

## II. Executive Summary

The Stark-Tuscarawas-Wayne Joint Solid Waste Management District (District) is required by the Ohio Revised Code (ORC) 3734.54 to periodically update its solid waste management plan (*Plan Update*). This *Plan Update* will cover a ten year planning period beginning in 2015 and ending in 2024. This *Plan Update* includes a description of District programs and projections for solid waste generation, recycling and disposal for ten years. This *Plan Update* 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 the Ohio Environmental Protection Agency's (EPA) 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** – is an Executive Summary and 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 (2011).
- **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

Section I. Introduction includes basic information about the District, including:

- Plan Approval Date;
- Counties in Authority;
- Planning Periods Length;

- Reasons for Plan Submittal;
- Process to Determine Material Change in Circumstances;
- District Formation;
- Description of Policy Committee Members;
- Description of Board of Directors;
- District Address and Phone Numbers; and
- Description of the Technical Advisory Council and Other Subcommittees.

The District includes all incorporated and unincorporated territory in Stark, Tuscarawas and Wayne counties.

The current Plan was approved by the Ohio EPA on January 27, 2011 and includes an eleven year planning period. This *Plan Update* begins with the planning year 2015 and includes a ten year planning period.

The Board of Directors (Board) governs the District. The following table lists the current Board members:

Commissioner	County
Tom Bernabei	Stark
Janet Weir Creighton	Stark
Richard Regula	Stark
Chris Abbuhl	Tuscarawas
Belle Everett	Tuscarawas
Kerry Metzger	Tuscarawas
Jim Carmichael	Wayne
Ann Obrecht	Wayne
Scott Wiggam	Wayne

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

Stark County		
Policy Committee Member	Representing	Term
Janet Weir Creighton	County Commissioner	Unlimited
Larry Emerick	City of Canton Representative	Unlimited
Doug Baum	Township Representative	Unlimited
Kirk Norris	Health Department Representative	Unlimited
Dominic Nardis	Industrial Representative	1-1-2012 to 12-31-2013
Carl Rose	Public Representative, No Conflict	1-1-2012 to 12-31-2013
Mark Cozy	Public Representative	1-1-2012 to 12-31-2013

Tuscarawas County		
Policy Committee Member	Representing	Term
Belle Everett	County Commissioner	Unlimited
Mayor Mike Taylor	City of New Philadelphia Representative	Unlimited
Matt Ritterbeck	Township Representative	Unlimited
Michael Chek	Health Department Representative	Unlimited
Robert Gale	Industrial Representative	1-1-2012 to 12-31-2013
Lee Finley	Public Representative, No Conflict	1-1-2012 to 12-31-2013
David Bennett	Public Representative	1-1-2012 to 12-31-2013

Wayne County		
Policy Committee Member	Representing	Term
Scott Wiggam	County Commissioner	Unlimited
Mark Nussbaum	City of Wooster Representative	Unlimited
Karl Stroh	Township Representative	Unlimited
Dr. Greg Halley	Health Department Representative	Unlimited
Steve Steiner	Industrial Representative	1-1-2012 to 12-31-2013
Robert Holland	Public Representative, No Conflict	1-1-2012 to 12-31-2013
David Elwell	Public Representative	1-1-2012 to 12-31-2013

### Technical Advisory Council and Other Subcommittees

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

### Process to Determine Material Change in Circumstances and Amend the Plan

A material change in circumstances or deviation from the approved *Plan Update* includes changes to facility designations, flow control; changes to waste generation; a reduction in available capacity; a reduction in funding; changes to strategies for waste reduction and recycling; procedures to be followed for plan implementation or a delay in program implementation that would significantly affect the chances of achieving the District goals. This District will evaluate the *Plan Update* periodically to determine if a material change has occurred.

## B. Section III - Inventories

Section III provides an inventory of facilities, programs and activities during the reference year of the *Plan Update*. The reference year for the *Plan Update* is 2011.

### 1. Existing Solid Waste Landfills

The District utilized five in-district landfills and 12 out-of-district landfills that provided disposal capacity for District waste. Approximately 781,280 tons of solid waste was disposed by District residents, commercial businesses and industry in 2011.

The five in-district facilities accepted 713,877 tons of solid and exempt waste in 2011. This accounts for 91% of all waste generated from within the District.

The 12 out-of district landfills accepted 67,402 tons of solid and exempt waste in 2007. This accounted for 9% of all waste generated from within the District.

Of the 17 in-district and out-of district landfills used in 2011 by the District, 89% of the waste was accepted by 3 landfills; Republic's Countywide facility at 34%, American Landfill at 33% and Kimble Sanitary Landfill at 23%. The remaining 14 landfills accounted for 10% of the total waste disposed by District generators in 2011.

Table ES-4 (located at the back of this Section) presents the landfills used by the District, the total amount of waste accepted and the remaining capacity at those facilities.

## **2. Existing Incinerators and Resource Recovery Facilities**

No publicly available incinerators or resource recovery facilities currently exist within the District. Information in this section has been obtained through results from surveys and direct inquiry.

## **3. Existing Transfer Facilities**

Total transferred solid waste from the District in 2011 was 119,350 tons of which two in-district transfer facilities processed 92,469 tons (77%) and seven out-of-district transfer facilities processed 26,881 tons (23%) of District solid waste in 2011.

The Kimble Transfer and Recycling Facility in Canton accepted the highest amount of waste at 92,301 tons followed by Waste Management's Akron Central Transfer at 17,627 tons, Broadview Heights Recycling Center at 5,600 tons and the Richland County Transfer Station at 2,433 tons. The remaining facilities accepted less than 1,400 tons in 2011.

## **4. Existing Recycling and Household Hazardous Waste Collection Activities**

The District had 16 communities and the unincorporated areas of Stark County that operated either a non-subscription or subscription curbside recycling program in 2011. In 2011, there were 15 non-subscription programs and one subscription programs. Each of the programs collected at a minimum aluminum cans, steel cans, glass, newspapers and plastic. In addition, the programs also collected corrugated cardboard, magazines and mixed paper. For 2011, a total of 6,169 tons of materials were recycled.

The District had a total of 90 full time and one part time multi-material recycling drop-off facilities located throughout the District in 2011. The drop-off facilities collected aluminum cans, steel cans, glass and plastic. Some facilities also collected cardboard, magazines, mixed paper and paperboard. Total recycling tonnage for these facilities in 2011 was 12,057 tons.

The District had 12 limited material collection sites that recycled 694 tons of materials in 2011. These facilities collected office paper, cardboard, mixed paper and other materials.

In addition to the drop-offs, there were several other scrap dealers and recyclers that accepted materials from the residential/commercial and industrial sectors within the District. These facilities accepted a wide range of materials including aluminum, steel, white goods, other metals and other materials.

#### **5. Existing Composting/Yard Waste Management Facilities**

The District had 47 compost facilities in 2011 which were registered or licensed with Ohio EPA. The information presented in this section was obtained through surveys and the Ohio EPA compost facility annual report data.

Of the facilities that reported, there was 48,631 tons of yard waste collected and recycled in 2011.

#### **6. Existing Open Dumps and Waste Tire Dumps**

An inventory of the existing open and waste tire dumps in the District was performed in order to allow the District to assess its ongoing ability to dispose of exempted waste, enable clean-up of illegal dump sites and enforcement of illegal dumping laws. Results are presented in Table III-8 (located in the back of Section III), "Open Dumps and Waste Tire Dumps Located in the District."

#### **7. Ash, Foundry Sand and Foundry Slag Disposal Sites**

There were no foundry sand/slag or ash disposal sites in the District in 2011.

#### **8. Map of Facilities and Sites**

Maps of facilities and site locations have been included in Section III. A larger map of facilities is included in Appendix E.

#### **9. Existing Collection Systems – Haulers**

There were four public sector and 43 private sector haulers listed in Table III-10 (located in the back of Section III).

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

Section IV presents statistics and programs operating in the reference year 2011.

### **1. Reference Year Population and Residential/Commercial Waste Generation**

The population estimate of 582,680 for the District is a projection using the 2010 Census and population projections from the Ohio Department of Development Office of Strategic Research, 2010 Population for Counties, Cities, Villages and Townships.

#### **Population Adjustments**

The City of Alliance has more than 50% of the population living inside Stark County and a portion living inside Mahoning County. The population of this community in Mahoning County is added to the District population totals. The Village of Magnolia has more than 50% of the population living inside Stark County and a portion living inside Carroll County. The population of this community in Carroll County is added to the District totals. The Village of Minerva has more than 50% of the population living inside Stark County and less than 50% living in Carroll and Columbiana Counties. The population of this community in Carroll and Columbiana counties is added to the District totals. The Village of Baltic has more than 50% of the population living inside Tuscarawas County and less than 50% living in Coshocton and Holmes Counties. The population of this community in Coshocton and Holmes counties is added to District totals. The Village of Creston has more than 50% of the population living inside of the Wayne County and a portion living inside Medina County. The population of this community in Medina County is added to the District totals. The City of Rittman has more than 50% of the population living inside of Wayne County and a portion living inside Medina County. The population of this community in Medina County is added to District totals. Norton has less than 50% of the population living inside of Wayne County and more than 50% living inside Summit County. The population of this community in Wayne County is subtracted from District totals.

The total adjusted population for the District in 2011 was 585,136.

The District projected residential/commercial waste using Ohio EPA's September 4, 2002 recommendations for estimating per capita waste generation and then using the same escalator (.50%) for 2011 as was used for 2006 through 2010. For 2011, the per capita residential/commercial waste generation estimate was 4.88 pounds per person per day, based on a trend of .02 escalations.

The formula for projecting the residential/commercial waste generation using the “national projections” that were adjusted by Ohio EPA is presented in Table IV-1 (located in the back of Section IV). This methodology estimated the District’s residential/commercial waste generation was 521,122 tons in 2011. This estimate is 87,478 tons less than the residential/commercial waste generation of 608,600 tons reported in the 2011 ADR. This amount represents 490,745 tons recorded by landfills and transfer stations and 117,855 tons reported by recycling and source reduction activities. For further discussion on reconciling the waste generation values see Section IV.H of this *Plan Update*.

## **2. Industrial Waste Generation**

The District used information from industries responding to the survey as well as Appendix JJ of the Ohio EPA Plan Format and the 2012 Harris Ohio Industrial Directory to estimate Total Industrial Waste Generated.

The District had 1,434 industries in SIC codes 20 and 22 through 39. Approximately 6% of the industries (80) responded to the survey. Approximately 9,476 of the employees were represented by the survey results.

The District calculated the generation rate and tons of waste generated per employee, for each SIC code from the survey respondents. For those SIC codes where no industries responded, the District used the generation rate from Appendix JJ of the Ohio EPA Plan format and the 2012 Harris Ohio Industrial Directory to estimate waste generated. A total of 3,140,372 tons of industrial waste was generated by the District. Approximately 79% (2,482,657 tons) was reported in the surveys.

## **3. Exempt Waste**

Exempt waste is material such as construction and demolition debris and non-toxic foundry sand which is not defined as a solid waste. Exempt wastes may be managed in landfills that have different and often less stringent environmental control requirements. Table IV-3 (located in the back of Section IV) shows the total exempt waste generated by the District was 51,362 tons. This includes the exempt waste reported by the landfills receiving the District’s waste in Table III-1.

## **4. Total Waste Generation**

Table IV-4 (located in the back of Section IV), “Reference Year Total Waste Generation for the District,” presents the total waste generated using national and industrial projections. Using the national averages adjusted by Ohio EPA, the District projected 3,712,856 tons of waste was generated in 2011 from all sectors. The generation rate in pounds per person per day is estimated at 34.68. This included residential/commercial waste generation of

521,122 tons (Table IV-1), 3,140,372 tons (Table IV-2) of projected industrial waste and 51,362 tons of exempt waste (Table IV-3). The total waste generation listed in Table IV-4 was 1,782,618 tons more than the total in Table IV-8 as calculated using landfill data and reported recycling and waste reduction, including exempt waste. For further discussion on reconciling the waste generation values see Section IV.H.

## **5. Reference Year Waste Reduction**

The District had 117,854 tons of residential/commercial waste recycled in 2011. This total includes the reported materials recycled by the residential/commercial sector (58,479 tons) and commercial sector (59,375 tons). A copy of the Recyclers and Commercial Institutional Survey are included in Appendix F.

Yard waste was the largest component recycled in the residential/commercial sector followed by cardboard, tires, paper and commingled recyclables. Commingled recyclables are plastic, aluminum and steel cans, glass and paper that are combined and reported as one commodity by haulers and communities.

The District had 911,668 tons of industrial waste recycled in 2011. A copy of the Industrial Survey is included in Appendix F.

Ferrous metals and cardboard were the primary components recycled by the industrial sector in 2011. Approximately 608,163 tons of ferrous material and 228,671 tons of cardboard were recycled in 2011.

## **6. Existing Waste Reduction/Recycling Activities for the Residential, Commercial and Industrial Sector**

### **RESIDENTIAL/COMMERCIAL RECYCLING PROGRAMS**

In 2011, the following facilities/programs were implemented:

- Curbside Recycling Program
- Drop-off Recycling Program
- Yard Waste Management Program
- Food Waste Management Program
- Household Hazardous Waste (HHW) Management Program
- Scrap Tire Collection Program
- Computer/Electronic Recycling Program
- Lead Acid Battery Collection Program
- Appliance Collection
- County Government Building Recycling
- School Recycling Program

## **RESIDENTIAL/COMMERCIAL/INDUSTRIAL MARKET DEVELOPMENT PROGRAMS**

Residential/commercial/industrial development programs taking place during 2011 included:

- Market Development Grant ODNR (Ohio Department of Natural Resources)
- Recycling Market Development Promotion

## **RESIDENTIAL GRANT PROGRAMS**

Residential/commercial grant programs taking place during 2011 included:

- Community Development Grant ODNR
- Recycle Makes Sense
- Recycling Drop-Off Clean-Ups/Host Community Grants
- Sheriff Department Grants
- Health Department Grants
- Health Department Grants – Solid Waste Inspections
- Health Department Grants – Well Monitoring

## **RESIDENTIAL/COMMERCIAL SECTOR EDUCATION AND AWARENESS PROGRAMS**

Education and community outreach efforts in place during 2011 included:

- Classroom Education Presentations
- Civic Group Education Presentations
- Contests
- Teacher Assistance
- Community Outreach
- Website
- District Publications
- Waste Reduction Report Card

## **COMMERCIAL AND INDUSTRIAL SECTOR EDUCATION AND AWARENESS PROGRAM**

Industrial programs taking place during 2011 included:

- Commercial Technical Assistance
- Industrial Technical Assistance
- Waste Audit Manual

## **OTHER PROGRAMS**

Other programs taking place during 2011 included:

- Audit Committee
- Data Collection and Database of Recycling Processors
- Disaster Debris Management Program
- Other Facilities
- Newcomerstown Landfill

### **7. Total Waste Generation: Historical Trends Plus Waste Reduction**

Total waste generation based upon disposal plus waste reduction presents total waste generation based upon disposal plus waste reduction. In 2011, the District generated 1,930,159 tons of solid waste based on landfill disposal, yard waste composting, and recycling.

### **8. Reconciliation of Waste Reduction**

Table IV-8 (located in the back of Section IV), "Adjusted Reference Year Total Waste Generation for the District," presents adjusted reference year total waste generation for the District. The District is using the historic trends and actual disposal and recycling to calculate waste generation. For 2011, the District generated 1,930,238 tons. This includes recycling and waste disposal from all sectors. The residential/commercial sector generated 608,600 tons or 5.70 pounds per person per day which includes recycling and yard waste composting. Industrial waste was projected at 1,270,276 tons or approximately 11.90 pounds per person per day.

### **9. Waste Composition**

The District estimated the residential/commercial waste stream composition in Table IV-9 (located in the back of Section IV), "Estimated Residential/Commercial Waste Stream Composition for the District for the Reference Year", using the national averages for 2000 in Appendix KK of the Ohio EPA Plan Format. The largest component of the residential/commercial waste stream is projected to be other paper at 16% (98,593 tons) followed by cardboard at 14% (86,421 tons) of the waste stream and appliances, durables and furniture at 14% (84,595 tons).

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 the programs that are in place to manage these materials.

The largest component of the industrial waste stream is ferrous metals at 309,167 tons. Cardboard was the next largest component of the industrial

waste stream at 117,372 tons. The District also had significant quantities of wood at 9,666 tons and foundry sand/slag at 9,223 tons.

## **D. Section V - Planning Period Projections and Strategies**

### **1. Planning Period**

Section V includes a summary of projections of population, waste generation and recycling for the planning period (2015-2024). New programs and changes to existing programs are presented in this section.

### **2. Population Projections**

The District is projected to start the planning period in 2015 with a population of 585,136 and end in 2024 with a total population of 596,619. This is a population increase of 1% for the planning period (2015-2024).

### **3. Waste Generation Projections**

#### ***Residential/Commercial Sector***

The total residential/commercial waste generation estimate for 2011 was 690,914 tons. Residential/commercial waste generation is projected to increase throughout the planning period. Beginning in 2015, the first year of the planning period, residential/commercial waste is projected to be 708,933 tons. This is expected to increase to 751,662 tons in 2024, a 6% increase during the planning period.

#### ***Industrial Sector***

Industrial waste generation is projected for SIC codes 20 and 22-39. The classifications are summarized in Table V-3A (located in the back of Section V), "Standard Industrial Classifications." Table V-3 presents the average annual change in employment for each SIC code. Industrial waste generation projections are based on industrial employment projections provided by the Ohio Department of Job and Family Services Job Outlook for the period 2008 to 2018 for the Canton-Massillon Metropolitan Statistical Area (MSA). According to the Canton-Massillon MSA, manufacturing employment is projected to decrease 10% during this period (2008-2018).

Based on the Canton-Massillon MSA estimated decrease in industrial employment, the District is projecting an annual decrease of .91% for each year in the planning period.

The District projects industrial waste will decrease from 1,270,276 tons in the reference year 2011 to 1,128,074 tons in 2024, the final year of the planning period.

### **Total Waste Generation**

The total waste generation estimate for the 2011 reference year was 2,012,552 tons. This includes residential/commercial waste (690,914 tons), industrial waste (1,270,276 tons) and exempt waste (51,362 tons).

#### **4. Projections for Waste Stream Composition**

The District does not anticipate any major changes in the composition of the waste stream during the planning period. Current projections indicate the District's residential/commercial and industrial solid waste stream will remain stable over the ten-year planning period.

#### **5. 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 *2001 State Plan*. The following section demonstrates the District's plan to meet these goals.

##### ***Residential/Commercial Waste Reduction/Recycling and Education Strategies***

The District projects residential/commercial waste reduction strategies will increase, on average, recycling by .14% each year. Residential curbside and drop-off programs are projected to increase 5% each year and all other programs are projected to increase .14%, the same rate as the increase in population. The reasons for the projected increases include the following:

- Total historical waste reduction for the District from 2007 to 2011 has steadily increased over this period;
- Population increase of .14% annually;
- Residential programs have increased 4%, on average, from 2004 to 2007;
- Residential programs have increased 2% from 2011 to 2012;
- Continued advertising and education program; and
- Continued effort by the District to survey and obtain commercial recycling numbers.

The District plans to increase residential recycling from 58,617 tons in 2011 to 73,783 tons by 2024. These strategies will address many of the challenges that the District identified with their current solid waste management programs.

***Residential/Commercial Recycling and Collection Programs***

The following programs will continue (see description in Section IV):

- STW-1 – Curbside Recycling Program
- STW-2 – Drop-off Recycling Program
- STW-3 – Yard Waste Management Program
- STW-4 – Food Waste Management Program
- STW-5 – Household Hazardous Waste (HHW) Management Program
- STW-6 – Scrap Tire Collection Program
- STW-7 – Computer/Electronic Recycling Program
- STW-8 – Lead Acid Battery Collection
- STW-9 – Appliance Recycling Program
- STW-12 – County Government Building Recycling
- STW-13 – School Recycling Program

Specific changes to existing programs listed above are provided in Section V.

***Residential/Commercial/Industrial Market Development Grant Programs***

The following programs will continue (see description in Section IV):

- STW-16 – Recycling Market Development Grant ODNR
- STW-17 – Recycling Market Development Promotion

***Residential/Commercial/Industrial Grant Programs***

The following programs will continue (see description in Section IV):

- STW-18 – Community Development Grant ODNR
- STW-19 – Recycle Makes Sense Program
- STW-21 – Recycling and Composting Infrastructure Enhancement Grants
- STW-24 – Recycling Drop-Off Clean-Ups/ Host Community Grants
- STW-25 – Sheriff Department Grants
- STW-26 – Health Department Grants
- STW-27 – Health Department Grants – Solid Waste Inspections
- STW-28 – Health Department Grants – Well Monitoring

Specific changes to existing programs listed above are provided in Section V.

***Residential/Commercial Education and Awareness Programs***

The following program will continue (see description in Section IV):

- STW-29 – Education and Awareness Program

Specific changes to existing program listed above are provided in Section V.

**COMMERCIAL AND INDUSTRIAL SECTOR EDUCATION AND AWARENESS PROGRAM**

The following program will continue (see description in Section IV):

- STW-30 – Commercial Technical Assistance
- STW-31 – Industrial Technical Assistance
- STW-32 – Waste Audit Manual

Specific changes to existing program listed above are provided in Section V.

***Other Programs***

The following programs will continue (see description in Section IV):

- STW-36 – Audit Committee
- STW-37 – Data Collection and Database of Recycling Processors
- STW-38 – Disaster Debris Management Program
- STW-40 – Other Facilities
- STW-42 – General Plan Implementation

Specific changes to existing programs listed above 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 2011 to 2024.

**1. District Methods for Management of Solid Waste**

Table VI-1, "Waste Management Methods Used and Processing Capacity Needed for Each Year of the Planning Period," presents the waste management methods used and capacity needed for each year of the planning period. The net tons to be managed by the District in 2011 were calculated to be 2,012,552 tons. The District projects 1,985,288 tons of solid

waste will need to be managed in 2015 and by the end of the planning period in 2024 the District will need to manage 1,932,024 tons.

The landfill total in Table VI-1 is calculated by subtracting recycling and yard waste composted from the net tons to be managed by the District. The District projects 1,048,340 tons of solid waste will need to be landfilled in 2015 and 1,052,858 tons of solid waste will need to be landfilled by 2024.

The summary for residential/commercial waste management methods in Table VI-2 demonstrates that the net tons to be managed by the residential/commercial sector in 2011 were 690,914. The District projects 708,933 tons in 2015 and 751,662 tons by 2024. By subtracting recycling and yard waste composted from the net tons to be managed by the residential/commercial sector, the District projects that the residential/commercial sector will need to landfill 609,173 tons of solid waste in 2015 and 640,227 tons of solid waste by 2024.

The summary for industrial waste management methods in Table VI-3 demonstrates that the net tons to be managed by the industrial sector in 2011 were 1,270,276. The District projects 1,224,710 tons in 2015 and 1,128,074 by 2024. By subtracting recycling and yard waste composted from the net tons to be managed by the industrial sector, the District projects that the industrial sector will need to landfill 345,618 tons of solid waste in 2015 and 317,976 by 2024.

The District projects compost will increase .14% annually, the same rate as the population increase. The District is projected to, on average, to compost approximately 37,442 tons of material annually throughout the planning period (2015–2024). However, the amount of yard waste generated is typically subject to weather conditions.

## **2. Demonstration of Access to Capacity**

During the 2011 reference year, five in-district landfills and 12 out-of-district landfills managed 900,630 tons of solid waste generated by District residents, businesses and industries.

A detailed analysis for direct hauled and transfer station solid waste was conducted, which demonstrates that the District has enough disposal capacity for the entire planning period.

## **3. Schedule for Facilities and Programs: New, Expansions, Closures, Continuations**

Table VI-5 (located in the back of Section VI), "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*.

#### **4. Identification and Designation of Facilities**

The programs and facilities listed in Tables VI-4A through VI-4E (located in the back of Section VI) are proposed to provide waste management services throughout the planning period. Table VI-6 (located in the back of Section IV) indicates the current facility designations.

#### **5. Authorization Statement to Designate**

The Board is authorized to establish facility designations in accordance with Section 343.014 of the Ohio Revised Code after this Plan has been approved by the Director of the Ohio Environmental Protection Agency.

#### **6. Waiver Process for the Use of Undesignated Facilities**

The District's waiver process is detailed both in scope and context. The full version of the process is included in Section VI.

#### **7. Siting Strategy for Facilities**

The District's siting strategy is detailed both in scope and context. The full version of the strategy is included in Section VI.

#### **8. Contingencies for Capacity Assurance and District Program Implementation**

The District's contingency for capacity assurance is detailed both in scope and context. The full version of the strategy is included in Section VI.

### **F. Section VII - Measurement of Progress Toward Waste Reduction Goals**

#### **Compliance with Goal #1**

The District will continue to comply with Goal #1 of the 2001 State Plan: Access to Alternate Waste Management Opportunities - The District shall provide access to recycling and waste minimization opportunities for municipal solid waste to its residents and businesses

#### **Demonstration of Compliance with Goal #1**

The following table summarizes the total population access credit for each county in the District for the reference year 2011 and the first year of the planning period 2015.

Service Area	Reference Year Population (2011)	First Year of Planning Period Population (2015)
Stark County	365,994	368,938
Tuscarawas County	92,926	100,672
Wayne County	137,182	140,647

In order to achieve the above recycling access credit by the first year of the planning period 2015, or to replace other programs that may have ceased operation, the District will implement the following programs by or before the first year of the planning period:

- In 2012, the City of Canal Fulton, Stark County, implemented a subscription curbside recycling program.
- In 2012, a full-time drop-off was implemented at the Recreational Department in Massillon City, Stark County, to replace the closed drop-off at Wampler Park in the City of Massillon, Stark County.
- In 2013, two full-time drop-offs were implemented in Perry Township, Stark County to replace the closed Perry Township Recycling Center in Perry Township, Stark County.
- In 2012, a full-time drop-off was implemented at Saint Clement Catholic Church in the Village of Navarre, Stark County.
- In 2012, a full-time drop-off was implemented at Saint Michael Church in Plain Township, Stark County.
- In 2013, a full-time drop-off was removed from Plain Township, Stark County (Hoover Park).
- In 2012, a full-time drop-off was removed from Plain Township, Stark County (Middlebranch Elementary School).
- In 2012, a full-time drop-off was implemented at Fort Laurens Museum in Lawrence Township, Tuscarawas County.
- In 2012, a full-time drop-off was implemented at the Township Building in Fairfield Township, Tuscarawas County.

The following table summarizes the additional programs that will be implemented by county by 2014, the first year of the planning period:

Program	S	T	W
Non-Subscription Curbside	3	7	5
Subscription Curbside	3	0	0
Full Time Drop-Off	43	17	25
Part Time Drop-Off	0	0	0

The above reductions in programs are offset by the additional programs planned by 2015.

## Targets for Reduction and Recycling (Goal # 2)

### a. Residential and Commercial Sectors

The District's residential/commercial sector had a waste reduction rate of 8.5% in the reference year (2011). In the first year of the planning period (2015), the waste reduction rate target for residential and commercial waste is projected to be 8.7%. The District anticipates the waste reduction will increase to 9.8% by the end of the planning period (2024). The flat trend can be explained by waste generation equaling waste reduction.

### b. Industrial Sector

Table VII-4 (located in the back of Section VII) presents the annual waste reduction rate for industrial waste. The District's industrial sector had a waste reduction rate of 71.77% in the reference year 2011. In the first year of the planning period 2015, the waste reduction rate target for industrial waste is projected to be 71.78%. The District anticipates the waste reduction will increase to 71.84% by the end of the planning period 2024. The flat trend can be explained by waste generation equaling waste reduction.

### c. District Total

The District's annual waste reduction rate for the reference year 2011 was 49%. In 2015, the first year of the planning period, the District projects the total waste reduction rate to be 49% and decreases to 47% by the end of the planning period 2024. This downward trend is attributed, primarily, to the projected increase in waste generation from the residential/commercial sector.

## G. Section VIII - Cost of Financing Plan Implementation

### 1. Funding Mechanisms

#### a. District Disposal Fee

The District's in-district solid waste disposal fee is \$1.00 per ton, out-of-district solid waste disposal fee is \$2.00 per ton and out-of-state solid waste disposal fee is \$1.00 per ton. In 2011 and 2012, the District uses actual revenues of \$2,842,027, and \$3,250,929, respectively.

#### b. Generation Fee

The District does not currently assess a generation fee. The District is not proposing to adopt or impose a generation fee with the ratification of the *Plan Update* or at any juncture during the current planning period.

The District's in-district solid waste disposal fee is \$1.00 per ton, out-of-district solid waste disposal fee is \$2.00 per ton and out-of-state solid waste disposal fee is \$1.00 per ton. In 2011 and 2012, the District uses actual revenues of \$2,842,027, and \$3,250,929, respectively.

District disposal fee revenues for future years are based on projected landfill tonnages for the planning period and past and projected economic conditions as discussed in detail in Section VIII.

**c. Summary of District Revenues**

Total revenues are anticipated to grow from \$3,626,788 in 2015, the first year of the planning period, to \$4,137,326 in 2024, the final year of the planning period.

**2. Cost of Plan Implementation**

Total expenses are anticipated to remain fairly stable throughout the planning period with minimal growth from \$3,617,339 in 2015, the first year of the planning period, to \$3,953,972 in 2024, the final year of the planning period.

The detailed expenditures for 2015, the first year of the planning period are discussed in greater detail in Section VIII.

**3. Funds Allocated from ORC 3734.57(B), ORC 3734.572 and ORC 3734.573**

The District's budget falls into four categories; preparation and monitoring of plan implementation, implementation of the approved plan, financial support for health departments and monitoring well testing. Over 70% of the District's expenses fall under plan implementation.

**4. 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 disposal fee or other funding options. This would occur if the District's revenues and/or expenses were creating excessive budgetary shortfalls that reduced the District's fund balance to below \$500,000 without a projected short-term recovery. 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 by \$0.25 per ton increments as needed throughout the planning period.

**5. Summary of Costs and Revenues**

Total expenditures for 2015, the first year of the planning period, are

projected to be \$3,617,339 and will be \$3,953,972 in 2024, the final year of the planning period. The District is projected to begin the planning period in 2015 with a carryover balance of \$4,548,421 and will have an ending carryover balance of approximately \$5,404,762 in 2024. Each year of the planning period has ample funding for each of the programs.

**H. Section IX - District Rules**

At this time, the District is not proposing any new rules during the preparation of this *Plan Update*. The District reserves the right to adopt rules under division (G) of section 343.01 and under division (c) of section 3734.53 of the Revised Code. Such rules shall comply with the legislative grant of authority to the District to promulgate such rules and to regulate solid waste services, facilities and operation of the District in accordance with the Plan or amended Plan of the District and/or as authorized by applicable statutes, governmental regulations, local ordinances and rules of the District as now existing or hereafter enacted or amended.

**Table II-1  
General Information**

<b>District Name:</b>	Stark-Tuscarawas-Wayne Joint Solid Waste Management District				
<b>District ID #</b>		<b>Reference Year:</b>	2011	<b>Planning Period:</b>	2013-2024
(For OEPA Use Only)					
<b>Plan Status (Underline One):</b>				<b>Reason for Plan Submittal:</b>	
D	RD	DR	Approved (Date) / / OI (Date) / / DA	Mandatory three year update	

**D** = Draft; **RD** = Ratified Draft; **DR** = Draft Revised; **OI** = Ordered to be Implemented; **DA** = Draft Amended

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

<b>Name:</b>	David Held, Executive Director				
<b>Address:</b>	9918 Wilkshire Boulevard, NE				
<b>City:</b>	Bolivar	<b>State:</b>	Ohio	<b>Zip:</b>	44612
<b>Telephone Number:</b>	(330) 874-2258, (800) 678-9839		<b>Fax:</b>	(330) 874-2449	

Table II-3  
Plan Data Summary

Plan Data	Reference Year 2011	2014 (Year 1)	2018 (Year 5)	2023 (Year 10)	
<b>Population</b>	<b>585,136</b>	<b>587,676</b>	<b>591,164</b>	<b>595,692</b>	
<b>Generation</b>	<sup>1</sup> <b>Industrial</b>	1,270,276	1,235,946	1,191,612	1,138,423
	<sup>2</sup> <b>Residential/Commercial</b>	690,914	704,374	722,832	746,761
	<sup>3</sup> <b>Exempt</b>	51,362	51,574	51,858	52,216
<b>Total Generation (Tons)</b>	<b>2,012,552</b>	<b>1,991,894</b>	<b>1,966,302</b>	<b>1,937,400</b>	
<b>Waste Reduction</b>	<sup>4</sup> <b>Industrial Source Reduction</b>	0	0	0	0
	<sup>5</sup> <b>Industrial Recycling</b>	906,932	882,422	850,768	812,794
	<sup>6</sup> <b>Residential/Commercial Source Reduction</b>	0	0	0	0
	<sup>7</sup> <b>Residential/Commercial Recycling</b>	21,609	24,379	28,472	34,678
	<sup>8</sup> <b>Yard Waste Composting</b>	37,007	37,160	37,365	37,623
	<sup>9</sup> <b>MSW Composting</b>	0	0	0	0
	<sup>10</sup> <b>Incineration</b>	4,736	4,693	4,693	4,693
<b>Total Waste Reduction (Tons)</b>	<b>970,284</b>	<b>948,653</b>	<b>921,298</b>	<b>889,787</b>	
<b>Disposal</b>	<sup>11</sup> <b>In-District Landfills</b>	713,877	957,526	959,138	961,522
	<sup>12</sup> <b>Out of District Landfills</b>	67,402	90,407	90,559	90,784
<b>Total Landfill (Tons)</b>	<b>781,280</b>	<b>1,047,933</b>	<b>1,049,697</b>	<b>1,052,306</b>	
<b>Waste Reduction Rate</b>	<sup>13</sup> <b>Industrial</b>	<b>71.77%</b>	<b>71.78%</b>	<b>71.79%</b>	<b>71.81%</b>
	<sup>14</sup> <b>Residential/Commercial</b>	<b>8.8%</b>	<b>8.7%</b>	<b>9.1%</b>	<b>9.7%</b>

Reference Year (2011) Population is taken from Table IV-1: Reference Year Population and Residential/Commercial Generation  
2014 population is taken from Table VI-1: District Population Projections.

<sup>1</sup>Industrial Generation tons are taken from Table V-3: Projected Industrial Waste Generation.

<sup>2</sup>Residential/Commercial Generation tons are taken from Table V-2: District Residential/Commercial Waste Generation.

<sup>3</sup>Exempt Generation tons are taken from Table V-4: Total Waste Generation for the District During the Planning Period.

<sup>4</sup>Industrial Source Reduction tons are taken from Table V-6: Industrial Waste Reduction Strategies (Industrial Sector Technical Assistance and Education Programs: Source Reduction)

<sup>5</sup>Industrial Recycling tons are taken from Table V-6: Industrial Waste Reduction Strategies (Industrial Sector Technical Assistance and Education Programs: Recycling)

<sup>6</sup>Residential/Commercial Source Reduction

<sup>7</sup>Residential/Commercial Recycling tons are taken from Table V-5: Residential/Commercial Waste Reduction Strategies (Total Tons - Yard Waste Management)

<sup>8</sup>Yard Waste Composting tons are taken from Table V-5: Residential/Commercial Waste Reduction Strategies

<sup>9</sup>Municipal Solid Waste Composting (MSW) is the process of trying to separate out organic materials in the MSW stream and compost it. The District does not anticipate any municipal solid waste composting tons in the planning period.

<sup>10</sup>Incineration tons are taken from Table V-6: Industrial Waste Reduction Strategies

<sup>11</sup>In-District Landfills tons are taken from Table VI-4A: Waste Management Method: Landfill (In-District Landfills *only*).

<sup>12</sup>In-District Landfills tons are taken from Table VI-4A: Waste Management Method: Landfill (Out of District Landfills *only*).

<sup>13</sup>Industrial percentages are taken from Table VII-4: Annual Rate of Waste Reduction: Industrial Waste

<sup>14</sup>Residential Commercial percentages are taken from Table VII-3: Annual Rate of Waste Reduction: Residential/Commercial Waste

**Table II-4  
Existing Disposal Facilities**

Name	County	<sup>1</sup> District Tons	<sup>2</sup> Total Tons	<sup>3</sup> % of Total	<sup>4</sup> Years Left
<b>In-District Facilities</b>					
American Landfill	Stark	259,383	887,900	29%	70
Kimble Sanitary Landfill	Tuscarawas	176,137	523,380	34%	69
Liberty Tire/C&E Coal Monofill	Stark	13,105	n/a	n/a	n/a
Rittman Paperboard	Wayne	3,361	3,120	108%	0
Republic Countywide Recycling & Disposal Facility	Stark	261,891	407,160	64%	16
<b>Out-of-District Facilities</b>					
Apex Sanitary Landfill	Belmont	2,604	137,540	2%	6
Athens Hocking C&DD RCL	Athens	3,344	875,160	0%	62
BFI Carbon Limestone Landfill	Mahoning	2,006	769,340	0%	22
BFI Noble Road Landfill	Richland	9,569	252,200	4%	12
Central Waste Landfill	Mahoning	48,789	84,500	58%	10
Coshocton Landfill, Inc.	Coshocton	960	215,800	0%	94
Crawford County Landfill	Crawford	2	32,240	0%	11
Evergreen R & D Landfill	Wood	1	965,900	0%	14
Lorain County Landfill LLC	Lorain	109	197,860	0%	21
Pine Grove Regional Facility	Fairfield	9	181,220	0%	71
Suburban South R & D Facility	Perry	6	218,920	0%	55
WM Mahoning Landfill	Mahoning	4	442,861	0%	8
<b>Out-of-State</b>					
N/A					
<b>Total (Average Years)</b>		<b>781,280</b>	<b>6,195,101</b>	<b>13%</b>	<b>34</b>

<sup>1</sup>District tons are taken from Table III-1: Landfills Used by the District

<sup>2</sup>Total Tons = Average Daily Waste from Table VI-4A \* 260 (Number of work days)

<sup>3</sup>% of Total = District Tons / Total Tons

<sup>4</sup>Years left are taken from Table VI-4A: Waste Management Method: Landfill