939] Willard WWTP 540 Central Ave. Willard, OH 44890	6,094	2,500	6,048	2,500
Total Full Time Drop-Off		25,000		25,000
Total Population With Access		64,398		64,271
Huron County SWMD Population		53,875		53,470
90% of Population		48,488		48,123
Additional Population Needing Access		-15,911		-16,148
Access Percentage		120%		120%

**Table VII-3
Annual Rate of Waste Reduction: Residential/Commercial Waste**

Year	Recycling	Composting	Gross Incineration	Waste Reduction via Incineration	Landfill	Total Waste Reduction	Population	Waste Reduction Rate (%)	Per Capita Waste Reduction Rate (lb/day)
2014	10,085	3,580	0.5	0.4	32,252	13,665	53,875	30%	1.39
2015	10,084	3,600	0.5	0.4	32,975	13,685	53,774	29%	1.39
2016	10,083	3,600	0.5	0.4	33,715	13,683	53,673	29%	1.40
2017	10,082	3,600	0.5	0.4	34,453	13,682	53,572	28%	1.40
2018	10,080	3,600	0.5	0.4	35,187	13,681	53,470	28%	1.40
2019	10,079	3,600	0.5	0.4	35,918	13,679	53,369	28%	1.40
2020	10,078	3,600	0.5	0.4	35,826	13,678	53,268	28%	1.41
2021	10,076	3,600	0.5	0.4	35,733	13,677	53,167	28%	1.41
2022	10,075	3,600	0.5	0.4	35,640	13,675	53,066	28%	1.41
2023	10,074	3,600	0.5	0.4	35,548	13,674	52,965	28%	1.41
2024	10,072	3,600	0.5	0.4	35,455	13,673	52,863	28%	1.42
2025	10,071	3,600	0.5	0.4	35,362	13,671	52,762	28%	1.42
2026	10,070	3,600	0.5	0.4	35,270	13,670	52,661	28%	1.42
2027	10,068	3,600	0.5	0.4	35,177	13,669	52,560	28%	1.42
2028	10,067	3,600	0.5	0.4	35,084	13,667	52,459	28%	1.43
2029	10,066	3,600	0.5	0.4	34,992	13,666	52,358	28%	1.43
2030	10,064	3,600	0.5	0.4	34,899	13,665	52,256	28%	1.43
2031	10,063	3,600	0.5	0.4	34,777	13,663	52,123	28%	1.44
2032	10,061	3,600	0.5	0.4	34,655	13,661	51,990	28%	1.44

Source(s) of information:

Recycling, composting, gross incineration, waste reduction via incineration, and landfill tonnage - Table VI-2
Population - Table V-1

Sample calculations (2014):

Recycling + composting + waste reduction via incineration = Total waste reduction

$$10,085 \text{ tons} + 3,580 \text{ tons} + 0.4 \text{ tons} = 13,665 \text{ tons}$$

Total waste reduction ÷ (total waste reduction + landfill) x 100 = Waste reduction rate

$$13,665 \text{ tons} \div (13,665 \text{ tons} + 32,252 \text{ tons}) \times 100 = 30\%$$

(Total waste reduction x 2,000 lbs) ÷ (District population x 365 days) = Per capita waste reduction rate

$$(13,665 \text{ tons} \times 2,000 \text{ pounds}) \div (53,875 \times 365) = 1.39 \text{ lbs/day}$$

**Table VII-4
Annual Rate of Waste Reduction: Industrial Waste**

Year	Recycling	Transferred	Landfill	Population	Waste Reduction Rate (%)	Per Capita Waste Reduction Rate (lb/day)
2014	62,849	5,311	7,752	53,875	89%	6.39
2015	62,849	5,060	7,385	53,774	89%	6.40
2016	62,849	4,809	7,019	53,673	90%	6.42
2017	62,849	4,558	6,653	53,572	90%	6.43
2018	62,849	4,307	6,287	53,470	91%	6.44
2019	62,849	4,056	5,920	53,369	91%	6.45
2020	62,849	3,805	5,554	53,268	92%	6.46
2021	62,849	3,554	5,188	53,167	92%	6.48
2022	62,849	3,303	4,822	53,066	93%	6.49
2023	62,849	3,303	4,822	52,965	93%	6.50
2024	62,849	3,303	4,822	52,863	93%	6.51
2025	62,849	3,303	4,822	52,762	93%	6.53
2026	62,849	3,303	4,822	52,661	93%	6.54
2027	62,849	3,303	4,822	52,560	93%	6.55
2028	62,849	3,303	4,822	52,459	93%	6.56
2029	62,849	3,303	4,822	52,358	93%	6.58
2030	62,849	3,303	4,822	52,256	93%	6.59
2031	62,849	3,303	4,822	52,123	93%	6.61
2032	62,849	3,303	4,822	51,990	93%	6.62

Source(s) of information:

Recycling and landfill data - Table VI-3

Population - Table V-1

Sample calculation (2014):

$$\text{Recycling} \div (\text{recycling} + \text{landfill}) \times 100 = \text{Waste reduction rate}$$

$$62,849 \text{ tons} \div (62,849 \text{ tons} + 7,752 \text{ tons}) \times 100 = 89\%$$

$$(\text{Recycling} \times 2,000 \text{ pounds}) \div (\text{population} \times 365 \text{ days}) = \text{Per capita waste reduction rate}$$

$$(62,849 \text{ tons} \times 2,000 \text{ pounds}) \div (53,875 \times 365) = 6.39 \text{ lbs/day}$$

**Table VII-5
Annual Rate of Waste Reduction: Total District Solid Waste**

Year	Recycling	Composting	Gross Incineration	Waste Reduction via Incineration	Landfill	Total Waste Reduction	Population	Waste Reduction Rate	Per Capita Waste Reduction Rate (lb/day)
2014	72,934	3,580	0.5	0.4	40,003	76,514	53,875	66%	7.78
2015	72,933	3,600	0.5	0.4	40,360	76,533	53,774	65%	7.80
2016	72,932	3,600	0.5	0.4	40,735	76,532	53,673	65%	7.81
2017	72,930	3,600	0.5	0.4	41,106	76,531	53,572	65%	7.83
2018	72,929	3,600	0.5	0.4	41,474	76,529	53,470	65%	7.84
2019	72,928	3,600	0.5	0.4	41,839	76,528	53,369	65%	7.86
2020	72,926	3,600	0.5	0.4	41,380	76,527	53,268	65%	7.87
2021	72,925	3,600	0.5	0.4	40,921	76,525	53,167	65%	7.89
2022	72,924	3,600	0.5	0.4	40,462	76,524	53,066	65%	7.90
2023	72,922	3,600	0.5	0.4	40,369	76,523	52,965	65%	7.92
2024	72,921	3,600	0.5	0.4	40,277	76,521	52,863	66%	7.93
2025	72,920	3,600	0.5	0.4	40,184	76,520	52,762	66%	7.95
2026	72,918	3,600	0.5	0.4	40,091	76,519	52,661	66%	7.96
2027	72,917	3,600	0.5	0.4	39,999	76,517	52,560	66%	7.98
2028	72,916	3,600	0.5	0.4	39,906	76,516	52,459	66%	7.99
2029	72,914	3,600	0.5	0.4	39,813	76,515	52,358	66%	8.01
2030	72,913	3,600	0.5	0.4	39,721	76,513	52,256	66%	8.02
2031	72,911	3,600	0.5	0.4	39,599	76,511	52,123	66%	8.04
2032	72,909	3,600	0.5	0.4	39,477	76,510	51,990	66%	8.06

Source(s) of information:

Recycling, composting, incineration, waste reduction via incineration, landfill, and population - Tables VII-3 and VII-4

Sample calculation (2014):

Recycling + composting + waste reduction via incineration = Total waste reduction
 73,934 tons + 3,580 tons + 0.4 tons = 76,514 tons

Total waste reduction ÷ (total waste reduction + landfill) x 100 = Waste reduction rate
 76,514 tons ÷ (76,514 tons + 40,003 tons) x 100 = 66%

(Total waste reduction x 2,000 lbs) ÷ (District population x 365 days) = Per capita waste reduction rate
 (76,514 tons x 2,000 pounds) ÷ (53,875 x 365) = 7.78 lbs/day

VIII. Cost of Financing Plan Implementation [ORC Section 3734.53(A)(9), (12) and (B)]

This section of the Plan provides information on the District's revenues and expenditures including the transfer station/landfill operations. The revenues and expenditures presented for 2014 and 2015 are based on actual revenues received and costs expended. The planning period includes cost projections based on these initial years.

A projection on the estimated funds needed to operate is provided for each District program. The budget is a demonstration that the District can implement the initiatives, strategies, programs and facilities detailed in Sections IV and V of this *Plan Update*. The budget is to be reviewed as a planning tool with anticipation that circumstances on actual revenues and costs may change and adjustments will be made by the District as appropriate. The tables referenced throughout Section VIII of this *Plan Update* are included at the end of the section.

A. Funding Mechanisms

1. District Disposal Fees

Table VIII-1, "District Disposal Fee Schedule and Revenues Generated," is not applicable to the District because the District does not utilize disposal fees as a funding mechanism at this time.

2. Transfer Station Revenue

The District received \$1,920,441 in transfer station revenue in 2014 and \$1,766,798 in 2015. Revenue consists of gate fees collected at the transfer station for solid waste processed and transported to a landfill. Transfer station revenue is based on the gate rate and incoming tons. The current gate rate is \$54.00 per ton including all governmental fees. The District conservatory estimates the incoming tons of solid waste to remain consistent year over year. The District does anticipate the gate rate to increase by 10% in 2022 (\$54.00 to \$59.40) and by another 10% (\$59.40 to \$65.34) in 2028. Any grate rate adjustments will be conducted under the requirements of ORC 343.08. Approval of this *Plan Update* does not approve the grate rate adjustments as the ORC 343.08 process would be conducted separately.

Starting in 2018, with the approval of this *Plan Update*, the District will no longer provide a \$25,000 gate rate reduction for the City of Norwalk per an agreement signed by the City and the District in 2011.

The Board of County Commissioners reserve the right to adjust gate rates up or down at any point in the planning period based on the need to positively cash flow the operation.

3. Transfer Station User and Miscellaneous Fees

The District, through the transfer station, charges user fees for the following items at the transfer station:

Freon Appliances

Refrigerators	\$20.00
Freezers	\$20.00
Dehumidifiers	\$20.00

Scrap Tires

Lawn Mower	\$3.00
Car	\$3.00
Truck	\$4.50
Semi	\$10.00
Tractor	\$25.00

Yard Waste

Leaves, grass clippings, tree branches (less than 4" diameter), straw and Christmas trees \$20 per ton

Other miscellaneous fees include \$100 per pull for District drop-off recycling containers, digout fees for vehicles that become stuck at the District's facility, fees for recyclable bags, etc.

In 2014 and 2015, the District collected \$62,883 and \$65,048 respectively in transfer station user and miscellaneous fees. In 2016, revenue from these sources increased to \$82,087. Revenue from 2014 to 2016 was averaged to project a flat annual revenue amount of \$70,006 from 2017 to 2032.

4. Generation Fee

The District receives a fee for each ton of solid waste that is generated in the District. Table VIII-2, "Generation Fee Schedule and Revenues," presents the total generation fee revenue for the planning period. Generation fee revenue throughout the planning period was calculated by multiplying the total tons landfilled by the residential, commercial, and industrial sectors (See Tables VII-3 and VII-4) by the per ton generation fee.

Generation fees and revenue for 2014 to 2032 are presented in Table VIII-1. The generation fee in 2014 was \$4.50 per ton. No increases are expected until 2023, when the fee is projected to increase to \$5.00 per ton. The next projected increase is anticipated to occur in 2028, when the generation fee will be raised to \$6.00 per ton. The projected increases in the generation fee will not be approved as a part of this *Plan Update* and the associated ratification process. If the fee increases are needed during the time projected in this *Plan Update* or anytime in the future, the District will either conduct a separate ratification process or include in a future Plan Update process.

Actual revenue is presented for 2014 and 2015; projected revenues are presented for 2016 to 2032. Generation fee revenue was \$192,561 in 2014 and \$192,753 in 2015. This revenue increases to a high of \$236,862 in 2032.

5. Township Fees for Recycling Services

The District receives approximately \$11,550 annually in township fees for recycling services. This revenue is projected to remain flat throughout the planning period.

6. Waiver Fees

Beginning in 2016, waiver fees will be collected on each ton of solid waste that is delivered to an undesignated disposal facility. Any person, legislative authority of a municipal corporation, or township may apply for a waiver from the designation requirements established in this *Plan Update*. Waiver agreements between the Board and the person who applied for the waiver will contain the terms and conditions upon which the waiver was granted and the payment by the grantee of the waiver fee, if any, assessed on each ton of solid waste covered by the waiver.

There was no waiver fee revenue for 2014 or 2015. Waiver fee revenue for 2016 to 2032 is projected to generate a flat \$6,000 in revenue annually based on an estimated 500 tons waived annually at \$12.00/ton. The actual a waiver fee revenue and waiver fee per ton will be decided by the Board as needed throughout the planning period.

7. Grants

The District typically applies for grants from state agencies and/or organizations on an annual basis to assist with funding activities such as litter collection and community recycling. Grants from Ohio EPA are typically awarded in July. If the District receives an Ohio EPA grant, half is awarded during that calendar year, and the second half is awarded during

the next calendar year. Grant amounts in Quarterly Fee reports and other District records may reflect different grant totals than the amounts listed in Table VIII-3 for this reason.

The District received \$42,000 in grant funding in 2014, \$44,622 in grants in 2015, and has been granted \$14,000 that will be received during 2016. Grant funding is competitive and not guaranteed, so no further revenue from grants has been projected.

8. Summary of District Revenues

Table VIII-3, “Summary of Revenue Generated and Mechanisms Used”, presents the District’s actual revenues received by all funding mechanisms in 2014, as well as revenues projected for each funding mechanism each year until the end of the planning period. Each funding mechanism used by the District throughout the planning period and the methodology used to project each amount is described below.

Total revenues are anticipated to increase from \$2,142,550 (\$204,182 for District and \$1,938,368 for the transfer station/landfill) in the first year of the planning period (2018) to \$2,520,178 (\$254,412 for District and \$2,265,766 for the transfer station/landfill) in 2032. The following figure presents the District’s revenue by type of funding mechanism:

Total Revenue by Type of Fee



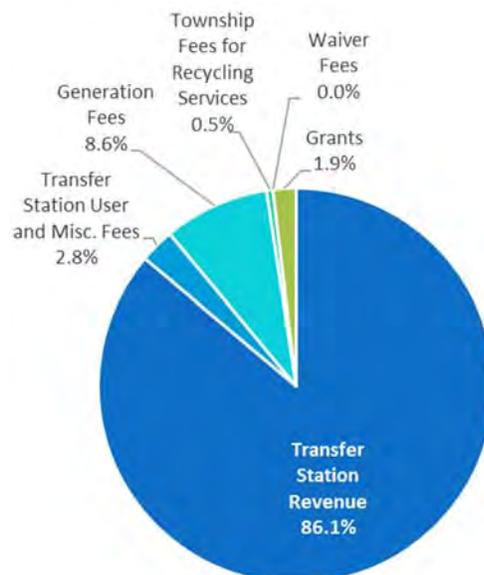
The following chart depicts the funding mechanisms for the District only:

Revenue for District Operations Only (by Type of Fee)



The following figure presents the percentage of revenue generated by each funding mechanism used in 2014.

Percentage of Revenue Generated in 2014 by Each Funding Mechanism



In the reference year, the majority (86%) of the District’s revenue was generated from transfer station revenue. Generation fees represented 9% of the revenue, transfer station user and miscellaneous fees represented 3%, and grants represented 2% of the District’s revenue. Less than 1% of the District’s revenue was generated by township fees for recycling services and waiver fees.

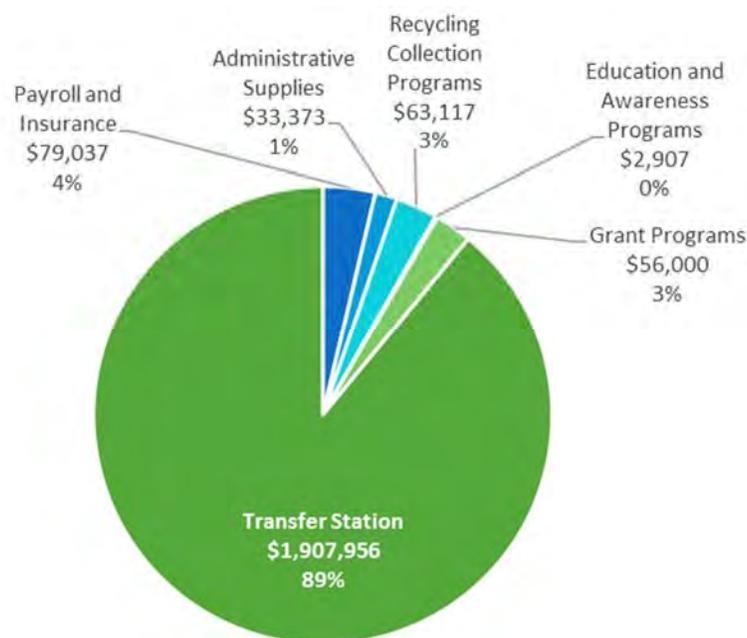
B. Cost of Plan Implementation

Table VIII-4, “Anticipated Loans Secured by the District”, provides information about the District’s existing debt and debt retirement schedule for the County Landfill Transfer Station Improvement Bonds. In 2014, the District’s remaining principal balance was \$315,000. The District paid a total of \$15,000 toward the principal and \$13,545 toward the interest. The District is expected to retire its debt in 2030.

Table VIII-5, “Estimated Cost for Plan Implementation”, presents a detailed breakdown of expenditures for each year of the planning period.

The District Coordinator will allocate these funds with the approval of the County Commissioners. The following figure presents a summary of expenses in 2014:

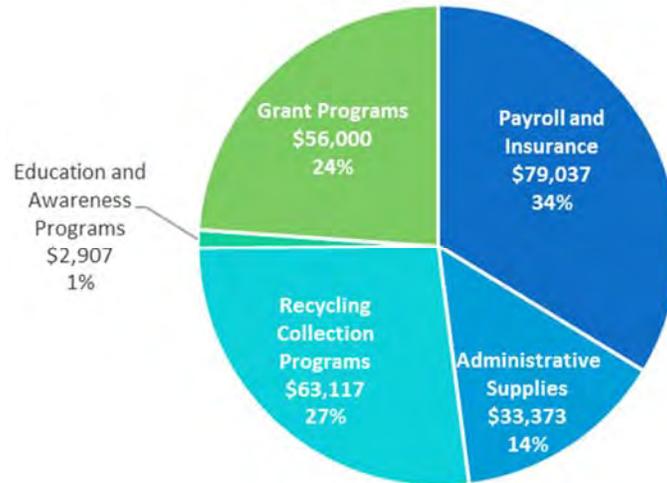
2014 District and Transfer Station/Landfill Expenses



The District’s main expense includes the operation of the transfer station and landfill post closure care at 89% of the District’s expense budget followed by District administration and program implementation 11%.

The following chart depicts the expenses for the District only:

2014 District Expenses



The expenditures presented in the Plan budget include actual expenditures and encumbrances for 2014 and 2015. Expenditures differ from the expenditures presented in the quarterly reports because quarterly fee reports are developed using cash basis accounting, while the District’s detailed expenditures presented in Table VIII-5 were developed using accrual based accounting. A detailed methodology for projecting expenditures is included in Appendix H.

Payroll Expenditures

Payroll expenditures include staff salaries, PERS, medical insurance, Medicare, life insurance, worker’s compensation, and travel/conference expenses for District personnel only. Transfer station/landfill personnel are included Program HC-17.

The following projected 2018 funding levels for each payroll line item include a brief description of each expense and/or an explanation of the annual escalator:

Program	Program #	2018 Budget	Annual Escalator
Staff Salaries	Admin-1	\$71,096	1.5%
Staff salaries are projected to increase 1.5% annually based on historic District averages. Salaries include 100% of the Administrative Assistant/Education Specialist and 49% of the District Coordinator’s.			
PERS	Admin-2	\$9,910	Special

Program	Program #	2018 Budget	Annual Escalator
Public Employees' Retirement System (PERS) expenditures are based on the average ratio of PERS expenditures to staff salaries from 2014 to 2015. PERS expenditures from 2014 to 2015 were equal to approximately 13.94% of staff salaries during that time. Future expenditures are calculated to be equal to 13.94% of staff salaries.			
Medical Insurance	Admin-3	\$21,156	2.4%
Medical insurance has typically been covered by the Landfill/Transfer Station budget. Starting in 2018, medical insurance coverage for one employee will be covered by the District Budget. The other employees shared or working in other funds (Transfer Station, Landfill, etc.) will remain covered by those accounts. Medical insurance is projected to increase 2.4% annually based on the 12-month percent change in medical care costs in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.			
Medicare	Admin-4	\$1,074	2.4%
Medicare is projected to increase 2.4% annually based on the 12-month percent change in medical care costs in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.			
Life Insurance	Admin-5	\$83	1.7%
Projected to increase 1.7% annually based on the 12-month percent change in personal insurance in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.			
Workers' Compensation	Admin-6	\$1,386	1.0%
Workers compensation expenditures are based on staff salaries. The total is divided by 100 and multiplied by \$1.95, which calculates the tax rate for employers in the State of Ohio.			
Travel/Conference Expenses	Admin-7	\$3,137	1.5%
Travel and conference expenditures include costs for the District to attend conferences and meetings held by the Ohio Environmental Protection Agency, Ohio Department of Natural Resources, trade organizations for waste management professionals, and other related activities. Expenses are projected to increase 1.5% annually based on actual historic annual increases.			

Administrative, Supplies, and Support Services

Administrative supplies, and support services (Admin-8 to Admin-13) include necessary expenditures for daily operations at the District's administrative office, as well as professional services for maintaining regulatory compliance.

For 2018, the first year of the planning period, the following funding levels are projected for each administrative line item and include a brief description of each expense line item and/or an explanation of the annual escalator:

Program	Program #	2018 Budget	Annual Escalator
Supplies	Admin-8	\$3,212	1.9%
Supplies are projected to increase 1.9% annually, based on the 12-month percent change in all items less food and energy in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015. The increase projected for 2017 was a one-time expenditure to upgrade the District's computer system.			
Training	Admin-9	\$2,114	1.868%
Training includes safety and/or technical training for District Staff. Expenses are projected to increase 1.868% annually based on the 12-month percent change in adult education class fees in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.			
Professional Services	Admin-10	\$0	Special
Costs for assistance with preparing Plan Updates are estimated based on the District's current and expected Plan Update schedules. No funding is projected in 2018; a total of \$35,000 in expenses is projected over a three year period from 2021 to 2023 and again from 2027-2029.			
Postage/Shipping	Admin-11	\$277	2.0%
Postage and shipping includes the cost to mail surveys or information to residents, communities, and other entities. It also includes the cost to send required reports and documents to state regulatory agencies. Postage and shipping is projected to increase 2% annually based on historical postage increases.			
Vehicles	Admin-12	\$20,000	Special
Vehicles includes the budget for replacing the District's vehicle every 4 years, which is how long the District anticipates it will keep each vehicle.			
Office Services (Phone)	Admin-13	\$2,149	2.424%
Office services includes the cost of phone services. These services are projected to increase 2.424% annually based on the 12-month percent change in telephone services in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.			

Residential/Commercial Collection Programs

Residential/Commercial Collection Program expenditures include drop-off recycling, scrap tire collection, and electronics collection.

The following table includes the funding levels projected for each residential/commercial collection program in 2018, a brief description of each expense and/or an explanation of the annual escalator:

Program	Program #	2018 Budget	Annual Escalator
Drop-Off Recycling	HC-2	\$56,700	Special
The District anticipates that it will be in the first year of a two-year contract extension option with a hauler to collect materials from drop-off sites in 2019. Costs are projected to increase 2.5% annually during the two one-year extension options. After the two years are complete, the District anticipates that expenses will increase 5% at the beginning of its next 3-year contract. This cycle is expected to continue throughout the planning period. In 2019, the District increased the budget by \$15,000 for one-time capital expense for 3 new roll-off containers. In addition, in 2019, the District increased the cost to manage the three new sites by another additional \$2,500. The Drop-off study schedule to occur between 2018-2020 is anticipated to be conducted by District staff. If assistance from a consultant is needed, the District will utilize excess fund balance funds or unused budget funds to pay for the consultant fees.			
Scrap Tire Collection	HC-5	\$0	Special
The District's ability to operate this program is dependent upon funding from Ohio EPA grants. Grant funding is competitive and not guaranteed; therefore, it is not projected in Table VIII-5. In the event that the District does receive an Ohio EPA grant, unencumbered funds will be used toward the grant match.			
Electronics Collection	HC-8	\$0	2.5%
If the District begins accepting electronics at the Transfer Station, expenses are projected and estimated to begin in 2019 at \$5,000. Expenses are projected to increase 2.5% annually.			

Residential Education and Awareness Programs

The District operates multiple education and awareness programs, including the Public Awareness program, Environmental Education program, and the Environmental Events program.

The following table includes the funding levels projected for each program in 2018, a brief description of each expense and/or an explanation of the annual escalator:

Program	Program #	2018 Budget	Annual Escalator
Public Awareness	HC-9	\$6,500	0.681%
Because web-hosting is included in this program's expenses, annual costs are projected to increase 0.0681% annually based on the 12-month percent change in internet services in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015. The increase in 2018 is primarily to cover the cost to update the District's website. The annual expenditures decrease to historical levels starting in 2019.			
Environmental Education	HC-10	\$2,500	Flat
This line item covers the cost of materials needed for educational presentations. This may involve other associated costs, such as expenses for advertising the availability of this program to District schools. The District increased the budget for this line from previous years based on the additional initiatives discussed in Section 5.			
Environmental Events	HC-11	\$2,000	Flat
This line item covers the cost of participating in special community events and providing brochures, flyers, or other educational/promotional materials to residents. Costs are projected to remain flat. The District increased the budget for this line from previous years based on the additional initiatives discussed in Section 5.			

Commercial/Industrial Education, Awareness, and Technical Assistance Programs

The following table includes the projected funding level for the District's Commercial/Industrial Newsletter in 2018, a brief description of the expense and an explanation of the annual escalator:

Program	Program #	2018 Budget	Annual Escalator
Commercial/Industrial Newsletter	HC-15	\$500	Flat
Expenses include the cost of subscribing to an email marketing or electronic campaign service to distribute the newsletter and/or manage subscribers.			

Grant Programs

The following table includes the funding levels projected for each grant program in 2018, a brief description of each expense, and/or an explanation of the annual escalator:

Program	Program #	2018 Budget	Annual Escalator
Recycling Incentive Grant	HC-16	\$10,000	Flat
<p>The budget for this program covers the annual grant amount that is projected to be awarded to City of Norwalk (\$10,000) as well as additional funding for other communities interested in participating. The additional \$15,000 is available in 2019 after the District evaluates the options for this program in 2018. Unused grant monies will be accrued by the District until grant close out and then if there are unspent funds, they will be returned to the District. If grant money is not awarded in any given year, then the grant fund will not be fully utilized for that given year. If grant applications exceed the amount budgeted and are worthwhile projects, the District reserves the right to spend additional money in the given year of the excess and reduce or not reduce future years of grant funding budget at the sole discretion of the District.</p>			
Ohio EPA Grants	N/A	\$0	Special
<p>This line item contains the District's costs for matching grants awarded by Ohio EPA, as well as funds expended as a result of receiving Ohio EPA grants. Grant funding is competitive and not guaranteed, so grant funding or expenses related to receiving grant funding is not projected.</p>			
Transfer Station/Landfill	HC-17	\$1,808,757	Special
<p>This program includes three separate expense line items. The first line item is for the operation of the transfer station including all labor, supplies, equipment and landfill post closure expenses. The second line item includes the debt payments on the landfill and transfer station loan. The last line item includes equipment purchases and upgrades at either the transfer station and/or landfill for post closure care. The transfer station operation expenses are escalated 1.65% annually. The debt payments are fixed per the loan requirements and end by year 2030. The equipment line item varies depending on equipment replacement costs that occur every 5 years for the transfer station front end loader or special projects like a replacement of the landfill flare in 2017. The annual equipment expenses are escalated at 3% annually for routine equipment expenses and maintenance.</p>			

Total expenses for the first year of the planning period (2018) are projected to be \$2,090,052 (\$213,295 for District operations and \$1,876,757 for transfer station/landfill operations). In the final year of the planning period (2032), expenditures are projected to be \$2,661,928 (\$264,744 for District operations and \$2,397,184 for transfer station/landfill operations).

C. Funds Allocated from ORC 3734.57(B), ORC 3734.572 and ORC 3734.573

Solid waste districts may collect fees to fund the implementation of their plans as well as other purposes. Solid waste fees such as disposal fees and generation fees must be expended exclusively for the following ten purposes (ORC 3734.57 (G)):

- | | |
|--|--|
| <p>1</p> <ul style="list-style-type: none"> •Preparation and monitoring of the solid waste management plan | <p>2</p> <ul style="list-style-type: none"> • Implementation of the approved solid waste management plan |
| <p>3</p> <ul style="list-style-type: none"> •Providing financial assistance to boards of health within the district, for solid waste enforcement | <p>4</p> <ul style="list-style-type: none"> •Providing financial assistance to defray the costs of maintaining roads and other services resulting from the location and operation of a solid waste facility |
| <p>5</p> <ul style="list-style-type: none"> •Providing financial assistance to boards of health for collecting and analyzing samples from water wells adjacent to solid waste facilities | <p>6</p> <ul style="list-style-type: none"> •Developing and implementing a program for inspecting out-of-state solid waste |
| <p>7</p> <ul style="list-style-type: none"> •Providing financial assistance to boards of health or to local law enforcement agencies having jurisdiction within the district for anti-littering enforcement | <p>8</p> <ul style="list-style-type: none"> •Providing financial assistance to boards of health for employees to participate in Ohio EPA's training and certification program for solid waste operators and facility inspectors |
| <p>9</p> <ul style="list-style-type: none"> •Providing financial assistance to municipalities and townships to defray their costs of maintaining roads and other services resulting from the location and operation of solid waste facilities | <p>10</p> <ul style="list-style-type: none"> •Payment of any expenses that are agreed to awarded or ordered to be paid under section 3734.35 of the Revised Code and any administrative costs incurred pursuant to that section |

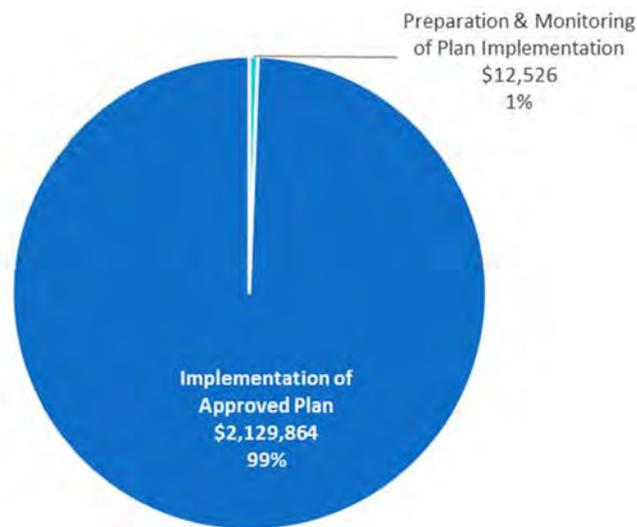
Table VIII-6, “Revenues and Allocations in Accordance with ORC 3734.57, ORC 3734.572 and ORC 3734.573”, presents the District’s projected allocation among the ten allowable uses.

The District’s budget falls into two categories:

- Preparation and monitoring of plan implementation.
- Implementation of approved plan.

The following figure presents the allocation of funding among the allowable uses during the reference year:

2014 Allocation of Funding



In 2014, 95% of the District’s expenditures were allocated to implementing the approved Plan. The remaining expenditures were allocated to preparation and monitoring implementation of the Plan (5%).

The transfer station and landfill expenses are not covered under this section as the revenue produced are not covered under the 10 allowable uses of generation fees and disposal fees.

D. Contingent Funding

The District and Board do not consider funding to be an issue of concern during this planning period. However, the Board would consider increasing the generation fee or developing other funding options. This would occur if the District’s revenues and/or expenses were creating excessive budgetary shortfalls that reduced the District’s operational fund balance to below \$100,000 without a projected short-term recovery. This does not include the transfer station/landfill excess fund balance which is dedicated to the

operation or care of these facilities. To alleviate this scenario and to reduce the District's ability to fund core programs to implement this *Plan Update*, the District will consider increasing the generation fee or contract fee if enacted by \$0.25 per ton increments as needed throughout the planning period.

Before this contingency would be implemented, the District would re-evaluate the estimated expenditures in Table VIII-5 to determine the minimum annual budget to sustain the District's core operations. If an increase in the generation fee would be required, a separate ratification process would be required to implement any projected increase.

In general, the District has confidence that it can adjust to less than catastrophic changes in waste generation, and thus a loss in projected generation fee or contract fee revenue. District revenues may vary from year-to-year or season-to-season depending on the waste generation. This may also be evident from the current economic conditions. The District Board of Directors has the responsibility for monitoring revenue and expenses, on a quarterly basis, and to determine if this contingency plan needs to be implemented.

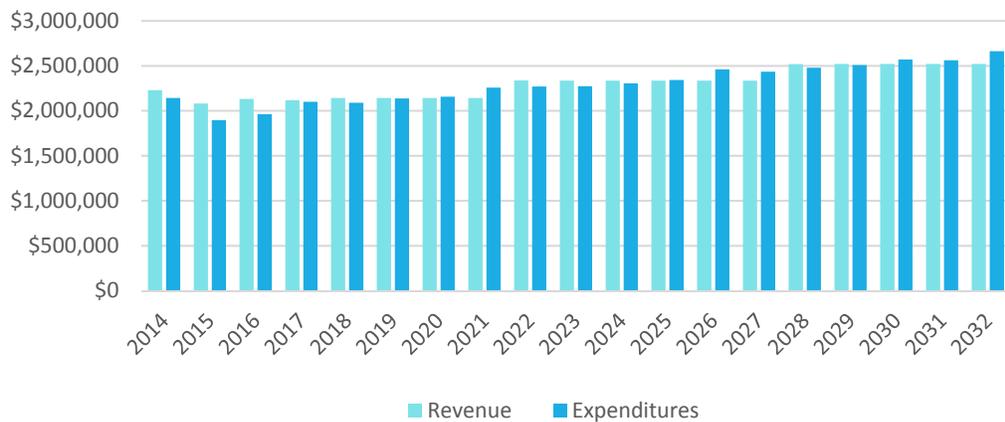
The District will begin the process to set and ratify a generation fee increase or revise the contract fee when District projections indicate that it will be required to spend down the District operational reserve funds projected in this Plan to below \$100,000, and that current generation fees or contract fees will not be sufficient to fund the required programs in the future. This does not include the operational fund balance for the transfer station/landfill. The District will be cognizant of the fact that the time required to enact and begin increasing the generation fee or contract fee will be at least four months and may be as much as seven months. If the District considers any generation fee increase that would exceed \$5.00 per ton, the fee must be ratified by a combination of municipal corporations and townships with a combined population within the borders of the district comprising at least seventy-five percent.

Once the District has decided an increase in generation fees are needed, the District will set the amount of the generation fee increase and will immediately begin the process to ratify the generation fee in accordance with Section 3734.573 of the Ohio Revised Code or notify designated facilities of the fee contract fee increase. Table VIII-7 does not show a specific amount to be generated by a hypothetical generation fee increase. With that said, for every \$0.25 per ton increase, the District could generate approximately \$11,250 in new revenue annually.

E. Summary of Costs and Revenues

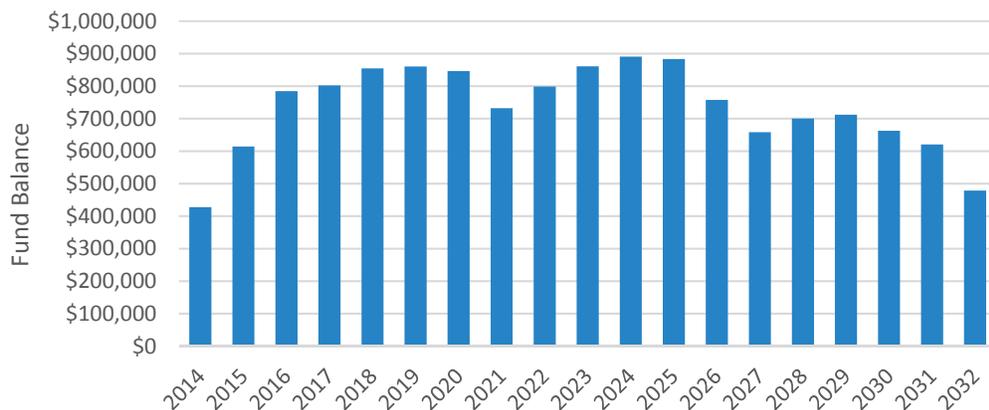
Table VIII-8, “Summary of District Revenues and Expenditures”, includes the total revenue and annual costs for each program from the reference year through the end of the planning period. Revenue is projected to increase from \$2,142,550 in 2018 to \$2,520,178 in 2032. Expenditures are projected to be \$2,090,052 in 2018 and \$2,661,928 in 2032, the final year of the planning period. Throughout the planning period, expenditures will average \$2,366,974. The following figure presents the District’s and transfer station/landfill actual and projected revenue and expenditures from 2014 to 2032.

2014 – 2032 District Revenue and Expenditures



The District and transfer station/landfill are projected to begin the planning period with a carryover balance of \$801,925 and conclude the planning period with a balance of approximately \$478,678. Each year of the planning period is projected to have ample funding for each of the programs. The following figure presents the District’s ending balance from 2014 to 2032.

2014 – 2032 District Fund Balance



Plan Update Budget Demonstration Policy

The budget projections were prepared in good faith using the best and most current information available. The District has prepared the budget section of this *Plan Update* to meet the requirements in the Ohio Revised Code, Section 3734.53 (A)(13)(d):

The methods of financing implementation of the plan and a demonstration of the availability of financial resources for that purpose.

The budget tables prepared for this *Plan Update* demonstrates that the District has the financial funding throughout the planning period to implement the planned programs and initiatives.

Nothing contained in these budget projections should be construed as a binding commitment by the District to spend a specific amount of money on a particular strategy, facility, program and/or activity. The Board, with the advice and assistance of the District Coordinator, will review and revise the budget as needed to implement the planned strategies, facilities, programs and/or activities as effectively as possible with the funds available.

Revenues, not otherwise committed to an existing strategy, facility, program or activity may be used to increase funding to improve the effectiveness of an existing strategy, facility, program or activity and to provide funding for a new strategy, facility, program or activity the Board concludes is justified based on the District Coordinator's recommendations and the content of this *Plan Update*.

The District reserves the right to revise the budget and reallocate funds as programs change or when otherwise determined to be in the best interest of the District. If the budget in this *Plan Update* is affected to the point that it must be revised, the District will first determine if a material change in circumstance has occurred. If a material change in circumstance has not occurred but budget revisions are needed that go beyond normal adjustments, the District may revise the budget per ORC Section 3734.56(E) and follow the appropriate ratification requirements to finalize the budget revisions.

The District is committed to implementing planned strategies, facilities, programs and/or activities in a cost-effective manner. The District is committed to improving the effectiveness and reduce the cost of all District strategies, facilities, programs and activities. The District Board is authorized to expend District funds among other uses included in the *Plan Update* when costs are reduced. Additionally, the Board is authorized to use reduced costs to provide grant funds or direct funding to evaluate, test and/or implement new strategies, facilities, programs and activities that are

in compliance with this *Plan Update* are not a “material change in circumstance” regarding the implementation of this *Plan Update*.

Any transfer of funding between line items will not constitute a material change of circumstances or require a ratification of the budget unless deemed necessary by the Board of Commissioners. The Board of Commissioners will determine if a material change in circumstances has occurred and will refer to Section I for those requirements and guidelines.

**Table VIII-2
Generation Fee Schedule and Revenues**

Year	Base Generation Fee	Tons of District Waste to be Disposed	Total Generation Fee Revenue
2014	\$4.50	42,791	\$192,561
2015	\$4.50	42,834	\$192,753
2016	\$4.50	40,735	\$183,305
2017	\$4.50	41,106	\$184,976
2018	\$4.50	41,474	\$186,632
2019	\$4.50	41,839	\$188,275
2020	\$4.50	41,380	\$186,210
2021	\$4.50	40,921	\$184,145
2022	\$4.50	40,462	\$182,079
2023	\$5.00	40,369	\$201,847
2024	\$5.00	40,277	\$201,384
2025	\$5.00	40,184	\$200,920
2026	\$5.00	40,091	\$200,457
2027	\$5.00	39,999	\$199,993
2028	\$6.00	39,906	\$239,436
2029	\$6.00	39,813	\$238,880
2030	\$6.00	39,721	\$238,324
2031	\$6.00	39,599	\$237,593
2032	\$6.00	39,477	\$236,861

Source(s) of information: Tons to be disposed - Tables VII-2 and VII-3

**Table VIII-3
Summary of Revenue Generated and Mechanisms Used**

Year	Mechanism Used						Total Revenue Generated
	Transfer Station Revenue	Transfer Station User and Misc. Fees	Generation Fees	Township Fees for Recycling Services	Waiver Fees	Grants	
2014	\$1,920,441	\$62,883	\$192,461	\$11,550	\$0	\$42,000	\$2,229,335
2015	\$1,766,798	\$65,048	\$192,753	\$11,550	\$0	\$44,622	\$2,080,771
2016	\$1,834,608	\$82,087	\$183,305	\$11,550	\$6,000	\$14,000	\$2,131,550
2017	\$1,845,018	\$70,006	\$184,976	\$11,550	\$6,000	\$0	\$2,117,550
2018	\$1,868,362	\$70,006	\$186,632	\$11,550	\$6,000	\$0	\$2,142,550
2019	\$1,866,720	\$70,006	\$188,275	\$11,550	\$6,000	\$0	\$2,142,550
2020	\$1,868,785	\$70,006	\$186,210	\$11,550	\$6,000	\$0	\$2,142,550
2021	\$1,870,850	\$70,006	\$184,145	\$11,550	\$6,000	\$0	\$2,142,550
2022	\$2,067,207	\$70,006	\$182,079	\$11,550	\$6,000	\$0	\$2,336,842
2023	\$2,045,463	\$70,006	\$201,847	\$11,550	\$6,000	\$0	\$2,334,865
2024	\$2,045,972	\$70,006	\$201,384	\$11,550	\$6,000	\$0	\$2,334,912
2025	\$2,046,482	\$70,006	\$200,920	\$11,550	\$6,000	\$0	\$2,334,958
2026	\$2,046,992	\$70,006	\$200,457	\$11,550	\$6,000	\$0	\$2,335,004
2027	\$2,047,502	\$70,006	\$199,993	\$11,550	\$6,000	\$0	\$2,335,051
2028	\$2,192,671	\$70,006	\$239,436	\$11,550	\$6,000	\$0	\$2,519,663
2029	\$2,193,338	\$70,006	\$238,880	\$11,550	\$6,000	\$0	\$2,519,774
2030	\$2,194,006	\$70,006	\$238,324	\$11,550	\$6,000	\$0	\$2,519,885
2031	\$2,194,883	\$70,006	\$237,593	\$11,550	\$6,000	\$0	\$2,520,031
2032	\$2,195,761	\$70,006	\$236,861	\$11,550	\$6,000	\$0	\$2,520,178

**Table VIII-4
Anticipated Loans Secured by the District**

Year	Loans Obtained by the District		Interest Rate	Length of Loan	Principal	Interest	Annual Debt Service
	Lending Institution	Remaining Balance on Principal					
2014	Ross, Sinclair & Associates, LLC	\$315,000	3.70%	17	\$15,000	\$13,545	\$28,545
2015	Ross, Sinclair & Associates, LLC	\$300,000	3.70%	16	\$15,000	\$12,990	\$27,990
2016	Ross, Sinclair & Associates, LLC	\$285,000	3.70%	15	\$15,000	\$12,435	\$27,435
2017	Ross, Sinclair & Associates, LLC	\$270,000	3.70%	14	\$15,000	\$11,880	\$26,880
2018	Ross, Sinclair & Associates, LLC	\$255,000	3.70%	13	\$15,000	\$11,325	\$26,325
2019	Ross, Sinclair & Associates, LLC	\$240,000	3.70%	12	\$15,000	\$10,770	\$25,770
2020	Ross, Sinclair & Associates, LLC	\$225,000	3.70%	11	\$15,000	\$10,214	\$25,214
2021	Ross, Sinclair & Associates, LLC	\$210,000	4.60%	10	\$15,000	\$9,660	\$24,660
2022	Ross, Sinclair & Associates, LLC	\$195,000	4.60%	9	\$20,000	\$8,970	\$28,970
2023	Ross, Sinclair & Associates, LLC	\$175,000	4.60%	8	\$20,000	\$8,050	\$28,050
2024	Ross, Sinclair & Associates, LLC	\$155,000	4.60%	7	\$20,000	\$7,130	\$27,130
2025	Ross, Sinclair & Associates, LLC	\$135,000	4.60%	6	\$20,000	\$6,210	\$26,210
2026	Ross, Sinclair & Associates, LLC	\$115,000	4.60%	5	\$20,000	\$5,290	\$25,290
2027	Ross, Sinclair & Associates, LLC	\$95,000	4.60%	4	\$20,000	\$4,370	\$24,370
2028	Ross, Sinclair & Associates, LLC	\$75,000	4.60%	3	\$25,000	\$3,450	\$28,450
2029	Ross, Sinclair & Associates, LLC	\$50,000	4.60%	2	\$25,000	\$2,300	\$27,300
2030	Ross, Sinclair & Associates, LLC	\$25,000	4.60%	1	\$25,000	\$1,150	\$26,150
2031	N/A	\$0	N/A	N/A	N/A	N/A	N/A
2032	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: Debt will be retired 12/01/2030. Debt retirement is paid from a separate account for the Landfill Transfer Station (not from the account discussed in Table VIII-5).

Source(s) of information: Huron County Debt Service Schedule on County Landfill Transfer Station Improvement Bonds

Table VIII-5
Estimated Costs for Plan Implementation

Description	Program #	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
District Administration Budget																				
Payroll Expenditures																				
Staff Salaries	Admin-1	\$65,910	\$67,000	\$69,010	\$70,045	\$71,096	\$72,162	\$73,245	\$74,343	\$75,459	\$76,590	\$77,739	\$78,905	\$80,089	\$81,290	\$82,510	\$83,747	\$85,003	\$86,279	\$87,573
	Admin-2	\$9,026	\$9,500	\$9,619	\$9,763	\$9,910	\$10,058	\$10,209	\$10,362	\$10,518	\$10,676	\$10,836	\$10,998	\$11,163	\$11,331	\$11,501	\$11,673	\$11,848	\$12,026	\$12,206
Medical Insurance	Admin-3	\$0	\$0	\$0	\$0	\$21,156	\$21,664	\$22,184	\$22,716	\$23,261	\$23,820	\$24,391	\$24,977	\$25,576	\$26,190	\$26,818	\$27,462	\$28,121	\$28,796	\$29,487
Medicare	Admin-4	\$966	\$1,000	\$1,024	\$1,049	\$1,074	\$1,100	\$1,126	\$1,153	\$1,181	\$1,209	\$1,238	\$1,268	\$1,298	\$1,329	\$1,361	\$1,394	\$1,427	\$1,462	\$1,497
Life Insurance	Admin-5	\$53	\$79	\$81	\$82	\$83	\$85	\$86	\$88	\$89	\$91	\$92	\$94	\$96	\$97	\$99	\$100	\$102	\$104	\$106
Workers' Compensation	Admin-6	\$560	\$1,360	\$1,346	\$1,366	\$1,386	\$1,407	\$1,428	\$1,450	\$1,471	\$1,494	\$1,516	\$1,539	\$1,562	\$1,585	\$1,609	\$1,633	\$1,658	\$1,682	\$1,708
Travel/Conference Expenses	Admin-7	\$2,533	\$3,000	\$3,045	\$3,091	\$3,137	\$3,184	\$3,232	\$3,280	\$3,330	\$3,379	\$3,430	\$3,482	\$3,534	\$3,587	\$3,641	\$3,695	\$3,751	\$3,807	\$3,864
Subtotal		\$79,037	\$84,124	\$85,396	\$85,396	\$107,842	\$109,660	\$111,510	\$113,393	\$115,309	\$117,258	\$119,243	\$121,262	\$123,317	\$125,409	\$127,538	\$129,705	\$131,911	\$134,155	\$136,440
Administrative, Supplies, and Support Services																				
Supplies	Admin-8	\$2,255	\$3,000	\$3,067	\$5,115	\$3,212	\$3,273	\$3,335	\$3,399	\$3,463	\$3,529	\$3,596	\$3,665	\$3,734	\$3,805	\$3,878	\$3,951	\$4,026	\$4,103	\$4,181
Training	Admin-9	\$0	\$2,000	\$2,037	\$2,075	\$2,114	\$2,154	\$2,194	\$2,235	\$2,277	\$2,319	\$2,362	\$2,407	\$2,452	\$2,497	\$2,544	\$2,592	\$2,640	\$2,689	\$2,740
Professional Services	Admin-10	\$12,526	\$15,000	\$15,000	\$5,000	\$0	\$0	\$0	\$15,000	\$15,000	\$5,000	\$0	\$0	\$0	\$15,000	\$15,000	\$5,000	\$0	\$0	\$0
Postage/Shipping	Admin-11	\$254	\$250	\$266	\$272	\$277	\$283	\$288	\$294	\$300	\$306	\$312	\$318	\$325	\$331	\$338	\$344	\$351	\$358	\$366
Vehicles	Admin-12	\$17,142	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	\$22,000	\$0	\$0	\$0	\$24,000	\$0	\$0	\$0	\$26,000	\$0	\$0
Office Services (Phone)	Admin-13	\$1,197	\$2,000	\$2,048	\$2,098	\$2,149	\$2,201	\$2,254	\$2,309	\$2,365	\$2,422	\$2,481	\$2,541	\$2,603	\$2,666	\$2,731	\$2,797	\$2,865	\$2,934	\$3,005
Subtotal		\$33,373	\$22,250	\$22,409	\$14,550	\$27,753	\$7,911	\$8,072	\$23,237	\$45,405	\$13,577	\$8,752	\$8,931	\$33,113	\$24,300	\$24,490	\$14,684	\$35,882	\$10,084	\$10,291
Residential/Commercial Collection Programs																				
Drop-Off Recycling	HC-2	\$51,117	\$54,000	\$56,700	\$56,700	\$56,700	\$56,700	\$56,700	\$56,633	\$56,633	\$56,633	\$56,274	\$58,956	\$72,404	\$72,404	\$72,404	\$74,214	\$76,069	\$79,873	\$79,873
Scrap Tire Collection	HC-5	\$12,000	\$9,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Electronics Collection	HC-8	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,125	\$5,253	\$5,384	\$5,519	\$5,657	\$5,798	\$5,943	\$6,092	\$6,244	\$6,400	\$6,560	\$6,724	\$6,893
Subtotal		\$63,117	\$63,000	\$66,700	\$66,700	\$66,700	\$66,700	\$66,633	\$66,633	\$66,633	\$66,633	\$67,274	\$74,754	\$78,347	\$78,496	\$78,648	\$80,614	\$82,630	\$86,597	\$86,765
Residential Education and Awareness Programs																				
Public Awareness	HC-9	\$2,095	\$1,000	\$1,547	\$1,558	\$6,500	\$1,600	\$1,611	\$1,622	\$1,633	\$1,644	\$1,655	\$1,666	\$1,678	\$1,689	\$1,701	\$1,712	\$1,724	\$1,736	\$1,748
Environmental Education	HC-10	\$0	\$1,000	\$1,000	\$1,000	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Environmental Events	HC-11	\$812	\$1,000	\$1,000	\$1,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Subtotal		\$2,907	\$3,000	\$3,547	\$3,558	\$11,000	\$6,100	\$6,111	\$6,122	\$6,133	\$6,144	\$6,155	\$6,166	\$6,178	\$6,189	\$6,201	\$6,212	\$6,224	\$6,236	\$6,248
Commercial/Industrial Education, Awareness, and Technical Assistance Programs																				
Commercial/Industrial Newsletter	HC-15	\$0	\$0	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
Subtotal		\$0	\$0	\$500																
Grant Programs																				
Recycling Incentive Grant	HC-16	\$20,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
CEPA Grants	NA	\$36,000	\$1,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$56,000	\$11,500	\$10,000	\$10,000	\$10,000	\$10,000	\$25,000												
Huron County Transfer Station Expenses																				
Huron County Transfer Station Expenses	HC-17	\$1,839,948	\$1,651,925	\$1,679,182	\$1,706,888	\$1,803,052	\$1,832,802	\$1,863,044	\$1,893,784	\$1,925,031	\$1,956,794	\$1,989,081	\$2,021,901	\$2,055,263	\$2,089,174	\$2,123,646	\$2,158,686	\$2,194,304	\$2,230,510	\$2,267,314
Debt Payment		\$28,545	\$27,990	\$27,435	\$26,880	\$26,325	\$25,770	\$25,214	\$24,660	\$24,105	\$23,550	\$23,000	\$22,450	\$21,900	\$21,350	\$20,800	\$20,250	\$19,700	\$19,150	\$18,600
Equipment Replacement		\$39,462	\$32,880	\$27,661	\$196,000	\$47,380	\$48,801	\$50,265	\$51,749	\$53,233	\$54,717	\$56,201	\$57,685	\$59,169	\$60,653	\$62,137	\$63,621	\$65,105	\$66,589	\$68,073
Subtotal		\$1,907,956	\$1,712,795	\$1,784,277	\$1,929,768	\$1,876,757	\$1,907,374	\$1,938,523	\$1,969,724	\$1,999,925	\$2,029,584	\$2,058,162	\$2,086,740	\$2,115,318	\$2,143,906	\$2,172,494	\$2,201,082	\$2,229,670	\$2,258,258	\$2,286,846
District Total Expenses		\$24,433	\$181,679	\$176,781	\$170,214	\$413,295	\$229,238	\$218,326	\$236,538	\$262,864	\$233,131	\$232,091	\$236,114	\$235,956	\$236,394	\$261,877	\$256,216	\$281,647	\$282,073	\$286,744
Transfer Station Total Expenses		\$1,907,956	\$1,712,795	\$1,784,277	\$1,929,768	\$1,876,757	\$1,907,374	\$1,938,523	\$1,969,724	\$1,999,925	\$2,029,584	\$2,058,162	\$2,086,740	\$2,115,318	\$2,143,906	\$2,172,494	\$2,201,082	\$2,229,670	\$2,258,258	\$2,286,846
Total Expenses for District and Transfer Station		\$2,142,389	\$1,894,474	\$1,961,058	\$2,099,992	\$2,090,052	\$2,136,662	\$2,156,849	\$2,256,765	\$2,270,147	\$2,272,855	\$2,304,819	\$2,342,447	\$2,460,656	\$2,434,654	\$2,477,540	\$2,507,676	\$2,569,539	\$2,562,044	\$2,661,928

**Table VIII-6
Revenues and Allocations in Accordance with ORC 3734.57, ORC 3734.572 and ORC 3734.573**

Year	Total Annual Revenue	Allocations of ORC 3734.57 and ORC 3734.573 Revenue For the Following Purposes:										Total Budget Allocation	Year-End Balance	
		1	2	3	4	5	6	7	8	9	10			
Beginning Balance													\$340,624	
2014	\$2,229,335	\$12,526	\$2,129,864	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,142,389	\$427,570
2015	\$2,080,771	\$15,000	\$1,879,474	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,894,474	\$613,866
2016	\$2,131,550	\$15,000	\$1,946,058	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,961,058	\$784,358
2017	\$2,117,550	\$5,000	\$2,094,982	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,099,982	\$801,925
2018	\$2,142,550	\$0	\$2,090,052	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,090,052	\$854,424
2019	\$2,142,550	\$0	\$2,136,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,136,662	\$860,312
2020	\$2,142,550	\$0	\$2,156,849	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,156,849	\$846,013
2021	\$2,142,550	\$15,000	\$2,241,765	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,256,765	\$731,798
2022	\$2,336,842	\$15,000	\$2,255,147	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,270,147	\$798,493
2023	\$2,334,865	\$5,000	\$2,267,855	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,272,855	\$860,503
2024	\$2,334,912	\$0	\$2,304,819	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,304,819	\$890,596
2025	\$2,334,958	\$0	\$2,342,447	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,342,447	\$883,107
2026	\$2,335,004	\$0	\$2,460,636	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,460,636	\$757,475
2027	\$2,335,051	\$15,000	\$2,419,654	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,434,654	\$657,872
2028	\$2,519,663	\$15,000	\$2,462,540	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,477,540	\$699,995
2029	\$2,519,774	\$5,000	\$2,502,676	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,507,676	\$712,094
2030	\$2,519,885	\$0	\$2,569,539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,569,539	\$662,440
2031	\$2,520,031	\$0	\$2,562,044	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,562,044	\$620,428
2032	\$2,520,178	\$0	\$2,661,928	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,661,928	\$478,678

Notes:

- 1 - Preparation and monitoring of plan implementation.
- 2 - Implementation of approved plan.
- 3 - Financial assistance to boards of health for solid waste enforcement.
- 4 - Financial assistance to defray the costs of maintaining roads and other public services related to the location or operation of solid waste facilities.
- 5 - Contracts with boards of health for collecting and analyzing samples from water wells adjacent to solid waste facilities.
- 6 - Out-of-state waste inspection program.
- 7 - Financial assistance to local boards of health to enforce ORC 3734.03 or to local law enforcement agencies having jurisdiction within the District for anti-littering.
- 8 - Financial assistance to local boards of health for employees to participate in Ohio EPA's training and certification program for solid waste operators and facility inspectors.
- 9 - Financial assistance to local municipalities and townships to defray the added cost of roads and services related to the operation of solid waste facilities.
- 10 - Payment of any expenses that are agreed to awarded or ordered to be paid under section 3734.35 of the Revised Code and any administrative costs incurred pursuant to that section.

**Table VIII-7
Contingent Funding Sources**

Year	Amount of Contingent Funding for Each Source		Total
	Generation Fee Revenue	Total Tons	
2014	TBD	32,252	N/A
2015	TBD	34,023	N/A
2016	TBD	35,808	N/A
2017	TBD	37,587	N/A
2018	TBD	39,358	N/A
2019	TBD	39,265	N/A
2020	TBD	39,171	N/A
2021	TBD	39,078	N/A
2022	TBD	38,985	N/A
2023	TBD	38,892	N/A
2024	TBD	38,799	N/A
2025	TBD	38,706	N/A
2026	TBD	38,613	N/A
2027	TBD	38,519	N/A
2028	TBD	38,426	N/A
2029	TBD	38,333	N/A
2030	TBD	38,240	N/A
2031	TBD	38,118	N/A
2032	TBD	37,995	N/A

Note: The generation fee can be adjusted up or down to meet contingent needs.

Table VIII-8
Summary of District Revenues and Expenditures

Description	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Beginning Balance	\$340,624	\$427,570	\$613,866	\$784,358	\$901,925	\$854,424	\$860,312	\$846,013	\$731,798	\$795,493	\$860,503	\$890,596	\$883,107	\$757,475	\$657,872	\$699,996	\$712,094	\$662,441	\$620,428
Revenues																			
Transfer Station Revenue	\$1,920,441	\$1,766,738	\$1,834,608	\$1,845,518	\$1,869,362	\$1,866,720	\$1,868,765	\$1,870,850	\$2,067,207	\$2,045,972	\$2,046,482	\$2,046,992	\$2,047,502	\$2,192,671	\$2,193,338	\$2,194,006	\$2,194,674	\$2,195,342	\$2,196,010
Transfer Station User and Misc. Fees	\$62,883	\$65,048	\$62,087	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006	\$70,006
Generation Fees	\$192,461	\$192,753	\$183,305	\$184,976	\$186,632	\$188,275	\$189,918	\$191,561	\$193,204	\$194,847	\$196,490	\$198,133	\$199,776	\$201,419	\$203,062	\$204,705	\$206,348	\$207,991	\$209,634
Township Fees for Recycling Services	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550	\$11,550
Waiver Fees	\$0	\$0	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Grants	\$42,000	\$44,622	\$14,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$2,229,338	\$2,080,771	\$2,131,550	\$2,117,550	\$2,142,550	\$2,142,550	\$2,142,550	\$2,142,550	\$2,336,842	\$2,334,865	\$2,334,865	\$2,334,865	\$2,334,865	\$2,487,543	\$2,488,210	\$2,488,877	\$2,489,544	\$2,490,211	\$2,490,878
Funds Dedicated to District Operations	\$246,011	\$248,925	\$214,855	\$202,526	\$204,182	\$205,825	\$203,760	\$201,695	\$199,629	\$197,563	\$195,497	\$193,431	\$191,365	\$218,470	\$216,404	\$214,338	\$212,272	\$210,206	\$208,140
Funds Dedicated to Transfer Station	\$1,983,324	\$1,831,846	\$1,916,695	\$1,915,024	\$1,938,368	\$1,936,725	\$1,938,790	\$1,940,855	\$2,137,213	\$2,137,297	\$2,137,368	\$2,137,368	\$2,137,368	\$2,269,073	\$2,271,806	\$2,274,541	\$2,277,276	\$2,280,011	\$2,282,746
District Expenditures																			
Payroll Expenditures																			
Admin-1	\$65,910	\$67,000	\$69,010	\$70,045	\$71,096	\$72,162	\$73,245	\$74,343	\$75,459	\$76,590	\$77,739	\$78,905	\$80,089	\$81,290	\$82,510	\$83,747	\$85,003	\$86,279	\$87,573
Admin-2	\$9,026	\$9,500	\$9,619	\$9,763	\$9,910	\$10,058	\$10,209	\$10,362	\$10,518	\$10,676	\$10,836	\$10,998	\$11,163	\$11,331	\$11,501	\$11,673	\$11,848	\$12,026	\$12,206
Admin-3	\$0	\$0	\$0	\$0	\$21,156	\$21,664	\$22,184	\$22,716	\$23,261	\$23,820	\$24,391	\$24,977	\$25,576	\$26,190	\$26,818	\$27,462	\$28,121	\$28,796	\$29,487
Admin-4	\$956	\$1,000	\$1,024	\$1,049	\$1,074	\$1,100	\$1,126	\$1,153	\$1,181	\$1,209	\$1,238	\$1,268	\$1,298	\$1,329	\$1,361	\$1,394	\$1,427	\$1,462	\$1,497
Admin-5	\$53	\$79	\$81	\$82	\$83	\$85	\$86	\$88	\$89	\$91	\$92	\$94	\$96	\$97	\$99	\$100	\$102	\$104	\$106
Admin-6	\$660	\$1,350	\$1,346	\$1,366	\$1,386	\$1,407	\$1,428	\$1,449	\$1,471	\$1,494	\$1,516	\$1,539	\$1,562	\$1,585	\$1,609	\$1,633	\$1,658	\$1,682	\$1,708
Admin-7	\$2,533	\$3,000	\$3,045	\$3,091	\$3,137	\$3,184	\$3,232	\$3,280	\$3,329	\$3,379	\$3,430	\$3,482	\$3,534	\$3,587	\$3,641	\$3,695	\$3,751	\$3,807	\$3,864
Subtotal	\$79,037	\$81,929	\$84,124	\$85,396	\$87,842	\$89,660	\$91,872	\$94,485	\$97,503	\$100,027	\$102,056	\$104,590	\$107,629	\$111,173	\$115,222	\$119,777	\$124,839	\$130,408	\$136,484
Administrative, Supplies, and Support Services																			
Supplies	\$2,255	\$3,000	\$3,057	\$5,115	\$3,212	\$3,273	\$3,335	\$3,399	\$3,463	\$3,529	\$3,596	\$3,665	\$3,734	\$3,805	\$3,878	\$3,951	\$4,026	\$4,103	\$4,181
Training	\$0	\$2,000	\$2,037	\$2,075	\$2,114	\$2,154	\$2,194	\$2,235	\$2,277	\$2,319	\$2,362	\$2,407	\$2,452	\$2,497	\$2,544	\$2,592	\$2,640	\$2,689	\$2,740
Professional Services	\$12,526	\$15,000	\$15,000	\$5,000	\$0	\$0	\$0	\$15,000	\$15,000	\$0	\$0	\$0	\$0	\$15,000	\$15,000	\$5,000	\$0	\$0	\$0
Postage/Shipping	\$254	\$250	\$266	\$272	\$277	\$283	\$288	\$294	\$300	\$306	\$312	\$318	\$325	\$331	\$338	\$344	\$351	\$358	\$366
Vehicles	\$17,142	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,000	\$0	\$0
Office Services (Phone)	\$1,197	\$2,000	\$2,048	\$2,098	\$2,149	\$2,201	\$2,254	\$2,309	\$2,365	\$2,422	\$2,481	\$2,541	\$2,603	\$2,666	\$2,731	\$2,797	\$2,865	\$2,934	\$3,005
Subtotal	\$33,373	\$22,250	\$22,409	\$14,560	\$27,753	\$7,911	\$6,072	\$23,237	\$45,405	\$13,577	\$8,931	\$8,931	\$33,113	\$24,300	\$24,490	\$14,684	\$35,882	\$10,084	\$10,291
Residential/Commercial Collection Programs																			
Drop-Off Recycling	\$51,117	\$54,000	\$56,700	\$56,700	\$56,700	\$56,700	\$56,700	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633	\$56,633
HC-2	\$12,000	\$9,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scrap Tire Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Electronics Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$63,117	\$63,000	\$56,700	\$56,700	\$56,700	\$56,700	\$56,633												
Residential Education and Awareness Programs																			
Public Awareness	\$2,095	\$1,000	\$1,547	\$1,558	\$6,500	\$1,600	\$1,611	\$1,622	\$1,633	\$1,644	\$1,655	\$1,666	\$1,678	\$1,689	\$1,701	\$1,712	\$1,724	\$1,736	\$1,748
HC-9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Environmental Education	\$0	\$1,000	\$1,000	\$1,000	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Environmental Events	\$812	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$2,907	\$3,000	\$3,547	\$3,558	\$11,000	\$6,100	\$6,111	\$6,122	\$6,133	\$6,144	\$6,155	\$6,166	\$6,178	\$6,189	\$6,201	\$6,212	\$6,224	\$6,236	\$6,248
Commercial/Industrial Education, Awareness, and Technical Assistance Programs																			
Commercial/Industrial Newsletter	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$0																		
Grant Programs																			
Recycling Incentive Grant	\$20,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
OEPA Grants	\$36,000	\$1,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$56,000	\$11,500	\$10,000																
Huron County Transfer Station Expenses																			
Huron County Transfer Station Expenses	\$1,839,948	\$1,651,925	\$1,679,182	\$1,706,888	\$1,803,052	\$1,832,802	\$1,863,044	\$1,893,784	\$1,925,031	\$1,956,794	\$1,989,081	\$2,021,901	\$2,055,263	\$2,089,174	\$2,123,646	\$2,158,686	\$2,194,304	\$2,230,510	\$2,267,314
Debt Payment	\$28,545	\$27,980	\$27,435	\$26,880	\$26,325	\$25,770	\$25,214	\$24,660	\$24,106	\$23,552	\$23,000	\$22,448	\$21,896	\$21,344	\$20,792	\$20,240	\$19,688	\$19,136	\$18,584
Equipment Replacement	\$39,462	\$32,880	\$27,661	\$196,000	\$47,380	\$48,801	\$50,222	\$51,663	\$53,104	\$54,545	\$55,986	\$57,427	\$58,868	\$60,309	\$61,750	\$63,191	\$64,632	\$66,073	\$67,514
Subtotal	\$1,907,955	\$1,712,795	\$1,784,277	\$1,929,768	\$1,876,757	\$1,907,374	\$1,938,523	\$1,969,724	\$1,999,931	\$2,030,138	\$2,060,345	\$2,090,552	\$2,120,760	\$2,150,967	\$2,181,174	\$2,211,381	\$2,241,588	\$2,271,795	\$2,302,002
District Total Expenditures	\$1,907,955	\$1,712,795	\$1,784,277	\$1,929,768	\$1,876,757	\$1,907,374	\$1,938,523	\$1,969,724	\$1,999,931	\$2,030,138	\$2,060,345	\$2,090,552	\$2,120,760	\$2,150,967	\$2,181,174	\$2,211,381	\$2,241,588	\$2,271,795	

IX. District Rules [ORC Section 3734.53(C)]

A. Existing Rules

According to Ohio Revised Code Section 3734.53(C), “the solid waste management plan of a county or joint district may provide for the adoption of rules under division (G) of section 343.01 of the Revised Code after approval of the plan under section 3734.521 or 3734.55 of the Revised Code.” The District reserves the Authority for the Board to adopt rules under the provision of Ohio Revised Code.

The District plan reserved for the Board of Directors the power to make and enforce rules to the fullest extent authorized by Ohio law. Therefore, under the existing plan, the District is authorized to adopt, publish and enforce rules doing any of the following:

1. Prohibiting or limiting the receipt of solid waste generated outside the district or outside a service area prescribed in the solid waste management plan or amended plan, at facilities covered by the plan.
2. Governing the maintenance, protection, and use of solid waste collection or other solid waste facilities located within the district.
3. Governing the development and implementation of a program for the inspection of solid waste generated outside the boundaries of this state that are disposed of at solid waste facilities included in the district’s solid waste management plan or amended plan.
4. Exempting the owner or operator of any existing or proposed solid waste facility provided for the plan or amended plan from compliance with any amendments to a township zoning resolution.

The following section summarizes the existing rules of the District:

Rule 15-1 – Delivery of Solid Waste to Designated Facilities

No person, partnership, association, firm, corporation, limited liability company, municipal corporation, township, or other political subdivision, shall deliver, or cause the delivery of, any solid waste generated within the Huron County Solid Waste District to any other solid waste transfer, disposal, recycling, or resource recovery facility other than the County-owned and operated Huron County Transfer Facility located at 2415 Townline Road, Willard, Ohio, 44890, unless a waiver from this rule has been granted by the Board of County Commissioners of Huron County pursuant to District Rule No. 15-2. For the purpose of this District

Rule No. 15-1, 'solid waste" shall have the same meaning as Section 3734.01 of the Ohio Revised Code, and shall not include the following unacceptable wastes:

- Asbestos (friable and non-friable)
- Dedicated loads of Yard Waste
- Explosive and ordinance materials
- Hazardous Waste
- Liquid wastes, including used motor oil
- Radioactive materials; or
- Untreated infectious/pathological waste

Rule 15-2 – Waiver from Designation

Upon the request of person, partnership, association, firm, corporation, limited liability company, municipal corporation, township, or other political subdivision, the Board of County Commissioners of Huron County may grant a waiver from District Rule 15-1 requiring the delivery of solid waste generated within the Huron County Solid Waste District to the Huron County Transfer Facility if the Board finds that delivery of such solid waste to another facility:

- a) Is not inconsistent with the projections contained in the Huron County Solid Waste District's approved solid waste management Plan under Sections 3734.53 (A)(6) and (7) of the Ohio Revised Code;
- b) Will not adversely affect the implementation and financing of the Plan;
- c) The parties requesting the waiver have entered into a written agreement with the Huron County Solid Waste District setting forth the terms and conditions of the waiver, including the payment of a waiver fee to the District.

B. Proposed Rules

At the time that this *Plan Update* was developed, the District was not proposing any new rules. The District may, as they deem appropriate, amend or rescind the existing rules or may adopt any additional rules that are necessary to implement the ratified and approved Solid Waste Management Plan. Since changes may occur during the planning period, the District reserves for the Board of Directors the power to make and enforce rules to the fullest extent authorized by Ohio law.

The Ohio Revised Code, Section 343.01 (G) gives solid waste districts the authority to adopt, publish, and enforce rules to the extent authorized by the solid waste management plan of the district approved under Section 3734.521 or 3734.55 of the Revised Code or subsequent amended plans of the district approved under Section 3734.521 or 3734.56 of the Revised Code.

This plan authorizes the Huron County Solid Waste Management District Board of Directors to adopt, publish, and enforce rules.

Any rule promulgated by the District shall be designed to promote the health, safety and welfare of the residents of the District, effective and efficient administration and operation of the District, to comply with state requirements and/or to implement the Solid Waste Management Plan and amended Plan of the District. The District may conduct all reviews, investigations, evaluations, studies and hearings as the District deems necessary and appropriate to determine the character, degree and scope of any proposed rule.

Rule adoption shall follow the procedures listed in Section C before becoming final.

Rule Making Authority – ORC 343.01

The solid waste management plan provides the authority to the Board of Directors to adopt, publish, and enforce all of the rule-making powers authorized by Ohio Revised Code 343.01, Divisions (G)(1), (G)(2), (G)(3) and (G)(4) including the following:

ORC 343.01(G)(1)

To the extent authorized by the solid waste management plan of the district approved under section 3734.521 or 3734.55 of the Revised Code or subsequent amended plans of the district approved under section 3734.521 or 3734.56 of the Revised Code, the board of county commissioners of a county district or board of directors of a joint district may adopt, publish, and enforce rules doing any of the following:

- (1) Prohibiting or limiting the receipt of solid wastes generated outside the district or outside a service area prescribed in the solid waste management plan or amended plan, at facilities located within the solid waste management district, consistent with the projections contained in the plan or amended plan under divisions (A)(6) and (7) of section 3734.53 of the Revised Code. However, rules adopted by a board under division (G)(1) of this section may be adopted and enforced with respect to solid waste disposal facilities in the solid waste

management district that are not owned by a county or the solid waste management district only if the board submits an application to the director of environmental protection that demonstrates that there is insufficient capacity to dispose of all solid wastes that are generated within the district at the solid waste disposal facilities located within the district and the director approves the application. The demonstration in the application shall be based on projections contained in the plan or amended plan of the district. The director shall establish the form of the application. The approval or disapproval of such an application by the director is an action that is appealable under Section 3745.04 of the Revised Code.

In addition, the director of environmental protection may issue an order modifying a rule adopted under division (G)(1) of this section to allow the disposal in the district of solid wastes from another county or joint solid waste management district if all of the following apply:

- (a) The district in which the wastes were generated does not have sufficient capacity to dispose of solid wastes generated within it for six months following the date of the director's order;
- (b) No new solid waste facilities will begin operation during those six months in the district in which the wastes were generated and, despite good faith efforts to do so, it is impossible to site new solid waste facilities within the district because of its high population density;
- (c) The district in which the wastes were generated has made good faith efforts to negotiate with other districts to incorporate its disposal needs within those districts' solid waste management plans, including efforts to develop joint facilities authorized under section 343.02 of the Revised Code, and the efforts have been unsuccessful;
- (d) The district in which the wastes were generated has located a facility willing to accept the district's solid wastes for disposal within the receiving district;
- (e) The district in which the wastes were generated has demonstrated to the director that the conditions specified in divisions (G)(1)(a) to (d) of this section have been met;
- (f) The director finds that the issuance of the order will be consistent with the state solid waste management plan and that receipt of the out-of-district wastes will not limit the capacity of the receiving district to dispose of its in-district wastes to less than eight years.

Any order issued under division (G)(1) of this section shall not become final until thirty days after it has been served by certified mail upon the county or joint solid waste management district that will receive the out-of-district wastes.

ORC 343.01(G)(2)

Governing the maintenance, protection, and use of solid waste collection or other solid waste facilities located within its district. The rules adopted under division (G)(2) of this section shall not establish design standards for solid waste facilities and shall be consistent with the solid waste provisions of Chapter 3734 of the Revised Code and the rules adopted under those provisions. The rules adopted under division (G)(2) of this section may prohibit any person, municipal corporation, township, or other political subdivision from constructing, enlarging, or modifying any solid waste facility until general plans and specifications for the proposed improvement have been submitted to and approved by the board of county commissioners or board of directors as complying with the solid waste management plan or amended plan of the district. The construction of such a facility shall be done under the supervision of the county sanitary engineer or, in the case of a joint district, a county sanitary engineer designated by the board of directors, and any person, municipal corporation, township, or other political subdivision proposing or constructing such improvements shall pay to the county or joint district all expenses incurred by the board in connection therewith. The sanitary engineer may enter upon any public or private property for the purpose of making surveys or examinations necessary for designing solid waste facilities or for supervising the construction, enlargement, modification, or operation of any such facilities. No person, municipal corporation, township, or other political subdivision shall forbid or interfere with the sanitary engineer or his authorized assistants entering upon such property for that purpose. If actual damage is done to property by the making of the surveys and examinations, a board shall pay the reasonable value of that damage to the owner of the property damaged, and the cost shall be included in the financing of the improvement for which the surveys and examinations are made.

ORC 343.01(G)(3)

Governing the development and implementation of a program for the inspection of solid wastes generated outside the boundaries of this state that are disposed of at solid waste facilities included in the district's solid waste management plan or amended plan. A board of county commissioners or board of directors or its authorized representative may enter upon the premises of any solid waste facility included in the district's solid waste management plan or amended plan for the purpose of conducting the inspections required or authorized by the rules adopted

under division (G)(3) of this section. No person, municipal corporation, township, or other political subdivision shall forbid or interfere with a board of county commissioners or directors or its authorized representative entering upon the premises of any such solid waste facility for that purpose.

ORC 343.01(G)(4)

Exempting the owner or operator of any existing or proposed solid waste facility provided for in the plan or amended plan from compliance with any amendment to a township zoning resolution adopted under section 519.12 of the Revised Code or to a county rural zoning resolution adopted under section 303.12 of the Revised Code that rezoned or redistricted the parcel or parcels upon which the facility is to be constructed or modified and that became effective within two years prior to the filing of an application for a permit required under division (A)(2)(a) of section 3734.05 of the Revised Code to open a new or modify an existing solid waste facility.

Rule Making Authority – ORC 3734.53

The solid waste management plan provides the authority to the Board of Directors to adopt, publish, and enforce all of the rule-making powers authorized by Ohio Revised Code 3734.53, Division (C) including the following:

- (1) Prohibiting or limiting the receipt at facilities covered by the plan of solid wastes generated outside the district or outside a prescribed service area consistent with the projections under divisions (A)(6) and (7) of this section, except that the director of environmental protection may issue an order modifying a rule authorized to be adopted under division (C)(1) of this section to allow the disposal in the district of wastes from another county or joint solid waste management district if all of the following apply:
 - (a) The district in which the wastes were generated does not have sufficient capacity to dispose of solid wastes generated within it for six months following the date of the director's order;
 - (b) No new solid waste facilities will begin operation during those six months in the district in which the wastes were generated and, despite good faith efforts to do so, it is impossible to site new solid waste facilities within the district because of its high population density;
 - (c) The district in which the wastes were generated has made good faith efforts to negotiate with other districts to incorporate its disposal needs within those districts' solid waste management

plans, including efforts to develop joint facilities authorized under section 343.02 of the Revised Code, and the efforts have been unsuccessful;

- (d) The district in which the wastes were generated has located a facility willing to accept the district's solid wastes for disposal within the receiving district;
 - (e) The district in which the wastes were generated has demonstrated to the director that the conditions specified in divisions (C)(1)(a) to (d) of this section have been met;
 - (f) The director finds that the issuance of the order will be consistent with the state solid waste management plan and that receipt of the out-of-district wastes will not limit the capacity of the receiving district to dispose of its in-district wastes to less than eight years. Any order issued under division (C)(1) of this section shall not become final until thirty days after it has been served by certified mail upon the county or joint solid waste management district that will receive the out-of-district wastes.
- (2) Governing the maintenance, protection, and use of solid waste collection, storage, disposal, transfer, recycling, processing, and resource recovery facilities within the district and requiring the submission of general plans and specifications for the construction, enlargement, or modification of any such facility to the board of county commissioners or board of directors of the district for review and approval as complying with the plan or amended plan of the district;
 - (3) Governing development and implementation of a program for the inspection of solid wastes generated outside the boundaries of the state that are being disposed of at solid waste facilities included in the district's plan;
 - (4) Exempting the owner or operator of any existing or proposed solid waste facility provided for in the plan from compliance with any amendment to a township zoning resolution adopted under Section 519.12 of the Revised Code or to a county rural zoning resolution adopted under Section 303.12 of the Revised Code that rezoned or redistricted the parcel or parcels upon which the facility is to be constructed or modified and that became effective within two years prior to the filing of an application for a permit required under division (A)(2)(a) of Section 3734.05 of the Revised Code to open a new or modify an existing solid waste facility.

C. Rule Approval Process

Proposed rules shall be adopted and enforced by the Board of Directors as provided in Section 343.01(G).



APPENDIX A

RESOLUTION FOR DISTRICT FORMATION



BOARD OF COUNTY
COMMISSIONERS

Thomas W. Carabin
Richard P. Houck
James R. Westerhold



180 Milan Avenue
Norwalk, Ohio 44857-1195
Telephone (419) 668-3092

March 23, 1989

RESOLUTION

89-077

IN THE MATTER OF FORMING A "JOINT SOLID WASTE DISTRICT" WITH ERIE COUNTY

Mr. Houck moved the adoption of the following resolution:

WHEREAS, Amended Substitute House Bill 592 enacted by the 117th General Assembly of the State of Ohio and effective June 24, 1988 requires that the Board of County Commissioners establish a "county solid waste management district" or, with the board of County Commissioners of one or more other counties, establish by agreement and maintain a "joint solid waste management district" pursuant to Section 343.01 of the Revised Code for the purposes of solid waste management planning and providing for, or causing to be provided for, the safe and sanitary management of solid waste within all of the incorporated and unincorporated territory of the county or joint district; and

WHEREAS, the Huron County Board has determined that coordinated action by Huron and Erie Counties for the purposes of preparing, adopting, submitting and implementing a solid waste management plan for the counties and providing for, or causing to be provided for, the safe and sanitary management of solid waste within the counties as necessary to preserve and promote public health and welfare of resident of Huron County; therefore

BE IT RESOLVED, the Huron County Board determines that it is necessary and appropriate to enter into an agreement with Erie County on March 23, 1989 called an "Agreement Establishing Joint Solid Waste Management District"; and further

BE IT RESOLVED, that the foregoing resolution was adopted and all actions and deliberations of the Board of Commissioners of the County of Huron, Ohio relating thereto were conducted in meetings open to the public, in compliance with all applicable legal requirements, including section 121.22 of the Ohio Revised Code.

Mr. Westerhold seconded the motion. Voting was as follows:

CERTIFICATION

I, Clerk to the Board of Huron County Commissioners do hereby certify that the above is a true and correct copy of the resolution passed on MAR. 23
1989 and is recorded in the Commissioners Journal

Volume _____ page 407

CLERK

aye
aye

James R. Westerhold

Richard P. Houck

Absent

Thomas W. Carabin

3: GRM
PART
1/20/93

BOARD OF COUNTY COMMISSIONERS

Tom Kilbane
Jim Seitz
Karen Wilhelm



180 Milan Avenue
Norwalk, Ohio 44857-1195
Telephone (419) 668-3092
FAX (419) 663-3370

July 13, 1993

93-279

RESOLUTION

IN THE MATTER OF APPROVING THE PROPOSED WITHDRAWAL OF ERIE COUNTY FROM THE ERIE/HURON JOINT SOLID WASTE MANAGEMENT DISTRICT AND THE FORMATION OF TWO SINGLE COUNTY DISTRICTS FROM THE JOINT DISTRICT

Mr. Seitz moved the adoption of the following resolution:

WHEREAS, Ohio Revised Code Section 343.012(B) provides a mechanism whereby a board of county commissioners of a county participating in a joint solid waste management district may initiate proceedings to withdraw from the joint district; and

WHEREAS, the Board of County Commissioners of Erie County has adopted a resolution requesting to withdraw from the Erie/Huron Joint Solid Waste Management District; and

WHEREAS, the Board of Directors of the joint solid waste management district has delivered written notice of the proposed withdrawal to the Board of Commissioners of Huron County on July 13, 1993; and

WHEREAS, this Board feels it is in the best interest of the citizens of Huron County to form single-county solid waste management district; therefore

BE IT RESOLVED, that the Board of Huron County Commissioners hereby approves of the proposed withdrawal of Erie County from the Erie/Huron Joint Solid Waste District; and further

BE IT RESOLVED, that the Clerk to the Board of Huron County Commissioners is hereby directed to deliver a certified copy of this Resolution to the Directors of the Erie/Huron Joint Solid Waste Management District and the Board of County Commissioners of Erie County, Ohio; and further

BE IT RESOLVED, that the foregoing resolution was adopted and all actions and deliberations of the Board of Commissioners of the County of Huron, Ohio relating thereto were conducted in meetings open to the public, in compliance with all applicable legal requirements, including Section 121.22 of the Ohio Revised Code.

ERIC COUNTY COMMISSIONERS
93 JUL 20 AM 11:01

Karen Wilhelm seconded the motion. The roll being called upon its adoption, the vote resulted as follows:

<u>yes</u>	<u>Tom Kilbane</u> Tom Kilbane
<u>yes</u>	<u>Jim Seitz</u> Jim Seitz
<u>yes</u>	<u>Karen Wilhelm</u> Karen Wilhelm

CERTIFICATION

I, Clerk to the Board of Huron County Commissioners do hereby certify that the above is a true and correct copy of the resolution passed on 7/13/93 and is recorded in the Commissioners Journal Volume 62 page 592

Ann B. Winter
CLERK



APPENDIX B

PUBLIC NOTICES FOR PUBLIC HEARING AND PUBLIC COMMENT



PUBLIC NOTICE
HURON COUNTY SOLID WASTE MANAGEMENT DISTRICT

Public Comment Period for Draft Solid Waste Management Plan Update

The Huron County Solid Waste Management District (District) is establishing a 30-day written comment period (March 9 – April 7, 2017) on the draft Solid Waste Management Plan Update (Plan Update) (Ohio Revised Code Section 3734.54). The District has prepared the draft Plan Update as required by Section 3734.54 of the Ohio Revised Code. The draft Plan Update includes a budget and fees to finance the Plan, a solid waste facility inventory, projections and strategies, facilities and programs to be used, an analysis of the progress made toward achieving state solid waste reduction goals, and District rules.

This draft is an update to a previously approved solid waste plan. This Plan Update details existing programs including: Curbside Recycling, Drop-Off Recycling, Yard Waste Management, Household Hazardous Waste Management Program, Scrap Tire Collection, Lead-Acid Battery Management, Appliance Collection, Electronics Collection, Public Awareness, Environmental Education, Environmental Events, Waste Audits and Assessments, Recycling Assistance, Commercial/Industrial Workshops, Commercial/Industrial Newsletter, Recycling Incentive Grant, Huron County Transfer Facility, Huron County Composting Facility and Punch Card Program.

The draft Plan Update includes a demonstration of access to landfill capacity and determines there are more than fifteen years of landfill capacity available to the District. Based on the landfills used to manage waste generated in the District during the 2014 reference year for the planning period, landfills had an average life expectancy of more than 46 years.

Under this Plan, the Board of Commissioners is authorized to designate facilities in accordance with Section 343.014, 343.014 and 343.015 of the Ohio Revised Code. The Huron County Transfer Facility is the only designated solid waste facility that can accept solid waste generated within the District unless a waiver is granted by the Board of County Commissioners of the District.

The draft Plan Update includes existing District rules contained in Section IX. The District is not proposing to change existing rules or create new rules.

The draft Plan Update complies with State Plan Goal #1: Providing Access to Waste Reduction Opportunities. The District will continue to provide access to recycling and waste minimization opportunities for municipal solid waste to its residents and businesses.

The District currently partially funds plan programs and current operations through a tipping fees collected at the Huron County Transfer Station. Currently, the tipping fee is \$54.00 per ton of solid waste delivered. Tipping fees are subject to change without

notice based on economic and other operating reasons. The District also collects a generation fee of \$4.50/ton for all solid waste generated with the District and disposed at all Ohio based transfer stations or landfills. The District projects increases in the generation fee in 2023 and 2028 but those increases are not being approved with the implementation of the Plan Update. A separate process for generation fee increases will occur if the increases are needed.

The District will hold a public hearing to obtain oral comments regarding the draft Plan Update on Thursday, April 13, 2017, at 9:00 AM at the Huron County Administrative Building, 180 Milan Avenue, Norwalk, Ohio 44857.

The District will accept written comments as required by Ohio Revised Code Section 3734.55 on the draft Plan Update from March 9, 2017 until April 7, 2017. Written comments should be sent to Mr. Pete Welsh, Huron County Solid Waste Management District, 180 Milan Avenue, Norwalk, Ohio 44857.

The draft Plan Update is available for review on the District's website at <http://www.huroncountyswmd.com>, and at the following locations during normal business hours:

- Huron County Solid Waste Management District Office, 180 Milan Avenue, Norwalk, Ohio 44857
- Huron County Transfer Station, 2415 Townline Rd 131 W, Willard, Ohio 44890

Please contact the District at 419-668-3092 with any questions about the Plan Update.

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- Huron County Transfer Station, 2415 Townline Rd 131 W, Willard, Ohio 44890

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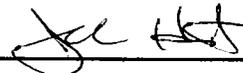
APPENDIX C

RESOLUTIONS AND CERTIFICATION STATEMENTS



CERTIFICATION STATEMENT FOR THE DRAFT PLAN

We as representatives of the Solid Waste Management Policy Committee (SWMPC) of the Huron County Solid Waste Management District (District), do hereby certify that to the best of our knowledge and belief, the statements, demonstrations and all accompanying materials that comprise the draft District Solid Waste Management Plan Update, and the availability of and access to sufficient solid waste management facility capacity to meet the solid waste management needs of the District for the fifteen year period covered by the Plan Update are accurate and are in compliance with the requirements in the *District Solid Waste Management Plan Format*, revision 3.0.

x  _____

Representing the County Commissioners

4-28-16

Date Signed

Representing CEO of Largest City

Date Signed

 _____

Representing County Health Department

04/28/2016

Date Signed

x  _____

Representing Townships

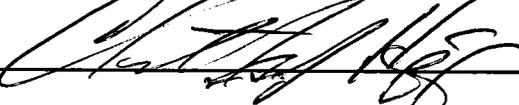
4-28-2016

Date Signed



Representing Commercial/Industrial Generators

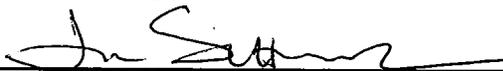
Date Signed

x  _____

Representing the General Interests of Citizens

4/28/16

Date Signed

 _____

Representing the Public

4/28/16

Date Signed



APPENDIX D

IDENTIFICATION OF CONSULTANTS RETAINED FOR PLAN PREPARATION



Identification of Consultants for Plan Preparation



Consulting Firm: GT Environmental, Inc.
635 Park Meadow Road
Suite 112
Westerville, Ohio 43081

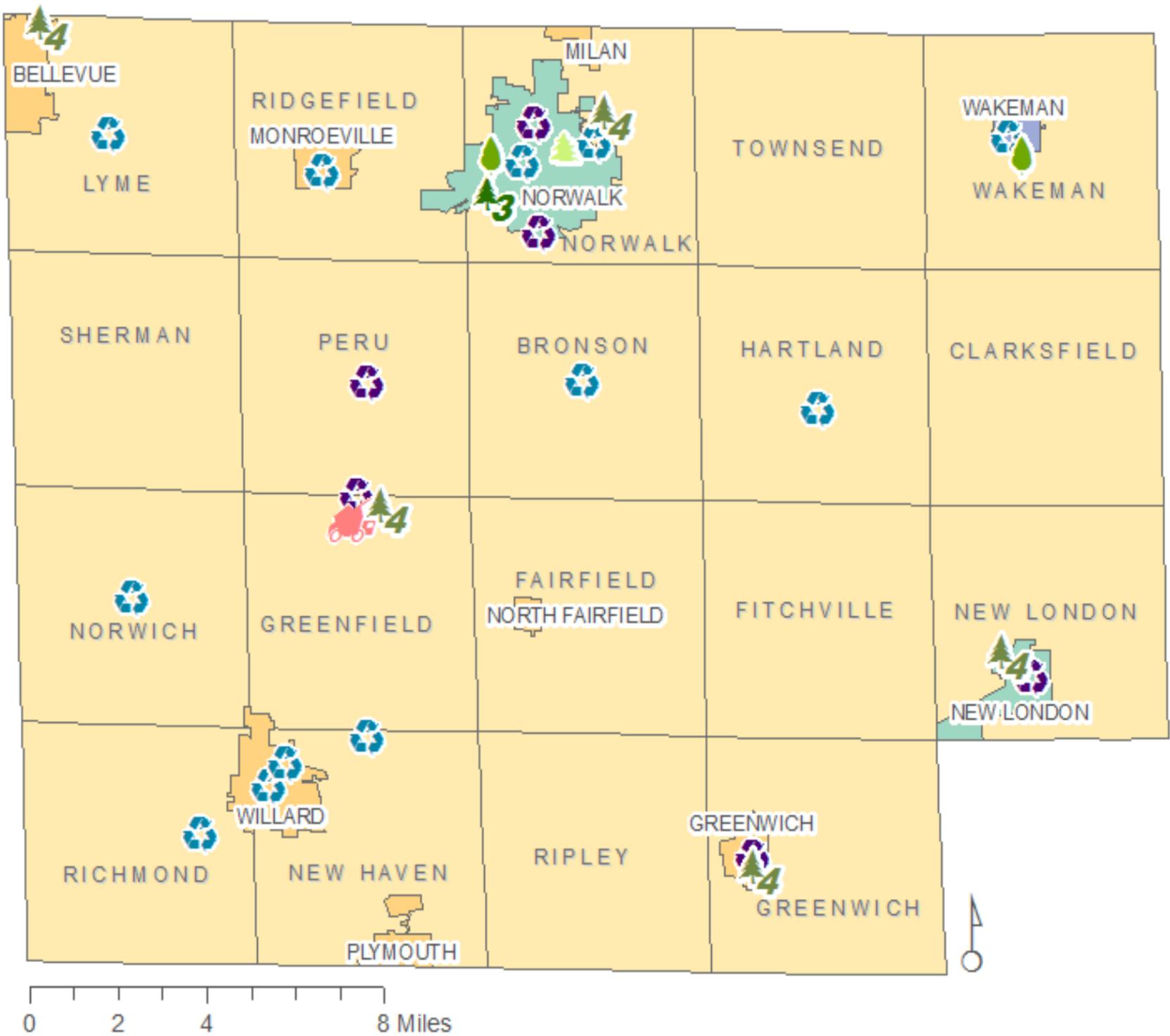
Project Manager: James A. Skora
Senior Manager
(330) 689-1105
(330) 688-6211 Fax



APPENDIX E
DISTRICT MAP



DISTRICT MAP



	Registered Class III Composting Facility		Full-Time Drop-Off
	Registered Class IV Composting Facility		Part-Time Drop-Off
	Yard Waste Land Application		Non-Subscription Curbside Recycling
	Residential Curbside Yard Waste Collection		Subscription Curbside Recycling
	Transfer Stations		



APPENDIX F

INDUSTRIAL SURVEY RESULTS



Appendix F
Huron County Solid Waste Management District
Amount of Industrial Waste Recycled by Standard Industrial Classification (SIC) Category (Tons) as Reported on Industrial Surveys

Type of Waste	20	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	Total
Cardboard	894.4	-	-	-	-	870.0	498.0	-	-	18.0	-	-	61.5	-	1.3	-	-	-	-	2,343.2
Paper	12.9	-	-	8.5	-	255.0	31,624.0	-	-	1.0	-	1.0	-	-	3.0	-	-	-	2.0	31,907.4
Wood	-	-	-	10.0	-	1.2	-	-	-	28.0	-	-	0.5	-	-	-	-	-	-	39.7
Ferrous Metals	41.4	-	-	1.0	-	-	85.0	-	-	-	-	-	5,013.0	-	0.6	-	-	1.8	10.0	5,152.8
Non-Ferrous Metals	-	-	-	-	-	-	575.0	-	-	-	-	-	376.0	-	16,021.4	-	-	1.8	-	16,974.2
Glass	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	53.0	-	54.0
Plastic	15.2	-	-	-	-	-	-	-	-	3,007.0	-	-	-	0.5	57.9	-	-	1,141.6	-	4,222.2
Food	838.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	838.6
Dry-Cell Batteries	0.2	-	-	-	-	-	1.0	-	-	-	-	1.5	-	-	3.4	-	-	-	-	6.1
Textiles	-	-	-	-	-	-	130.0	-	-	-	-	-	-	-	-	-	-	-	-	130.0
Non-Exempt Foundry Sand	-	-	-	-	-	-	-	-	-	-	-	-	20.0	-	-	-	-	-	-	20.0
Composites	-	-	-	-	-	-	1,160.0	-	-	-	-	-	-	-	-	-	-	-	-	1,160.0
Total	1,802.7	-	-	19.5	-	1,126.2	34,073.0	-	-	3,054.0	-	2.5	5,471.0	1.5	16,087.7	-	-	1,198.2	12.0	62,848.3

Source(s) of information:
CY 2014 Industrial Survey Responses

Appendix F
Huron County Solid Waste Management District
Amount of Industrial Waste Disposed by Standard Industrial Classification (SIC) Category (Tons) as Reported on Industrial Surveys

Type of Waste	20	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	Total
Cardboard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plastic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dry-Cell Batteries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Textiles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Exempt Foundry Sand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Composites	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed Solid Waste	293.4	-	-	-	-	-	1,183.6	-	-	25.9	-	2.6	11.5	-	687.0	-	-	-	141.5	2,345.4
Total	293.4	-	-	-	-	-	1,183.6	-	-	25.9	-	2.6	11.5	-	687.0	-	-	-	141.5	2,345.4

Source(s) of information:
CY 2014 Industrial Survey Responses

Appendix F
Huron County Solid Waste Management District
Amount of Industrial Waste Generated by Standard Industrial Classification (SIC) Category (Tons) as Reported on Industrial Surveys

Type of Waste	20	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	Total
Cardboard	894.4	-	-	-	-	870.0	498.0	-	-	18.0	-	-	61.5	-	1.3	-	-	-	-	2,343.2
Paper	12.9	-	-	8.5	-	255.0	31,624.0	-	-	1.0	-	1.0	-	-	3.0	-	-	-	2.0	31,907.4
Wood	-	-	-	10.0	-	1.2	-	-	-	28.0	-	-	0.5	-	-	-	-	-	-	39.7
Ferrous Metals	41.4	-	-	1.0	-	-	85.0	-	-	-	-	-	5,013.0	-	0.6	-	-	1.8	10.0	5,152.8
Non-Ferrous Metals	-	-	-	-	-	-	575.0	-	-	-	-	-	376.0	-	16,021.4	-	-	1.8	-	16,974.2
Glass	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	53.0	-	54.0
Plastic	15.2	-	-	-	-	-	-	-	-	3,007.0	-	-	-	0.5	57.9	-	-	1,141.6	-	4,222.2
Food	838.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	838.6
Dry-Cell Batteries	0.2	-	-	-	-	-	1.0	-	-	-	-	1.5	-	-	3.4	-	-	-	-	6.1
Textiles	-	-	-	-	-	-	130.0	-	-	-	-	-	-	-	-	-	-	-	-	130.0
Non-Exempt Foundry Sand	-	-	-	-	-	-	-	-	-	-	-	-	20.0	-	-	-	-	-	-	20.0
Composites	-	-	-	-	-	-	1,160.0	-	-	-	-	-	-	-	-	-	-	-	-	1,160.0
Mixed Solid Waste	293.4	-	-	-	-	-	1,183.6	-	-	25.9	-	2.6	11.5	-	687.0	-	-	-	141.5	2,345.4
Total	2,096.1	-	-	19.5	-	1,126.2	35,256.6	-	-	3,079.9	-	5.1	5,482.5	1.5	16,774.7	-	-	1,198.2	153.5	65,193.7

Source(s) of information:
CY 2014 Industrial Survey Responses



APPENDIX G

HURON-NORWALK OPERATIONS STUDY



COMPREHENSIVE STUDY OF THE SOLID WASTE DISPOSAL/COLLECTION OPERATIONS

Final Report



Prepared by



November 21, 2014

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 APPENDIX B	 Huron County Auditor Household Count for Norwalk

I. INTRODUCTION

GT Environmental, Inc. (GT) was hired by Huron County and the City of Norwalk to complete a comprehensive study of solid waste disposal management practices within Huron County and waste/recycling collection services provided by the City of Norwalk (Huron/Norwalk). GT reviewed the current solid waste management systems of Huron/Norwalk to develop strategies to reduce operating costs and/or eliminate or privatize either service. Huron/Norwalk required the Study to include, at a minimum, the following components:

1. Operational evaluation and costs analysis of the Huron County Transfer Station and City of Norwalk's Sanitation Department.
2. Economic feasibility of facility designation (flow control) in Huron County, including social-economic ramifications.
3. Economic feasibility of privatizing waste collection services in the City of Norwalk.
4. Economic feasibility of privatizing and/or eliminating the waste and recycling services provided by the Huron County Transfer Station.
5. Cost reduction measures recommendations.

The following sections provide detailed explanations of the data collection and analyses processes conducted for this project.

II. CURRENT OPERATIONS ANALYSIS

The purpose of this task was to collect information regarding the current solid waste management practices and operations of Huron-Norwalk. This information was used in Section III to compare to similar operations in the region and state.

A. Huron County Transfer Station



The Huron County Transfer Station (HCTS) began receiving mixed solid waste in September 1998. Prior to that date, the facility operated as a material recovery facility for recyclables. The transfer station has continued to process waste and a small amount of recyclables, with more than 98 percent of the mixed solid waste (or trash) originating from Huron County. Table II-1 shows the tons of trash and recyclables received at the facility during the past five years. The data indicates that general solid waste comprises

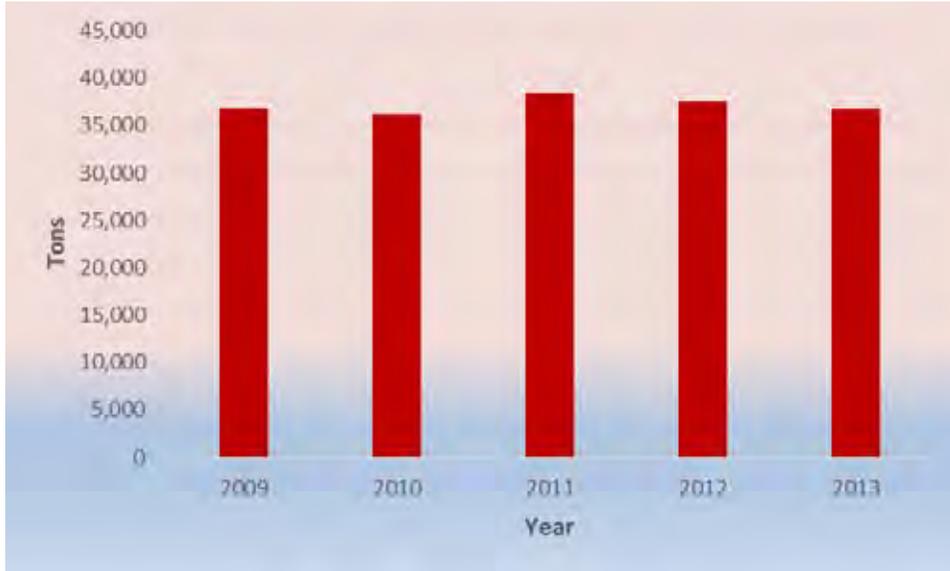
approximately 75 to 80 percent of the trash received, while industrial waste contributes 16 to 19 percent.

Table II-1 – Receipts at Huron County Transfer Station

Materials Processed			Year					
			2009	2010	2011	2012	2013	
Trash	In-district	General Solid Waste	29,163	28,306	30,477	27,823	28,250	
		Industrial	6,126	5,880	6,023	7,067	6,684	
		Exempt	940	1,552	1,562	2,062	1,308	
		Totals	36,229	35,738	38,062	36,952	36,243	
	Out-of-district	General Solid Waste	605	412	412	540	472	
		Industrial		73				
		Exempt						
		Totals	605	485	412	540	472	
	Grand Totals			36,834	36,223	38,474	37,492	36,716
	% of Grand Totals In-district			98.4%	98.7%	98.9%	98.6%	98.7%
Recyclables			0	725	525	739	573	

Total receipts of trash at the transfer station have remained quite consistent since 2009, averaging 37,148 tons per year. (See Figure II-1.) In 2009, the County sent the waste from the transfer station to the Noble Road Landfill in Richland County. However, for years 2010 through 2013, the transfer station has delivered all of its waste to the Erie County Landfill. The contract to dispose of the solid waste from the HCTS at the Erie County Landfill consists of a price for transportation and disposal including all fees for an amount of \$27.00 per ton in 2013 and 2014.

Figure II-1 – Solid Waste Receipts at Huron County Transfer Station



Charges for specific items brought to the transfer station include the following:

- \$3.00 for car tires
- \$4.50 for truck tires
- \$10.00 for semi tires
- \$25.00 for tractor tires
- \$20.00 for refrigerators, freezers, and dehumidifiers containing Freon
- \$20.00 per ton for yard waste

Revenues and expenditures for operating the Huron County Transfer Station are shown in Table II-2. Total expenditures, which are estimated at nearly \$1,971,835 per year, includes the operation of the transfer station as well as costs for recycling programs and maintaining the closed Huron County Landfill. Using the 2012 estimate of county population, the per capita expenditure for these programs is approximately \$37 per person per year. The following table summarizes the gate rate per ton that the City of Norwalk paid, according to their records, at the transfer station:

Table II-2 – County Transfer Station Gate Rates

Year	Gate Rate/Ton
1999	\$46.00
2000	\$46.00
2001	\$46.00
2002	\$46.00
2003	\$46.00
2004	\$46.00

Year	Gate Rate/Ton
2005	\$49.00
2006	\$50.50
2007	\$50.50
2008	\$50.50
2009	\$58.25
2010	\$54.00
2011	\$54.00
2012	\$54.00
2013	\$54.00

The following table summarizes the customers that use the transfer station in 2013 along with the tons delivered by customer:

Table II-3 – County Transfer Station Tons Delivered by Customers

Customer	Tons	Gate Fee	Revenue	% of Total Revenue
Republic	11,513.52	\$54.00	\$621,730.08	31.36%
Other (small commercial haulers)	4,423.59	\$54.00	\$238,873.86	12.05%
City of Norwalk	4,336.30	\$54.00	\$234,160.20	11.81%
Armatrout	3,756.06	\$54.00	\$202,827.24	10.23%
Rumpke	2,923.08	\$54.00	\$157,846.32	7.96%
Norwalk Waste Materials	2,865.17	\$54.00	\$154,719.18	7.80%
Cash Customers	2,635.36	\$54.00	\$142,309.44	7.18%
New London Village	1,859.88	\$54.00	\$100,433.52	5.07%
Fultz and Son	1,394.08	\$54.00	\$75,280.32	3.80%
Townships	1,008.55	\$54.00	\$54,461.70	2.75%
Total	36,715.59		\$1,982,641.86	100.00%

*The totals presented above are on a cash basis for the year 2013 and vary slightly from the reported tipping rate provided in the County's overall revenue for 2013.

B. Huron County Landfill

The County operated a municipal solid waste landfill from 1969 to 1998. The now closed landfill is maintained by the County. From 1974-1998, the following gate rate per ton was paid by the City of Norwalk according to their records:



Table II-4 – County Gate Rates

Year	Gate Rate/Ton
1974	\$3.00
1975	\$3.00
1976	\$3.50
1977	\$4.00
1978	\$4.00
1979	\$4.00
1980	\$6.00
1981	\$6.00
1982	\$6.00
1983	\$6.00
1984	\$6.00
1985	\$6.00
1986	\$9.00
1987	\$9.00
1988	\$16.00
1989	\$22.00
1990	\$32.00
1991	\$36.00
1992	\$65.00
1993	\$46.00
1994	\$46.00
1995	\$46.00
1996	\$46.00
1997	\$46.00
1998	\$46.00



The long term post closure care of the landfill is required by Ohio law until 2028. The County's consultant, Malcom Pirnie, has prepared an annual estimate on the cost of the post closure care which is summarized below:

Table II-5 – County Landfill Post Closure Annual Estimate

Description	Amount
Inspection and Reporting	\$34,000.00
Groundwater Monitoring	\$40,000.00
Explosive Gas Migration	\$2,500.00
Leachate Monitoring	\$2,000.00
Surface Water Monitoring	\$16,500.00
Leachate Collection O&M	\$71,000.00
Groundwater Monitoring O&M	\$5,000.00
Explosive Gas Extraction O&M	\$7,000.00
Explosive Gas Monitoring O&M	\$2,000.00

Description	Amount
Utilities of Operation	\$12,000.00
Maintenance of Cover	\$36,000.00
Surface Water System O&M	\$8,000.00
Access Control O&M	\$3,000.00
Total Annual Estimate	\$239,000.00

The largest expense for the post closure care is the collection, transportation and disposal of leachate generated from the landfill. The following table summarizes the last 4 years of leachate management expenses for the County:

Table II-6 – County Leachate Management Expenses

Year	Gallons Disposed	Total Cost
2010	687,117	\$39,058.99
2011	1,451,309	\$61,123.84
2012	776,473	\$34,209.12
2013	981,822	\$45,568.97
2014*	797,963	\$33,838.33
Averages (2010-2013)	974,180	\$44,990.23

*The data for 2014 represents year-to-date through August.

The County currently sends the leachate to the Shelby Waste Water Treatment Plant in Shelby, Ohio for a price of \$0.015 per gallon for disposal. The Shelby facility is located approximately 19 miles from the County landfill. The County is charged \$0.025 per gallon for transportation by a third party hauler plus a 15% fuel surcharge.

C. Huron County Solid Waste Management District

The County operates the solid waste management district (District). The District is responsible for the development and implementation of a solid waste management plan that meets the requirements in the Ohio Revised Code as well as the goals established in the State's solid waste management plan. Each solid waste district is required to meet two primary objectives when developing a solid waste plan:



- Reduce the reliance on landfills for disposal (Goals 1, 2, 3, 4, 5 and 7 below); and

- Ensure that adequate capacity for disposal is available for the solid waste generated in the solid waste district (previous landfill operation and current transfer station operation by District/County).

To meet the above listed objectives, each solid waste district must demonstrate that the following 1995 State Plan Goals are achieved:

Goal #1 Ensure the availability of reduction and recycling opportunities/programs for residential/commercial waste.

Goal #2 Reduce and/or recycle at least 25% of the residential/commercial waste generated and 50% of the industrial waste generated.

Goal #3 Provide informational and technical assistance on source reduction.

Goal #4 Provide informational and technical assistance on recycling, reuse and composting opportunities.

Goal #5 Develop strategies managing scrap tires and household hazardous waste (HHW).

Goal #6 Annual reporting of plan implementation.

Goal #7 Prepare a market development strategy (optional).

The District operates several programs including a recycling drop-off program. The drop-off program includes the following 16 sites:

Table II-7 – District Drop-Off Program Sites

Location	Materials Accepted	Site Operations			
		Even Months	Odd Months	Every Month	Daily
Bronson Township	Comingle	3 rd Saturday			
New Haven	Source Separated	1 st Saturday			
Norwich Township	Source Separated		1 st Saturday		
Richmond Township	Comingle		2 nd Saturday		
Hartland Township	Comingle			1 st Saturday	
Lyme Township	Comingle			Last Saturday	
Norwalk Township	Source Separated			1 st Saturday	

Location	Materials Accepted	Site Operations			
		Even Months	Odd Months	Every Month	Daily
Ridgefield	Comingle			Last M and T	
Wakeman Township	Paper and Aluminum			2 nd Saturday	
Huron County Transfer Station	All Materials				Operating Hours
Shady Lane (Norwalk)	Paper, OCC, Cans				Operating Hours
Huron Administration (Norwalk)	Paper, OCC, Cans				Operating Hours
New London	Paper, OCC				Operating Hours
Willard City Schools	Paper, OCC				Operating Hours
Willard	OCC, Cans				Wed 11-1 Sat/Sun 12-1
Greenwich	OCC, Cans				Operating Hours



The above sites generated approximately 500 tons of recyclables in 2013. The District processes all mixed paper, cardboard, bi-metals cans and aluminum cans by baling each material and selling on the open market. In 2013, this yielded \$33,075. This revenue amount also includes scrap metals consisting of appliances without Freon, stoves, washers, other metal including shelves, wire, pipe, bikes and lawn mowers.

In addition, the District relies on its member communities (through curbside recycling and yard waste management programs), institutions, commercial businesses and industrial business (through waste diversion efforts) to meet the state plan goals.

The following table summarizes the 2013 cost to operate the drop-off program:

Table II-8 – District Drop-Off Program Expenses

Program Category	Expenditures	Cost/Ton Managed	Percentage of Total
<i>Drop-Off Program</i>			
Salaries & Benefits	\$16,705	\$29.15	48.33%
Truck Fuel and	\$28,565	\$49.85	82.64%

Program Category	Expenditures	Cost/Ton Managed	Percentage of Total
Drop-Off Program			
Maintenance			
County Processing Cost	\$5,730	\$10.00	16.58%
Republic Processing Cost	\$5,220	\$9.11	15.10%
Minus Revenue	-\$21,653	-\$37.79	-62.64%
Subtotal	\$34,567	\$60.33	100.00%
Total Tons Managed (Transfer and Recycle)	573		
County Population	59,280		
Per Capita Expenditures	\$0.58		
Cost Per Ton Managed	\$60.33		

D. County Staffing

The County employs five full time employees that work at the landfill, transfer station, recycling facility and recycling drop-off program operations. In addition, the salary of the District Coordinator is partially covered by the expenses of the County operations listed above. The following table summarizes the responsibilities of the employees:

Table II-9 – County Employees’ Responsibilities

Title	Employee Allocation by Program		
	Landfill/ Transfer Station	Recycling Drop-Off	District
District Coordinator	.5	0	.2
Supervisor	.9	.1	0
Operator	2.5	.5	0
Scale Clerk	1	0	0
Education Specialist	0	0	1
Casual Employee	2*	0	0
Total	4.9 - 6.9*	.6	1.2

*On an as needed basis.

E. County Financial Report for 2013

The County accounts for the operation of the landfill, transfer station and solid waste management district through funds. The following is an explanation of each fund:

Fund 500

This fund accounts for the operation of the transfer station, post closure activities related to the landfill, recycling facility operations, recycling drop-off operations, solid waste district fees/revenue and recycling revenue.

Fund 505

This fund accounts for equipment purchased in support of Fund 500.

Fund 510

This fund is not used currently but was in the past used for construction related expenses for the now closed landfill.

Fund 520

This fund accounts for the debt payments currently made by the County on the landfill and transfer station.

Fund 525

This fund accounts for the revenue and expenses related to the operation of the solid waste district programs other than those listed in Fund 500.

The following tables summarizes the revenues and expenses for the County for all operations by fund.

Table II-10A – 2013 County Revenues

Program Category	Revenue	Revenue/Ton Managed	Percent of Total
<i>Fund 500 - Landfill</i>			
Transfer Station Receipts/ Generation Fees	\$1,912,199	\$51.28	94.49%
Misc. Receipts	\$1,815	\$0.05	0.09%
Sale of Recyclables	\$33,075	\$0.89	1.63%
Subtotals	\$1,947,089	\$52.22	96.21%
<i>Fund 505 - Landfill Equipment</i>			
<i>Equipment</i>	\$72,001	\$1.93	3.56%
<i>Fund 510 - Landfill Construction</i>			
<i>Interest</i>	\$1	\$0.00	0.00%
<i>Fund 525 - Landfill Solid Waste</i>			
Misc. Revenue	\$4,650	\$0.12	0.23%
Subtotal	\$4,650	\$0.12	0.23%
Totals	\$2,023,740	\$54.27	100.00%

Program Category	Revenue	Revenue/Ton Managed	Percent of Total
Total Tons Managed (Transfer and Recycle)	37,289		
County Population	59,280		
Per Capita Revenues	\$34.14		
Revenue Per Ton Managed	\$54.27		

Table II-10B – 2013 County Expenditures

Program Category	Expenditures	Cost/Ton Managed	Percentage of Total
Fund 500 - Landfill			
Salaries & Benefits	\$337,466	\$9.05	17.11%
Dist./Local Fees	\$118,570	\$3.18	6.01%
Contract Service	\$1,246,366	\$33.42	63.21%
All other Fund 500 Expenses	\$969	\$0.03	0.05%
Subtotals	\$1,703,370	\$45.68	86.39%
Fund 505 - Landfill Equipment			
Equipment	\$31,462	\$0.84	1.60%
Fund 510 - Landfill Construction			
Construction	\$0	\$0.00	0.00%
Fund 520 - Landfill Bonds			
Bonds/Debt Payments	\$29,100	\$0.78	1.48%
Fund 525 - Landfill Solid Waste			
Salaries & Benefits	\$72,361	\$1.94	3.67%
Recycling Programs	\$129,735	\$3.48	6.58%
Other Expenses	\$5,807	\$0.16	0.29%
Subtotal	\$207,903	\$5.58	10.54%
Totals	\$1,971,835	\$52.88	100.00%
Total Tons Managed (Transfer and Recycle)	37,289		
County Population	59,280		
Per Capita Expenditures	\$33.26		
Cost Per Ton Managed	\$52.88		

The bonds listed above are related to debt on the landfill and transfer station. The debt is scheduled to be retired by the end of 2030.

F. City of Norwalk Curbside Collection

The City of Norwalk is the county seat for Huron County, and had a population estimated at 16,931 in 2012. The City reported the number of households serviced by the Sanitation Department to be 7,200. GT requested an audit of the number of households and was provided a document prepared in 1999 that

indicated 6,356 initially, then adjusted to 6,980 homes because of new development and annexations. Another document prepared by Malcom Pirnie in 2007 indicated 6,665 homes. GT calculated the number of households based on the average persons per household from the Ohio Development Services Agency of 2.59. Using this statistic, there are 6,537 total households in the City. The City only services single family homes, mobile home and multi-family homes up to 3 units. All residential households that are 4 units or more are considered commercial and are not picked-up by the City.

Because of the variances in household data listed above and the need to limit the household count to homes or apartments/condos that are 3 units or less, GT requested the following regarding the number of households in the City from the County Auditor’s office (see Appendix B):

Number of households per the following break out:

- Single family/Mobile Homes
- 2 unit apartments/condo
- 3 unit apartments/condo
- >3 unit apartments/condo

The Auditor’s office supplied the following information:

Table II-11 – City Households

Description	Quantity
Single family (including mobile homes)	6,028
2 unit apartments/condo	
3 unit apartments/condo	

This report will rely on the above housing counts for all single family homes through apartments with up to 3 units totaling 6,028.

The City’s Sanitation Department provides residents with manual collection services for garbage (or trash), and recyclables each week, and weekly collection of yard waste from May through October. In addition, the City pays the Streets Department to provide leaf collection in the fall. Bulk items are also collected on the trash routes.

The City utilizes the following staff to operate the above services:

Table II-12 – City Sanitation Department Employees

Title	Trash	Recycling	Yard Waste	Compost Site
Superintendent	0.25	0.25	0.25	0.25
Assistant Superintendent/ Mechanic	0.25	0.25	0.25	0.25
Full Time Laborer	2	2	1	0
Floater Full Time Laborer	0.25	0.25	0.25	0.25
Part Time Employee	2	0	0	1
Total	4.75	2.75	1.75	1.75

The following section summarizes each service provided by the Sanitation Department:

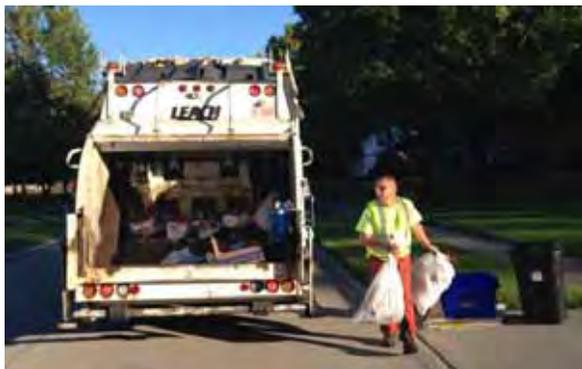
Trash Collection



City crews collect trash and bulky items (furniture, mattress, large items) weekly with two routes per day for each day of the week (Monday-Friday). Each route utilizes a rear load packer truck with two employees. One employee is full time and one is part time.

Residents are permitted to place up to three 33-gallon trash bags not weighing more than 40 pounds at the curb each week. Bulky items or extra bags can also be placed at the curb if the resident purchases a tag sticker for each additional item. Tags cost \$3.00 for each additional bag and \$10.00 for each large item. Tags are available at City Hall for purchase. Residents are allowed to set out three large items or nine extra trash bags for pickup at no additional charge during a special collection week, usually in mid-April.

Recyclables Collection



City crews collect recyclables (paper, plastic, glass, steel and aluminum cans) weekly with two routes per day for each day of the week (Monday-Friday). Each route utilizes a rear load packer truck with one full time employee. One route collects only paper products and the other route collects commingled recyclables (plastic, glass, steel and aluminum cans).

Residents place their paper products (cardboard, newspaper, junk mail, magazines) in a City-provided 18-gallon recycling bin. Commingled recyclables can be placed into any plastic garbage bag but must have a separate recycling sticker to indicate that the bag contains recyclables and not trash. The stickers are free of charge and can be picked up at local grocery stores.



Yard Waste Collection



City crews collect yard waste (brush, leaves and grass) weekly, April 28th through October 31st, with one route per day for each day of the week (Monday-Friday). The route utilizes a rear-load packer truck with one full time employee.

Residents are permitted to place up to two 33-gallon cans not weighing more than 40 pounds or bundles of yard waste each week. Cans must be marked clearly as “yard waste”. Bundles must be tied and less than 4 feet in length and also weigh 40 pounds or less.

Yard Waste Site



The City operates a yard waste drop-off site for City crews to deposit collected yard waste from the weekly routes and also for residents (not commercial) to use April through November on Fridays-Sundays (10 am to 6 pm). A part time employee works at the site.

The City brings in a yard waste grinding company several times throughout the year to process the collected yard waste and transported off site. The City (through its Streets Department) also collects leaves annually which are also delivered to the yard waste site. The leaves are processed by the yard waste grinding company and staged for residents to use the finished leaf compost for free. The cost of leaf collection is paid for by the sanitation department.

Curbside Collection Summary

All of the residential curbside collection services offered by the City and detailed above work in unison to provide a comprehensive system of solid waste management for City residents. The collection crews work together to collect the materials in an efficient manner for a manual system. Trash collection crews will assist the recycle crews by staging recyclables from stops in a central location on

the route. The two recycle crews will assist each other by either moving up low volume recyclables set-outs to other stops or consolidate materials.

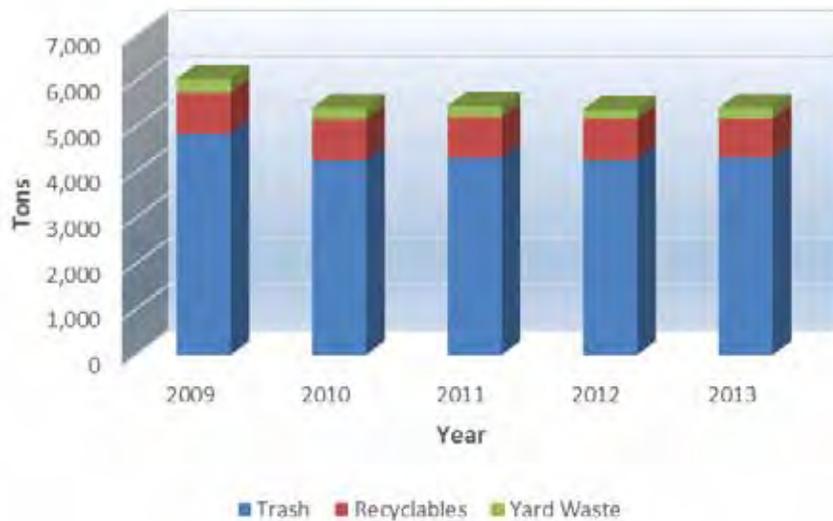
Table II-13 shows the tons of waste disposed as well as the amount of recyclables and yard waste collected by the City from 2009 through 2013.

Table II-13 – Tons Disposed, Recycled

Material	Year				
	2009	2010	2011	2012	2013
Trash	4,836	4,274	4,307	4,277	4,315
Recyclables	899	878	900	888	846
Yard Waste	310	253	243	202	244
Totals	6,045	5,405	5,450	5,367	5,405

Collection of trash was 12 to 13 percent higher in 2009 compared to subsequent years, and yard waste collected was also higher in 2009 by 23 to 53 percent. Figure II-2 is a graphical representation of the collection of trash, recyclables, and yard waste during the five-year period.

Figure II-2 – Tons of Solid Waste Collected: 2009 – 2013



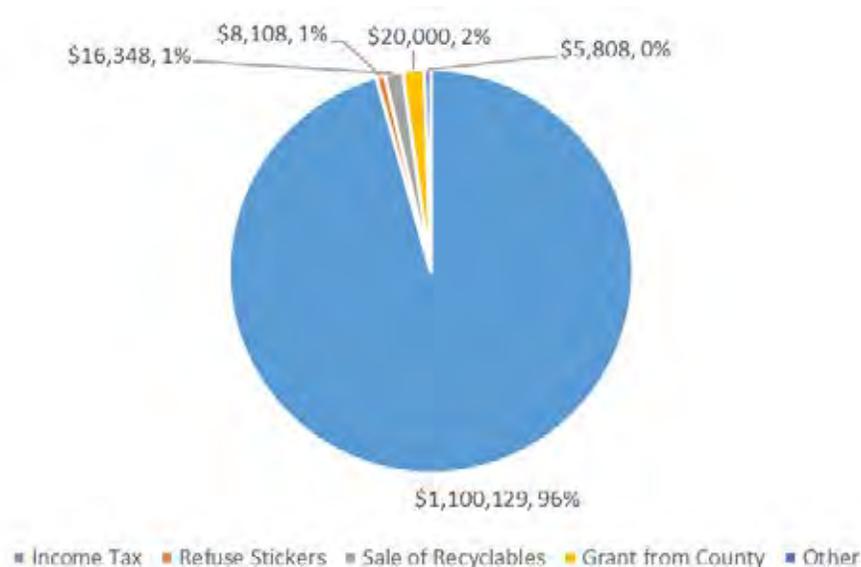
In 2013, Norwalk collected revenues of approximately \$1,150,000, with the majority of the revenue generated from a 0.25% City income tax. The income tax was approved by the voters in 1991. The tax is collected by employers located within the City. Residents that work outside of Norwalk do not pay the income tax. Residents who reside in other communities but work in the City pay the tax.

Table II-14 – 2013 Norwalk Sanitation Department Revenue

Category	Revenue	Revenue/ Ton Managed	Percent of Total
Income Tax	\$1,100,129	\$203.53	95.63%
Refuse Stickers/Tags	\$8,108	\$1.50	0.70%
Recycling Containers	\$25	\$0.00	0.00%
Sales of Recyclables	\$16,348	\$3.02	1.42%
Grant from County	\$20,000	\$3.70	1.74%
Workers Comp Refund	\$5,699	\$1.05	0.50%
Misc. Revenue	\$84	\$0.02	0.01%
Totals	\$1,150,393	\$212.83	100.00%
Total Tons Managed (Transfer and Recycle)	5,405		
City Population	16,833		
Per Capita Expenditures	\$68.34		
Revenue Per Ton Managed	\$212.83		

Figure II-3 shows that other revenue sources such as refuse stickers sold to collect additional materials, the sale of assets (e.g., recyclable paper which is sold), and other sources accounted for a combined total of only 4 percent of the total revenues.

Figure II-3 – Revenue Sources for Norwalk Collection Services



Norwalk expended a total of \$946,349.07 to provide collection services in 2013. The following table summarizes the expenses in 2013:

Table II-15 – 2013 City Sanitation Department Expenses

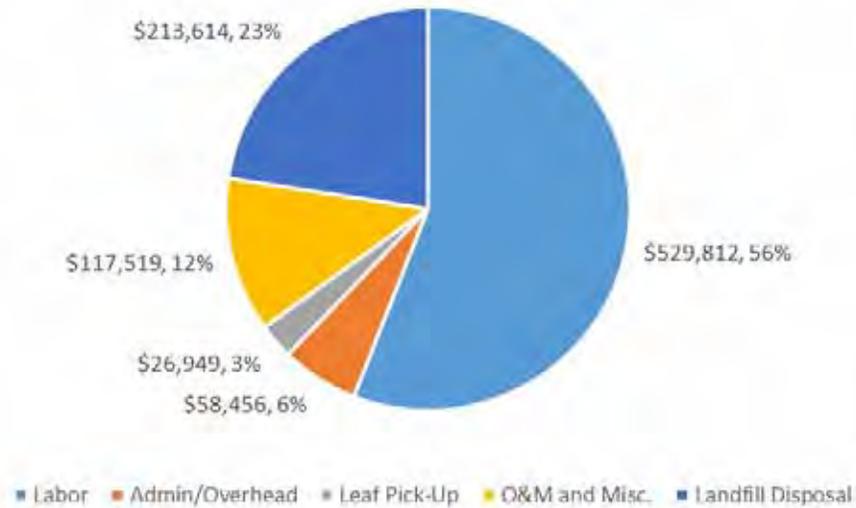
Category	Expenditures	Cost/Ton Managed	Percent of Total
Salaries & Benefits	\$529,812	\$98.02	55.98%
Administration/Overhead	\$58,456	\$10.81	6.18%
Supplies/Equipment/Maintenance	\$107,262	\$19.84	11.33%
Landfill Charges*	\$213,614	\$39.52	22.57%
Leaf Pick-Up	\$26,949	\$4.99	2.85%
Contractual Services	\$9,588	\$1.77	1.01%
Miscellaneous Expense	\$669	\$0.12	0.07%
Totals	\$946,350	\$175.08	100.00%
Total Tons Managed (Transfer and Recycle)	5,405		
City Population	16,833		
Per Capita Expenditures	\$56.22		
Cost Per Ton Managed	\$175.08		

*The City receives a \$25,000 credit on its invoices towards the end of the year from the County per an agreement signed by both the City and County. Based on this amount and the 2013 tons disposed, the City had an effective rate reduction for disposal from \$54/ton to \$48/ton. This reduction equates to \$0.34/household per month credit or subsidy from the County. The City also receives a \$10,000 grant from the County for the curbside recycling program or \$0.14/household per month. In 2013, the City showed a grant receipt of \$20,000 from the County or \$0.28/household/month.

The largest expenditure was salaries and benefits at 56%. The next largest expenditure category was landfill charges at 23%. Both trash and recyclables were delivered to County owned and operated facilities. Figure II-4 shows the dollar amounts spent and the percentages for the categories of expenditures.¹

¹ In 2014, the City has arranged to have recyclables processed without charge by a private hauler. As a result, the total expenditures for 2014 will not include costs for “recycling processing.”

Figure II-4 – Expenditures Categories for Norwalk Solid Waste Services



The following table summarizes the City's expenditures, unencumbered fund balance and cost per household from 2009-2013:

Table II-16 – City Expenditures, Unencumbered Fund Balance and Household Costs

Year	Expenses	Unencumbered Fund Balance	Cost/ Household/ Year	Cost/ Household/ Month With Leaf Collection	Cost/ Household/ Month Without Leaf Collection
2009	\$1,349,222.91	\$597,759.64	\$223.83	\$18.65	\$17.61
2010	\$1,014,967.62	\$660,211.23	\$168.38	\$14.03	\$13.45
2011	\$947,972.18	\$758,141.81	\$157.26	\$13.11	\$12.74
2012	\$1,149,105.73	\$750,338.80	\$190.63	\$15.89	\$15.53
2013	\$946,349.07	\$954,752.82	\$156.99	\$13.08	\$12.71
Average	\$1,081,523.50	\$744,240.86	\$179.42	\$14.95	\$14.41

Notes: For the years 2009 and 2012, the City purchased trash trucks. In addition, in 2009, the City contributed over \$75,000 in leaf collection subsidy to the street department. This subsidy has been reduced to \$26,000 in 2013.

III. INFORMATION FROM OTHER COMMUNITIES

A. Communities Surveyed Which Provide Own Collection Services

A number of communities were surveyed to obtain information regarding collection of trash, recyclables, yard waste, and other types of solid waste. Data was also gathered from previously-conducted studies and annual financial reports prepared by communities to meet State of Ohio Auditor requirements. Criteria used to select communities for comparison to City of Norwalk/Huron County included:

- Cities providing their own collection services;
- Cities hauling waste to a publicly-owned transfer station located near the city;
- Cities and counties similar in size (i.e., population) to the City of Norwalk and Huron County; and
- Availability of data.

B. Collection Services: City-Owned and Operated

Five communities were selected based upon applying this criteria. (See Tables III-1A and B.) Three of the five cities (Piqua, Wadsworth and Centerville) are all reasonably similar in population to the City of Norwalk, while Delaware is considerably larger and Oberlin is only about one-half the size of Norwalk. Total expenses for collection services range from a low of \$946,000 for Norwalk to almost \$2,233,000 for Wadsworth. The cost per capita generally shows less variability. These costs reflect the expenditures for 2012 or 2013, and do not include the cost to replace collection vehicles such as packer trucks.

Table III-1A – City-Owned Collection Services

Community	Tons Collected	Tons Per Capita	Tons Per Household Per Year	Total Expenditures	Service Population	Expenditures Per Capita
City of Norwalk	5,404	0.32	0.90	\$946,349	16,833	\$56.22
City of Delaware	17,519	0.50	1.35	\$2,179,609	35,000	\$62.27
City of Piqua	9,555	0.46	1.17	\$1,881,782	20,619	\$91.26
City of Wadsworth	14,187	0.66	1.65	\$2,232,922	21,500	\$103.86
City of Centerville	7,609	0.32	0.73	\$1,524,259	24,000	\$63.51
City of Oberlin (residential & commercial)	5,045	0.61	2.43	\$971,921	8,300	\$89.77
Averages	9,887	0.48	1.37	\$1,622,807	21,042	\$78

Table III-1B – City-Owned Collection Services

Community	Customer Accounts		Households		Cost/ Account/ Month	Expenditures Per Ton Collected
	Number ^a	Cost/ Account	Number ^a	Cost/ Household		
City of Norwalk	6,028	\$154	6,028	\$154	\$13.08	\$175
City of Delaware	11,443	\$190	13,000	\$168	\$15.87	\$124
City of Piqua	7,858	\$239	8,158	\$231	\$19.96	\$197
City of Wadsworth	9,542	\$234	8,600	\$260	\$19.50	\$157
City of Centerville	6,380	\$239	10,400	\$147	\$19.91	\$200
City of Oberlin (residential & commercial)	2,164	\$449	2,074	\$359	\$37.43	\$193
Averages	7,236	\$251	8,043	\$220	\$21	\$174

^a The number of customer accounts represents the number of “units” being provided collection service, which includes households, multi-family dwellings, and, in some cities, a limited number of businesses. In general, the number of households includes vacant houses.

A number of caveats need to be considered when comparing the data in Table III-1. The expenses shown for Wadsworth include the cost of operating a city-owned transfer station which undoubtedly adds significantly to the overall expenses. For Oberlin, the customer accounts include a large number of businesses as well as Oberlin College, while the other cities provide mostly residential service. Additional differences between the types of service offered in each city are described in Table III-2.

Delaware, Wadsworth, and Centerville have automated or semi-automated trash collection using 96 gallon carts. Delaware also has semi-automated collection for recyclables. Oberlin has manual collection of recyclables, however, unlike the other cities, Oberlin has been providing source-separated collection of recyclables instead of single stream.² Each of these communities provide some type of yard waste collection, although the City of Centerville collects only leaves. Bulk items are collected by at least three of these cities, and in some cases, the resident is charged an additional fee for pickup of bulk items.

Table III-2 – Types of Collection Services Provided

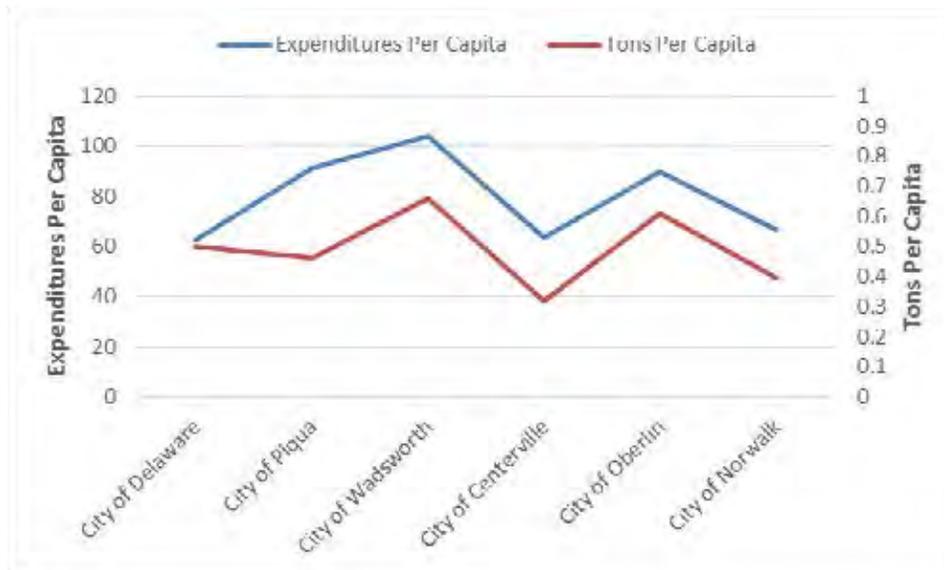
Community	Services Provided			
	Trash	Recyclables	Yard Waste	Bulk Items
City of Delaware	Semi-automated	Semi-automated	Manual	No

² The City of Oberlin and the City of Piqua are in the process of transitioning to semi-automated collection of both trash and recyclables.

Community	Services Provided			
	Trash	Recyclables	Yard Waste	Bulk Items
City of Piqua	Manual	Manual	Manual	Yes
City of Wadsworth	Automated	Trash sorted at Medina CPF for recyclables	Yes	Yes
City of Centerville	80% automated	Manual	Leaf collection only	Upon request
City of Oberlin	Manual	Manual	Manual	
City of Norwalk	Manual	Manual	Manual	Yes, w/ trash

Figure III-1 shows the results of plotting the expenditures per capita for these communities against the tons collected per capita. In general, the data for these cities seems to suggest that higher expenditures per capita also translate to higher tons collected per capita.³ Only the City of Centerville collects fewer tons per capita than Norwalk, while only Delaware and Centerville have lower expenditures per capita.

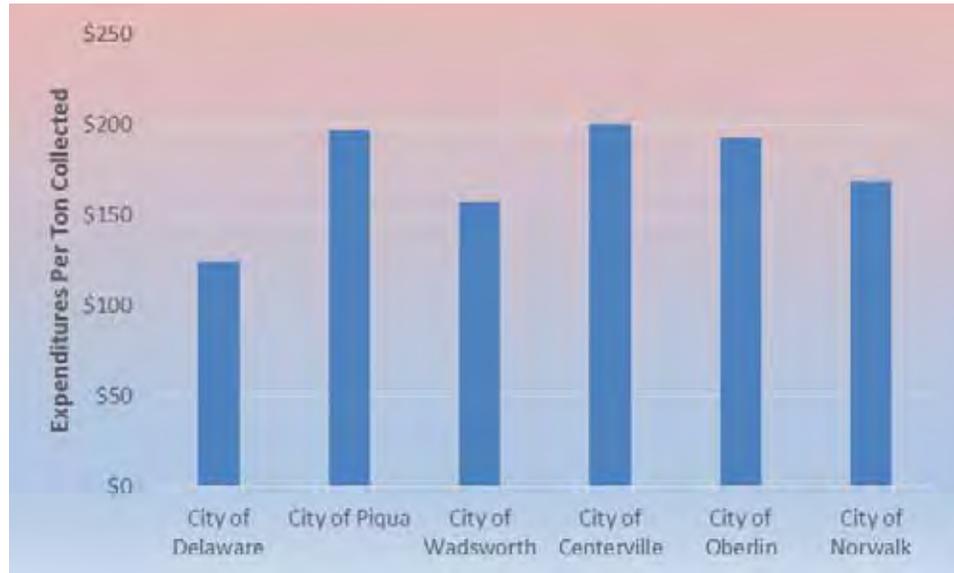
Figure III-1 – Expenditures vs. Tons for Collection Services



Examining the amount of expenditures per ton of material collected is another measure which can be used to compare the operations in each city. Figure III-2, which shows the total expenditures per ton collected for each city, indicates that the City of Norwalk is somewhere in the middle when using this metric for comparison.

³ It is important to note that this is not a statistical analysis, but instead is intended to indicate a trend based upon data from six cities. Other factors most likely affect the amount of tons collected per capita in addition to expenditures, and these other factors were not explored in this analysis.

Figure III-2 – Expenditures Per Ton Collected



Finally, Table III-3 presents the same information as Table III-1 for the cities of Delaware, Piqua, and Norwalk, with the inclusion of replacement costs for collection vehicles five and ten years into the future. Replacement costs have been calculated by:

1. Inflating the original vehicle purchase price at the rate of 2 percent per year;
2. Using the community’s estimate of vehicle life expectancy; and
3. Vehicle model year.

An annual debt service cost was then determined for each vehicle needing replacement in 2019, and also in 2024. Annual debt service costs were then added to total expenditures from Table III-1 (after adjusting for inflation), resulting in the total expenditures shown in Table III-3.

Table III-3 – Expenditures with Replacement Costs

Community	Total Expenditures		Expenditures Per Capita		\$/Customer Household	
	2019	2024	2019	2024	2019	2024
City of Norwalk	\$1,131,231	\$1,142,873	\$67.20	\$67.89	\$187.66	\$189.59
City of Delaware	\$2,698,341	\$2,991,871	\$77.10	\$85.48	\$235.81	\$261.46
City of Piqua	\$2,150,750	\$2,370,352	\$104.31	\$114.96	\$273.70	\$301.65

Table III-3, which is an attempt to account for differences in the age of collection vehicle fleets, shows significant increases in the expenditures per capita when replacement costs are included.

The City of Oberlin reported annual payments contributed to a capital reserve fund designated for equipment purchase (and other debt service payments) totaling almost \$227,000 in 2012. Assuming these payments approximate vehicle replacement costs, Oberlin's expenditures increase to \$117 per capita (from \$90 per capita) for 2012 when these additional costs are included.

C. Collection Services: Cities Contracting with a Single Private Hauler

Many communities choose to contract with a private hauler for provision of collection services, and in many cases, have been satisfied with this decision. It should be noted that the communities that have chosen this route were open market cities meaning the city did not provide the service before contracting with the private sector. Information with regard to services provided and the cost of these services was gathered for a number of cities, some of which approximate the size of Norwalk, and others which are considerably larger than Norwalk. Table III-4 lists seven communities in northeast Ohio, all having collection of trash, recyclables, and yard waste (does not include fall leaf collection). Disposal costs in a number contracts was separate from collection costs. In order to determine the total estimated cost per household, including disposal costs, the average tons disposed per household in Piqua, Delaware, and Centerville were calculated and applied to the per household rates in Table III-4.

The total estimated cost per household ranges from \$9.37 per month to \$16.45 per month, and averages \$12.70 per household per month. Using the household rates per month, the total estimated costs per year range from \$43.77 per capita to \$73.99 per capita.

Table III-4 – Cities Contracting for Collection Services

Community	Services Provided			Households		Estimated Total Cost/Capita /Year
	Trash	Recyclables	Yard Waste	Number	Estimated Total Cost/Household/Month*	
Avon Lake	Republic - automated	Republic - automated	Republic	7,200	\$16.45	\$62.29
Bay Village	Republic - automated	Republic - automated	Republic	6,442	\$14.82	\$73.99
Berea	Republic - automated	Republic - automated	Republic	5,870	\$12.13	\$45.01

Community	Services Provided			Households		Estimated Total Cost/Capita /Year
	Trash	Recyclables	Yard Waste	Number	Estimated Total Cost/Household/Month*	
Fairview Park	Republic - automated	Republic - automated	Republic/ City	6,300 for trash; 7,856 for other services	\$12.42	\$56.54
North Olmsted	Republic - automated	Republic - automated	Republic	10,480	\$11.26	\$43.77
Parma Heights	Republic - automated	Republic - automated	Republic	6,140	\$12.42	\$44.72
Strongsville	Republic	Republic	Republic	18,673	\$9.37	\$47.08
Averages				9,134	\$12.70	\$53.34

* For Berea, Fairview Park, North Olmsted, and Strongsville, the estimated Total Cost/Household/Month includes a disposal cost calculated based upon the average tons disposed per household for the cities of Piqua, Delaware, and Centerville, which is 1.07 tons per year. For the other communities, the cost of disposal was already included in the collection costs.

Four of the communities listed in Table III-4 (Berea, Fairview Park, Parma Heights, and Strongsville) have contracts which separate the cost into two components:

- The cost of collection; and
- The cost of disposal.

In order to develop data which can be compared more directly with the City of Norwalk, the contract collection costs for those communities listed in Table III-5 was added to the cost of disposal per household, assuming that the waste in each of these communities was delivered to the Huron County Transfer Station and was subject to a \$54 per ton tipping fee.

Table III-5 – Cities Contracting for Collection Services Assuming Waste is Disposed at Huron County Transfer Station

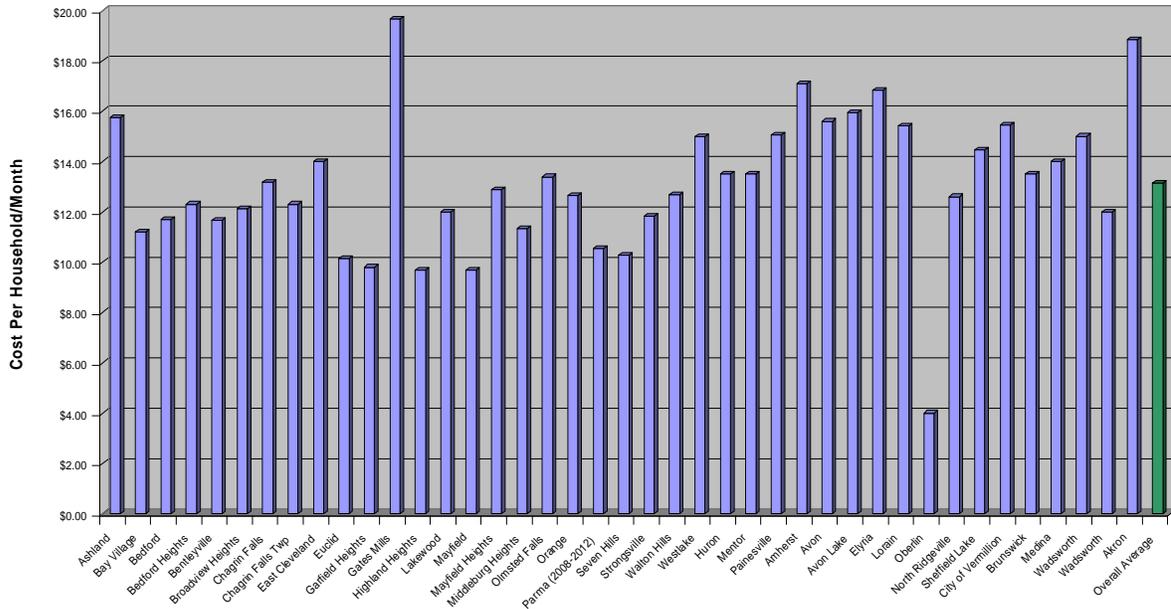
Community	Households		Estimated Total Cost/Capita/Year
	Number	Estimated Total Cost/Household/Month	
Berea	5,870	\$14.03	\$52.06
Fairview Park	6,300 for trash; 7,856 for other services	\$14.35	\$65.29
Parma Heights	6,140	\$13.71	\$53.28
Strongsville	18,673	\$11.12	\$57.07
Averages		\$13.30	\$56.93

Table III-5 shows that the average cost would be slightly more than \$13 per household per month.

GT conducted a study in 2008 for another client comparing single hauler private contracts for curbside trash, recyclables and bulky collection costs on a per household per month basis for other parts of the State of Ohio. The purpose of this analysis was to provide data where competition is strong and diverse across a broad region. This data comes from the Northeastern Ohio region.

Figure III-3

2008 Regional Curbside Collection Analysis



The overall average cost per household per month for contracted curbside trash, recyclables and bulky items was \$13.14. The surveyed cities had a variety of collection systems including automated, semi-automated and manual. It should be noted that these rates do not include yard waste collection nor fall leaf pick-up costs. Fall leaf pick-up is not a common services contracted with the private sector.

Finally, the following table summarizes non-comparable cities that have single hauler contracts. GT does not believe that the communities listed in this table represent good comparisons for the City of Norwalk, were Norwalk to privatize collection of trash, recyclables, and yard waste. Fremont and Port Clinton do not have yard waste collection. The cost for residents of the City of Huron is also not comparable since Huron's contract includes the collection of food scraps with yard waste which is delivered to a compost facility. Besides the added weight of food scraps, managing this material is much more difficult for compost facilities than strictly yard waste, and as such, facilities typically charge more for accepting food waste.

Table III-6 – Open Market Private Collection and Disposal Costs

Community	Number of Households *	Cost/Household/Month
Fremont	7,541	\$11.49 (2 Container Limit with Recycling) \$12.49 (5 Container Limit with Recycling) \$13.49 (90 Gallon Cart with Recycling) No Yard Waste
Huron	3,710	\$16.67 Includes Food Waste
Port Clinton	1,750	\$14.34 (96 G Carts) \$12.90 (Senior Citizen Rate) No yard Waste

* The number of households is based on, "Housing Unit and Group Quarters Counts for Governmental Units, 2010," published in August 2011 by the Ohio Department of Development.

D. Collection Services: Cities with Private Haulers, Open Market

The following table summarizes non-comparable cities that have open market, multiple private hauler services. An open market, subscription collection service which means that residents can contract with a number of different haulers for service. In contrast, having a non-subscription contract with a single hauler (which would be the recommended approach for Norwalk if privatization is desired) almost always results in lower costs. In addition, the separate collection of yard waste is not included in these services.

GT does not believe that the communities listed in this table represent good comparisons for the City of Norwalk, were Norwalk to privatize collection of trash, recyclables, and yard waste.

Table III-7 – Open Market Private Collection and Disposal Costs

Community	Number of Households *	Cost/Household/Month
Groton Twp (Erie****)	520	\$20.00 - \$33.00
Village of Berlin Hts (Erie****)	275	\$23.83 - \$24.00
Perkins Twp (Erie ****)	4,424	\$18.00 - \$26.00
Village of Milan (Erie****)	n/a	\$23.00 - \$25.96
Penfield Twp (Lorain***)	564	\$26.09

Community	Number of Households *	Cost/Household/Month
Grafton Twp (Lorain***)	912	\$21.35
Sheffield Twp (Lorain***)	1,500	\$34.92
Brownhelm Twp (Lorain***)	430	\$28.75
Carlisle Twp (Lorain***)	3,184	\$28.02
Brighten Twp (Lorain***)	300	\$26.29
Huntington Twp (Lorain***)	440	\$27.48
Columbia Twp (Lorain***)	3,200	\$18.40
Lagrange Twp (Lorain***)	2,084	\$27.42
Tiffin	8,007	\$17-20 No recycle or yard waste

* The number of households is based on, "Housing Unit and Group Quarters Counts for Governmental Units, 2010," published in August 2011 by the Ohio Department of Development.

** The cost/household for the City of Tiffin is based on data obtained from the OSS Solid Waste Management District.

***Lorain County data comes from a 2013 survey conducted by GT and the Lorain County Solid Waste District of communities in Lorain County that had open market subscription services. These services have a mixture of trash only and trash and recyclables collection. No yard waste services were provided.

****Erie County data comes from a survey conducted by Erie County in 2014.

E. Transfer Stations

Each of the communities listed in Table III-1 utilize a transfer station for the processing of trash with the exception of the City of Oberlin. Table III-8 shows information for four transfer stations:

- The Delaware County Transfer Station accepts waste from the City of Delaware
- The Miami County Transfer Station receives waste from Piqua
- The Wadsworth Transfer Station handles waste from the City of Wadsworth
- The Huron County Transfer Station processes waste from Huron County

Only the data for the Miami County Transfer Station and Huron County presents a complete accounting of the expenditures and revenues for owning and operating the transfer station. (See the “Notes” at the bottom of Table III-8.) Miami County spends approximately \$49 per person to own and operate the transfer station for residents and businesses within the county, while Huron County spends approximately \$37 per person which includes closure costs for the landfill. Comparing the two transfer station based upon the expenditures per tons of materials processed results in nearly the same value: \$60.63 for Miami versus \$52.88 for Huron.

Table III-8 – Selected Communities Which Own and Use Transfer Stations

Parameter	Transfer Station			
	Delaware County	Miami County	City of Wadsworth	Huron County
Tons Processed	44,169	82,495	14,187	36,716
Distance to Landfill	40 miles	45 miles	11 miles	26 miles
Total Expenditures	\$47,779	\$5,001,958		\$2,179,738
Total Revenues	\$169,403	\$5,177,900	\$18,463	\$2,228,084
Service Population	181,000	102,828	21,500	59,280
Tonnage/Capita	0.24	0.66	0.66	0.63
Expenses/Capita	\$0.26	\$48.64	--	\$36.77
Expenses Per Tons Processed	\$1.08	\$60.63	--	\$52.88

Notes:

1. The Delaware County transfer station is operated by a private contractor. As a result, the expenditures and revenues shown do not reflect the total owning and operating costs or revenues.
2. Expenditures for the City of Wadsworth transfer station are incorporated in the City collection costs for the sanitation department.
3. Expenditures for Huron County include the solid waste district operations and the post closure care of the landfill.

F. Flow Control Requirements

Flow control requirements, or legal requirements to deliver trash only to designated facilities, vary for the communities which are discussed in this section. Oberlin is required through flow control to send their refuse to the Lorain County Landfill. The City of Piqua and the City of Centerville are subject to flow

control, and as such, are required to deliver trash from the city to the Miami County Transfer Station and Montgomery County Transfer Stations, respectively. The City of Wadsworth delivers refuse to the Wadsworth Transfer Station, which is required via flow control to haul the waste to the Medina County Central Processing Facility.

The City of Delaware is not subject to flow control requirements, but delivers waste to the Delaware County Transfer Station due to its proximity to the City.

G. Ohio Landfill Gate Rate Analysis

A regional gate rate analysis on landfills was conducted. GT attempted to obtain rates for the volume of solid waste disposed of by the HCTS (37,000 tons) and from the City of Norwalk (4,300 tons). Many landfills were interested in providing disposal capacity for either Huron County or the City of Norwalk, but would not disclose any volume-based discounts available to either entity. Volume-based rates can be obtained if either entity holds a bidding process for the disposal of solid waste.

The following table presents the standard gate rates for selected landfills, with the exception of the Erie County Landfill, provided a contracted rate of \$27.00/ton, which is based on volume and includes transportation costs:

Table III-9 – Landfill Gate Rate Summary

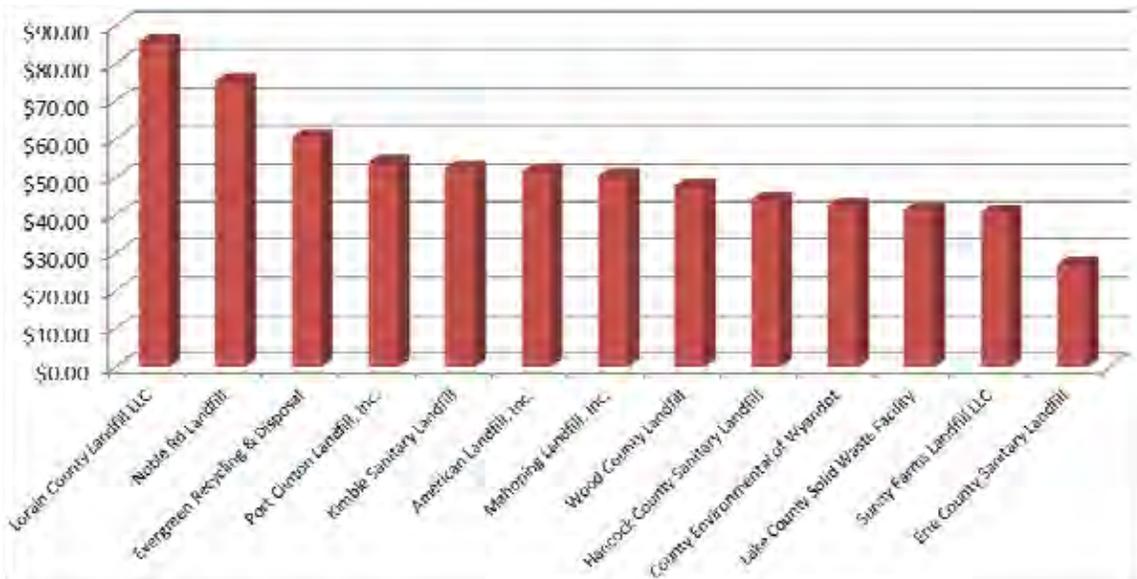
County	Landfill	HCTS	Norwalk
Lorain	Lorain County Landfill LLC	\$85.65	\$85.65
Richland	Noble Rd Landfill	\$75.50	\$75.50
Wood	Evergreen Recycling & Disposal	\$60.50	\$60.50
Ottawa	Port Clinton Landfill, Inc.	\$53.83	\$53.83
Tuscarawas	Kimble Sanitary Landfill	\$52.25	\$52.25
Stark	American Landfill, Inc.	\$51.50	\$51.50
Mahoning	Mahoning Landfill, Inc.	\$50.25	\$50.25
Wood	Wood County Landfill	\$47.80	\$47.80
Hancock	Hancock County Sanitary Landfill	\$44.25	\$44.25
Wyandot	County Environmental of Wyandot	\$42.50	\$42.50
Lake	Lake County Solid Waste Facility	\$41.25	\$41.25
Seneca	Sunny Farms Landfill LLC	\$40.70	\$40.70
Erie	Erie County Sanitary Landfill	\$27.00	\$56.50
Average		\$51.77	\$54.04

*Lorain County Landfill gate rate is estimated; base rate was provided for uncompacted cubic yards instead of tons. A 3:1 ratio was used to calculate the per ton rate.

The rates in the table include Ohio’s state disposal and environmental protection fee, the Huron County generation fee, applicable tiered disposal fees, and any

additional charges levied on a per ton basis for solid waste disposal. The following figure presents the rates obtained from the landfill gate rate analysis.

Figure III-4 – Standard Landfill Gate Rates for Huron County Generated Waste



The Erie County Sanitary Landfill provides the most cost-effective rate for disposal of solid waste generated in Huron County because of the volume-based contract that is currently in effect. Other landfills that were selected to be included in the analysis ranged from \$40.70/ton to \$85.65/ton.

H. Regional Transfer Station Gate Rate Analysis

A regional gate rate analysis on transfer stations was conducted. GT attempted to obtain rates for the volume of solid waste disposed of by the HCTS (37,000 tons) and from the City of Norwalk (4,300 tons). Many transfer stations were interested in providing disposal services for either Huron County or the City of Norwalk, but would not disclose any volume-based discounts available to either entity. Volume-based rates can be obtained if either entity holds a bidding process for the disposal of solid waste.

Standard gate rates were obtained by transfer station phone surveys. The following table presents the standard gate rates for selected transfer stations

Table III-10 – Transfer Station Gate Rate Summary

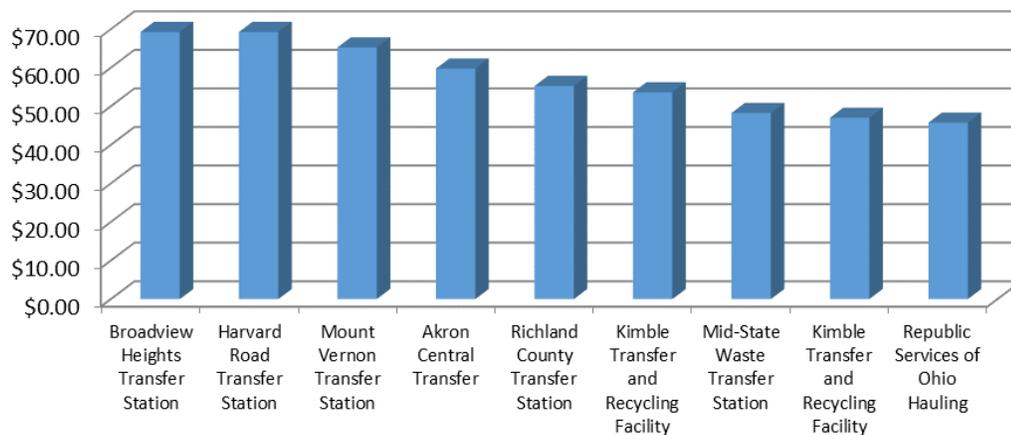
County	Transfer Station	HCTS	Norwalk
Cuyahoga	Broadview Heights Transfer Station	\$69.25	\$69.25
Cuyahoga	Harvard Road Transfer Station	\$69.25	\$69.25

County	Transfer Station	HCTS	Norwalk
Knox	Mount Vernon Transfer Station	\$65.25	\$65.25
Summit	Akron Central Transfer	\$59.75	\$59.75
Richland	Richland County Transfer Station	\$55.25	\$55.25
Summit	Kimble Transfer and Recycling Facility	\$53.60	\$53.60
Morrow	Mid-State Waste Transfer Station	\$48.25	\$48.25
Stark	Kimble Transfer and Recycling Facility	\$47.00	\$47.00
Summit	Republic Services of Ohio Hauling	\$45.74	\$45.74
Average		\$57.04	\$57.04

The rates in the table include Ohio's state disposal and environmental protection fee, the Huron County generation fee, applicable tiered disposal fees, and any additional charges levied on a per ton basis for solid waste disposal.

The transfer stations that were selected to be included in the analysis ranged from \$45.74/ton to \$69.25/ton. The following figure presents the rates obtained from the transfer station gate rate analysis.

Figure III-5 – Standard Transfer Station Gate Rates for Huron County Generated Waste



The standard gate rates for landfills and transfer stations can be used to do a preliminary comparison of disposal facilities. Significant cost efficiencies resulting from a contract with a disposal facility based on volume may be realized, as in the case with the Erie County Landfill. The published rate for Huron County generated waste is \$56.50 per ton, but with a contract the cost is lowered to \$27.00 per ton (including transportation) based on the volume shipped.

This analysis also demonstrated that the gate fee charged by the County is below the average charged by other transfer stations in the region by over \$3.00 per ton.

IV. OPPORTUNITIES FOR PROGRAM IMPROVEMENT

The following section summarizes the conclusions and suggested alternatives to improving the programs of the City and County.

A. Huron County Transfer Station

1. Landfill Post Closure Care – Opportunities to Reduce Cost

Suggested Alternative H.1 – The County currently sends the landfill leachate to the Shelby Waste Water Treatment Plant that is 19 miles from the landfill. The City of Norwalk’s Sewage Treatment Plant is 11 miles from the landfill. The County spends, on average, \$42,571 annually to transport and dispose of the leachate. Of this amount, \$28,007 is in transportation. Since the Shelby facility is 8 miles further away than the Norwalk facility, transportation costs could be saved. The County should develop a bid specification for the transportation of its leachate to either the Shelby or Norwalk facility. The specification should be designed to include fair fuel surcharge language in the contract. Typically, fuel surcharges are slanted towards the haulers and can often be a money making fee. By having a fair fuel surcharge that only compensates the hauler if diesel fuel goes up in price, and rebates back to the County if fuel prices go down, ensures a fair fuel surcharge process.

The County should distribute the bid specifications to all local and regional bulk transporters to obtain the best competitive price.

Suggested Alternative H.2 – The County should continue to develop a request for proposal (RFP) for the environmental consulting services related to the landfill post closure care responsibilities on a routine basis. The County should distribute the RFP to all local and regional environmental consultants to obtain the best competitive price and professional service. In 2013, the County developed a request for qualifications for consultants to pre-qualify consultants. Then as project come up, the County solicits the best price from the qualified consultants.

2. Transfer Station Operations – Opportunities to Reduce Cost

Suggested Alternative H.3 – The County should consider whether privatizing the operation of the transfer station would be a prudent decision. The County could develop a bid specification for the operation of the transfer station operations and solicit competitive proposals to determine if the market price for operating the facility is worth the switch to private services.

Shelby County, located in west-central Ohio, owns a transfer station which is operated by Republic Waste Services. Republic pays the County \$1,000 per month, and charges \$55 per ton for solid waste delivered to the facility. In 2012, this facility reported receiving a total of 10,444 tons of waste, with almost 82 percent of the waste originating from in-district (or within the solid waste district where the facility is located).

Although there were no bidders on the County's effort to sell the landfill and recycling facility in 1994-1995, bids to operate the transfer station could be considered. A successful bid may result in payments to the County which would cover at least part of the cost of landfill post-closure care.

Suggested Alternative H.4 – The County should conduct a rate study to determine the fair gate fee charged to its customers based on the amount of tons delivered. Currently, the County has a minimum charge for small volumes and a standard gate fee of \$54.00 per ton. Table IV-1 presents a simple analysis of the customers that delivered solid waste to the transfer station based on their 2013 annual tons. The County could create a scale price based on tons shipped as can be seen by the following example:

Table IV-1 – Gate Rate Scale Example

Tons/Year	Gate Fee/Ton
1-500	\$60.00
501-1999	\$58.00
2,000-3,999	\$56.00
4,000-5,999	\$54.00
6,000-7,999	\$52.00
8,000-9,999	\$50.00
>10,000	\$48.00

Tons/Day	Gate Fee/Ton
1-4	\$60.00
5-9	\$58.00
10-14	\$56.00
15-19	\$54.00
20-24	\$52.00
25-29	\$50.00
>30	\$48.00

The purpose of the rate study would be to determine the exact rates needed to be charged to maintain the same annual revenue to the County

but that would charge the customers based on their tons delivered to the transfer station. The private sector commonly prices their larger customers based on volume and frequency criteria. All private sector landfills and transfer stations have minimums and a standard gate rate but discounts are applied based on volume and frequency.

Suggested Alternative H.5 – The County should develop a waiver policy for solid waste generators that desire to send their solid waste to an un-designated facility that incorporates a waiver fee. The waiver fee should be developed to cover the cost of the transfer facility operational expenses and the landfill post closure care. An analysis of the expenses related to the transfer station and the post closure care indicate the following:

Table IV-2 – Waiver Fee Analysis Example

Program Category	Expenditures	Cost/Ton Managed
<i>Fund 500 – Landfill</i>		
Salaries & Benefits	\$337,466	\$9.19
Post Closure Care - Contractors	\$135,774	\$3.70
Subtotals	\$592,500	\$12.89
<i>Fund 505 – Landfill Equipment</i>		
<i>Equipment</i>	\$31,462	\$0.86
<i>Fund 520 – Landfill Bonds</i>		
<i>Bonds/Debt Payments</i>	\$29,100	\$0.79
Totals	\$653,062	\$14.54
<i>Total Tons Managed (Transfer Station)</i>	36,716	

Based on the analysis above, the waiver fee could be \$14.54/ton.

For example: Entity A wants to deliver waste directly to the Richland County Landfill. The company applies for a waiver and demonstrates that the material is unsafe for handling at the Huron County Transfer Station. The District Board of Directors determines that a waiver should be approved with the associated waiver fee. The County would collect \$14.54/ton for every ton Company A ships to Richland County.

The following is an example of a waiver policy for the next solid waste plan update:

The Board of County Commissioners (Board) or the District Coordinator as authorized by the Board, will review waiver requests submitted by any Person(s) generating solid waste from the District. The waiver request must be submitted using the District’s Application for Waiver from Designation Requirements. Waiver requests can be submitted at any

time. The waiver request must explain to the satisfaction of the Board and meet the criteria for a waiver established herein. The waiver request must specifically explain why the solid waste should not be delivered to the Huron County Transfer Station.

In general, a waiver request will be evaluated by the Board and/or the District Coordinator using the following criteria:

- a. The waiver request is not inconsistent with the projections contained in the District's initial or amended solid waste management plan;*
- b. The waiver request will not adversely affect the implementation and financing of the District's initial or amended solid waste management plan;*
- c. The waiver request includes solid waste that cannot be processed through the normal operation of the Huron County Transfer Station;*
- d. The waiver request includes solid waste that is unsafe for processing at the Huron County Transfer Station;*
- e. The waiver request includes solid waste that is unacceptable waste as determined by the District;*
- f. The waiver request assures the Maximum Feasible Utilization of existing in-District Solid Waste Facilities;*
- g. The length of time requested for the waiver;*
- h. The location for the alternate final disposal or recycling processing facility; and*
- i. The detailed explanation for the waiver request.*

The Board and or the District Coordinator (as authorized by the Board), within ninety days following receipt of a request for a waiver authorizing the delivery of solid waste generated within the District to an undesignated solid waste facility, shall act upon the waiver request. The waiver request will be evaluated pursuant to section 343.01(1)(2) of the Revised Code and the policy herein. The District Coordinator will notify the Person requesting the waiver of the action/decision of the Board or District Coordinator. If the waiver is approved, the District Coordinator will notify the Person identified on the District's Application for Waiver from Designation Requirements that the Board or District Coordinator approved the wavier.

If a waiver is granted, the terms and conditions that provide the basis for the approval of the waiver request shall be included in a Waiver Agreement. The Waiver Agreement shall be effective on the date of last execution of the Waiver Agreement. The waiver agreement will include a waiver fee. The Board may assess the waiver fee on each ton of solid waste covered by the waiver, by a waiver application fee or other mechanism decided by the Board. The waiver fees are decided by the Board and reviewed annually.

All waivers will be reviewed periodically, but at a minimum annually, by the District Coordinator to determine whether the waiver should be terminated or continued.

This waiver policy does not apply to any contract by and between the Board and any Person relating to the transportation, delivery, disposal or processing of Solid Waste or Solid Waste Recyclable Materials generated within the District.

Suggested Alternative H.6 – The County could develop a rates and charge funding mechanism to cover the cost of the landfill post closure care obligations. The following citation comes from the Ohio Revised Code 343.08:

The board of county commissioners of a county solid waste management district and the board of directors of a joint solid waste management district may fix reasonable rates or charges to be paid by every person, municipal corporation, township, or other political subdivision that owns premises to which solid waste collection, storage, transfer, disposal, recycling, processing, or resource recovery service is provided by the district and may change the rates or charges whenever it considers it advisable. Charges for collection, storage, transfer, disposal, recycling, processing, or resource recovery service shall be made only against lots or parcels that are improved, or in the process of being improved, with at least one permanent, portable, or temporary building.

The following table summarizes the parcel assessment needed to cover the cost of the post closure care and debt on the landfill only:

Table IV-3A – Landfill Post Closure Parcel Assessment

Program Category	Expenditures	Cost/Parcel
<i>Fund 500 – Landfill</i>		
Post Closure Care - Estimate	\$240,000	\$9.35
Subtotals	\$240,000	\$9.35
<i>Fund 505 – Landfill Equipment</i>		
Equipment	\$31,462	\$1.23
<i>Fund 520 – Landfill Bonds</i>		
Bonds/Debt Payments	\$29,100	\$1.13
Totals	\$300,562	\$11.71
<i>Total Improved Parcels in County</i>	25,675	

Under the assumptions above, each improved parcel would pay \$11.71 per year to pay for the post closure care and debt obligations of the landfill. This recommendations assumes the transfer station either closed or became an open market participant and would operate as an enterprise funded operation. The other assumption would be that the District operations would be funded by the generation fee only. If the recycling drop-off program were to be included in the property assessment, then the cost per parcel would be increased. The following table summarizes this option:

Table IV-3B – Landfill Post Closure Parcel Assessment

Program Category	Expenditures	Cost/Parcel
<i>Fund 500 – Landfill</i>		
Post Closure Care - Estimate	\$240,000	\$9.35
Recycling Drop-Off Program	\$34,567	\$1.35
Subtotals	\$566,473	\$10.69
<i>Fund 505 – Landfill Equipment</i>		
Equipment	\$31,462	\$1.23
<i>Fund 520 – Landfill Bonds</i>		
Bonds/Debt Payments	\$29,100	\$1.13
Totals	\$627,035	\$13.05
<i>Total Improved Parcels in County</i>	25,675	

3. Solid Waste District Operations

Suggested Alternative H.7 – The County’s web page for District operations should be enhanced. Residents should be given specific instructions about how to participate in the recycling drop-off sites and special collections offered by the District. Pictures demonstrating how residents should prepare their recyclables should be included. The web page should also include statistics on recycling and performance.

Suggested Alternative H.8 – The County should create a recycling resource brochure. The resource brochure should include all local and regional recycling outlets by recyclable material. The County should make the brochure available to residents at the County offices, County fair and as a PDF on the web site.

Suggested Alternative H.9 – Currently, the District operates 16 drop-off sites that vary greatly in their operating times and what is accepted. To ensure consistency and convenience for residents and small businesses that might use the drop-off sites, the program would be more successful if the County switched to single stream recycling for all County recycling drop-off locations. The single stream should include the following recyclable materials:

- Fiber Products: cardboard, newspaper, magazines, mixed paper, junk paper, office paper, paperboard products (cereal boxes)
- Containers: plastic (#1-#2), aluminum, bi-metal, tin and steel food containers and beverage containers

It is not recommended that glass containers are accepted at this time as the market is not favorable for this material.

The County should also consider making the sites open on a consistent basis.

Suggested Alternative H.10 – Currently, the District operates 16 drop-off sites that are serviced by County personnel using roll-off style trucks and containers. Numerous solid waste management districts in Ohio have converted their non-compacted open roll-off box system of collection to compaction using front or rear load packer trucks. Private bids for these service have been successfully completed in the OSS District, CCH District and Geauga Trumbull District. In addition, the Lucas County District, STW District, Solid Waste Authority of Central Ohio and Jefferson/Belmont Authority operate their own front load compactor drop-off program. All of these programs out perform traditional

non-compaction programs such as the County operates because of the use of compaction equipment.

A Study conducted by GT for the OSS District showed that typical non-compaction drop-off programs, like the County's, have an annual operational cost per ton managed ranging from \$173-\$439. The County's cost to operate the drop-off program was calculated to be \$60/ton managed. In the OSS Study, cost of compaction drop-off programs were also analyzed which showed an annual cost range from \$36-93/ton managed. The compaction programs listed above collected, on average, over 4,000 tons annually. This amount far exceeds the County's 573 tons collected annually.

To determine if privatizing the recycling drop-off program would be cost effective for the County, the County should develop a bid specification for privatizing the 16 drop-off sites using single stream collection and recycling. The sites should include front load dumpsters in sufficient quantity dependent on the site. Frequency of collection for each site should be calculated. The County should then solicit bid prices to operate the program to determine if the private sector can operate at a lower price than the current County program.

B. City of Norwalk

1. Program Promotion, Education and Awareness

Suggested Alternative N.1 – The City's web page for trash collection should be enhanced. Residents should be given specific instructions about how to participate in both trash collection and recycling. Pictures demonstrating how residents should prepare their trash and recycling should be included. Specific instructions on locating their trash cans/bags and ensuring gates are accessible should be explained. Pictures of the acceptable recyclables and the blue bags should also be identified on the webpage. The web page should also include statistics on recycling and performance versus other Huron County communities.

Suggested Alternative N.2 – The City should create a trash and recycling brochure. The City should send the brochure to each household annually.

2. Collection Route Optimization

Suggested Alternative N.3 – The City should consider re-routing the entire city collection routes to obtain the best efficiency. Previous studies of this nature have demonstrated cost savings of between 10% and 25%. These savings have been achieved through the following:



- Reduced wear and tear on vehicles;
- Less time to complete routes;
- Increased efficiency of collection vehicles;
- Reduced trips to the landfill;
- Reduced number of routes and vehicles; and
- Reduced overtime and other factors.

There are numerous computer aided modeling programs available that can be used to assist the City including Route Smart, a routing program GT has used to assist other communities.

3. Recycle Program

Suggested Alternative N.4 – The City should consolidate the number of trucks used to service the daily recycle route into one truck. Typically, a recycle route will consist of two of the daily trash routes. Savings has been calculated based on 4 scenarios listed below:

Scenario 1 – The City reported to GT that \$209,000 is spent for running two recycle trucks including maintenance and fuel plus labor. Eliminating 1 truck would save \$104,500 annually.

Scenario 2 – The City would save approximately \$20,000 per year considering only labor and truck maintenance costs by operating only one truck for recycling and using a driver and a part-time employee on the back of the rear-loader as calculated in Suggested Alternative N.7 later in this section.

Scenario 3 – The City would save approximately \$56,000 per year considering only labor and truck maintenance costs by operating only one truck for recycling and using a driver without a part-time employee on the back of the rear-loader as calculated in Suggested Alternative N.7 later in this section.

Scenario 4 – The City would save approximately \$62,000 per year considering every other week collection by operating only one truck for recycling and using a driver with a part-time employee on the back of the rear-loader as calculated in Suggested Alternative N.7 later in this section.

The following tables summarize each scenarios analysis:

Table IV-4 – Scenarios 1 – 4 Analyses

Scenario 1 Analysis	Cost
Cost/Household/Month Savings to Eliminate 1 Recycle Truck and Driver (\$100,000 savings/6,028 homes/12 months)	\$1.38
Adjusted Cost Per Household/ Month with Leaf Collection and County Subsidy	\$13.57
Adjusted Cost Per Household/ Month without Leaf Collection with County Subsidy	\$13.03
Adjusted Cost Per Household/ Month with Leaf Collection without County Subsidy	\$13.86
Adjusted Cost Per Household/ Month without Leaf Collection without County Subsidy	\$13.32

Scenario 2 Analysis	Cost
Cost/Household/Month Savings to Eliminate 1 Recycle Truck , Driver and Helper (\$20,000 savings/6,028 homes/12 months)	\$0.27
Adjusted Cost Per Household/ Month with Leaf Collection and County Subsidy	\$14.02
Adjusted Cost Per Household/ Month without Leaf Collection with County Subsidy	\$14.14
Adjusted Cost Per Household/ Month with Leaf Collection without County Subsidy	\$14.97
Adjusted Cost Per Household/ Month without Leaf Collection without County Subsidy	\$14.43

Scenario 3 Analysis	Cost
Cost/Household/Month Savings to Eliminate 1 Recycle Truck , Driver and Helper (\$56,000 savings/6,028 homes/12 months)	\$0.77
Adjusted Cost Per Household/ Month with Leaf Collection and County Subsidy	\$14.18
Adjusted Cost Per Household/ Month without Leaf Collection with County Subsidy	\$13.64
Adjusted Cost Per Household/ Month with Leaf Collection without County Subsidy	\$14.47
Adjusted Cost Per Household/ Month without Leaf Collection without County Subsidy	\$13.93

Scenario 4 Analysis	Cost
Cost/Household/Month Savings for Every Other Week Collection (\$62,000 savings/6,028 homes/12 months)	\$0.86
Adjusted Cost Per Household/ Month with Leaf Collection and County Subsidy	\$14.09
Adjusted Cost Per Household/ Month without Leaf Collection with County Subsidy	\$13.55
Adjusted Cost Per Household/ Month with Leaf Collection without County Subsidy	\$14.38
Adjusted Cost Per Household/ Month without Leaf Collection without County Subsidy	\$13.84

Suggested Alternative N.5 – In conjunction with Recommendation N.4, the City should allow residents to combine all acceptable recyclables together into a “single stream”.

4. Privatization

Suggested Alternative N.6 – The City’s sanitation department performed the best as compared to other public sector sanitation departments by a large margin. This is due in part to a very well run operation and a limited trash collection program (residents are limited to 3-33 gallon bags of trash without paying extra). This is evidenced by the low per capita generation rate and tons per household as compared to the other cities in the study.

It is not possible to compare the City’s sanitation department to other cities that have open market private hauler services. This is evident by the data collected in this study that show open market private hauler services that only provide trash or trash and recycling services without yard waste. The prices collected in this study reflect an inefficient system of collection where multiple haulers travel down the same streets collecting solid waste from only their subscribed customers. Some communities have over five haulers traveling through their streets each day. Therefore, this system of privatization is not considered a viable option for the City to consider.

When comparing the City’s sanitation department to other cities that have single hauler contracts with the private sector, the City’s cost is equal or higher and varies in the amount higher depending on when the City purchases capital.

The City should consider whether privatizing the trash, recycling and yard waste collection for City residents makes sense. The data from this Study indicates that, on average, the cost per household per month for the City provided curbside collection services is \$14.95 and ranged from \$13.08 to \$18.65 from the period 2009-2013. This average includes the cost of fall leaf collection which has ranged from \$26,000 to \$75,000 annually or

roughly \$0.36 – \$1.04 per household per month. Subtracting out the cost of leaf collection yields an average cost of \$14.41 per household per month from the period 2009-2013. The average also includes the variable capital expenses related to the purchase of trash trucks. The following table summarizes the above analysis:

Table IV-5 – Privatization Analysis With/Without Leaf Collection

Year	Expenses	Cost/ Household/ Year	Cost/ Household/ Month With Leaf Collection	Cost/ Household/ Month Without Leaf Collection
2009	\$1,349,222.91	\$223.83	\$18.65	\$17.61
2010	\$1,014,967.62	\$168.38	\$14.03	\$13.45
2011	\$947,972.18	\$157.26	\$13.11	\$12.74
2012	\$1,149,105.73	\$190.63	\$15.89	\$15.53
2013	\$946,349.07	\$156.99	\$13.08	\$12.71
Average	\$1,081,523.50	\$179.42	\$14.95	\$14.41

It should be noted that the City’s costs per household per month are approximately \$0.48/household per month lower since 2011 because of an agreement with the County to reduce the cost of disposal at the County transfer station and to provide funds for the curbside recycling program. The County reduces the cost per year the City pays for disposal by \$25,000 and provides a grant of \$10,000 per year for the City’s curbside recycling program. Adjusting the average costs by eliminating the County subsidy to the City for the years 2011-2013 shows the average cost per household per month at \$15.24 from 2009-2013. This average includes the cost of fall leaf collection which has ranged from \$26,000 to \$75,000 annually or roughly \$0.36 – \$1.04 per household per month. Subtracting out the cost of leaf collection yields an average cost of \$14.70 per household per month from the period 2009-2013. The average also includes the variable capital expenses related to the purchase of trash trucks. The following table summarizes the above analysis:

Table IV-6 – Privatization Analysis With/Without Leaf Collection

Year	Expenses	Cost/ Household/ Year	Cost/ Household/ Month With Leaf Collection	Cost/ Household/ Month Without Leaf Collection
2009	\$1,349,222.91	\$223.83	\$18.65	\$17.61
2010	\$1,014,967.62	\$168.38	\$14.03	\$13.45
2011	\$982,972.18	\$163.07	\$13.59	\$13.23
2012	\$1,184,105.73	\$196.43	\$16.37	\$16.01
2013	\$981,349.07	\$162.80	\$13.57	\$13.19
Average	\$1,102,523.50	\$182.90	\$15.24	\$14.70

The average contracted cost per household per month for the communities listed in Table III-4 is \$12.70.⁴ Most of the comparable communities have an improved system of collection using carts and automated collection equipment as compared to the City’s manual program. This average cost does not include fall leaf pick-up as this service is not commonly contracted to the private sector. An older study conducted by GT in 2008 averaged \$13.00 per household per month which did not include yard waste or fall leaf pick-up. This older study had a mix of automated, semi-automated and manual collection systems which explains the higher costs. GT also adjusted the comparable city data to include the cost of a higher tipping rate because of flow control. To adjust this rate, a tipping fee of \$54.00/ton was used. The average contracted cost per household per month with automated curbside services including a \$54.00/ton tip fee is \$13.30 as depicted in Table III-5.

Adjusting the average cost for private collection for the trash, recyclables, and yard waste to include fall leaf pick-up yields a per household per month rate range of \$13.06 – \$13.74. Adjusting the average cost for private collection for the trash, recyclables, yard waste, and fall leaf pick-up by incorporating the effects of flow control (i.e., a \$54/ton tipping fee), yields a per household per month rate range of \$13.66 – \$14.34. The City of Norwalk’s cost per household per month from 2009-2013 is summarized below:

⁴ All of these communities except one has automated collection of trash and recyclables.

Table IV-7 – City Cost Per Household With County Subsidy

Years	Cost/ Household/ Month with County Subsidy and Without Leaf Collection	Cost/ Household/ Month with County Subsidy and Leaf Collection	Cost/ Household/ Month without County Subsidy and Without Leaf Collection	Cost/ Household/ Month without County Subsidy and Leaf Collection
2009-2013	\$14.41	\$14.95	\$14.70	\$15.24

Using the above calculated rates, the City may or may not save money if private collection were chosen along with City-provided leaf collection based on the data collected for this Study.

The following tables shows the potential savings or added costs based on the *potential* bid price submitted to the City on a per household per month basis plus leaf collection costs (\$0.36/household/month) with County subsidy:

Table IV-8 – Privatization Costs With Subsidy

Year	City Expenses With County Subsidy	Private at:	Private at:	Private at:	Private at:
		\$13.00	\$13.25	\$13.50	\$13.75
1	\$1,150,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
2	\$947,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
3	\$1,150,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
4	\$947,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
5	\$1,150,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
Total	\$5,344,000.00	\$4,701,840.00	\$4,792,260.00	\$4,882,680.00	\$4,973,100.00
Difference		-\$642,160.00	-\$551,740.00	-\$461,320.00	-\$370,900.00

| Private at: |
|----------------|----------------|----------------|----------------|----------------|----------------|
| \$14.00 | \$14.25 | \$14.50 | \$14.75 | \$15.00 | \$15.25 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |

| Private at: |
|----------------|----------------|----------------|----------------|----------------|----------------|
| \$14.00 | \$14.25 | \$14.50 | \$14.75 | \$15.00 | \$15.25 |
| \$5,063,520.00 | \$5,153,940.00 | \$5,244,360.00 | \$5,334,780.00 | \$5,425,200.00 | \$5,515,620.00 |
| -\$280,480.00 | -\$190,060.00 | -\$99,640.00 | -\$9,220.00 | \$81,200.00 | \$171,620.00 |

The following tables shows the potential savings or added costs based on the *potential* bid price submitted to the City on a per household per month basis plus leaf collection costs (\$0.36/household/month) without County subsidy:

Table IV-9 – Privatization Costs Without Subsidy

Year	City Expenses Without County Subsidy	Private at:	Private at:	Private at:	Private at:
		\$13.00	\$13.25	\$13.50	\$13.75
1	\$1,175,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
2	\$972,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
3	\$1,150,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
4	\$972,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
5	\$1,175,000.00	\$940,368.00	\$958,452.00	\$976,536.00	\$994,620.00
Total	\$5,444,000.00	\$4,701,840.00	\$4,792,260.00	\$4,882,680.00	\$4,973,100.00
Difference		-\$742,160.00	-\$651,740.00	-\$561,320.00	-\$470,900.00

| Private at: |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$14.00 | \$14.25 | \$14.50 | \$14.75 | \$15.00 | \$15.25 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$1,012,704.00 | \$1,030,788.00 | \$1,048,872.00 | \$1,066,956.00 | \$1,085,040.00 | \$1,103,124.00 |
| \$5,063,520.00 | \$5,153,940.00 | \$5,244,360.00 | \$5,334,780.00 | \$5,425,200.00 | \$5,515,620.00 |
| -\$380,480.00 | -\$290,060.00 | -\$199,640.00 | -\$109,220.00 | -\$18,800.00 | \$71,620.00 |

Many factors determine what the price a hauler would charge for the City's services. Typically, 30-40% of the cost of solid waste management is related to disposal or processing and 60-70% in the labor/collection. For the City, 73% of the cost is in collection and 23% is disposal related. In addition, competition factors and under/over utilized equipment and staffing also effect the price submitted. Since collection costs are a significant portion of the cost of a curbside program, the lower costs from the private sector in this Study makes sense since all of the costs included

automated and semi-automated collection programs. See Suggested Alternative N.7 for an analysis of these collection technologies for the City's consideration.

To determine what the actual market price for the services required by the City would be, the City could develop a bid specification for curbside solid waste services and solicit competitive proposals to determine if the actual market price plus the cost of fall leaf collection is worth the switch to private services. There are communities currently bidding their services in consortiums with multiple communities involved. This would be another option for the City to consider as a regional approach.

It should be noted that hundreds of communities in the State of Ohio have private sector services that were bid competitively on multiple occasions. The prices have continued to go down and or have stabilized after multiple bidding cycles.

And finally, it should also be noted that communities that typically contract for private collection are not programs that were previously operated by the public sector. The last community that GT is aware of that switched from public provided service to private was the City of Toledo.

5. Automated and Semi-Automated Curbside Collection

Suggested Alternative N.7 – The City should consider the transformation of its manual curbside collection program to either a fully automated or semi-automated system of collection. The following section summarizes the two collection systems followed by an economic analysis of each option.

Automated Collection



This system usually requires only one employee to drive the truck and operate the automated lift arm. Fully-automated collection is usually characterized by the use of a side-loading packer truck.⁵ Wheeled carts are placed at or near the curb or driveway apron by the resident. The automated truck then positions itself adjacent to the cart and then through the use of an articulated lift arm operated by

the driver from within the cab, grabs the cart and dumps the load into the packer body. Trash containers can range from resident provided

⁵ Front-loading packer trucks with a box attached to the arms in the front of the truck is also used for full-automated collection.

48-96 gallon wheeled carts or City provided containers. Recycle containers usually include 48-96 gallon wheeled carts. Recycling could also be collected manually with bags or bins since a separate truck would be used for the recycle routes.

Semi-Automated Curbside Collection

This system requires 2-3 employees (1 driver and 1-2 collectors) to manually roll user or City provided wheeled carts to the rear/side load packer truck where a tipper mechanism lifts the cart and dumps into the truck. One to 2 collectors also allows the flexibility to collect additional materials (e.g., extra trash bags or bulk items) which would not fit into the cart.⁶



Trash containers can range from resident provided 30-96 gallon wheeled carts or City provided containers. Recycle containers can include the current blue bags all the way up to 96 gallon wheeled carts. The typical semi-automated collection system uses 96 gallon wheeled carts for trash and 48-64 gallon wheeled carts for recyclables. Recycling could also be collected manually with bags or bins since a separate truck would be used for the recycle routes.

The City currently provides manual collection of trash, recyclables, yard waste, and bulk items for residents as well as a number of businesses. Although the cost of these services is competitive with a number of other cities in Ohio that also operate solid waste collection divisions, Norwalk may want to consider exploring the alternative of switching from manual to fully-automated or semi-automated collection for trash and recyclables.

Fully-automated or semi-automated collection with carts can have several advantages compared to manual collection, including:

- Reduced trips to the disposal or transfer site;
- Reduced number of routes and vehicles;
- Improved efficiency, resulting in reduced overtime; and
- Fewer workers' compensation claims since workers are longer lifting and emptying trash cans.

It is also possible that an automated system could save money, however, this is dependent upon a number of factors which will be discussed below.

⁶ The driver could perform the duties of the second crew member, but doing so would most likely reduce the collection frequency and the number of households serviced per day.

Costs for semi- and fully-automated collection have been estimated for the City of Norwalk and compared to the existing collection system. Several assumptions were required to develop the analysis, including:

- Part-time employees receive no benefits.
- Supervisors are paid at the rate of 120 percent of full-time employees.
- The number of households serviced per day using semi-automated collection was assumed to be 700 based upon a 2008 study published by the Solid Waste Association of North America entitled, "The Benchmarking of Residential Solid Waste Collection Services: FY2008 Report." This number is also consistent with the rate reported by the City of Akron when semi-automated collection of recyclables was used by their public service department. The same study reported a collection rate of approximately 900 households per day serviced using fully-automated collection, which has been used in this analysis.
- The number of households and commercial entities serviced for purposes of this analysis is 6,028.
- The setout rate for trash (or the percentage of households and businesses setting out trash on any given week) is 90 percent. The setout rate for recyclables is 45 percent, which is consistent with the experience in the City of Delaware, Ohio.

Using these assumptions and others (e.g., a five-day work week was assumed, and that collection crews as well as collection vehicles would be shared to collect trash and recyclables when needed, if not "fully employed" on assigned routes), the number of collection crews (and trucks) required to service the City were estimated. Table IV-3 shows the comparison between the existing system, the semi-automated system, and the fully-automated system estimating only labor costs, capital costs for carts and one flipper (for the back of a rear-loader), capital costs for side-loaders for the fully-automated system, and additional costs for operating recycling routes.⁷

The table below shows the estimated costs for the existing system compared to semi- and fully-automated collection. It is recognized that the labor costs for each type of collection (i.e., trash, recyclables, and yard waste) are only rough estimates, and have been developed using a number assumptions in order to compare the existing system to the alternative collection options. The semi-automated collection system assumes that three crew members (a driver and two employees on the

⁷ For purposes of this analysis, it has been assumed that other system costs such as truck maintenance and fuel costs for trash collection, as well as other costs such as vehicle replacement costs would not change significantly based upon manual vs. semi-automated collection. Therefore, these costs have not been included here.

back of the truck) would be needed in order to achieve the service rates per day used in the analysis.

Table IV-10 – Cost of Existing Collection System vs. Automated

Description		Existing System	Semi-Automated Collection	Fully-Automated Collection
Trash Collection				
	# of trucks	2 RLS *	2 RLS *	1 SL *
	# of routes	10	8	6
	# of full-time crew per route	1.5	3	1
	# of part-time crew per route	1	0	0
	Labor costs (including benefits)	\$214,111	\$284,069	\$47,345
Recyclables Collection				
	# of trucks	2 RLS *	1 RL *	1 SL *
	# of routes	10	4	3
	# of full-time crew per route	1	3	1
	# of part-time crew per route	0	0	0
	Labor costs (including benefits)	\$94,690	\$142,035	\$47,345
Yard Waste Collection and Composting				
	Labor costs (including benefits)	\$83,383	\$83,383	\$83,383
Labor Costs for Supervisor		\$113,628	\$113,628	\$113,628
Total Labor Costs		\$505,812	\$623,115	\$291,701
Collection Cart Costs				
	# of trash carts **	--	6,149	6,149
	# of recycling carts **	--	6,149	6,149
	Total Capital costs	--	\$676,342	\$676,342
	Annualized Capital Costs	--	\$86,084	\$86,084
New Packer Trucks				
	# of Side-load trucks	--	--	2
	Cost per truck	--	--	\$225,000
	Total Capital costs	--	--	\$450,000
	Annualized Capital Costs	--	--	\$76,323
Flippers for Packer Trucks				
	# of Flippers	--	3	0
	Capital Cost	--	\$21,300	\$0
	Annualized Capital Costs	--	\$2,711	\$0
Other Costs - Recyclables Collection				
	Packer truck O&M cost	\$22,726	\$18,181	\$13,636
	Other maintenance		0	\$0

Description		Existing	Semi-	Fully-
	Total Annual Costs for Labor, Capital, and Other Costs	\$528,538	\$730,090	\$467,743
Difference from Existing		--	\$201,552	-\$60,795
* RL means rear-loader; SL means side-loader.				
** The number of carts includes maintaining an inventory of 2 percent for replacement of carts.				

Semi-automated collection is considerably more expensive than the current manual collection system, primarily due to the purchase of collection carts. In addition, labor costs are somewhat higher with the semi-automated system based on the assumption that both a driver and two other crew member would be needed for both trash and recycling routes in order to achieve the service rate per household.

Fully-automated collection is estimated at approximately \$61,000 lower than the existing system. While labor costs are much lower, the fully-automated system would require the purchase of two new side-loading packer trucks and new collection carts for all the residents and businesses being served.

The “base scenario” cost for both semi-automated and fully-automated collection was also compared to a number of other scenarios (“alternate scenarios”) by changing a key variable in the analysis while all other variables remain constant. The alternate scenarios can be defined as follows:

- Scenario A: Assumes a low (and a high estimate for semi-automated) for households serviced per day. The study referenced above from SWANA cited a standard deviation of approximately 30 for the number of household units serviced per hour. Assuming a seven-hour day, using the standard deviation to determine a low and high estimate results in service rates of approximately 500 (Scenario A1) and 900 (Scenario A2), respectively, for semi-automated and a low estimate of 700 (Scenario A) for fully-automated.
- Scenario B: Assumes that two crew members would be used for each route instead of three for semi-automated. Decreasing the number of crew members would likely also decrease the number of households which can be serviced per day, which has been incorporated into the scenario.
- Scenario C: Assumes that recyclables would be collected once every two weeks instead of once per week. This scenario also assumes a higher setout ratio since residents would be storing recyclables over a two-week period.

- Scenario D: Assumes that the setout rate for recycling increases to 68 percent from the base scenario rate of 45 percent, and therefore, more recyclables would be collected and need to be processed.

Each of the alternate scenarios were evaluated by changing only one parameter (i.e., number of pickups per week, or number of households serviced per day, etc.) except in situations suggesting that changing one parameter would affect another variable. The results of this analysis suggest that the number of households serviced per day has the greatest effect on the overall costs of collection. Table IV-11 shows that Scenarios A2, B, and C result in lower costs compared to the base scenario while Scenario A1 is more expensive.

Table IV-11 – Semi-Automated Collection: Base and Alternate Scenarios Compared

Service Description		Base Scenario	Alternate Scenarios				
			A1	A2	B	C	D
Trash Collection							
	# of households serviced/day	700	500	900	500	700	700
	# of routes	8	11	6	11	8	8
	# of full-time crew per route	3	3	3	2	3	3
	# of part-time crew per route	0	0	0	0	0	0
	Labor costs (including benefits)	\$284,069	\$426,104	\$142,035	\$284,069	\$284,069	\$284,069
Recyclables Collection							
	% setout rate	45.0%	45.0%	45.0%	45.0%	68.0%	68.0%
	# of households serviced/day	700	500	900	500	700	700
	# of routes	4	5	3	5	6	6
	# of pickups/week	1	1	1	1	0.5	1
	# of full-time crew per route	3	3	3	2	3	3
	Labor costs (including benefits)	\$142,035	\$142,035	\$142,035	\$94,690	\$71,017	\$142,035
Total Annual Costs for Labor, Capital, and Other Costs		\$730,090	\$872,125	\$588,056	\$682,745	\$659,073	\$730,090
Difference from Base Scenario			\$142,035	-\$142,035	-\$47,345	-\$71,017	\$0

Alternate Scenarios A, C, and D were also developed for fully-automated collection. (See Table IV-12.) As illustrated in the table, the alternate scenarios do not result in substantially different cost estimates compared to the base scenario. However, each of the alternate scenarios in

Table IV-12 assumes that the same side-loader might be used on both trash on recycling routes when needed. In addition, these scenarios would require 7 ½ to 8 hours on each route (or hours per day) so that a third side-loader would not be necessary. If the additional time per day was not feasible, then an annual cost of \$38,000 would need to be included for Scenarios A, C, and D for the purchase of another side-loader. Finally, each of the alternate scenarios and base scenarios for both the semi-automated and fully-automated collection systems would result in somewhat lower effective costs when the re-sale value of unused rear-loaders is factored into the analysis.

Table IV-12 – Fully-Automated Collection: Base and Alternate Scenarios Compared

Service Description		Base Scenario	Alternate Scenarios		
			A	C	D
Trash Collection					
	# of households serviced/day	900	700	900	900
	# of routes	6	8	6	6
	# of full-time crew per route	1	1	1	1
	# of part-time crew per route	0	0	0	0
	Labor costs (including benefits)	\$47,345	\$94,690	\$94,690	\$94,690
Recyclables Collection					
	% setout rate	45.0%	45.0%	68.0%	68.0%
	# of households serviced/day	900	700	900	900
	# of routes	3	4	5	5
	# of pickups/week	1	1	0.5	1
	# of crew per route	1	1	1	1
	Labor costs (including benefits)	\$47,345	\$47,345	\$23,672	\$47,345
Total Annual Costs for Labor, Capital, and Other Costs		\$467,743	\$515,088	\$444,071	\$467,743
Difference from Base Scenario			\$47,345	-\$23,672	\$0

6. Sanitation Department Funding

Suggested Alternative N.8 – The City should consider evaluating its current main funding source for the sanitation department. The City income tax collects 0.25% of all income from employees that work in the City. This method of funding presents the following issues:

- City residents that receive sanitation department services but do not work in the City do not pay for the services received.

- Residents from other communities that work in the City pay for services they do not receive from the sanitation department.
- According to the City finance manager, a portion of the businesses in the City do not show a profit and thus do not pay taxes on income.
- Businesses that do show a profit and pay income taxes are paying for a service they do not receive from the sanitation department.

The above situations can be perceived as unfair. There are numerous funding mechanism available for the City to consider that fairly charge the user of the sanitation services including the following:

- Fixed monthly or quarterly user fees to each account provided service.
- Variable monthly or quarterly user fees to each account by service provided.
- Monthly fees based on actual usage of service provided by weight or volume.
- Property taxes on the parcels that service is provided.
- Bag or sticker programs that account for the services utilized by each account.

The most common system used is a fixed user fee per account per month or quarter.

C. Joint Opportunities

1. Wastewater Treatment of County Landfill Leachate

Suggested Alternative HN.1 – The County currently sends leachate to the Shelby Waste Water Treatment Plant that is 19 miles from the landfill. The City of Norwalk’s Sewage Treatment Plant is 11 miles from the landfill. The County spends, on average, \$42,571 annually to transport and dispose of the leachate. Of this amount, \$14,563 is on disposal and \$28,007 is in transportation. Since the Shelby facility is 8 miles further away than the Norwalk facility, transportation costs could be saved. In addition, revenue paid to Shelby could be paid to Norwalk. By working together on this recommendation, both the City and County could benefit.

2. Joint Bidding of Collected Recyclables

Suggested Alternative HN.2 – The City currently collects approximately 846 tons of recyclables and the County approximately 573 tons. The combination of both entities is 1,419 tons. The City and County should combine this volume and then develop a bid specification for the transportation and recycling of the single stream recyclables. The

City/County should distribute the bid specifications to all local and regional commercial recyclers to obtain the best competitive price.

As a part of this recommendation, the City/County should stage their respective recyclables either at:

- The County Transfer Station, utilizing the current system to compact the recyclables for off-site transportation, or
- Develop a convenient and centrally located recycling transfer location. The current City yard waste site may be a good option.

3. Relationship Improvement

Suggested Alternative HN.3 – The County Solid Waste District Coordinator and the City Sanitation Superintendent should work together on the recommendations listed in this Study to finalize the outcomes and ensure their success.

Suggested Alternative HN.4 – The County Solid Waste District Coordinator and the City Sanitation Superintendent should visit each other's operation on an annual basis to learn about each operation to better understand the complexities, difficulties and successes of the operation. In addition, the County Solid Waste District Coordinator and the City Sanitation Superintendent should meet quarterly to discuss concerns as well as opportunities in each other's operations.

As a part of this recommendation, it is recommended that the County and City conduct an audit of the number of households serviced by the City for its sanitation department services.

Suggested Alternative HN.5 – The County Solid Waste District Coordinator and the City Sanitation Superintendent should review each other's financial budgets annually.

Suggested Alternative HN.6 – The County Commissioners and the City Council should conduct an annual retreat together to foster opportunities to work together for the benefit of the citizens and businesses in the City and County. The retreat should be organized as a strategic planning session to develop a road map for working together on solid waste management programs and projects. The City Sanitation Superintendent and the County Solid Waste District Coordinator should plan the event agenda and include a tour of facilities for the council and commissioners.

Suggested Alternative HN.7 – The County Commissioners and the City Council should establish a resolution committee to address any

contentious issues that come between the City and County in regard to waste management (collection, disposal, landfill closure, recycling and organics) issues. The resolution committee should include the County Solid Waste District Coordinator and the City Sanitation Superintendent along with a representative appointed by City Council and the County Commissioners. If the four members of the resolution committee cannot reach an amicable understanding of the issue, the four representatives will then advertise for the fifth member (cost of advertising to be split equally) of the resolution committee. The fifth member should not be affiliated with a government or solid waste company and should be a current or retired professional in one of the following professions.

- Engineering
- Law
- Management
- Consulting
- Mediation

The fifth member should receive reimbursement for any travel expenses (to be split by the City and County) and can be eligible for a fee for their time that is agreed to by the City and County and split equally. The fifth member does not have to be a resident in the County or City.

The fifth member will be responsible for chairing the resolution committee meetings and fact finding on the specific issue. The fifth member will work with the committee members to reach an amicable resolution to the issue that is fair to both parties. The fifth member will write a final report on the issue if there can be no resolution. The report will be submitted to City Council and the County Commissioners.

If a final agreement is not reached by the City or County within 45 days of receiving a report from the resolution committee, then a professional arbitrator from the Ohio Supreme Court Dispute Resolution Service, Ohio Mediation Association, Mediation Association of Northeast Ohio will be selected by the fifth member and the arbitrator's decision will be binding and the cost for the arbitrator should be placed on the losing party.

4. Joint Operation of the Transfer Station/Recycling Drop-Off Program

Suggested Alternative HN.8 – The City and County could jointly operate the transfer station via the use of City and County employees. This option could be initiated upon the retirement or elimination of an employee at the County Transfer Station. Currently an open position is available at the County for a Transfer Station operator. If the City had a capable

employee but was either laid off or underutilized, then this may an opportunity to work together.

Another option would be to create a shared employee position that could work between the two operations. This employee could fill in as a replacement for other employees that are either sick, injured or on vacation.

V. HOUSE BILL 592 ANALYSIS

In 2012, Ohio EPA initiated a conversation about Ohio's twenty-four year old solid waste law. There were issues of concern expressed by the private sector about flow control, fees, planning requirements and other issues. In addition, there were other forums where there was a discussion of merging solid waste management districts into regional districts to capitalize on efficiencies and the volumes of solid waste necessary to encourage larger regional solutions for the management of waste.

In 2012, the County Commissioners Association of Ohio (CCAO) and the Organization of Solid Waste District of Ohio (OSWDO) worked together to develop a legislative platform in preparation for discussions regarding changes to Ohio's solid waste law. The following is a summary of the legislative platform developed:

CCAO supports giving solid waste districts maximum flexibility to meet the requirements of the state solid waste management plan through locally directed and approved plans with minimal state oversight. In response to Ohio EPA and after extensive deliberations, CCAO and the Organization of Solid Waste Districts of Ohio (OSWDO) supports the following programmatic goal for solid waste districts under Ohio law:

"Maximizing the use of waste as a resource through the development of adaptive, effective and financially sustainable programs, facilities, policies and/or public-private partnerships that promote the health, safety and welfare of Ohio communities."

Local control of solid waste planning

Under broad goals and guidelines established by state law and the state solid waste plan, CCAO supports local self-determination in the number and composition of districts. CCAO believes that adoption of disposal, generation, and contract fees should remain local choices approved by local officials. Flow control must be preserved for local officials to finance public facilities and to implement the purposes of a locally approved solid waste

management plan. CCAO supports retention of the authority of solid waste districts to adopt solid waste rules that govern 1) the maintenance, protection, and use of all solid waste collection and disposal facilities; 2) the receipt of out of district waste; 3) the application of zoning to solid waste facilities; and 4) the implementation of a program for the inspection of out of state waste. CCAO believes that district programs must reflect local needs, demographics, and waste management conditions and that a one size fits all approach to local solid waste planning is not in the long term best interest of the state or its citizens.

Flexibility in solid waste governance

CCAO supports local flexibility for each district to determine whether to have a board of directors or to establish a regional solid waste authority for governance purposes. For solid waste districts that choose to retain the board of directors/solid waste policy committee governing structure, the law should be amended to permit districts to reduce policy committee quorum requirements and to reconfigure policy committees to reduce the sheer size of multi-county district policy committees. Districts with two or more counties should be able to participate in meetings via electronic video conferencing, and districts with three or more counties should have the ability to establish a non-statutory membership composition.

Streamlining of the planning process

CCAO supports streamlining the planning process by requiring each district/authority to prepare a plan every ten years instead of every 3 1/3 years provided the district is meeting goals laid out in the plan. CCAO believes that plan components should be less prescriptive than they are currently, that the format should be general and serve as a guidance document, and the format should not be a one size fits all template. In general, CCAO supports putting more resources into plan implementation and devoting less time to continuous updates and revisions of the plans. Other changes to the planning process that CCAO supports include the following:

- 1. Fee modification process** – Reduction in district generation and disposal fees should not require ratification of the solid waste plan, rather such changes should only require two hearings and a resolution.

2. **Plan components** – Remove burden of inventory data collection from districts and require brokers and haulers to submit data to the state.
3. **Plan ratification process** – Maintain the 60% approval for ratification and remove large city veto.
4. **Plan ratification process** – Failure by a political subdivision to vote removes that political subdivision from the calculation needed for approval.

In order to promote fiscal accountability, CCAO supports allowing districts to discontinue service where the costs for providing service exceed the economic value without re-ratification of the plan. In order to reduce fund balances, CCAO also supports permitting districts that levy disposal fees to reduce the \$1 dollar per ton minimum disposal fee.

Twenty-five years ago, in response to capacity and environmental concerns, the Ohio General Assembly made solid waste management a public purpose and charged county commissioners with responsibility to prepare and implement solid waste management plans to meet the solid waste needs of the citizens in every county in the state. County commissioners have taken this responsibility seriously and have invested millions of dollars in disposal, transfer, and recycling facilities and programs to meet the solid waste needs of the general public. If county commissioners are to make full use of existing facilities, programs, and services, it is essential that local officials have the power to:

- 1) *Have self-determination relative to the composition of each solid waste district,*
- 2) *Establish funding mechanisms to carry out district solid waste plans,*
- 3) *Adopt rules to make sure that solid waste facilities are properly utilized, and*
- 4) *Implement designation and debt financed flow control to make sure that facility debt may be retired and that solid waste plans may be fully implemented.*

Ohio EPA Plans

After the CCAO process was completed, the Ohio EPA initiated a legislative review process that included several steps including:

- Information and data gathering

- Key legislative topic discussions
- White papers and legislative proposals
- Draft legislation

Ohio EPA met with many public and private sector organizations and associations. They took the input and then initiated meetings to discuss specific topics. Recently, there has been some legislative development activity by Ohio EPA and an expectation that by the end of 2014 or early 2015 proposed legislation will be completed on several topics. The following section discusses the topics that may be addressed in a legislative action:

Flow Control

Flow control may be one of the first topics addressed by Ohio EPA and proposed to the General Assembly. There have been numerous meetings regarding flow control. The expectation for flow control legislation is as follows:

- Districts with existing flow control and public debt will be grandfathered.
- Districts without public debt or District's issuing new public debt or districts with public debt issuing more debt would have to go through a public process to obtain or maintain flow control rights. The process would require more details about flow control in the Plan Update and a separate process that includes public hearings on flow control.
- Ohio EPA would not have regulatory approval over flow control.
- Source separated recyclables would be exempt from flow control.

Currently, Huron County flow control is approved under the current solid waste management plan. The Plan's Flow Control requirements are authorized by the Board of County Commissioners. The Flow Control requirements include a waiver policy. Huron County will continue to designate the Huron County Transfer Station to receive solid waste generated in the District.

If the Plan for flow control remains as stated above, Huron County would be grandfathered until new debt was issued for the transfer facility. At that time, the process required would have to be initiated and completed with local public hearings and a plan re-write to describe the need and justification for flow control.

Planning Requirements

Ohio EPA has issued white issue papers on the planning requirements. They have received comments and most districts are in agreement that some tweaks and changes to the planning requirements are appropriate. For example, making solid waste plan timelines consistent for all districts is not controversial. Streamlining the ratification and review process for plans is also part of Ohio EPA's proposal.

Merging Solid Waste Districts

Most districts are opposed to proposals to merge and change the composition of solid waste districts. GT does not believe this will be part of a legislative proposal this year.

Funding

Funding is a controversial topic for both public and private sector representatives. There does not appear to be a plan to change the funding options in the statute for districts at this time. This may be a topic for the next round of legislative changes.

Solid Waste Advisory Council (SWAC)

Another proposal that may be part of the legislative package changing solid waste law is the composition of the Solid Waste Advisory Council (SWAC). An Ohio EPA proposal to merge the old Ohio Department of Natural Resources Advisory Committee with SWAC has some districts concerned. The SWAC is responsible for writing the State solid waste management plan. They operate similar to a Policy Committee of a district for the entire State. The State Plan establishes the goals and requirements for solid waste districts on recycling and other programming. The proposal currently being proposed has the SWAC membership heavily tilted toward the private sector representatives. The SWAC currently has two representatives from counties, cities, and townships. Most of the positions would be eliminated causing the district's with concern that private sector committee will establish public sector requirements that possibly are unachievable.

Legislation

There is no timetable for the release of proposed legislative language. There have been rumors that the flow control issues will be presented in a bill prior to the end of 2014. There are also possibilities that the exemption of source separated recyclables from flow control provisions will be inserted into another piece of legislation.

District Consolidation

Recently, there has been discussion about District consolidation. One of the main reasons for this discussion is to provide districts with enough population and waste volumes to develop technologies and facilities on a scale that would lead to cost effective solutions. This initiative was first discussed by solid waste districts and then by Ohio EPA. We believe at this time there is no plans to move forward with this idea. However, GT believes that this issue may arise in the future depending on the political climate. In addition, as a direct result of this

Study, GT evaluated the options for Huron County to remain a single county district versus joining with another single or joint county district.

Potential Partners

Huron County is surrounded by a variety of semi-urban and small to medium size rural solid waste districts.

- To the north is Erie County a mostly rural county with an approximate population of 73,000 and 15 political subdivisions. Erie and Huron counties were once a joint solid waste management district. Erie County is home to one major urban community in Sandusky and a smaller city in Huron.
- To the east is Lorain County with an approximate population of 300,000. Lorain County is urban in the northern third of district with Elyria, Lorain, North Ridgeville, Avon, Avon Lake and Vermilion and rural in the southern two thirds of the district.
- Directly south is Richland County a mostly rural county with an approximate population of 121,773. This District has both urban and rural features with the City of Mansfield as the largest political subdivision and mostly rural areas in the rest of the county.
- To the southwest is Crawford County a mostly rural county with an approximate population of 42,808. This District has both urban and rural features with the City of Bucyrus as the largest political subdivision followed by Galion and mostly rural areas in the rest of the county.
- To the southeast is Ashland primarily a rural single county district with an approximate population of 53,000. The largest community is Ashland City. This solid waste district may have to join with another solid waste district if the Director of Ohio EPA is able to pass legislation requiring solid waste districts that have less than 100,000 in population to consolidate with other solid waste districts.
- Directly west of Huron County is Seneca County which is part of the Ottawa-Sandusky-Seneca joint Solid Waste Management District (OSS). The OSS District has an overall approximate population of 160,000. OSS is a mostly rural district with larger communities in each county such as Port Clinton in Ottawa County, Fremont in Sandusky County and Tiffin in Seneca County.

The adjacent solid waste districts provide solid waste management services that could compliment Huron County. This includes:

- Erie County – has 2 transfer stations, 1 landfill, 1 Class II compost facility, 1 Class III compost facility and 4 Class IV compost facilities. Erie County currently receives all of Huron County’s solid waste for disposal from the Huron County Transfer Station. Erie County has a budget of \$746,844 and an account balance of \$848,404 as of December 31, 2013.
- Richland County – has 1 transfer facility, 1 landfill, 1 Class II compost facility and 3 Class III compost facilities. Richland County has a budget of and an account balance of \$752,383 as of December 31, 2013.
- Ashland County – has two Class II compost facilities. Ashland is a small rural county generating approximately 60,000 tons of solid waste. Ashland County has a budget of \$769,260 and an account balance of \$76,586 as of December 31, 2013.
- Lorain County – has one large private sector landfill. Lorain County also operates a Collection Center for HHW, electronics, tires and some universal waste. Lorain County delivers approximately 380,000 tons for landfill disposal and 180,000 tons of residential, commercial and industrial materials are recycled. Lorain County has a budget of \$2,467,220 and an account balance of \$2,389,196 as of December 31, 2013.
- OSS Solid Waste District (Ottawa, Sandusky and Seneca Counties) – has 2 transfer stations, 2 landfills, 1 Class II compost facility, 4 Class III compost facilities and 11 Class IV compost facilities. OSS District has a budget of \$1,226,515 and an account balance of \$3,556,756 as of December 31, 2013.
- Crawford County – has 1 landfill and 5 Class IV compost facilities. Crawford County has a budget of \$475,264 and an account balance of \$44,667 as of December 31, 2013.

Funding Options

Under current law, a proposed new solid waste district has two choices to demonstrate to Ohio EPA they have the financial strength to succeed as a joint district. The first option is to present a certification and capacity demonstration of sufficient capacity for the ten years after the proposed merger. If there is not sufficient facility capacity, the proposed district must submit a financial feasibility study. The study requires inventories, recycling activities, estimates of generation of solid waste, projection and estimates of capital and operating expenditures including rates and charges for revenues to be received to cover the costs.

Under the first option, Huron County could achieve a certification and capacity demonstration with Erie County, OSS District, Richland County, Crawford County and Lorain County. Ashland County has no existing capacity. If there is a firm contract or agreement for ten years of disposal, Ashland could be an option under this scenario. Compiling a financial feasibility study and allowing Ohio EPA to determine whether a merger is feasible is more risky in that Ohio EPA could make a determination to turn down the merger.

Another wrinkle to a merger with another solid waste district involves the Ohio EPA's discussion regarding solid waste districts with less than 100,000 populations. There has been discussion that the smaller counties will be required to merge with other counties to form districts with more than 100,000 population. If this is part of the new law the following may occur:

- Ashland, Crawford and Erie as well as Huron counties will be looking for an adjacent district to partner.
- The merger language in Ohio law which is complicated and cumbersome may offer solid waste districts required to merge or considering a merger a waiver from the current law.

The current discussion with Ohio EPA on funding options for solid waste districts has extended to the fees that are charged on solid waste that is either transferred or disposed. There have not been any proposals regarding the ability to apply rates and charges to solid waste district operated facilities. At this time, it does not seem likely that the Ohio EPA will develop any proposals that impact a solid waste district's ability to enact rates and charges for solid waste facilities.

Liability Issues with Other Solid Waste Districts

A merger with any other entity could potentially cause liability. Any other parties that would want to join with Huron County would likely want to negotiate an agreement that liabilities from previously closed or actively operating solid waste facilities would not be a financial burden or legal problem in the future. Almost every solid waste district has older solid waste facilities that have been closed. Older or closed landfills are issues in Huron as well as in Ashland County. Active private sector operated facilities are operational in Crawford, Erie, Lorain, Richland, Ottawa and Seneca counties. There are numerous examples of older closed facilities causing environmental issues requiring expenditures to ensure contamination is controlled and closure requirements are accomplished.

Any plans to merge with another solid waste district will require significant due diligence and legal support to evaluate the issues. Joining another district forms a new political subdivision and how that relates to any ongoing facilities and potential liabilities going forward should be thoroughly explored.

Staffing

A merger with one or more solid waste districts will likely impact the type of staff needed and how the new merged solid waste district would be operated. There will be a need to have a local presence to continue education on local programming and in some cases operations experience for specific types of facilities. Solid waste districts would need to determine how the merged solid waste district will be managed and how existing personnel would be combined. New job responsibilities would need to be created and defined.

It is likely that some efficiency can be accomplished and a savings on personnel costs can be achieved through a merger. Each of the options presents opportunities and some consolidation would likely take place. If more than one solid waste district merges into a larger entity that would obviously impact more current employees.

Debt Retirement

Several Ohio solid waste districts have obtained financing to construct solid waste facilities. As discussed earlier in this Section, it is possible that debt could become a requirement for solid waste districts to enact flow control. Flow control aside, merging with a solid waste district that has debt or two solid waste districts that have debt is an issue that will need to be assessed by each of the merging solid waste districts.

Decisions that will need to be evaluated include:

- Should debt be continued?
- Should debt be consolidated?
- Should one county pay more towards debt retirement?
- Should debt payments remain the responsibility of the individual county?
- Should debt be refinanced?

These and other financial questions will need to be evaluated if the two or more counties proposing to merge have debt.

Summary

The 52 solid waste districts in Ohio may need to make decisions as to how to manage solid waste into the future once the new law is proposed and passed. It could benefit Huron County to have discussions with the five solid waste districts surrounding Huron County. The costs and benefits should be discussed and opportunities to work together explored.

The meetings will allow the solid waste districts to compare information on debt, flow control, staffing, liability and financing as well as politics. This will be useful in making any decisions as the process moves forward in 2014 and beyond.

Which District Should Be First?

All of the solid waste districts provide both incentives and disincentives for forming a working joint district. Some, more than others, may make sense in starting discussions to determine if there are synergies that make political and fiscal sense to explore the joint district notion.

GT would recommend that invitations to explore opportunities to work together should start with Erie County and Lorain County.

1. Erie County – shares a significant border with Huron County. Historically and currently solid waste has crossed the borders in the past. Erie County has facilities that are closer to the County. Erie and Huron County also were once a joint solid waste district. The Erie County has a publically owned and operated landfill. This could help to lower solid waste disposal costs in the future. The proximity of the facilities along with the combination of population may make Erie County an attractive candidate. The Districts are operated similarly with a policy committee and County Commissioners as a Board of Directors. Both counties may be forced to merge and may have to consider smaller surrounding counties to the south and east. Neither County has a recycling facility to process materials which may present the opportunity to work together as a joint solid waste district to develop a recycling facility.
2. Lorain County – shares a border with Huron County. Lorain County has facilities that are closer to the County. The District has a privately operated landfill, recycling center and collection center for HHW, electronics, and tires. This could help to lower solid waste processing costs in the future. The proximity of the facilities along with the combination of population may make Lorain an attractive candidate. The Districts are operated similarly with a policy committee and County Commissioners as a Board of Directors. Lorain will not be forced to merge, but may have to consider smaller surrounding counties to the west and south.
3. The other Districts we believe have some additional issues that may not make them as attractive candidates as Erie and Lorain. This includes the following:
 - A. Ottawa-Sandusky-Seneca Joint Solid Waste District – shares the western border with Huron County. This joint district stretches a great distance to the north of Huron County. The OSS District does

have ample landfill capacity and that could be attractive in lowering costs for disposal in the future.

- C. Ashland County – shares Huron County’s southeastern border. Ashland is a small rural county with no landfill facilities. The addition of the population from Ashland would not provide enough synergy to develop new technologies. However if there were discussion with multiple counties to form a large regional district, Ashland should be considered.

How to Move Forward

An optional first step could be to invite Erie and Lorain to a fact finding meeting.

1. Invite the policy committees and/or commissioners in Erie and Lorain for an open dialogue on solid waste issues and their impact on the region. Have each solid waste district Director provide a 10 minute status on their solid waste district. Agenda could be as follows:
 - Introductions
 - Solid Waste Director Overviews
 - Discussion on Basic Issues (Flow Control, Fees, Debt, Finances)
 - Wrap-up Next Steps
2. Identify from this initial meeting potential partners (if any).
3. Develop the positives and negatives about each potential partner.
4. Identify the positives and negatives of remaining a single county district.
5. Identify legal hurdles.
6. Determine if there are political, economic and legal reasons for moving forward.

VI. SUMMARY

This report presents the cost structure and financing for both the Huron County and City of Norwalk solid waste management systems. Each of these systems are interdependent upon each other. The costs as outlined in this report show that there are efficiencies that can be captured by both parties to make their systems more efficient and cost effective.

The report presents numerous recommendations for both parties consideration. Several of the recommendations require both parties to work together to advance the efficiencies in the marketplace to save on expenditures and operational costs. In addition, the recommendations include several opportunities for both

parties to establish a more trusting relationship by building upon open information and regular opportunities for communications. Only through this type of dialogue will opportunities open up for the betterment of the Huron County and City of Norwalk relationship.

It is anticipated that with the implementation of a recommendation that requires joint participation, such as the leachate disposal, success will occur and trust will continue to grow. The County and City may want to prioritize the recommendations and develop a strategic plan for implementing the ideas presented in this report. This would be a good first step and begin to establish a stronger working relationship.

APPENDIX A

SURVEY INSTRUMENTS

City of Norwalk Solid Waste Collection Analysis

Solid Waste Collection Information Request

1. CURRENT SOLID WASTE COLLECTION PROGRAM

Collection System:		Y	N
Curbside Collection:		<input type="checkbox"/>	<input type="checkbox"/>
Side/Back Door Collection:		<input type="checkbox"/>	<input type="checkbox"/>
Unlimited Trash Collection		<input type="checkbox"/>	<input type="checkbox"/>
Weekly Bulk Pick-Up		<input type="checkbox"/>	<input type="checkbox"/>
On-Call Bulk Pick-Up		<input type="checkbox"/>	<input type="checkbox"/>
Other Collection System:		<input type="checkbox"/>	<input type="checkbox"/>

of Sanitation Employees Dedicated to Trash Collection:

of Sanitation Employees per Trash Route:

of Sanitation Employees Dedicated to Yard Waste Collection:

of Sanitation Employees per Yard Waste Route:

of Sanitation Employees Dedicated to Bulk Collection:

of Sanitation Employees per Bulk Route:

of Sanitation Employees Dedicated to Management:

Do your employees work 8 hour days or do they leave when the route is completed?

What time do collections crews start work?

Finnish Work?

Is there a limit to the amount of trash a resident can place out for collection?

Is there a limit to the amount of yard waste (leaves, brush, grass) a resident can place out for collection? Is this a seasonal collection?: If seasonal, what are the operational period?

Is there a limit to the amount of bulk items (appliances, beds) a resident can place out for collection?

What is the current container system used by residents to participate in the curbside trash program?

Is there an ordinance requiring residents to place trash containers in certain areas for collection purposes?

Are there maps available depicting the current routes (if so, please attached or email)?

When were the current routes last reviewed/balanced/adjusted?

How were the routes established (i.e. by ward, region, previous route studies, ect..)?

**City of Norwalk Solid Waste Collection Analysis
Solid Waste Collection Information Request**

Route Information - Trash

Day	# of Routes	# of Homes on Route	Avg # Set-Outs on Route	Avg. Tons Collected	Hours to Complete	Staff Per Route
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Total						

Distance from Routes to Disposal Facility:
2013 Residential Trash Tons Disposed:

Route Information – Yard Waste

Day	# of Routes	# of Homes on Route	Avg # Set-Outs on Route	Avg. Tons Collected	Hours to Complete	Staff Per Route
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Total						

Distance from Routes to Disposal Facility:
2013 Residential Yard Waste Tons Disposed:

Route Information – Bulky Items

Day	# of Routes	# of Homes on Route	Avg # Set-Outs on Route	Avg. Tons Collected	Hours to Complete	Staff Per Route
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						

**City of Norwalk Solid Waste Collection Analysis
Solid Waste Collection Information Request**

Day	# of Routes	# of Homes on Route	Avg # Set-Outs on Route	Avg. Tons Collected	Hours to Complete	Staff Per Route
Saturday						
Total						

Distance from Routes to Disposal Facility:
2013 Residential Bulky Item Tons Disposed:

Solid Waste Collection Equipment

Truck #	Purpose (Trash, YW, Bulk)	Power Unit (International, Mack)	Body (Labrie)	Packer Capacity	Age	Purchase Price

Vehicle Retirement Period (7, 10 or more years):

2. DISPOSAL AND HAULING COSTS

2013 Trash Disposal Costs:
2013 Bulk Disposal Costs:
2013 Yard Waste Compost Costs:

2013 Labor Costs:
2013 Labor Benefits Costs:
2013 O and M/Overhead/Misc Costs:
2013 Maintenance Costs:

2013 Total Operating Costs:

Cost/Ton Paid for Disposal (including fees):
Cost/Ton Paid for Composting (including fees):

3. MSW DISPOSAL AND HAULING REVENUE

Is the Sanitation Department operated as an enterprise fund:

**City of Norwalk Solid Waste Collection Analysis
Solid Waste Collection Information Request**

if not, what other sources of revenue are relied upon (taxes, grants):

2013 Charge for Residential Service (cost per month/household): or
2013 Charge for Residential Service (cost per quarter/household): or
2013 Charge for Residential Service (property tax on each household): or
2013 Charge Other (bulk items?): Explain:

Solid Waste Disposal Landfill Used:
Solid Waste Disposal Transfer Station Used:
Compost Facility Used For Yard Waste:
Solid Waste Facility Used for Bulky Items:

Please Attached 2010-2013 Disposal Data (tons collected) and Support Data if Available

4. RECYCLING COLLECTION

2013 Residential Recycling Tons:

List recyclables accepted:

Are there maps available depicting the current routes (if so, please attached or email)?

What is the closest and farthest distance from your recycle routes to the MRF?

5. CURRENT RECYCLABLES COLLECTION, PROCESSING AND HAULING COSTS

2013 Recyclables Processing Costs:
Cost/Ton Paid for Recycling:
Recycling Collection Contract Expiration:

6. RECYCLABLES PROCESSING AND HAULING REVENUE

2013 Charge for Residential Service (cost per month/household): or
2013 Charge for Residential Service (cost per quarter/household): or
2013 Charge for Residential Service (property tax on each household): or
2013 Charge Other: Explain:

2013 Total Revenue from Sale of Recyclables:

Material Recovery Facility Used: or Recycling Broker Used:

Revenue Generated Per Ton for Newspaper:
Revenue Generated Per Ton for Cardboard:

**City of Norwalk Solid Waste Collection Analysis
Solid Waste Collection Information Request**

Revenue Generated Per Ton for Mixed Paper:
Revenue Generated Per Ton for Aluminum Cans:
Revenue Generated Per Ton for Tin Cans:
Revenue Generated Per Ton for #1 Plastic:
Revenue Generated Per Ton for #2 Plastic:
Revenue Generated Per Ton for Commingle:
Revenue Generated Per Ton for :
Revenue Generated Per Ton for :

7. OTHER PERTINENT INFORMATION

Please provide any other pertinent information:

The following items need to be provided to GT:

Please provide historical (2009-2013) trash route data (tons collected) by year by route including tons collected.

Please provide historical (2009-2013) recycle route data (tons collected) by year by route including tons collected.

Please provide historical (2009-2013) bulk route data (tons collected) by year by route including tons collected.

Please provide historical (2009-2013) yard waste route data (tons collected) by year by route including tons collected.

Huron County Solid Waste Management District

Information Request

District Solid Waste Plan

- Current solid waste management plan and all appendices and attachments
- Current rules of the District
- Current flow control provisions and resolutions
- A copy of the findings and orders to implement the current solid waste plan

District Recycling Program Information

- 2009-2013 Residential recycling drop-off data by site including costs
- 2009-2013 Residential special collection events (HHW, Appliances, Tires, Used Oil, Bulbs, etc...) data including materials collected, tons recycled, hours of collection, population served, percent received from sector and costs

District Revenue and Expense

- 2009-2013 District revenue by type (generation fee, grants, user fees, other)
- 2009-2013 actual expenses for District
- 2014 revenue and expense budget
- District loan information (Principal paid, interest, interest paid and term remaining)
- Any new loan information
- Grants obtained from 2009-2013

Staffing

- Number of District staff
- Number of transfer station staff
- Annual District staff costs including benefits
- Annual transfer station staff costs including benefits

Transfer Station

- 2009-2013 tons accepted by type (solid waste, CDD, special waste)
- 2013 tons accepted by customer (Norwalk, direct resident loads, commercial, industrial, other)
- Current tipping fee at transfer station
- 2009-2013 tipping fees at transfer station
- Current landfill used for accepted transfer station solid waste
- 2009-2013 cost paid per ton for disposal of solid waste at landfill including fees
- 2009-2013 disposal costs at landfill
- 2009-2013 landfill closure costs
- 2014 and beyond projected landfill closure costs
- 2009-2013 transportation cost to landfill



City of Norwalk / Huron County in Ohio



Trash and Recyclables Collection Survey

The **City of Norwalk** is located in **Huron County** in north central Ohio. The City and the County are currently evaluating their existing solid waste collection and processing systems for both trash and recyclables. As part of this evaluation, data is being gathered from other communities for comparison in order to facilitate making decisions for possible changes in the City's and County's solid waste management system.

Please answer the questions below as completely as possible, and email the completed form & any other pertinent documents to: **Molly Kathleen** at GT Environmental, Inc. (mkathleen@gtenvironmental.com). If you have questions, please contact Molly Kathleen at (614) 794-3570, ext. 11, or at the email address above. Thank you.

Part 1 - General Information

Name of Community _____

Address _____

City _____ **Zip** _____

Contact Person _____ **Title** _____

Phone _____ **Email address** _____

Part 2 – Basic Collection Service Information

1. Please fill-in the table below.

Collection Service	Is this service provided?	Type of Collection (check the appropriate box)			Collection Frequency (#/week)	Cart size (if applicable)
		Manual	Semi-automated	Fully-automated		
Trash						
Recyclables						
Yard waste						
Bulk wastes						
Appliances						

2. Are there limits to the amounts residents can set out for collection? For trash? For bulk wastes? etc.

3. Are there ordinances requiring residents to place containers in certain locations (e.g., at the curb, or in the alley, etc.)? _____
4. Number of households served: _____
5. Routing Information
- a. Please describe how your collection routes have been determined. _____
- b. What is the average set-out percentage for your collection routes? _____
- c. What is the average hours required for the collection routes to be completed? _____

City of Norwalk / Huron County Trash and Recyclables Collection Survey (continued)

Part 3 – Tons Collected, Facilities Used, and Charges to Residents

Please provide the information requested in the table below.

Collection Service	Tons Collected	Facilities Used for Disposal/Processing		Charges to Residents for Service (per HH/month)	
		Name	Distance from City	User fee	Property taxes
Trash					
Recyclables					
Yard waste					
Bulk wastes					
Appliances					

Part 4 – Costs to Provide Services

Please provide the following cost information for calendar year 2013.

Collection Service	Labor		Annual O & M	Annual Debt Service	Disposal/Processing Costs/Ton	Total Costs
	# of Employees	Total Costs				
Trash						
Recyclables						
Yard waste						
Bulk wastes						
Appliances						

Part 5 – Collection Vehicle Information

Please provide the following information for each type of vehicle used for collection.

Collection Service	Type of Vehicle				Power Unit (International, Mack, etc.)	Body (Labrie)	Approx. Purchase Price
	Description	#	Capacity	Age			
Trash							
Recyclables							
Yard waste							
Bulk wastes							
Appliances							

Please email completed survey and attached documents to: mkathleen@gtenvironmental.com

THANK YOU!



City of Norwalk / Huron County in Ohio



Trash and Recyclables Collection Survey

The **City of Norwalk** is located in **Huron County** in north central Ohio. The City and the County are currently evaluating their existing solid waste collection and processing systems for both trash and recyclables. As part of this evaluation, data is being gathered from other communities with transfer stations for comparison in order to facilitate making decisions for possible changes in the City's and County's solid waste management system.

Please answer the questions below as completely as possible, and email the completed form & any other pertinent documents to: **Molly Kathleen** at GT Environmental, Inc. (mkathleen@gtenvironmental.com). If you have questions, please contact Molly Kathleen at (614) 794-3570, ext. 11, or at the email address above. Thank you.

Part 1 - General Information

Name of Community _____

Address _____

City _____ **Zip** _____

Contact Person _____ **Title** _____

Phone _____ **Email address** _____

Part 2 – Basic Facility/Services Data

Please provide the information requested below for 2013 for the transfer station, any processing facility operated for recyclables, and recycling drop-offs maintained by the solid waste district and/or County.

Facility / Services	Tons Received from:			Tipping Fee (\$/ton)	Waste/Recyclables Transported to:	
	Residential/ Commercial	Industrial	CDD/ Other		Name	Distance to Facility
Transfer Station						
Processing Facility for Recyclables						
Drop-offs for Recyclables						

Part 2 – District Rules and Flow Control

1. Please attach a copy of all solid waste district rules and/or County ordinances which are used to operate the transfer station, any processing facility operated for recyclables, and recycling drop-offs.
2. If applicable, please attach a copy of the flow control provisions for the transfer station, any processing facility operated for recyclables, and recycling drop-offs.

City of Norwalk / Huron County Trash and Recyclables Collection Survey (continued)

Part 3 – Costs to Provide Services

1. Please provide the following information for calendar year 2013.

Facility / Services	Labor		O & M	Annual Debt Service		Transportation Costs to Landfill / Processing Facility
	# of Staff	Annual Costs		Items included (e.g., building, equipment, etc.)	Cost	
Transfer Station						
Processing Facility for Recyclables						
Drop-offs for Recyclables						

2. Please provide any annual legacy costs such as landfill closure costs, sampling, environmental fines, etc.

Part 4 – Listing of Equipment

Please describe the equipment and vehicles used to operate the transfer station, any processing facility operated for recyclables, and recycling drop-offs.

Facility / Services	Equipment and Vehicles Used	
	Description	Purchase Costs
Transfer Station		
Processing Facility for Recyclables		
Drop-offs for Recyclables		

Part 5 – Special Collection Events

Please provide information regarding special collection events (e.g., HHW, appliances, scrap tires, etc.), including frequency of collections, tons of materials collected, population served, and annual costs.

Please email completed survey and attached documents to: mkathleen@gtenvironmental.com

THANK YOU!

APPENDIX B

HURON COUNTY AUDITOR HOUSEHOLD COUNT FOR NORWALK DOCUMENTATION

**HURON COUNTY AUDITOR
ROLAND TKACH**

12 East Main Street Suite 300
Norwalk, OH 44857
419-668-8643
419-663-6948 FAX
roland_t@hmcld.net

October 9, 2014

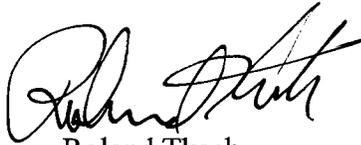
GT Environmental Inc.
778 McCauley Road
Stow, OH 44334

Dear James A. Skora:

I have reviewed your request for the number of household units within the City of Norwalk. The question was for all households which include single family homes, mobile homes, 2 unit apartments, 3 unit apartments and condominiums with in the Norwalk City limits. The number I have for this request of household units is 6,028.

If you have any questions on this matter feel free to call me.

Sincerely



Roland Tkach
Huron County Auditor

Cc: Pete Welch Huron County
Jeff Montgomery City of Norwalk



APPENDIX H

EXPENDITURE PROJECTION METHODOLOGY



Methodology for Projecting Expenditures in Table VIII-5

All expenditures for 2014 are based on the District's actual expenditures as recorded in the District's budget spreadsheet and expenditures for 2015 are based on the District's approved budget.

PAYROLL EXPENDITURES

Staff Salaries - Admin-1

2016-2032: Expenditures increase 1.5% annually based on historical District averages.

PERS - Admin-2

2016-2025: Based on the ratio of PERS to staff salaries from 2014-2015

Average PERS 2014-2015 (\$9,263) ÷ average staff salaries 2014-2015 (\$66,455) = 0.1394

$$\begin{aligned} 2016 \text{ PERS} &= 0.1394 \times (\text{2016 staff salaries}) \\ \$9,479 &= \$68,005 \times 0.1394 \end{aligned}$$

Medicare - Admin-3

2016-2032: Projected to increase 2.4% annually based on the 12-month percent change in medical care in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.

Life Insurance - Admin-4

2016-2032: Projected to increase 1.7% annually based on the 12-month percent change in personal insurance in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.

Workers Compensation - Admin-5

Based on dividing staff salaries by 100 and multiplying by \$1.95, which calculates the tax rate for employers in the State of Ohio.

Travel/Conference Expenses - Admin-6

2016-2032: Projected to increase 1.5% annually based on actual historic annual increases.

ADMINISTRATIVE, SUPPLIES, AND SUPPORT SERVICES

Supplies - Admin-7

2016-2032: Projected to increase 1.9% annually based on the 12-month percent change in all items less food and energy in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.

Training - Admin-8

2016-2032: Projected to increase 1.868% annually based on the 12-month percent change in adult education class fees in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.

Professional Services - Admin-9

2016-2032: Costs for assistance with preparing Plan Updates are estimated based on the District's current and expected Plan Update schedules.

Postage/Shipping - Admin-10

2016: Projected to increase 6.52% based on increases published by the U.S. Postal Service.

2017-2032: Projected to increase 2% annually based on historical postage increases.

Vehicles - Admin-11

2016-2032: Vehicle is projected to be replaced every 4 years.

Office Services (Phone) - Admin-12

2016-2032: Projected to increase 2.424% annually based on the 12-month percent change in telephone services in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.

RESIDENTIAL/COMMERCIAL COLLECTION SERVICES

Drop-Off Recycling - HC-2

2016: Expenditures projected to increase 5% at the beginning of a 3 year contract with two one-year extensions.

2017-2018: Expenditures are projected to remain flat during years two and three of a three year contract.

2019-2020: Expenditures are projected to increase 2.5% annually during two one-year contract extension options.

This cycle of increases is projected to continue for each 5-year contract cycle from 2022-2031.

Scrap Tire Collection - HC-5

This District's ability to operate this program is dependent upon funding from Ohio EPA grants. Grant funding is competitive and not guaranteed; therefore, it is not projected in Table VIII-5. In the event that the District does receive an Ohio EPA grant, unencumbered funds will be used toward the grant match.

Electronics Collection - HC-8

Based on the results of the District's evaluation concerning whether electronic waste could be accepted at the transfer station cost effectively, the District will aim to roll out a publicly available collection program. If this program is implemented, expenses are projected to begin in 2019. Expenses are projected to increase 2.5% annually.

RESIDENTIAL EDUCATION AND AWARENESS PROGRAMS

Public Awareness - HC-9

2016: Expenses are projected as the average costs from 2014 to 2015.

2017-2032: Because web-hosting is included in this program's expenses, annual costs are projected to increase 0.0681% annually based on the 12-month percent change in internet services in the Consumer Price Index for All Urban Consumers (CPI-U) for September 2014 to September 2015.

Environmental Education - HC-10

2016-2032: Expenditures are anticipated to remain flat throughout the planning period.

Environmental Events - HC-11

2016-2032: Expenditures are anticipated to remain flat throughout the planning period.

COMMERCIAL/INDUSTRIAL EDUCATION, AWARENESS, AND TECHNICAL ASSISTANCE PROGRAMS

Commercial/Industrial Newsletter - HC-15

2016-2032: Program expenses are expected to remain flat.

GRANT PROGRAMS

Recycling Incentive Grant - HC-16

2016: The District extended this program which was supposed to end in 2015 to 2016.

2017-2032: The City of Norwalk will receive \$10,000 per year until the next Plan Update. The District budgeted an additional \$15,000 per year from 2018-2032 for other communities to apply for funding.