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**Jefferson Belmont Regional  
Solid Waste Authority**

**Solid Waste Management Plan**

**Reference Year 2005  
Planning Period 2008-2023  
Submitted 2008**

**Written by  
JAZ Environmental Consulting  
for**

**Jefferson Belmont Regional Solid Waste Authority  
P.O Box 2129  
125 Fernwood Road, Suite 300  
Wintersville, Ohio 43953**

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## **I. Introduction**

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

1. *Currently approved plan:*

Date of approval:	July 13, 2004
Counties within District:	Jefferson and Belmont
Years in planning period:	Eleven

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

Counties within district:	Jefferson and Belmont
Reference Year for this Plan:	2005
Years in planning period:	Sixteen
Year 1 of planning period:	2008

### **B. Reasons for Plan Submittal**

This update to the Jefferson Belmont Regional Solid Waste Authority's solid waste management plan (Plan Update) represents the Authority's triennial update to its solid waste management plan as required by Division (C) of Ohio Revised Code (ORC) Section 3734.56.

### **C. Process to Determine Material Change in Circumstances**

While this Plan Update is written for a sixteen year planning period, in accordance with ORC Section 3734.56(A), an amended plan will be submitted to the director every five years on or before the anniversary date of the approval of this Plan Update. ORC Section 3734.56 (D) directs districts to update the plan when circumstances have materially changed from the Approved Plan. The Board of Trustees is responsible for determining a material change in circumstances and, subsequently, updating the plan as a result of this determination, if applicable. The Board of Trustees will evaluate the Plan Update annually to determine if a material change has potentially occurred. The Executive Director and Board of Trustees shall use the following to guide the process of determining whether or not a material change has occurred:

Criteria and Monitoring:

Waste Generation – Planning period waste generations are projected in Section V. A large increase or decrease in waste generation from these projections could result in a material change in circumstances. Increased waste generations could impair the ability of the facilities identified in the plan to adequately process Authority-generated waste. If the Authority can secure arrangements for managing the increase in waste generation at any other licensed and permitted solid waste management facility, then a material change in circumstances has not occurred. The Authority will annually monitor generation through commercial and industrial surveys and with Ohio EPA's *Annual District Report Review Form*. Slight increases will be noted, if however the increases become significantly larger than the projections described in Section V, the Authority will begin steps to ensure adequate disposal capacity. Slight decreases will be noted, if however the decrease becomes significantly larger than the projections described in Section V, the Authority will ensure the changes in waste generation do not decrease disposal fee revenues such that plan implementation is adversely affected. A significant decrease will be defined as 10,000 tons per year or more of waste generation. A significant increase will be defined as 20,000 tons per year or more of waste generation.

Capacity – Waste management methods identified in Section VI ensure proper disposal, processing, and management of solid waste generated within the Authority through the planning

period. A capacity shortfall would not ensure adequate management of solid wastes and may be deemed a material change. If, however the Authority identifies proper disposal, processing, and management methods capable of handling the capacity shortfall created then a material change in circumstances has not occurred. The Authority will annually monitor landfill capacity by obtaining copies of landfill annual reports from each landfill identified as accepting Authority waste.

Waste Reduction and Recycling - Strategies for waste reduction and/or recycling has many depending factors. The Authority is committed to promote recycling; however, funding, markets, and Authority recycling needs may constitute change. Strategies that cannot be implemented or need to be discontinued which are not needed to demonstrate State Plan Goals #1 or #2 may not be deemed a material change in circumstances. The Authority will monitor any significant changes to strategies for waste reduction and/or recycling and significant delays in program implementation. A significant change to strategies for waste reduction and/or recycling is defined as the discontinuance or alteration of programs as provided for in the Plan Update that prevents the Authority from implementing the Plan Update. A significant delay in program implementation is defined as a delay in implementing any scheduled program from the Plan Update that is greater than one year from the deadlines established in the Plan Update.

Revenues for Plan Implementation – Changes in the availability of funds for the Authority resulting in significant deviation in the implementation schedule of the approved plan could result in a material change. If the Authority can modify programs reducing costs while continuing to maintain compliance, then a material change in circumstances has not occurred. The Authority reserves the right to adjust the amount of funds allocated to individual programs without resulting in a material change in circumstance, to maintain budget solvency. The Authority and Board of Trustees will monitor annual expenditures and revenues for plan implementation. A revenue reduction of fifteen percent, from the projected revenues, will be cause for the Authority to review the implementation of the plan and determine if a material change in circumstances is warranted.

#### Timetable and Notification

Within thirty days after the Board of Trustees makes a determination that a material change has occurred, the Board shall direct Authority staff to prepare a Plan Update and proceed to adopt and obtain approval of the amended plan in accordance with ORC 3734.55 (A) through (C).

### **D. District Formation and Certification Statement**

The Jefferson Belmont Regional Solid Waste Authority was established as a solid waste management district on March 23, 1989 through a Board of Commissioners passed resolution. The District was reconfigured in 1993, passing a resolution forming the Jefferson Belmont Regional Solid Waste Authority. Copies of both resolutions are included in Appendix A.

Appendix B contains all public notices as they appeared in the local newspapers publicizing hearings and comments for this Plan Update.

Copies of resolutions from municipal corporations, townships, and the Board of Trustees are included in Appendix C. Also included is the certification statement from the Board of Trustees certifying ratification in accordance with ORC Section 3734.

### **E. Authority Board of Trustees**

The following lists comprise the Board of Trustees at the time of this Plan Update preparation:

**Jefferson County**

Jefferson County

Name

Adam Scurti  
Darren Corrigan  
Bruce Williams  
Tom Bottorf  
Edward Argentine  
John Abdalla  
Bruce Misselwitz

Representing

Jefferson Commissions Designee  
Jefferson Township Trustee  
Largest City, Steubenville  
Generator Representative  
Public Citizen  
Village Representative  
Health District

**Belmont County**

Name

Mark Thomas  
Anthony Kolanski  
Larry Deaton  
Barbara Godwin  
Chuck Dawson  
Mark McVey  
James King

Representing

Belmont Commissions Designee  
Belmont Township Trustee  
Largest City, Martins Ferry  
Generator Representative  
Public Citizen  
Village Representative  
Health District

**Chairman**, Commissioner Mark Thomas

**Vice- Chairman**, John Abdalla

**Secretary**, Bruce Misselwitz

**F. Board of Directors**

The Authority Board of Trustees is the governing Board of the Jefferson Belmont Regional Solid Waste Authority.

**G. District Address and Phone Number**

Contact: Patrick Lanaghan, Executive Director

Location: 125 Fernwood Road, Suite 300  
Wintersville, Ohio 43953

Telephone: (740) 266-6899

FAX: (740) 266-6895

E-mail: [planaghan@regionalsolidwaste.org](mailto:planaghan@regionalsolidwaste.org)

Web Page: [www.RegionalSolidWaste.org](http://www.RegionalSolidWaste.org)

**H. Technical Advisory Committee and Other Subcommittees**

A technical advisory committee was not utilized for this Plan Update.

## II. Executive Summary

### A. Status of Implementation under the solid waste management plan approved on July 13, 2004

House Bill 592, which became effective on June 28, 1988, required the boards of county commissioners of all of Ohio's counties to form solid waste management districts, either individually or in conjunction with other boards of county commissioners. The Jefferson-Belmont Joint Solid Waste Management District is an existing solid waste management district that was formed on March 23, 1989. In April 1993 the Joint Solid Waste Management District reconfigured and established the Jefferson-Belmont Regional Solid Waste Authority (Authority). Solid waste management districts are required to develop their own solid waste management plans that comply with the goals established in the state solid waste management plan (State Plan) that is developed by the Director of Ohio EPA and the Solid Waste Management Advisory Council.

The Authority's current approved solid waste management plan (Approved Plan) was approved by the Director of Ohio EPA on July 13, 2004. The Approved Plan was prepared to demonstrate compliance with the goals of the *1995 State Solid Waste Management Plan (1995 State Plan)*. The *1995 State Plan* established the following goals:

- Goal 1 – ensure the availability of reduction and recycling opportunities/programs from residential/commercial waste by year 2000
- Goal 2 – reduce and/or recycle at least 50% of the total waste generation by the year 2000
- Goal 3 – provide information and technical assistance on source reduction
- Goal 4 – provide information and technical assistance on recycling, reuse, and composting opportunities
- Goal 5 – develop strategies managing scrap tires and household hazardous wastes (HHW)
- Goal 6 – annual reporting of plan implementation
- Goal 7 – (optional) prepare a market development strategy

Specific goals of the Authority's Approved Plan were to:

- Promote and protect the health, safety and welfare, and to provide, through the provisions of strict environmental regulations, the best quality of life and environment for the citizens of the Jefferson-Belmont Regional Solid Waste Authority;
- Ensure all Authority citizens have an environmentally and economically viable method of solid waste disposal readily available;
- Develop and implement waste reduction, reuse and recovery systems as alternatives to landfill disposal as projected for each year of the forecast period of this plan;
- Develop an integrated approach to solid waste management, meeting the needs of all municipalities and townships in the Authority;
- Define management responsibilities and assign appropriate roles as needed to assure that necessary action is taken to implement the solid waste management plan; and
- Implement the programs identified in the plan in a financially responsible manner.

The Approved Plan was prepared by Ohio EPA since the Authority failed to obtain approval for an update by the deadline prescribed by the Ohio Revised Code. The Approved Plan outlined additional strategies for the Authority to implement in addition to meeting goals of the *1995 State Plan*. These additional strategies, as outlined in the Approved Plan, establish a primary funding mechanism, employ a full-time solid waste coordinator, and submit quarterly fee, budget and implementation reports. The Authority has implemented all of these additional strategies as described briefly below.

In 2004, the Board of Trustees levied charges on improved parcels in Jefferson and Belmont Counties as an additional funding mechanism. This improved parcel tax assessment remained the primary funding mechanism until September 2005 when the assessment was removed in anticipation of tiered disposal fee revenues from the newly opened in-district landfill, Apex Sanitary Landfill. A full-time coordinator was hired as the Executive Director in November 2005 and since plan approval quarterly fee, budget and implementation reports have been submitted to Ohio EPA.

The Authority diligently worked to demonstrate compliance with *1995 State Plan* goals but has fallen short on demonstrating Goal #1. The Approved Plan set an aggressive schedule of converting eight part-time drop-offs to full-time and adding seven part-time and six full-time drop-offs. With the addition of the new drop-offs and changes to the existing drop-offs there would be a total of fourteen part-time drop-offs and twenty full-time drop-offs. In 2005, the Authority implemented nine part-time drop-offs and seventeen full-time drop-offs (four of which were slated for part-time). The Authority also needed to establish one residential non-subscription curbside recycling program in a community having at least 625 households by July 2005. While the Authority made efforts to establish a non-subscription curbside recycling program the program was not implemented until January 2006 in Powhatan Point Village.

## **B. Solid Waste Management Plan Update**

Solid waste management districts (SWMDs) are required by Ohio Revised Code (ORC) Chapter 3734 to prepare and receive approval from the Director of the Ohio Environmental Protection Agency (Ohio EPA) for solid waste management plans that demonstrate compliance with requirements that are established in both law and the state solid waste management plan. These solid waste management plans must cover a planning period of at least ten years and must be updated every three or five years depending upon the number of years in the planning period covered by the current solid waste management plan. Solid waste management plan updates must be submitted to Ohio EPA for review and approval based upon the schedule established in law. This schedule is determined by the date that the current solid waste management plan was approved by Ohio EPA.

This update of the Authority's Approved Plan was prepared to demonstrate compliance with the eight goals of the *2001 State Solid Waste Management Plan (2001 State Plan)*. These goals are as follows:

- Goal 1: Ensure the availability of reduction, recycling, and minimization alternatives for municipal solid waste (also known as the "Access Goal")
- Goal 2: Reduce and/or recycle at least 25% of the residential/commercial solid waste and 66% of the industrial solid waste generated by each SWMD
- 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: Strategies for scrap tires, yard waste, lead-acid batteries and household hazardous waste
- Goal 6: Evaluate the feasibility of incorporating economic incentives into source reduction and recycling programs
- Goal 7: Market development strategy (optional)
- Goal 8: Annual reporting of plan implementation

Ohio law requires SWMDs to complete solid waste management plan updates consistent with a format that is prescribed by Ohio EPA. With the exception of a few deviations that were made to accommodate the requirements of the *2001 State Plan*, this Plan Update follows Ohio EPA's *Solid Waste Management Plan Format (Format)*, version 3.0. The *Format* requires specific narrative

information and data tables. There are nine major sections to the *Format*. These sections are as follows:

- ⊕ Section I - includes basic information about the District
- ⊕ 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 to manage waste in the reference year (2005).
- ⊕ Section IV - includes the reference year statistics for the Plan Update including population data, waste generation and waste reduction estimations for the residential/commercial sector and the industrial sector. Section IV also contains detailed descriptions of the recycling and waste reduction programs that were offered by the Authority in the reference year.
- ⊕ Section V - includes projections of population, waste generation and waste reduction for each year of the planning period. Section V also contains detailed descriptions of the recycling and waste reduction programs that will be offered by the Authority throughout the planning period.
- ⊕ Section VI - includes the Authority's anticipated strategy for managing the waste that is projected to be generated throughout the planning period.
- ⊕ Section VII – presents the demonstration of the Authority's compliance with Goal #1 of the *2001 State Plan*. Section VII also presents data to demonstrate the progress the Authority will make towards meeting Goal #2 of the *2001 State Plan*.
- ⊕ Section VIII - includes a presentation of the financial resources of the Authority as well as the projected expenditures that the Authority will make during the planning period.
- Section IX – This Section addresses the Authority's authority to adopt rules.

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

## C. Narrative Description of Chapters III - IX

### Section III - Inventories

In 2005, the solid waste management system was operated almost exclusively by private companies for hauling, processing, landfilling, composting and recycling. The Authority was able to verify thirty-five private solid waste haulers and one municipal solid waste hauler. Recycling is hauled within the Authority by the County Recycling and Litter Prevention (R&LP) recycling crews and private companies. The recycling crew services the Drop-off and Paper Collection Programs, outlined in detail in Section IV. Solid Waste generated by the Authority and landfilled was predominantly disposed out-of-state. Seventy-five percent of the generated solid waste was disposed of in four out-of-state facilities. The other twenty-five percent was disposed of in eleven in-state facilities. The Authority relies on the residents and private facilities for yard waste management. Three private facilities operate within the Authority. The fourth available yard waste opportunity is available only to residents of Wells Township.

Authority recycling occurs through County R&LP and private companies. In Jefferson County drop-off programs consist of 20 or 30 yard trailers where participants are directed to separate mixed paper from commingled materials. The drop-offs are available full-time or part-time depending on the location and schedule. Drop-off programs collected 73.6 tons of commingled materials and 112.6 tons of mixed paper. The Belmont County drop-off program consists of single story sheds referred to as barns, where participants are directed to separate mixed paper from commingled materials. All barns are available full-time. Barns collected a combined total of 112.9 tons. In addition to the drop-off programs, R&LP implemented and operated the Paper Collection Programs and Community Cleanups which recycled 323.6 tons and 266.4 tons, respectively. Other recycling occurred through private companies. When surveyed the commercial and industrial sectors reported recycling 2,669.1 tons and 14,667.4 tons, respectively.

#### **Section IV – Reference Year Waste Population, Waste Generation, and Waste Reduction**

Reference year population for Jefferson County and Belmont County was determined by the Ohio Department of Development's Office of Strategic Research. Estimated population for Jefferson County is 70,320 and Belmont County is 69,200, however, two villages within the Authority have populations residing in another solid waste district. In these circumstances Ohio law requires the district containing the largest portion of the jurisdiction's population include the entire portion of the municipality. After adjustments, Jefferson County's population is 70,459 and Belmont County's population is 69,164.

Residential/commercial waste generation in the reference year was calculated by adding together recycling data obtained through the survey that was conducted for this Plan Update and waste disposal data obtained from the annual reports submitted by waste management companies. Using this methodology, residential/commercial waste generation was determined to be 100,033 tons in 2005, or a per capita generation rate of 3.93 pounds/person/day. This generation rate is lower than the national average per capita generation rate for 2005 of 4.74 pounds/person/day.

Industrial waste generation was calculated using three different methods. The first method relied on generation rates calculated from the results of the industrial survey to determine waste generation. If, however, no survey responses were received the waste generation was determined from the *Format* Appendix JJ estimated generation rates. The second method involved estimating generation for all non-respondents which had less than twenty responding industries in a given SIC Category by using generation rates provided in Appendix JJ of the *Format*. The last method for determining industry generation involved simply adding together the recycling data obtained during the survey to waste disposal data obtained from landfill and transfer facility annual operating reports. Ultimately, industrial generation calculated using the last method described was determined to be the most representative based on historical trends in industrial landfill disposal rates. Industrial generation calculated by adding together recycling and disposal data was determined to be 35,574 tons.

Exempt waste generation was determined from annual reports submitted by waste disposal companies. In 2005, owners and operators of landfill facilities reported having received 6,361 tons of exempt waste.

Surveyed residential and commercial waste reduction is reported as 4,337 tons. Surveyed industrial waste reduction is reported as 14,667 tons.

#### **Section V – Planning Period Projections and Strategies**

Waste generation in the residential/commercial sector is projected to decrease throughout the planning period from 100,033 tons in 2005 to 98,656 tons in 2023. Increases in the per capita residential/commercial waste generation rate were determined using recommendations provided by Ohio EPA. Industrial sector generation is projected to decline from 35,574 tons in 2005 to 33,338 tons in 2023. Overall Authority waste generation is predicted to decrease slightly throughout the planning period from 141,968 tons in 2005 to 138,355 tons in 2023.

In this Plan Update, JAZ Environmental Consulting working with the Authority completed a Program Analysis of all of the Authority's reduction and recycling programs and strategies to specifically evaluate each program. A thorough evaluation of existing strategies showed that changes were needed to eleven drop-off locations in Jefferson County and five barn locations in Belmont County. In addition to the changes described in Section V the Authority will add an additional full-service drop-off in Jefferson County and add four additional full-service barns in Belmont County. These additional drop-off locations will be added to help demonstrate 90% access for the Authority. Other major program changes the Authority is planning for this Plan Update include: providing a curbside program in Powhatan Point, holding an Authority-wide electronics collection event, holding an Authority-wide household hazardous waste collection event, targeting littering with environmental enforcement, and providing assistance to the Jefferson County health department.

The Authority also dissolved the separate county R&LP offices in January 2007. Rather than two counties working independently, the programs will be implemented by Authority personnel. The Authority will at the very least employ the Executive Director, Fiscal Officer, two directors, two county education coordinators, two crew supervisors, two full-time crew members and two part-time crew members.

The industrial sector waste reduction projections are expected to decline slightly because of a lower waste generation.

#### **Section VI – Methods of Management: Facilities and Programs to be Used**

The Authority will use landfilling, recycling, transfer and composting methods through the planning period to manage the amount of waste from the Authority. The total planning period amounts of waste estimated to need these management methods are:

Recycling:	286,235 tons
Transfer:	617,407 tons
Composting:	14,106 tons
Landfilling:	1,930,788 tons

In the reference year approximately seventy-five percent of the Authority's landfilled waste was disposed in out-of-state landfills. With the opening of the Apex Sanitary Landfill in November of 2005 some of the out-of-state waste is expected to stay in-district. For planning purposes a regional capacity analysis was conducted for the Authority to demonstrate adequate regional disposal capacity for the Authority waste through the planning period.

#### **Section VII – Measurement of Progress Toward Waste Reduction Goals**

In the reference year the Authority has not demonstrated compliance with Goal #1 or Goal #2. The Authority does commit to meet Goal #1 by implementing the aggressive remedies outlined in Section VII.

In Jefferson County the Authority achieved 85% access through nine full-service drop-offs and nine part-time drop-offs. By adding one new full-service drop-off and changing one part-time drop-off to full-service the Authority will achieve 94% access in year 2007.

In Belmont County the Authority achieved 65% access through eleven full-service barns. By adding a non-subscription curbside program and six new full-service barns the Authority will achieve 101% access in year 2007.

#### **Section VIII – Cost and Financing of Plan Implementation**

In the reference year the Authority collected revenues from transfer facility contract fees, improved parcel tax assessments, and disposal fees. The primary funding source was from a \$6.25 tax on improved parcels in Jefferson and Belmont Counties. In the fall of 2005 the funding situation in the Authority changed. The permitted sanitary landfill, Apex Sanitary Landfill, began accepting waste. In anticipation of the disposal fee revenues, the Board of Trustees removed the improved parcel tax assessment. In addition, the Board of Trustees negotiated with the landfill for contract fee revenues on out-of-state waste disposed within the district. For the planning period, the Authority will rely on disposal fees and out-of-state waste contract fees as the primary funding source.

Section VIII includes a contingent funding source that would raise the tiered disposal fees if the contract fees are not renewed after the current contract expires. In addition, landfill capacity demonstrations provided in Section VI expect Apex Sanitary Landfill to reach capacity before the end of this Plan Update's planning period. The Authority expects Apex Sanitary Landfill to apply and receive expansion permits extending the life beyond the current permit; however, measures to re-instate the parcel tax assessment are included in Section VIII should capacity be reached.

**Section IX – District Rules**

This Plan does not prepare or adopt any rules.

**Table ES-1 General Information**

<b>District Name:</b> Jefferson-Belmont Regional Solid Waste Authority		
<b>District ID #:</b>	<b>Reference Year:</b> 2005	<b>Planning Period:</b> 2008-2023
<b>Plan Status:</b> Draft to Ohio EPA		<b>Reason for Plan Submittal:</b> Three-year plan update

**Table ES-2 District Coordinator**

<b>Name:</b> Patrick Lanaghan		
<b>Address:</b> 125 Fernwood Road, Suite 300		
<b>City:</b> Wintersville	<b>State:</b> Ohio	<b>Zip:</b> 43953
<b>Phone:</b> 740-266-6899	<b>Fax:</b> 740-266-6895	

**Table ES-3 Plan Data Summary**

		Reference Year	2008	2015
Population:		139,623	136,643	131,291
Generation	Industrial	35,574	35,191	34,314
	Res/Comm	100,033	99,374	98,874
	Exempt	6,361	6,361	6,361
	Total:	141,968	140,926	139,549
Waste Reduction	Industrial SR	-	-	-
	Ind. Recycling	14,667	14,510	14,148
	R/C SR			
	R/C Recycling	3,458	4,073	3,887
	MSW Composting	882	882	882
	Incineration			
	Ash Disposed			
WR Total	19,008	19,465	18,918	
Disposal <sup>+</sup>	LF-in-District	2,832	35,684	36,082
	LF-out-of-District	27,829	19,246	18,446
	LF-out-of-State	92,013	67,533	67,037
	Total LF	122,674	121,657	120,765
WRR*		14.0%	14.3%	14.1%

\*Excludes exempt waste.

**Table ES-4 Existing Disposal Facilities**

Name	County	District tons	2005 Total tons	Years Left
Apex Sanitary Landfill	Jefferson	2,832	8,566	10
Suburban South R&D Facility LF	Perry	378	674,779	15.9
Beech Hollow Landfill	Jackson	6	385,566	65.7
Kimble Sanitary Landfill	Tuscarwus	1,256	436,308	70.4
RW Countywide Landfill	Stark	664	1,498,151	33.9
American Tire Monofill	Stark	409	8,460	74
American Landfill	Stark	1,696	1,586,411	2.4
Stony Hollow Rec. & Disposal Facility	Montgomery	0	591,900	6.3
WM Mahoning Landfill, Inc	Mahoning	1,135	334,419	8.2
BFI Carbon Limestone Sanitary LF	Mahoning	24	1,516,328	19.4
Envirosafe HW & Ind Landfill	Lucas	396	2,659	7.1
Coshocton Landfill, Inc	Coshocton	6,700	113,899	80.1
Brooke/Valero	Brooke County, WV <sub>a</sub>	30,650	n/a	n/a
Short Creek	Ohio County, WV <sub>a</sub>	59,875	n/a	n/a
Wetzel County	Wetzel County, WV <sub>a</sub>	17	n/a	n/a
BFI Imperial Landfill	Allegheny County, Pa	1,471	n/a	n/a

### III. Inventories

#### A. The Reference Year

The Authority's current plan was ordered for implementation on July 13, 2004 covering a planning period of eleven years. According to ORC 3734.56(A) the Board of Trustees of a solid waste authority should begin preparing a draft amended plan no later than fifteen months before the draft amended plan is due to be submitted to Ohio EPA. Therefore the Board of Trustees began preparation of the draft amended plan (Plan Update) April, 2006. As suggested in the *Format*, the calendar year previous to plan preparation will be used as the reference year. Since the Authority Plan Update preparation began in 2006 data collection efforts were performed for the year 2005, thus establishing 2005 as the reference year. All subsequent planning projections will be projected from the reference year data.

There are minor differences between the data that was reported in the District's 2006 Annual District Report (for calendar year 2005) and the data presented in this Plan Update. These minor differences are a result of late collected commercial/industrial survey responses and adjustments made by Ohio EPA to waste disposed through transfer stations and out-of-state landfills. Differences in data are noted and identified where appropriate.

#### B. Existing Solid Waste Landfills

In the reference year the District disposed of waste in eleven in-state landfills and one scrap tire disposal facility accounting for approximately 25% of the Authority's waste disposal. Of the eleven in-state landfills used by the Authority approximately 2,832 tons of waste was disposed in the in-district landfill, Apex Sanitary Landfill. Apex Sanitary Landfill located in Jefferson County is a newly permitted landfill which began accepting waste in November of 2005.

The eleven out-of-district facilities, including the scrap tire monofill used by Jefferson and Belmont County include:

- Suburban South Landfill, Inc. in Perry County;
- Beech Hollow Landfill, in Jackson County;
- Kimble Sanitary Landfill, in Tuscarwas County;
- RW Countywide Landfill, in Stark County;
- American Tire Monofill, in Stark County;
- American Landfill, in Stark County;
- Stony Hollow Landfill, in Montgomery County;
- WM Mahoning Landfill, Inc., in Mahoning County;
- BFI Carbon Limestone Sanitary LF, in Mahoning County;
- Envirosafe HW & Ind Landfill, in Lucas County; and
- Coshocton Landfill, Inc., in Coshocton County.

Table III-1 identifies the various landfills used and tonnages disposed by the Authority in year 2005. The following sources were consulted to obtain the information provided in Table III-1:

1. Ohio EPA 2005 Annual District Report Review Form
2. 2004 Ohio Solid Waste Facility Data Report Tables and Figures
3. 2003 Ohio Solid Waste Facility Data Report Tables and Figures
4. West Virginia Solid Waste Management Plan Table 3-4

5. Apex Energy Inc. Waste Transfer Station
6. West Virginia Department of Environmental Quality

It should be noted that Kimble Sanitary Landfill reported receiving 1,256 tons of waste from the Authority in the annual operating report submitted to Ohio EPA. However, two transfer facility Kimble Transfer & Recycling and J&J Refuse Service, reported sending more waste than the 1,256 tons identified by Kimble Sanitary Landfill. Waste transferred through these two facilities was not recorded as having originated in Belmont or Jefferson County. To correct for this type of mischaracterization, Ohio EPA annually makes adjustments to quantities reported in landfills annual operating reports due to flows through transfer facilities. Ohio EPA made two such corrections for the Authority as presented in Table III-1. Ohio EPA added 15,454 tons of residential/commercial waste to the amounts reported by landfills to account for Authority waste mischaracterized as originating from the Carroll, Columbia, Harrison Solid Waste Management District and the Guernsey, Monroe, Muskingum, Morgan, Noble, Washington Solid Waste Management District.

The Authority disposed of approximately 75% of Authority waste in four out-of-state landfills. The data presented in Table III-1 for out-of-state landfills used by the Authority was reported by the West Virginia Department of Environmental Quality and Apex Energy Inc. Waste Transfer Station. Ohio EPA obtains data from out-of-state departments to make adjustments to the quantities of waste disposed from districts correcting total waste disposal. Ohio EPA adjusted the Authority's out-of-state waste disposal as shown in Table B.1:

Table B.1. Ohio EPA Out-of-State Adjustments for 2005

Landfill	Asbestos	General	Industrial	Exempt	CDD	Other	Total
Out-of-state Landfill	0	1,471.36	0	0	0	0	1,471.36
West Virginia Landfills	0	65,781.00	7,167.50	5,779.46	0	0	78,728.09
<b>Totals</b>	0	57,525.36	7,167.50	5,779.46	0	0	<b>80,199.45</b>

The West Virginia Landfill disposal tonnages adjusted by Ohio EPA differ by approximately 11,813.91 tons from the results presented in Table III-1. The significant difference is attributed to the industrial waste disposal. While the Authority would normally use data presented by Ohio EPA, the historical trends for industrial waste disposal support the use of the data gathered by the Authority. Data presented in Table III-1 will be used for all subsequent Sections of this Plan Update.

Table III-7 identifies and includes additional data on the four out-of-state landfills used by the Authority in year 2005.

### C. Existing Incinerators and Resource Recovery Facilities

No incinerators or resource recovery facilities were used by the Authority in 2005. Therefore, Table III-2 as required by the *Format* is not included in this Plan Update.

#### **D. Existing Transfer Facilities**

The District sent 48,079 tons of waste through three transfer facilities in the reference year. Table III-3 provides information regarding these facilities as obtained from the Ohio EPA 2005 Annual District Report Review Form.

#### **E. Existing Recycling Activities**

In 2005 curbside recycling was not provided within the Authority as presented in Table III-4.

During the reference year the Authority used private facilities and activities to provide recycling. Table III-5 lists the facilities and activities used by the Authority in the reference year, including both in-district and out-of-district. Activities implemented and operated by Jefferson County R&LP were taken to Valley Converting and District Recycling Center in Portage County. Activities implemented and operated by Belmont County R&LP were taken to Valley Converting and Cambridge Transfer and Recycling Facility. Recycling performed by activities is included within the activity line item and not shown with the private facilities. In conducting residential activity surveys, private facilities were only contacted if the R&LP offices could not provide data. These measures were taken to eliminate double counting. Recycling data from private facilities was obtained by surveying the commercial and industrial sectors and are included in Table III-5 as Commercial Business Surveys and Industrial Business Surveys.

Residential recycling in Jefferson County occurs through Drop-Off Programs, Paper Collection Program and Community Cleanups. The drop-off program serviced by R&LP recycling crew collects paper products separately from commingled materials in 20 or 30 yard trailers. Depending on the location the drop-off program is available full or part-time as outlined in Table III-5. In the reference year R&LP maintained eighteen drop-off's. The drop-off program collected 73.6 tons of commingled recyclables and 112.6 tons of paper recyclables. The Paper Collection Program also known as "If You Can Tear It, You Can Recycle It" provides an outlet for paper recycling by providing a monetary incentive to any school participating in the program. Paper recycled through this program totaled 191.8 tons. The reference year Community Cleanup provided an outlet for scrap tires only. The cleanup recycled 9.4 tons of scrap tires.

Residential recycling in Belmont County occurs through drop-off programs, paper collection program, community cleanups and electronic recycling. The drop-off program serviced by R&LP recycling crew collects paper products separately from commingled materials in storage sheds or barns. All barns are available full time as outlined in Table III-5. In the reference year R&LP maintained eleven barns. The drop-off program collected 112.9 tons of recyclables. The Paper Collection Program provides an outlet for paper recycling by providing a monetary incentive to any school participating in the program. Paper recycled through this program totaled 131.8 tons. The reference year community cleanup provided an outlet for scrap tire and white good recycling as well as trash disposal. The cleanups recycled 157 tons of scrap tires and white goods.

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

Yard waste management is provided by three private companies, one township, and two cities. Two private companies are not available to the public, one is available for a fee, and the township is available only to the residents of its community at specified times. The facilities and their data are provided in Table III-6.

German Ridge Composting is an active Class IV compost facility. This facility is not available for public access. In 2005, approximately 97.3 tons of leaves, yard waste and brush were composted.

Ohio Valley Composting operates a Class III private composting facility. For a fee this facility may accept brush and/or sawdust. The materials are mixed with animal manure and composted.

Ohio Valley Composting composted 240 tons of animal manure and 686.7 tons of sawdust/wood chips in 2005. The Authority will credit the 686.7 tons towards recycling in this Plan Update. The animal manure is not credited because it has never been disposed of in a landfill (i.e., it has always been reused/recycled).

Total Lawn Care is a private company which provides lawn care service to its customers. The company operates one Class IV compost facility that is not accessible to the public. Total Lawn Care composted approximately 13 tons of leaves, yard waste, and brush.

Wells Township operates one Class IV composting facility located in Brilliant. The compost facility is accessible to township residents only. Accepted materials are leaves, yard waste and brush. The facility is made available two times a week in the spring and fall. Wells Township accepted approximately 84 tons of yard waste.

St. Clairsville operates an annual leaf collection for its residents every fall for approximately four weeks. They accept leaves in bags and operate a vacuum truck for loose leaves. This service is provided free to residents. Vacuumed leaves are used as fertilizer to a local farm and the bag leaves are composted at the city garage. The electric department operates a wood chipper for all branches removed from power lines. These wood chips are recycled on the bike trail and in landscaping.

Steubenville operates an annual leaf collection for its residents every fall for approximately four weeks. They accept leaves in bags and operate a sweeper. Leaves are taken to a local cemetery to be used as fertilizer. Steubenville offers a Christmas tree collection every year. Collected trees are donated to local parks or clubs for use in nature preserves.

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

The Jefferson County Health Department provided information on open dumps and waste tire dumps in Jefferson County. Belmont County Recycling and Litter Prevention provided information on open dumps and waste tire dumps in Belmont County. The identified sites are provided in Table III-8.

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

In the year 2005, the Authority did not dispose of any materials in ash, foundry sand or slag disposal sites. Thus Table III-9 as required by the *Format* was not included in this Plan Update.

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

A map of Jefferson and Belmont County showing the location of each facility and disposal site listed in III.B through III.H is included in Appendix D. The commercial businesses and industries that participate in commercial and industrial recycling programs are not shown on this map. Including all such sites would congest the map. Additional information on any of these businesses or industries is available from the Authority.

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

Currently the Health Departments in Jefferson and Belmont Counties do not require hauler licensing. Haulers operating in the townships contract directly with the residents or in municipalities with the municipality representatives. Table III-10 provides information about the available haulers.

## IV. Reference Year Population, Waste Generation and Waste Reduction

### A. Reference Year Population and Residential/Commercial Waste Generation

Reference year population data is determined by the Ohio Department of Development’s Office of Strategic Research (ODOD, OSR). OSR provided estimate populations for 2005 based on the 2000 census data by governmental unit. The reference year population for Jefferson County is 70,320 and for Belmont County 69,200 as outlined in Table IV-1.

In the Authority, portions of Adena Village and Wilson Village are located in other solid waste management districts. Ohio law requires that the entire population of a municipality located in more than one solid waste management district be added to the solid waste management district containing the largest portion of the jurisdiction’s population.

Portions of Adena Village are located in Harrison County part of the Carroll, Columbiana, Harrison Solid Waste Management District. The majority of Adena Village resides in Jefferson County; therefore, the portion of Adena Village located in Harrison County is added to the Jefferson County population. As shown in Table IV-1, 139 residents are added to Jefferson County.

Portions of Wilson Village are located in Monroe County, part of the Southeastern Ohio Solid Waste Management District. The majority of Wilson Village resides in Monroe County; therefore the portion of Wilson Village located in Belmont County is subtracted from the Belmont County population. As shown in Table IV-1, 36 residents were subtracted from Belmont County.

The final adjusted Authority population is 139,623 as indicated in Table IV-1.

One method for determining waste generation is by using Ohio EPA published recommendations for estimating per capita residential/commercial waste generation. Ohio EPA’s recommendations are based on data taken from U.S. EPA’s documents entitled “Municipal Solid Waste in the United States: 2000 Facts and Figures” and “Municipal Solid Waste in the United States: 1998 Update.” Using U.S. EPA’s generation rate of 4.51 pounds/person/day for 2000 and increasing it by 1.0% per year, Ohio EPA calculated the residential/commercial generation for 2005 as 4.74 pounds/person/day (see Table A.1 below). As presented in Table IV-1, waste generation for the District’s residential/commercial sector for 2005 using the national average per capita generation rate is calculated as 120,781.

Table A.1 Calculated U.S. EPA Generation Rate.

	2000	2005
Per capita generation	4.51 lbs/person/day	4.74 lbs/person/day
Projected rate of increase		1.0% per year

Another methodology for determining waste generation is by adding recycling to waste disposed. To determine the recycling occurring in the Authority for the reference year a residential and commercial sector survey was conducted in March of 2006. Residential data was obtained from Belmont County R&LP, Jefferson County R&LP, private recyclers/processors, compost facilities, and Ohio EPA. Commercial businesses were surveyed personally via telephone in attempts of retrieving recycling data. The largest commercial business list was compiled from the Local Area Chamber of Commerce. Even though businesses were directly contacted it was difficult to obtain data. One obstacle is corporate level recycling. Some companies manage the recycling contracts on a corporate level not a local level which proved challenging to separate the materials for Jefferson and Belmont County locations. Another obstacle found was no record keeping. While some local businesses do recycle materials they do not track the quantities of materials. In these cases efforts were made to contact the recycler inquiring about recycling for a particular store.

Sometimes the recycler was able to provide a breakdown per store. Yet still other businesses are not recycling.

Survey efforts for commercial recycling resulted in 2,669 tons. Commercial data is compiled in Appendix E. Due to confidentiality the names of the commercial businesses are not identified.

Survey efforts did not obtain sufficient waste disposal data for use in determining waste generation. Therefore, the Authority will use Ohio EPA waste disposal data which is taken from the annual reports submitted by solid waste landfill and transfer facility owners and operators. This data was provided to the Authority in Ohio EPA's 2005 Annual District Report Review Form. Ohio EPA adjusts the disposal data based on the agency's analysis of waste flows through transfer stations and to out-of-state facilities to correct for any resulting mischaracterization as discussed in Section III. The adjusted residential/commercial waste disposal for the Authority, as reported in Section III, is 95,696 tons (excluding exempt waste).

Waste generation using the second methodology was determined to be 100,033 (1,668 + 2,669 + 95,696) tons. This calculated generation has not been adjusted for double counting.

## B. Industrial Waste Generation

To estimate waste generation for the reference year, a survey for the industrial sector was conducted in March 2006 to obtain recycling, disposal and waste generation data for 2005. The database of industries to whom surveys were sent was compiled from the 2006 Ohio Harris Industrial Guide using manufacturers who fall within the SIC code categories of 20 and 22-39. The compiled list also excluded industries consisting of less than 2 employees, thus concentrating efforts on the larger industries. The surveys were mailed with self-addressed envelopes in efforts to achieve a 100% response rate. An example survey is located in Appendix F. Table B.1 below shows the number of surveys sent to the industrial sector and the number of responses received.

Table B.1 Industrial Survey Responses

Initial Number of Surveys	Number of Surveys Received	Number of Surveys Used prior to 2003 data	Total Surveys used to Calculate Waste Generation
130	42	0	40
			Percentage of Industrial Responses
			32.3%

The survey directed industries to return completed surveys within two weeks. After the initial requested time thirty industries responded. Follow-up phone calls were made to the largest non-responding industries in an attempt to obtain a 50% survey response rate. Surveys from an additional twelve industries were received as a result of these efforts resulting in an overall response rate of 32% of all industries surveyed. The forty responding and useable industries represent almost 76% of total industrial employment for the Authority.

After conducting the surveys, the data was compiled into the spreadsheets located in Appendix G. Due to manufacturing confidentiality, the names of the industries are not identified. Achieving a 32% response rate does not provide a full account of waste generation for each SIC code category as required by the *Format*. In order to estimate waste generation for the industrial sector the industrial waste generation has been calculated three ways.

### Method 1

Table IV-3 estimates generation of the non-responding industries by multiplying the number of non-responding employees in each SIC category by an average generation rate per employee. This average generation rate is determined from the responding industries, except for the generation rates shaded in Table IV-3. These generation rates received no survey responses, thus

in these instances the generation rate is taken from Table JJ-2 of Appendix JJ in the *Format*. Estimating generation for the non-respondent industries from received responses is the recommended method to calculate waste generation according to the *Format*. If however as stated in the *Format* a “number of responding industries is less than 20 for a given SIC category, if the largest facilities have not responded to the survey, or if the number of facilities in the district for a particular SIC category is very small, the district should consider using the values presented in Table JJ-2.” Attempting to calculate waste generation based on survey responses, Table JJ-2 from *Format* was used for waste generation when a particular SIC did not have any returned responses or responded with no waste generation. All other waste generations were determined from survey responses.

The four columns in the “Survey Respondents” portion of Table IV-3 representing the number of industries, number of employees, waste generated and generation rate present actual numbers reported by the industries on the surveys. In the “Survey Non-Respondents” section, both the number of industries and the number of employees is from the *2006 Harris Ohio Industrial Directory*. The figures in the “Waste Generated” column are calculated. The estimated waste generation for the industrial sector using Method 1 is 38,990 tons.

It is important to note that some surveyed industries reported disposal of sludge that was not included in these waste generation calculations. Sludge does not qualify as a solid waste because it contains free liquids. Any material not typically disposed of in a municipal solid waste landfill is not considered solid waste and was not used in calculating waste generation. If reported sludge disposal were credited as a solid waste then 87,002 tons would be added to the total waste generation.

#### Method 2

As stated above, the *Format* suggests districts use waste generation rates from Table JJ-2 in Appendix JJ to calculate total industrial waste generation if the number of responding industries is less than 20 for a given SIC category. Method 1 combined the generation rate survey results and those provided in Table JJ-2 to determine a total industrial waste generation. Method 2 uses the waste generation rates from Table JJ-2 in each SIC category to calculate a total industrial waste generation. The estimated waste generation using Method 2 is 50,076 tons. This method may not represent true waste generation conditions in the Authority. The data from Appendix JJ of the *Format* is compiled from the first round of Ohio solid waste management plans which was ten years ago.

#### Method 3

The third method in which the Authority determined industrial waste generation is by adding disposal to recycling. Disposal numbers are obtained from Ohio EPA’s *2005 Annual District Report Review Form*, while reported recycling numbers are obtained from data recorded on the surveys. The disposal data as discussed in Section III is compiled by Ohio EPA from landfill and transfer facility annual operating reports. This data has been adjusted to correct for mischaracterization resulting from waste flows through transfer facilities and to out-of-state landfills. The estimated waste generation is 35,574 tons using Method 3.

Three methods resulted in three different generations. In comparing the waste generation estimations Method 1 produced a waste generation estimate very similar to Method 3. Method 2 may be higher due to estimations from Table JJ-2, however Method 3 may be lower because of the 32% response rate in survey data. For planning purposes in this Plan Update the Authority will use the waste generation calculated using Method 3 of 35,574 tons.

### **C. Exempt Waste**

As shown in Table IV-4 the District disposed of 6,361 tons of exempt waste in the reference year. The majority of this waste was disposed in out-of-state landfills. The Authority could not obtain data on the exempt waste from out-of-state landfills. However the District believes this waste to

be construction and demolition debris. Historical exempt waste disposal has been less than 2,000 tons. The Authority has no indication as to if this increase is a one time occurrence.

## **D. Reference Year Waste Reduction**

### *1. Residential/Commercial Sector*

As discussed earlier in Section A of this Chapter, the Authority conducted a survey of the residential/commercial sector to obtain recycling for year 2005 resulting in 4,337 tons of recycling. This recycling data is presented in Table IV-5.

Commercial businesses were surveyed via telephone interviews. When commercial businesses had a known quantity of recycling then that quantity was credited to the commercial recycling. If a commercial business could not provide a known quantity of recyclables but could provide the recycler/broker then the recycler/broker was contacted. Data from the recycler/broker was requested for the business that referred the name of the recycler/broker. Special attention was paid to recover only those materials from the particular business thus eliminating double counting.

In the reference year and as written in the Approved Plan the Authority provides funding to the Jefferson and Belmont County R&LP offices to implement the programs outlined in Section V.E of the Approved Plan. Monies appropriated to these offices provided funding for recycling collection programs (e.g. drop-off programs). Recycling and litter prevention education provided by R&LP offices has historically been provided by grants from Ohio Department of Natural Resources and County contributions. Therefore education and litter prevention in the reference year as well as recycling collection programs are implemented by R&LP.

The Authority has implemented waste reduction education and litter prevention strategies in each county independently of each other through the R&LP offices. The strategies and programs in the reference year and prior to the reference year have been developed and implemented by the county R&LP offices. The currently Approved Plan, for which this plan update is written, required the Board of Trustees to employ a full-time solid waste coordinator, establish another funding mechanism, and submit quarterly fee reports and quarterly budget and implementation reports.

In addition the Authority was required to submit quarterly fee reports and quarterly budget and implementation reports to Ohio EPA. Since the current Approved Plan, the Authority has met these requirements and will continue to submit quarterly fee reports in accordance with the requirements of ORC 3734.575 and Rule 3745-28-03 of the Ohio Administrative Code (OAC); however the Authority will not continue to submit quarterly budget and implementation reports.

The currently Approved Plan also required the Board of Trustees of the Authority to select and establish another funding mechanism other than the transfer facility contract fee to implement the plan. The Board of Trustees did enact an improved parcel assessment of \$6.25. This assessment was removed in September 2005 in anticipation of the opening of Apex Sanitary Landfill in Jefferson County. In the reference year the Authority collected a \$1:2:1 tier disposal fee.

The following discussion is a description of the existing waste reduction strategies for the residential/commercial sector in the Authority in the reference year that achieved the 4,337 tons of recycling. For planning purposes, all strategies, programs and activities offered prior to 2005 are considered existing. Strategies, programs and activities implemented after 2005 are considered new and are discussed in Chapter V.

### **JEFFERSON COUNTY PROGRAMS**

**Program Name:** Commercial/Industrial Sector TA and Education

**IMPLEMENTATION DATE:** 2000 - ongoing

**WHO WILL IMPLEMENT:** In the reference year this program was implemented by the Jefferson County Recycling and Litter Prevention Office.

**WHO WILL BENEFIT:** The target sectors are commercial and industrial businesses.

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** This is an education program

**STRATEGY/PROGRAM GOAL:** To provide education and resource materials to the commercial and industrial sectors on source reduction, reuse and recycling.

**STRATEGY/PROGRAM DESCRIPTION:** This program was developed in the year 2000 to place emphasis on the commercial and industrial sectors. Tasks to complete were to conduct waste audits and publish and distribute a quarterly newsletter.

**MEASUREMENT OF SUCCESS:** Success will be measured by the number of waste audits conducted and the feedback received for the newsletter. A target was set to conduct four commercial and two industrial waste audits each year of the planning period beginning in 2004. Publication of a quarterly newsletter was set for 2005.

**STRENGTHS AND WEAKNESSES:** The Authority has not seen an increase in recycling for the commercial and industrial sector, mostly in part to the lack of time available to the program by the R&LP staff. For the reference year the R&LP office conducted one waste audit in Jefferson County. In addition there needs to be structure to the program for identifying the businesses and maintaining contact through the year. In the reference year the Authority did create a web page but still needs to direct the commercial and industrial sectors to the site for assistance. The quarterly newsletter is still undergoing publication with distribution set for 2008.

**Program Name:** Curbside Recycling

**IMPLEMENTATION DATE:** NA

**WHO WILL IMPLEMENT:** No efforts for program development in reference year.

**WHO WILL BENEFIT:** To be determined

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** NA

**STRATEGY/PROGRAM GOAL:** NA

**STRATEGY/PROGRAM DESCRIPTION:** NA

**MEASUREMENT OF SUCCESS:** NA

**STRENGTHS AND WEAKNESSES:** While municipalities are not committing to a curbside recycling program discussions will continue.

**Program Name:** Drop Off Recycling, FS, Rural

**IMPLEMENTATION DATE:** Wells Township, 2004 – ongoing

Richmond Village, 2004 part-time, 2005 full-time - ongoing

**WHO WILL IMPLEMENT:** Jefferson County R&LP office organizes and manages the programs as well as collects the materials. The Authority provides all recycling containers and equipment needed for the collection. Beginning in 2004 the Authority provided new recycling containers for this program.

**WHO WILL BENEFIT:** Residents of Jefferson County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Drop off sites accept commingled materials and mixed paper. Commingled materials accepted are: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal. Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for recycling.

**STRATEGY/PROGRAM DESCRIPTION:** Jefferson County R&LP office operates two full-service rural drop-off locations in Wells Township and Richmond Village. In 2004 Richmond Village operated as a part-time rural drop-off available seven consecutive days a month but was changed to a full-service site in 2005. The drop-off is open unattended 24 hours a day 7 days a week. Commingled material is collected in separate compartments from the mixed paper. In the reference year commingled materials were recycled to District Recycling Center in Portage County while mixed paper went to Valley Converting. Recycled materials are not tracked by individual site. Approximately 112.61 tons of mixed paper and 73.63 tons of commingled materials were recycled from all drop-off

sites located in Jefferson County. Drop-off container schedules are posted on both the Authority and Jefferson County R&LP websites as well as brochures throughout the community. When new sites are added the community is also informed through a brochure inserted with the water bill.

**MEASUREMENT OF SUCCESS:** Individual container success is measured by participation; that is how often the container needs to be pulled. The highest measures of success are containers pulled weekly or more than every other week, and so forth. Wells Township container needs pulled every other week. The Richmond Village drop-off site is pulled once every two weeks, even though it is not full. Jefferson County R&LP needs to evaluate the Richmond Village site for effectiveness and efficiency. The overall drop-off program success is measured by the programs ability to provide 90% access (62,500 persons creditable towards access) and the tonnage of materials collected. Jefferson County's drop-off program provides 90% access and collected 186.24 tons (372,480 pounds) or approximately 6 pounds per person recycled.

**STRENGTHS AND WEAKNESSES:** Jefferson County R&LP set up an infrastructure for the drop-off containers to reach 90% of the county's population. With the infrastructure in place, emphasis needs to be placed on fine tuning the container sites, increasing awareness and efficiently operating the collection routes. The Wells Township full service drop-off site location is achieving high standards of participation; however the Richmond Village site is not meeting expectations and will need to be assessed. The revenues generated from the sale of recyclables at all drop-off locations goes to a special fund of the County to be used by Jefferson County R&LP.

**Program Name:** Drop Off Recycling, FS, Urban

**IMPLEMENTATION DATE:** Empire/Stratton Villages, 2004 - ongoing  
Lincoln Elementary, 2004 - ongoing  
McKinley Elementary, discontinued 2005  
Pleasant Hill (change name to Island Creek Twp), 2005 - ongoing  
Roosevelt Elementary, 2004 – ongoing  
Wal-Mart Supercenter, discontinued 2005  
Toronto City, 2004 – ongoing, a drop-off container accepting all materials is placed in Toronto. Residents do have the opportunity to use Valley Converting for paper.  
Wintersville, 2005 – ongoing  
Wheeling Pittsburgh Steel, 2005 – ongoing  
Aquinas Central School, - not a full service location, available part-time  
Wells School, no drop-off container  
Tri-State Recycling, no drop-off container. This is a private buyback center.

**WHO WILL IMPLEMENT:** Jefferson County R&LP office organizes and manages the programs as well as collects the materials. The Authority provides all recycling containers and equipment needed for the collection. Beginning in 2004 the Authority provided new recycling containers for this program.

**WHO WILL BENEFIT:** Residents of Jefferson County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Drop off sites accept commingled materials and mixed paper. Commingled materials accepted are: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal. Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for recycling.

**STRATEGY/PROGRAM DESCRIPTION:** Jefferson County R&LP office operates nine full-service rural drop-off locations in Empire/Stratton Villages, Lincoln Elementary, McKinley Elementary, Pleasant Hill, Roosevelt Elementary, Wal-Mart Supercenter, Toronto City, Wintersville, and Wheeling-Pittsburgh Steel. All full service drop-offs are open unattended 24 hours a day 7 days a week. Commingled material is collected in separate

compartments from the mixed paper. In the reference year commingled materials were recycled to District Recycling Center in Portage County while mixed paper went to Valley Converting. Recycled materials are not tracked by individual site. Approximately 112.61 tons of mixed paper and 73.63 tons of commingled materials were recycled from all drop-off sites located in Jefferson County. Drop-off container schedules are posted on both the Authority and Jefferson County R&LP websites as well as brochures throughout the community. When new sites are added the community is also informed through a brochure inserted with the water bill.

**MEASUREMENT OF SUCCESS:** Individual container success is measured by participation; that is how often the container needs to be pulled. The highest measures of success are containers pulled weekly or more than every other week, and so forth. The following table outlines the full service drop-off site and their frequency for pulls.

Drop-off Site	Number of Pulls
Empire/Stratton Villages	1 time every 2 weeks, then only three-fourths full
Lincoln Elementary	1 time a week
McKinley Elementary	discontinued in 2005 because Steubenville is consolidating schools and this location became an administrative office
Island Creek Twp	1 time every 2 weeks
Roosevelt Elementary	1 time every 2 weeks
Wal-Mart Supercenter	discontinued in 2005 because it was only used by employees
Toronto City	2 times a week
Wintersville	2 to 3 times a week
Wheeling Pittsburgh Steel	added new site in 2005, not much participation yet

Wal-Mart Supercenter did not achieve expected results. This site was discontinued in 2005 with plans to move the container to another location in Steubenville. A new site was added at Wheeling Pittsburgh Steel in 2005. New sites are studied closely for participation for at least a year, providing no complaints and adequate education is provided. The other full service urban site that is not achieving high participation is the site shared between Empire and Stratton Villages. This site is located within the villages to attract village and township residents; however there is doubt that township residents are using the site. The current location is not a convenient location warranting a possible relocation for this site.

The overall drop-off program success is measured by the programs ability to provide 90% access (62,500 persons creditable towards access) and the tonnage of materials collected. Jefferson County's drop-off program provides 90% access and collected 186.24 tons (372,480 pounds) or approximately 6 pounds per person recycled.

**STRENGTHS AND WEAKNESSES:** Jefferson County R&LP set up an infrastructure for the drop-off containers to reach 90% of the county's population. With the infrastructure in place, emphasis needs to be placed on fine tuning the container sites, increasing awareness and efficiently operating the collection routes. The Empire/Stratton Villages site is not meeting expectations and will need to be assessed due to location and lack of participation. The revenues generated from the sale of recyclables at all drop-off locations goes to a special fund of the County to be used by Jefferson County R&LP.

**Program Name:** Drop Off Recycling, PT, Rural

**IMPLEMENTATION DATE:** Bergholz Village, 2004 – ongoing  
Bloomingdale Village, 2004 – ongoing

Mount Pleasant Village, 2004 – ongoing  
 Rayland Village, 2004 – ongoing  
 Smithfield (change name to Dillonvale), 2005 – ongoing  
 Tiltonsville Village, 2004 – ongoing  
 Mingo Junction, 2005 - ongoing  
 Saline Township, 2005 – ongoing  
 Brilliant - no drop-off. A full-time drop-off was made available in Wells Township at another location.  
 Richmond Village – no drop-off. A full-time drop-off was made available at this location.

**WHO WILL IMPLEMENT:** Jefferson County R&LP office organizes and manages the programs as well as collects the materials. The Authority provides all recycling containers and equipment needed for the collection. Beginning in 2004 the Authority provided new recycling containers for this program.

**WHO WILL BENEFIT:** Residents of Jefferson County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Drop off sites accept commingled materials and mixed paper. Commingled materials accepted are: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal. Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for recycling.

**STRATEGY/PROGRAM DESCRIPTION:** Jefferson County R&LP office operates eight part time rural drop-off locations in Bergholz Village, Bloomingdale Village, Mount Pleasant Village, Rayland Village, Dillonvale, Tiltonsville Village, Mingo Junction, and Saline Township. All of these part-time drop-offs except for Mingo Junction and Saline Township are open unattended for 7 consecutive days a month. Mingo Junction is available on the weekends and Saline Township is available on Mondays. Commingled material is collected in separate compartments from the mixed paper. In the reference year commingled materials were recycled to District Recycling Center in Portage County while mixed paper went to Valley Converting. Recycled materials are not tracked by individual site. Approximately 112.61 tons of mixed paper and 73.63 tons of commingled materials were recycled from all drop-off sites located in Jefferson County. Drop-off container schedules are posted on both the Authority and Jefferson County R&LP websites as well as brochures throughout the community. When new sites are added the community is also informed through a brochure inserted with the water bill.

**MEASUREMENT OF SUCCESS:** Individual container success is measured by participation; that is how often the container needs to be pulled. The highest measures of success are containers pulled weekly or more, then every other week, and so forth. The following table outlines the part-time drop-off sites and their frequency for pulls.

Drop-off Site	Number of Pulls
Bergholz Village	1 time a month
Bloomingdale Village	1 time a month
Mount Pleasant Village	1 time a month
Rayland Village	1 time a month
Dillonvale	1 time a month
Tiltonsville Village	1 time a month
Mingo Junction	4 times a month, available weekends
Saline Township	4 times a month, available every Monday

Six of the part-time drop-offs are available only one week a month, so therefore they are pulled only once a month. Each of these six sites is full every time they are pulled.

Mingo Junction and Saline Township are available four times a month for at least 24 hours.

**STRENGTHS AND WEAKNESSES:** Jefferson County R&LP set up an infrastructure for the drop-off containers to reach 90% of the county's population. With the infrastructure in place, emphasis needs to be placed on fine tuning the container sites, increasing awareness and efficiently operating the collection routes. Offering drop-off recycling containers for seven consecutive days gives residents the opportunity to recycle once a month. The current schedule is not conducive for greater recycling. Residents complain that frequency is not enough and the container is full two days after the box is placed. The schedule and availability of these six part-time drop-off locations will need to be assessed. Mingo Junction is a highly active site that needs to have a full service container to meet the needs of the residents in addition to the part-time container. The revenues generated from the sale of recyclables at all drop-off locations goes to a special fund of the County to be used by Jefferson County R&LP.

**Program Name:** Drop Off Recycling, PT, Urban

**IMPLEMENTATION DATE:** Aquinas Central School, 2000 - ongoing

**WHO WILL IMPLEMENT:** Jefferson County R&LP office organizes and manages the programs as well as collects the materials. The Authority provides all recycling containers and equipment needed for the collection. Beginning in 2004 the Authority provided new recycling containers for this program.

**WHO WILL BENEFIT:** Residents of Jefferson County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Drop off sites accept commingled materials and mixed paper. Commingled materials accepted are: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal. Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for recycling.

**STRATEGY/PROGRAM DESCRIPTION:** Jefferson County R&LP office operates one part time urban drop-off location in Steubenville at Aquinas Central School. This part-time drop-off is available every Thursday. Commingled material is collected in separate compartments from the mixed paper. In the reference year commingled materials were recycled to District Recycling Center in Portage County while mixed paper went to Valley Converting. Recycled materials are not tracked by individual site. Approximately 112.61 tons of mixed paper and 73.63 tons of commingled materials were recycled from all drop-off sites located in Jefferson County. Drop-off container schedules are posted on both the Authority and Jefferson County R&LP websites as well as brochures throughout the community. When new sites are added the community is also informed through a brochure inserted with the water bill.

**MEASUREMENT OF SUCCESS:** Individual container success is measured by participation; that is how often the container needs to be pulled. The highest measures of success are containers pulled weekly or more than every other week, and so forth. The drop-off container located at Aquinas Central School is highly active. The site is full every time.

**STRENGTHS AND WEAKNESSES:** Jefferson County R&LP set up an infrastructure for the drop-off containers to reach 90% of the county's population. With the infrastructure in place, emphasis needs to be placed on fine tuning the container sites, increasing awareness and efficiently operating the collection routes. Aquinas Central School availability is restricted by the school to only Thursdays. While this site has high participation and is needed full-time, the vandalism is high. Thus the school is restricting the availability for the container. The revenues generated from the sale of recyclables at all drop-off locations goes to a special fund of the County to be used by Jefferson County R&LP.

**Program Name:** Household Hazardous Waste

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Jefferson County R&LP

**WHO WILL BENEFIT:** Residents of Jefferson County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Household hazardous wastes including paint, pesticides, household batteries, used oil, etc.

STRATEGY/PROGRAM GOAL: To educate Jefferson County residents on the safe and proper disposal of household hazardous waste.

STRATEGY/PROGRAM DESCRIPTION: The household hazardous waste program is in its infancy for development. The Approved Plan planned for the Authority to:

- Establish a hotline;
- Compile and update facility lists for used oil, lead-acid battery, antifreeze and other automotive fluids; fluorescent light fixtures, and refrigerant removal;
- Explore the feasibility for a household battery collection program;
- Explore the feasibility for a paint collection and exchange program;
- Explore the feasibility for a pesticide exchange program;
- Incorporate HHW information and materials into education and awareness; and
- Distribute used oil recycling outlet brochure.

MEASUREMENT OF SUCCESS: This is a relatively new program therefore measure of success will be commitment and progress toward developing this program. To date very little has been accomplished towards the activities listed in the program description. Jefferson County R&LP has incorporated HHW information and materials into education and awareness as well as maintaining a list of used oil recycling outlets. Future programming will need to explore how to achieve the activities.

STRENGTHS AND WEAKNESSES: Several activities are included under the Household Hazardous Waste program to explore without clear direction in accomplishing these activities. The range of activities to achieve is very encompassing. Setting milestone goals might help explore the feasibility of the activities in the program description. Household hazardous waste is universally a problem and can be addressed similarly in both counties. Teaming with Belmont County R&LP office would strengthen the program.

**Program Name:** Industrial Recycling and Reduction

IMPLEMENTATION DATE: 2000 - ongoing

WHO WILL IMPLEMENT: Jefferson County R&LP will maintain relationships with industries and recycling outlets.

WHO WILL BENEFIT: Industries in Jefferson County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: All types of materials are targeted for recycling and source reduction.

STRATEGY/PROGRAM GOAL: To assist the industrial sector

STRATEGY/PROGRAM DESCRIPTION: Most of the industrial sector recycling results from industries viewing their solid waste as a commodity. Jefferson County R&LP serves to assist the industries when needed.

MEASUREMENT OF SUCCESS: Maintaining a higher waste reduction rate for the industrial sector will be a measure of success.

STRENGTHS AND WEAKNESSES: Very little influence towards recycling is from the county. Technical assistance can be provided however the industries achieve results.

**Program Name:** Lead-Acid Battery Programs

IMPLEMENTATION DATE: 2004 - ongoing

WHO WILL IMPLEMENT: Jefferson County R&LP provides education and maintains a list of county businesses that accept lead-acid batteries for proper disposal.

WHO WILL BENEFIT: Residents of Jefferson County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Lead-acid batteries.

STRATEGY/PROGRAM GOAL: Prevent lead-acid battery disposal and ensure that they are recycled or disposed of properly.

STRATEGY/PROGRAM DESCRIPTION: Privately operated businesses located within the county accept lead-acid batteries for recycling. Jefferson County R&LP office maintains the list of businesses providing this outlet for recycling. Businesses accept batteries at no charge, require the purchase of a new battery before accepting old batteries, or charge a fee.

MEASUREMENT OF SUCCESS: Jefferson County R&LP relies on private businesses for the collection and recycling of lead-acid batteries. Success will be relative to the education provided.

STRENGTHS AND WEAKNESSES: Advertising, promotions, and education are not directed towards this program. Greater efforts for targeting the residential sector would be beneficial. It is a strength that the county has available and can rely on private businesses accepting lead-acid batteries however there are difficulties in tracking collected batteries from private businesses.

**Program Name:** Market Development Programs

IMPLEMENTATION DATE: 2004 - ongoing

WHO WILL IMPLEMENT: Jefferson County R&LP

WHO WILL BENEFIT: Residents, businesses, industry, organization, and local governments in Jefferson County.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: No specific amount of waste reduction can be credited to market development.

STRATEGY/PROGRAM GOAL: Promote markets for products containing recycled materials.

STRATEGY/PROGRAM DESCRIPTION: Jefferson County R&LP maintains and provides information on recycled products, purchases and uses recycled content products whenever suitable products are available at competitive prices, encourages and incorporates "buy recycled" campaign.

MEASUREMENT OF SUCCESS: There is no measure of success for this program. R&LP will continue to include information in their presentations and record the number of presentations given.

STRENGTHS AND WEAKNESSES: Uncontrolled volatility in recycling markets.

**Program Name:** Jefferson County Paper Collection Program dba "If You Can Tear It, You Can Recycle It"

IMPLEMENTATION DATE: 2000 - ongoing

WHO WILL IMPLEMENT: Jefferson County R&LP office provides and services the containers.

WHO WILL BENEFIT: schools and other organizations. Schools receive 75% of the proceeds from the sale of the recyclables as an incentive to participate in this program. Organizations participating do not receive any proceeds. All of these proceeds are diverted back to cover program costs. The following locations are reference year locations serviced by this program.

**Diocese of Steubenville**

All Saints Elementary  
Aquinas Central Elementary  
Holy Rosary Elementary

**Toronto City Schools**

S.C. Dennis School  
J.T. Karaffa Middle School

**Buckeye Local School District**

Buckeye Local High School  
South West Elementary School  
North Elementary School  
North Middle School  
West Elementary School  
North West Elementary School

**Government Buildings and Miscellaneous**

Salvation Army - Steubenville

**Edison Local School District**

Edison Local High School  
Pleasant Hill Elementary  
Richmond Elementary  
Irondale Elementary  
Springfield Middle School  
Stanton Middle School  
John Gregg Elementary

**Indian Creek School District**

Indian Creek High School  
Hills Elementary  
Wintersville Elementary  
Wayne Elementary

**Steubenville School District**

Roosevelt Elementary School  
Wells Elementary School

AEP Plant – Brilliant  
Jefferson County Court House  
Gallery Building – Steubenville  
Wheeling Pitt Union Hall – Steubenville  
Dollar General Store - Mingo  
Steubenville Chamber of Commerce  
Sammis Plant - Stratton  
QPI Tools  
Kwik King - Toronto  
Ohio Valley Towers Building  
AEP Office - Steubenville  
Jefferson County Court House

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

STRATEGY/PROGRAM GOAL: To provide recycling opportunities while encouraging a strong sense of community.

STRATEGY/PROGRAM DESCRIPTION: Recycling paper containers are provided to a number of local schools, government offices, and businesses. All paper containers are open unattended 24 hours a day 7 days a week. In the reference year mixed paper went to Valley Converting.

MEASUREMENT OF SUCCESS: Success is measured by the participation, the tonnage of materials received, and the positive feedback from the community. In 2005, this program collected 191.8 tons of recyclable paper products. Recycled materials are not tracked by individual site. Approximately 191.8 tons of mixed paper was collected from all paper drop-off sites located in Jefferson County.

STRENGTHS AND WEAKNESSES: The school participants have the opportunity to receive cash back for paper recycling, i.e., seventy five percent of the revenues generated from the sale of recyclables go back to the schools where the materials were collected. The schools open recycling to the community thus providing more access for recycling.

**Program Name:** Residential Sector Education and Awareness

**IMPLEMENTATION DATE:** 1998 - ongoing

**WHO WILL IMPLEMENT:** Jefferson County R&LP. Jefferson County's R&LP office is comprised of one full-time recycling crew supervisor, one full-time recycling crew assistant, one full time crew member, one part-time education specialist, one full-time awareness specialist, one part-time assistant director, one full-time director, and one part-time receptionist. Funding for the program is a combination of Jefferson County funds USDA grants, ODNR grants, and the Authority.

**WHO WILL BENEFIT:** All residents and businesses of Jefferson County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Education and awareness is provided for all recyclables.

**STRATEGY/PROGRAM GOAL:** To educate residents and industry on good environmental practices and to maintain a positive environmental image in Jefferson County.

**STRATEGY/PROGRAM DESCRIPTION:** Residential education and awareness has been an ongoing program for the Authority with primary focus on recycling and solid waste management. While efforts were continued in recycling and solid waste management the Approved Plan directed emphasis on source reduction, reuse, and composting. Specific activities added are commercial/industrial source reduction brochures, residential source reduction brochures, composting brochure, and drop-off recycling fliers and/or brochures. The continued education and awareness programs performed by Jefferson County R&LP include:

**ORSANCO:** EDUCATION/AWARENESS

- Poster Contests. Keep Jefferson County Beautiful encourages participation in the Annual River Sweep poster contest. The contest is from grades 1-12 focusing on litter prevention, recycling, buying recycled, or waste reduction. Winners are awarded U.S. Savings bonds from ORSANCO. All students who participate in the contest receive a certificate from the KJCB office.
- Ohio River Sweep. This activity takes place the 3<sup>rd</sup> Saturday of June each year. KJCB has various sites throughout Jefferson County along the river and volunteers participate by picking up litter on the riverbanks. Each volunteer also receives a free T-Shirt at the end of the cleanup.

KJCB School/Group & Organization EDUCATION/AWARENESS:

- Keep Jefferson County Beautiful does presentation [upon request] at schools by reading books that promote litter prevention and recycling and assists with hands on activity worksheets and videos in the classroom. KJCB does presentations to all grades from K-12 when requested.
- 4-H Contest. Keep Jefferson County Beautiful judges 4-H groups on different activities for Contest Day. Over twenty different categories focus on recycling and litter prevention.
- Participation in Jefferson County school science fairs and expo's
- Fernwood Outdoor Land Lab. This encourages environmentally conscious citizens and allows students a "hands-on" opportunity. The Outdoor Land Lab is a 2-mile nature trail offering seven stop stations where a 20-minute presentation on environmental topics is presented. The lab is open to all 5<sup>th</sup> grade students in Jefferson County and is sponsored by Jefferson County Soil & Water Conservation in partnership with Jefferson County R&LP, Buckeye Local School District, ODNR/Division Forestry, Natural Resources Conservation Service, Ohio State University Extension, ODNR/Division of Wildlife and Novak's Greenhouse & Gardening.
- Participation in county health fairs

ADULT EDUCATION/AWARENESS:

- Special presentations and program displays, which include: Township Trustee meetings, Council meetings, Commissioner meetings, businesses, organizations, and church groups. Upon Request.
- Participation in the Jefferson County Fair
- Publish and distribute brochures to encourage source reduction, reuse and composting. Also provides advertising on the radio and local newspaper.
- Publish and distribute fliers/brochures providing information for all of the drop-off recycling opportunities available in the District. Information is made available through a mailing list, post office, community centers, courthouse, schools, etc.

KEEP AMERICA BEAUTIFUL (KAB): EDUCATION/AWARENESS

- Waste In Place/Windows on Waste is an educational curriculum book used by Keep Jefferson County Beautiful to teach classes and teachers.
- Adopt a Highway
- Participation in Great American Cleanup
- Various Earth Week activities.
- Motorist Day activities now called "Road to Cleaner America" Geared for litter prevention. Volunteers collect litter and recyclables from local streets, parks, and neighborhoods. Graffiti is removed and illegal dumps are cleaned. Volunteers are provided with bags for the activity. After the activity and presentation, adults are provided with auto litterbags. This is a National Awareness activity.
- America Recycles Day. National awareness campaign designed to encourage people to recycle and buy products made from recyclables.
- Students For Recycling. Keep Jefferson County Beautiful works in conjunction with Keep America Beautiful and Sam's Club to promote recycling of plastic water bottles for the use of making clothes. This is a contest promoted to all schools K-12 by Keep Jefferson County Beautiful to collect the most #1 plastic water bottles. KJCB sets the program up by performing presentations, providing plastic bags and

collecting materials to transport to the Portage County recycling facility. Contest winners are provided cash prizes while the bottles are made into coats donated to those in need.

- Great American Cleanup. As part of the Great American Cleanup campaign Keep Jefferson County Beautiful organizes several community events in the spring. These events include Road to a Beautiful America, major cleanup campaigns throughout the county,
- “Make a Difference. Keep Ohio/Jefferson County Beautiful Week”. This is a fall cleanup and beautification project to the sister event of The Great American Cleanup held in the spring. This event includes litter removal, recycling, park cleanups, beautification and refurbishing projects. Volunteers are provided with trash bags.
- Paper Recycling Tour. Valley Converting Manufacturer, Converter of Recycled Paper, and Keep Jefferson County Beautiful work together to provide students, teachers, and adults, a tour of Valley Converting. The tour is to show how paper is recycled from beginning to end as well as show waste products made from paper and paper products that can be recycled and diverted from the landfill.

MEASUREMENT OF SUCCESS: No specific amount of waste reduction can be credited to the education and awareness program. Jefferson County R&LP presented 29 presentations reaching approximately 3,299 people, and distributed 400 newsletters and 1,500 brochures. Recorded education and awareness opportunities are:

Opportunity	Total Number	Attendance
Classroom presentations/workshops	226	Students: 4,270
Youth groups/club presentations	8	Students: 725
Waste In Place teacher training	1	Teachers: 5
Graffiti Hurts or CleanSweep USA teacher training		
Community outreach presentations	127	Adults: 4,917

Jefferson County R&LP developed a composting brochure, drop-off recycling fliers and brochures, and residential source reduction brochures.

STRENGTHS AND WEAKNESSES: Jefferson County R&LP reaches a wide and varied audience, however, most of the education is geared towards students.

**Program Name:** Scrap Tire Programs

IMPLEMENTATION DATE: 2004 - ongoing

WHO WILL IMPLEMENT: Jefferson County R&LP provides education, brochures and

WHO WILL BENEFIT: Residents of Jefferson County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Scrap tires

STRATEGY/PROGRAM GOAL: To prevent illegal dumping of tires, educate the residents on proper disposal of tires, provide opportunities for residents to properly dispose of tires, and ensure proper disposal of scrap tires.

STRATEGY/PROGRAM DESCRIPTION: This strategy was written for the Authority to (1) assure at least one facility, location, or service in Jefferson County that will accept tires from the public on a regular basis for legal recycling or disposal at a reasonable cost; (2) develop and distribute educational materials to provide information to the public about legal tire recycling and disposal options; (3) prepare and distribute a list of any tire recycling facilities in the region where the public can dispose of tires; (4) clean up existing tire dumps for proper disposal or recycling; and (5) seek grant opportunities to initiate a tire dump cleanup program.

Residents are directed to Liberty Tire in Minerva. In the reference year Jefferson County R&LP provided a tire cleanup to the residents, made available by a grant fund and the Authority. This cleanup known as the Jefferson County Community Cleanup was operated by Jefferson County R&LP with tire containers provided by Liberty Tire.

Jefferson County R&LP provides education to residents about the proper disposal of waste tires and available outlets in the County. Educational materials regarding legal tire recycling were not developed. However, a list of tire recycling facilities was made available to the public upon request.

Jefferson County R&LP does not have the funding or personnel to clean up existing tire dumps. Thus scrap tire dump cleanups and coordination is Authority responsibility. In the reference year no activity occurred except for researching potential grant funding opportunities to initiate a tire dump cleanup.

**MEASUREMENT OF SUCCESS:** Increasing tire recycling through the available tire recycling opportunities provided in the county will measure the success of education. In the reference year 9.36 tons of tires were collected.

**STRENGTHS AND WEAKNESSES:** There are limited resources and opportunities available for the entire county. In addition the scrap tire collections prove to have an overwhelming response in the number of tires.

**Program Name:** Yard Waste Programs

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Jefferson County R&LP will provide education. All yard waste collections, composting facilities, etc. will be privately owned and operated without direct support or funding from Jefferson County R&LP.

**WHO WILL BENEFIT:** Residents of Jefferson County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Leaves, grass, yard waste, brush, etc.

**STRATEGY/PROGRAM GOAL:** To educate the public about the disposal restrictions on source-separated yard wastes and alternate yard waste management strategies.

**STRATEGY/PROGRAM DESCRIPTION:**

Education

Jefferson County R&LP addresses and encourages on-site management options for leaves, grass, and brush including backyard composting, not bagging grass clippings ("Don't Bag It"), and chipping Christmas trees and small brush.

Total Lawn Care

Total Lawn Care is a private company which operates a Class IV compost facility for their yard waste materials collected from servicing commercial/residential clients. This facility is not publicly available.

Wells Township

Wells Township operates a Class IV compost facility for Wells Township residential yard waste materials. This facility is not publicly available.

Steubenville

Steubenville operates an annual leaf collection for its residents every fall for approximately four weeks. They accept leaves in bags and operate a sweeper. Leaves are taken to a local cemetery to be used as fertilizer. Steubenville offers a Christmas tree collection every year. Collected trees are donated to local parks or clubs for use in nature preserves.

**MEASUREMENT OF SUCCESS:** During reporting for the Annual District Report, the yard waste facilities will be surveyed to determine the quantity of yard waste composted. Success will be measured on the education provided since the accepting composting facilities are private.

**STRENGTHS AND WEAKNESSES:** It is difficult to quantify the effect that education has on back yard composting and landfill diversion.

## BELMONT COUNTY PROGRAMS

**Program Name:** Commercial/Industrial Sector TA and Education

IMPLEMENTATION DATE: 1999 – ongoing

WHO WILL IMPLEMENT: In the reference year this program was implemented by the Belmont County Recycling and Litter Prevention Office.

WHO WILL BENEFIT: The target sectors are commercial and industrial businesses.

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: This is an education program.

STRATEGY/PROGRAM GOAL: To provide education and resource materials to the commercial and industrial sectors on source reduction, reuse and recycling.

STRATEGY/PROGRAM DESCRIPTION: Educational program that targets commercial and industrial sectors. Tasks to complete are to conduct waste audits, provide education through brochures and presentations, and link these sectors to private entities for recycling. The Authority will distribute a quarterly newsletter.

MEASUREMENT OF SUCCESS: Success will be measured by the number of waste audits conducted and the feedback received for the newsletter. A target was set to conduct four commercial and two industrial waste audits each year of the planning period beginning in 2004. Publication of a quarterly newsletter was set for 2005.

STRENGTHS AND WEAKNESSES: The Authority has not seen an increase in recycling for the commercial and industrial sector, mostly in part to the lack of time available to the program by the R&LP staff. For the reference year the R&LP office conducted one waste audit in Belmont County. In addition there needs to be structure to the program for identifying the businesses and maintaining contact through the year. In the reference year the Authority did create a web page but still needs to direct the commercial and industrial sectors to the site for assistance. The quarterly newsletter is still undergoing publication with a distribution set for 2008.

**Program Name:** Curbside Recycling

IMPLEMENTATION DATE: set for 2005

WHO WILL IMPLEMENT: Authority will hold the contract with a private sector business to provide curbside recycling in a single community (city or village) having at least 625 households.

WHO WILL BENEFIT: Powhatan Point (village having at least 625 households)

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Accepts glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal, newspaper, magazines and glossy inserts.

STRATEGY/PROGRAM GOAL: To provide curbside recycling to residents.

STRATEGY/PROGRAM DESCRIPTION: The Authority will contract with a private entity to provide weekly non-subscription curbside recycling services. The Authority will assist the curbside program with public education and promotion.

MEASUREMENT OF SUCCESS: Success will be measured by the tons and costs associated per participating person.

STRENGTHS AND WEAKNESSES: The intended community is a small community of only 1,719 residents which will most likely result in higher costs for providing the service.

**Program Name:** Drop Off Recycling, FS, Rural

IMPLEMENTATION DATE: Bethesda, 2000 – ongoing

Colerain, 2005 – ongoing

Fairpoint, 2005 – ongoing

Holloway Village, 2004- ongoing

Armstrong Mills – no barn at this location

Powhatan Point – no barn at this location

Morristown Village – no barn at this location

Somerton – no barn at this location

**WHO WILL IMPLEMENT:** Belmont R&LP office organizes and manages the program as well as collects the materials. The Authority provides all recycling barns and equipment needed for the collection.

**WHO WILL BENEFIT:** Residents of Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Barn sites accept commingled materials and mixed paper. Commingled materials accepted are: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal. Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for recycling.

**STRATEGY/PROGRAM DESCRIPTION:** Belmont County R&LP office operates four full-service rural barn locations in Bethesda, Colerain, Fairpoint, and Holloway Village. The barns are open unattended 24 hours a day 7 days a week. Each barn is painted to match the school colors of the district in which they are placed. Residents are directed to bag commingled materials separately from the mixed paper. In the reference year commingled materials were recycled to Cambridge Transfer & Recycling Facility while mixed paper went to Valley Converting. Total combined recycling is tracked by individual barn location. Specific tonnages for each type of material are not available. Bethesda collected approximately 15.46 tons, Colerain collected approximately 1.76 tons, Fairpoint collected 0.19 tons, and Holloway Village collected 2.85 tons of materials. Barn schedules and locations are posted on both the Authority and Belmont County R&LP websites as well as various locations throughout the community.

**MEASUREMENT OF SUCCESS:** Success will be measured by access to the barns, participation through volume of materials collected, and feedback.

**STRENGTHS AND WEAKNESSES:** Bethesda is the oldest and more successful location. This location needs to be emptied at least once a week and ideally could be emptied more often. Colerain, while new, is in an ideal location and receives excellent participation. This location is emptied once a week. Fairpoint is a new location added at the end of 2005. It needs to be emptied once a month. The Holloway Village location was mostly used by commercial businesses in the area that have now closed. This site no longer receives high participation. A new location needs to be assessed. A weakness is finding the time to service and construct the barns. All barns needed to demonstrate access were not added in year 2005.

**Program Name:** Drop Off Recycling, FS, Urban

**IMPLEMENTATION DATE:** Barnesville, 2002 - ongoing  
Bellaire, 2000 - ongoing  
Glencoe, 2004 - ongoing  
Martins Ferry, 2000 - ongoing  
Neffs, 2004 - ongoing  
Shadyside, 2000 - ongoing  
St. Clairsville, 2000 - ongoing  
Sunset Heights - - no barn at this location

**WHO WILL IMPLEMENT:** Belmont R&LP office organizes and manages the programs as well as collects the materials. The Authority provides all recycling barns and equipment needed for the collection.

**WHO WILL BENEFIT:** Residents of Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Barn sites accept commingled materials and mixed paper. Commingled materials accepted are: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal. Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for recycling.

**STRATEGY/PROGRAM DESCRIPTION:** Belmont County R&LP office operates seven full-service urban barn locations in Barnesville, Bellaire, Glencoe, Martins Ferry, Neffs, Shadyside, and St. Clairsville. Each barn is painted to match the school colors of the

district in which they are placed. The barns are open unattended 24 hours a day 7 days a week. Residents are directed to bag commingled materials separately from the mixed paper. In the reference year commingled materials were recycled to Cambridge Transfer & Recycling Facility while mixed paper went to Valley Converting. Total combined recycling is tracked by individual barn location. Specific tonnages for each type of material are not available. The following table lists the tonnage of materials collected at each location.

Barn Location	Tonnage Collected
Barnesville	20.72
Bellaire	18.07
Glencoe	3.54
Martins Ferry	7.36
Neffs	11.57
Shadyside	10.26
St. Clairsville	18.63

Barn schedules and locations are posted on both the Authority and Belmont County R&LP websites as well as various locations throughout the community.

**MEASUREMENT OF SUCCESS:** Success will be measured by access to the barns, participation through volume of materials collected, and feedback.

**STRENGTHS AND WEAKNESSES:** Barnesville, Bellaire, Martins Ferry, St. Clairsville and Shadyside need to be emptied at least once a week. Shadyside is a smaller barn than the other locations. Neffs needs to be emptied once every two weeks and Glencoe needs to be emptied once a month. Both St. Clairsville and Barnesville locations would benefit by adding an additional barn to the existing locations.

**Program Name:** Drop Off Recycling, PT, Rural  
All available sites are full-time.

**Program Name:** Drop Off Recycling, PT, Urban  
All available sites are full-time.

**Program Name:** Household Hazardous Waste

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP

**WHO WILL BENEFIT:** Residents of Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Household hazardous wastes including paint, pesticides, household batteries, used oil, etc.

**STRATEGY/PROGRAM GOAL:** To educate Belmont County residents on the safe and proper disposal of household hazardous waste.

**STRATEGY/PROGRAM DESCRIPTION:** The household hazardous waste program is in its infancy for development. The Approved Plan planned for the Authority to:

- Establish a hotline;
- Compile and update facility lists for used oil, lead-acid battery, antifreeze and other automotive fluids; fluorescent light fixtures, and refrigerant removal;
- Explore the feasibility for a household battery collection program;
- Explore the feasibility for a paint collection and exchange program;
- Explore the feasibility for a pesticide exchange program;
- Incorporate HHW information and materials into education and awareness; and
- Distribute used oil recycling outlet brochure.

**MEASUREMENT OF SUCCESS:** This is a relatively new program therefore measure of success will be commitment and progress toward developing this program. To date very little has been accomplished towards the activities listed in the program description. Belmont County R&LP has incorporated HHW information and materials into education and

awareness as well as maintaining a list of used oil recycling outlets. Future programming will need to explore how to achieve the activities.

**STRENGTHS AND WEAKNESSES:** Several activities are included under the Household Hazardous Waste program to explore without clear direction in accomplishing these activities. The range of activities to achieve is very encompassing. Setting milestone goals might help explore the feasibility of the activities in the program description. Household hazardous waste is universally a problem and can be addressed similarly in both counties. Teaming with Jefferson County R&LP office would strengthen the program.

**Program Name:** Industrial Recycling and Reduction

**IMPLEMENTATION DATE:** 2000 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP will maintain relationships with industries and recycling outlets.

**WHO WILL BENEFIT:** Industries in Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** All types of materials are targeted for recycling and source reduction.

**STRATEGY/PROGRAM GOAL:** To assist the industrial sector

**STRATEGY/PROGRAM DESCRIPTION:** Most of the industrial sector recycling results from industries viewing their solid waste as a commodity. Belmont County R&LP serves to assist the industries when needed.

**MEASUREMENT OF SUCCESS:** Maintaining a higher waste reduction rate for the industrial sector will be a measure of success.

**STRENGTHS AND WEAKNESSES:** Very little influence towards recycling is from the county. Technical assistance can be provided however the industries achieve results.

**Program Name:** Lead-Acid Battery Programs

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP provides education and maintains a list of county businesses that accept lead-acid batteries for proper disposal.

**WHO WILL BENEFIT:** Residents of Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Lead-acid batteries.

**STRATEGY/PROGRAM GOAL:** Prevent lead-acid battery disposal and ensure that they are recycled or disposed of properly.

**STRATEGY/PROGRAM DESCRIPTION:** Privately operated businesses located within the county accept lead-acid batteries for recycling. Belmont County R&LP office maintains the list of businesses providing this outlet for recycling. Businesses accept batteries at no charge, require the purchase of a new battery before accepting old batteries, or charge a fee.

**MEASUREMENT OF SUCCESS:** Belmont County R&LP relies on private businesses for the collection and recycling of lead-acid batteries. Success will be relative to the education provided.

**STRENGTHS AND WEAKNESSES:** Advertising, promotions, and education are not directed towards this program. Greater efforts for targeting the residential sector would be beneficial. It is a strength that the county has available and can rely on private businesses accepting lead-acid batteries however there are difficulties in tracking collected batteries from private businesses.

**Program Name:** Market Development Programs

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP

**WHO WILL BENEFIT:** Residents, businesses, industry, organization, and local governments in Belmont County.

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** No specific amount of waste reduction can be credited to market development.

**STRATEGY/PROGRAM GOAL:** Promote markets for products containing recycled materials.

**STRATEGY/PROGRAM DESCRIPTION:** Belmont County R&LP maintains and provides information on recycled products, purchases and uses recycled content products whenever suitable products are available at competitive prices, encourages and incorporates “buy recycled” campaign.

**MEASUREMENT OF SUCCESS:** There is no measure of success for this program. R&LP will continue to include information in their presentations.

**STRENGTHS AND WEAKNESSES:** Uncontrolled volatility in recycling markets.

**Program Name:** Belmont County Paper Collection Program

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP office provides and services the containers.

**WHO WILL BENEFIT:** schools and other organizations. The following locations are reference year locations serviced by this program.

Union Local High School	Elm Middle School
Union Local Middle School	Martins Ferry High School
Union Local Elementary School	North Elementary School
Bellaire Middle School	South Elementary School
Bellaire High School	St. Mary’s School
Leona Middle School	St. Clairsville Middle School
Jefferson Elementary School	St. Clairsville High School
St. Joseph’s Central School	St. Mary’s Central School
4-H	Spirit ’76 VFD
C-Cap	Other

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Mixed paper accepted is: newspaper, magazines, glossy inserts, junkmail, cardboard, and chipboard.

**STRATEGY/PROGRAM GOAL:** To provide recycling opportunities while encouraging a strong sense of community.

**STRATEGY/PROGRAM DESCRIPTION:** Recycling paper containers are provided to a number of local schools, government offices, and businesses. All paper containers are open unattended 24 hours a day 7 days a week. In the reference year mixed paper went to Valley Converting.

**MEASUREMENT OF SUCCESS:** Success is measured by the participation, the tonnage of materials received, and the positive feedback from the community. In 2005, this program collected 131.8 tons of recyclable paper products.

**STRENGTHS AND WEAKNESSES:** The school participants have the opportunity to receive cash back for paper recycling, i.e. the revenues generated from the sale of recyclables goes back to the schools where the materials were collected. The schools open recycling to the community thus providing more access for recycling. This program is limited because of the resources available to collect the materials. Belmont County R&LP holds a waiting list for schools wanting to participate so that when resources are available, they can be added to the program.

**Program Name:** Electronic Recycling

**IMPLEMENTATION DATE:** 2005 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP coordinate the computers from St. Clairsville School District to an electronic recycling outlet. All materials are accepted for no charge to R&LP.

**WHO WILL BENEFIT:** currently St. Clairsville schools, but future growth will be to all residents in Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** computers, printers, monitors, etc.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for residents to divert electronics from the waste stream.

**STRATEGY/PROGRAM DESCRIPTION:** This program is conducted on a needed basis. Computer and other electronics are not advertised for collection to all of the residents, however when St. Clairsville school district calls upon Belmont County R&LP they provide an outlet to recycle computers and equipment. An in-district local conditional generator that recycles computer equipment and other electronics has a warehouse location in Belmont County. At no charge to the school, Belmont County R&LP collects the computers and has them recycled.

**Measurement of Success:** Currently this program is open to St. Clairsville School District on a needed basis. In 2005 eight skids of machines and ten skids of monitors were collected totaling eighteen skids, two hundred forty machines, and one hundred eighty monitors. While this program is a small scale it has been very successful

**STRENGTHS AND WEAKNESSES:** The local conditional generator is capable of handling all computer equipment as well as small household electronics. There is a convenient outlet available for many electronics on a household level. It would be very beneficial to create the infrastructure for an Authority wide electronic collection event.

**Program Name:** Residential Sector Education and Awareness

**IMPLEMENTATION DATE:** 1998 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP. Belmont County's R&LP office is comprised of one full-time recycling crew supervisor, one full-time recycling crew assistant, one full-time director, and one full-time assistant. Funding for the program is a combination of Belmont County and the Authority.

**WHO WILL BENEFIT:** All residents of Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Education and awareness is provided for all recyclables.

**STRATEGY/PROGRAM GOAL:** To educate residents and industry on good environmental practices and to maintain a positive environmental image in Belmont County.

**STRATEGY/PROGRAM DESCRIPTION:** Residential education and awareness has been an ongoing program for the Authority with primary focus on recycling and solid waste management. While efforts were continued in recycling and solid waste management the Approved Plan directed emphasis on source reduction, reuse, and composting. Specific activities added are commercial/industrial source reduction brochures, residential source reduction brochures, composting brochure, and drop-off recycling fliers and/or brochures. The continued education and awareness programs performed by Belmont County R&LP include:

- Teacher's Corner. The Teacher's Corner is program designed to offer workshop education and activities to Trash to Treasure
- Earth Day activities. As part of the activities Belmont County R&LP offers a "Trashy Art" contest to all students in grades K-8. Art can be anything as long as it is made from objects found in the trash. Local media coverage and involvement has made this activity a county wide awareness event with contest announcements published in local newspapers. Belmont County R&LP notifies area schools and youth groups through mailed flyers and letters. Winners are awarded a fifty dollar savings bond at an open Commissioner's meeting. A panel of local business leaders, teachers, and press judge the contest.
- Recycle! Ohio
- Belmont County Fair activities. Belmont County R&LP sponsor a display booth promoting education, recycling, source reduction, etc. At the fair promotional items are distributed. In addition, Belmont County R&LP in conjunction with Soil & Water Conservation, 4-H clubs, and local schools promote "Education Day" on fair Friday. On this day local elementary schools are brought to the fair to partake in special events.
- Various presentations and newsletter publication.

**MEASUREMENT OF SUCCESS:** No specific amount of waste reduction can be credited to the education and awareness program. Belmont County R&LP distributed approximately 5,000 brochures.

STRENGTHS AND WEAKNESSES: Belmont County R&LP reaches a wide and varied audience, however, most of the education is geared towards students.

**Program Name:** Scrap Tire Programs

IMPLEMENTATION DATE: 2004 - ongoing

WHO WILL IMPLEMENT: Belmont County R&LP provides education and brochures

WHO WILL BENEFIT: Residents of Belmont County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Scrap tires

STRATEGY/PROGRAM GOAL: To prevent illegal dumping of tires, educate the residents on proper disposal of tires, provide opportunities for residents to properly dispose of tires, and ensure proper disposal of scrap tires.

STRATEGY/PROGRAM DESCRIPTION: This strategy was written for the Authority to (1) assure at least one facility, location, or service in Belmont County will accept tires from the public on a regular basis for legal recycling or disposal at a reasonable cost; (2) develop and distribute educational materials to provide information to the public about legal tire recycling and disposal options; (3) prepare and distribute a list of any tire recycling facilities in the region where the public can dispose of tires; (4) clean up existing tire dumps for proper disposal or recycling; and (5) seek grant opportunities to initiate a tire dump cleanup program.

Residents are directed to the Apex Scrap Tire Collection Facility located at the Apex Transfer Station in Belmont County. In the reference year Belmont County R&LP accepted tires in the annual Community Cleanup events.

Belmont County R&LP provides education to residents about the proper disposal of waste tires and available outlets in the County. Educational materials regarding legal tire recycling were not developed. However, a list of tire recycling facilities was made available to the public upon request.

Belmont County R&LP does not have the funding or personnel to clean up existing tire dumps. Thus scrap tire dump cleanups and coordination is Authority responsibility. In the reference year no activity occurred except for researching potential grant funding opportunities to initiate a tire dump cleanup.

MEASUREMENT OF SUCCESS: Increasing tire recycling through the available tire recycling opportunities provided in the county will measure the success of the education. In the reference year 98.4 tons of tires were collected.

STRENGTHS AND WEAKNESSES: There are limited resources and opportunities available for the entire county. In addition the scrap tire collections prove to have an overwhelming response in the number of tires.

**Program Name:** Yard Waste Programs

IMPLEMENTATION DATE: 2004 - ongoing

WHO WILL IMPLEMENT: Belmont County R&LP will provide education. All yard waste collections, composting facilities, etc. are privately owned and operated without direct support or funding from Belmont County R&LP.

WHO WILL BENEFIT: Residents of Belmont County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Leaves, grass, yard waste, brush, etc.

STRATEGY/PROGRAM GOAL: To educate the public about the disposal restrictions on source-separated yard wastes and alternate yard waste management strategies.

STRATEGY/PROGRAM DESCRIPTION: In past years Belmont County R&LP worked with the 4-H "Green Team" to promote composting to areas of the county which are less rural. Unfortunately not much participation was received, thus with the limited resources Belmont County R&LP directs residents to Ohio Valley Composting, one of the registered composting facilities operating in Belmont County.

#### Ohio Valley Composting

Ohio Valley Composting is a registered Class III privately owned composting facility. This facility may accept brush and/or sawdust for a fee. Materials are mixed with animal manure and composted. Ohio Valley Composting composted 240 tons of animal manure and 686.7 tons of sawdust/wood chips in 2005.

#### German Ridge Composting

The other registered compost facility operating in Belmont County is German Ridge Composting. This facility is a Class IV privately owned compost facility. This facility is not available for public access. In 2005, approximately 97.3 tons of leaves, yard waste and brush were composted.

#### St. Clairsville

St. Clairsville operates an annual leaf collection for its residents every fall for approximately four weeks. They accept leaves in bags and operate a vacuum truck for loose leaves. This service is provided free to residents. Vacuumed leaves are used as fertilizer to a local farm and the bag leaves are composted at the city garage. The electric department operates a wood chipper for all branches removed from power lines. These wood chips are recycled on the bike trail and in landscaping.

**MEASUREMENT OF SUCCESS:** During reporting for the Annual District Report, the yard waste facilities will be surveyed to determine the quantity of yard waste composted. Success will be measured on the education provided since the accepting composting facilities are privately owned.

**STRENGTHS AND WEAKNESSES:** It is difficult to quantify the effect that education has on back yard composting and landfill diversion.

#### **Program Name:** Community Cleanups

**IMPLEMENTATION DATE:** 2004 - ongoing

**WHO WILL IMPLEMENT:** Belmont County R&LP organizes and assists with the cleanups. The actual cleanup events are a combined effort from townships providing heavy equipment to compact materials, volunteers providing food and drinks, and Juvenile Court C-Cap and Drug Court providing labor.

**WHO WILL BENEFIT:** Townships in Belmont County

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** Materials targeted for recycling during community cleanups are white goods and tires.

**STRATEGY/PROGRAM GOAL:** To provide townships with an opportunity to recycle tires and white goods in efforts to reduce open dumping.

**STRATEGY/PROGRAM DESCRIPTION:** Community Cleanups are one day events offered in some townships where the community can dispose of trash, white goods/metals and tires for free. This service is provided by the Authority at no charge to the residents participating. In the reference year Lytton Sanitation provided roll-off containers to hold metal and trash and Todd Morelli Tire Recovery of Wintersville provided a box for tires. In 2005 nine townships participated collecting 58.6 tons of white goods and 98.4 tons of tires.

**MEASUREMENT OF SUCCESS:** Success is measured by the participation and increase in materials collected.

**STRENGTHS AND WEAKNESSES:** Townships and residents want this program.

## 2. *Industrial Sector*

Table IV-6 shows that 14,667 tons of material was recycled from the industrial sector in the Authority in the reference year. This recycling data was obtained from the industrial surveys that were received for this Plan Update. All quantities shown are actual reported quantities taken from the industry surveys. No estimated quantities for non-respondents were included. The Authority received responses from forty industries representing over three thousand five hundred employees.

While the number of industrial facilities that responded represents approximately 32 percent of all industries surveyed, those that responded represent a little more than 76 percent of the industrial employees employed by surveyed industrial facilities. No data from survey events conducted in previous years was incorporated into the total for this Plan Update. The industrial survey data has been tabulated and is located in Appendix G. The tonnage of industrial recycling is lower than what the District reported in the 2005 Annual District Report for calendar year 2004. The data provided for calendar year 2004 reported recycling 26,420 tons of materials. The breakdown of materials compared to calendar year 2005 is presented in the table below.

**Table D.1 Annual District Report Comparison**

<b>Material</b>	<b>2003 Calendar year</b>	<b>2004 Calendar year</b>	<b>2005 Calendar year</b>
Lead-acid batteries	31.3	2.64	4.10
Ferrous Metals	138,169.8	3,401	10,619
Non-ferrous metals	110,907	0	2,503.40
Corrugated Cardboard	0.77	0	14.50
All other paper	23,565.68	22,408.42	609.9
Plastics	0	49	16.7
Scrap Tires	0	0	1.8
Wood	60	60	81
Other	154	499.19	817
<b>Total</b>	<b>272,888.55</b>	<b>26,420.25</b>	<b>14,667.4</b>

For comparison purposes calendar year 2003 data is also included in the table above. Table D.1 shows no consistency in data between years 2003, 2004, and 2005. The 2005 year data did not include any materials from recyclers or end processors. All materials credited for recycling came from survey responses. The data provided in 2003 and 2004 did include some materials from recyclers or end processors, thus this data may have double counted some materials. The 2005 calendar year surveys included an area to report the quantity of material recycled and where the recyclables were taken. Knowing where the recyclables were sent for processing allowed the Authority to evaluate the results for the double counting of material. For instance, if any recyclers/brokers that responded to the survey reported having accepted material from industrial businesses that also responded to the survey and indicated having sent their material to the recycler/broker, then the Authority included the quantity from either the industrial facility or from the recycler/broker, but not both. The Authority ultimately chose not to use the quantities reported by the recyclers/brokers. Consequently, no double counting adjustments were needed.

In 2005, the Authority did not provide any strategies geared specifically to the industrial sector.

**E. Total Waste Generation**

The total quantity of waste generated by the Authority in the reference year is presented in Table IV-7. The residential/commercial generation figure that is presented was determined by multiplying the national per capita generation rate by the population of the District in 2005, as presented in Table IV-1. Industrial generation was determined from the results of the industrial survey as presented in Table IV-3, and exempt waste generation was determined from the actual amounts of exempt waste accepted at landfills for disposal, as presented in Table IV-4. Total waste generation for the District in 2005 is estimated at 166,132 tons.

**F. Total Waste Generation: Historical Trends of Disposal Plus Waste Reduction**

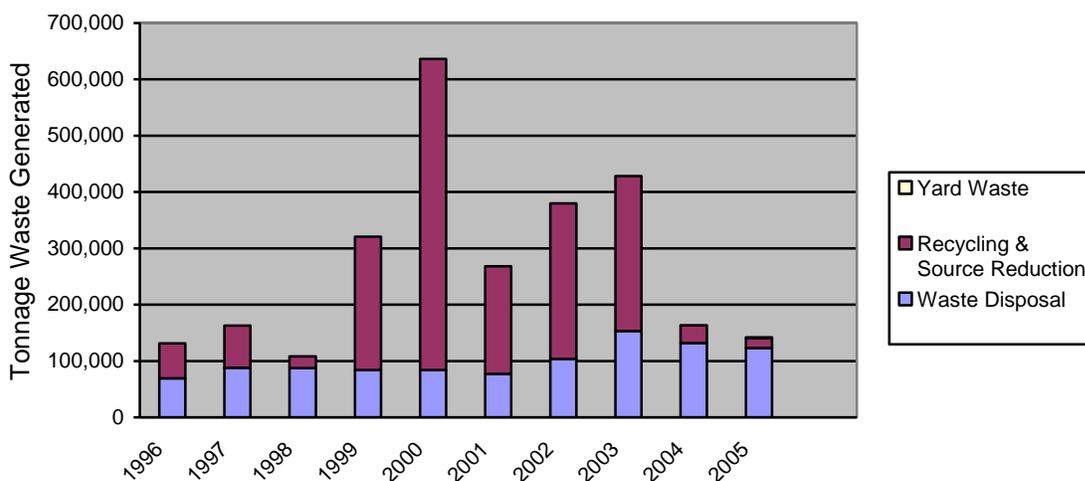
Table IV-8 presents historical quantities of waste generated by the Authority. These quantities represent waste generation based on actual, reported data. The data used to compile the historical

waste disposal for 1996 through 2000 was taken from Ohio EPA’s periodic “Solid Waste Management in Ohio: Recycling, Reduction, Waste Generation, and Disposal 1990-2000” reports. Data for 2000 through 2004 was taken from the “Solid Waste Management in Ohio: Recycling, Reduction, Waste Generation, and Disposal 2000 -2004” report. Data for 2005 was taken from *2005 Annual District Report Review Form* published by Ohio EPA and calendar year 2005 surveys. While waste disposal is provided by Ohio EPA, there are limitations associated with data gathering efforts. Landfills located out-of-state are requested to share waste disposal information but are not required to do so. Therefore, there may be discrepancies associated with waste disposal for districts exporting waste out-of-state. The waste generation quantities presented in Table IV-8 were calculated by adding together the amount of waste disposed in landfill facilities and the quantity of waste reported as recycled for each year.

At first glance of Table IV-8 it would appear there are no historical trends in source reduction and recycling for the Jefferson Belmont Regional Solid Waste Authority. Source reduction and recycling is relatively consistent in 1996 and 1997 showing a slight increase; however in 1998 the recycling drops significantly and in 1999 the recycling increases dramatically. The 1998 decrease can be explained by the closure of the Ohio Valley Recycling Center and three curbside recycling programs. However, the increase in 1999 is questionable. No new programs were added to explain the increase. In reviewing past annual district reports by material it might be plausible to say the Authority double counted materials, included train boxcars, auto bodies, and/or scrap metal from construction and demolition operations, mischaracterized material as originating in the Authority, or included materials from the industrial sector that cannot be credited towards recycling because the material was never typically disposed of in a solid waste landfill. Any of these reasons or a combination of these reasons could show higher recycling numbers.

The District’s historical waste generation, disposal, and recycling trends are charted below in Figure F.1. It should be noted that yard waste was recorded for year 2005, however due to the scale of the chart it is not shown.

Figure F.1 Historical Waste Generation Trends



Waste disposal data from 1996 through 2001 fluctuated between a low of 69,000 tons and a high of 89,000 tons. Then in 2002 and 2003 waste disposal jumped to 103,000 tons and 153,000 tons, respectively. The Authority has no supporting documentation to explain the increased waste disposal. The Authority does border Pennsylvania and West Virginia, both of which import Authority waste. The Authority has experienced difficulties in obtaining waste disposal data from out-of-state facilities. The waste disposal data could be explained from out of-state facilities

mischaracterizing Authority waste. At this point, it is difficult to knowingly theorize; however, the Authority feels it is noteworthy to point out the decrease in landfill disposal since 2003.

## **G. Reconciliation of Waste Generation**

Total waste generation is calculated a number of different ways as discussed throughout this chapter. The determination must be made as to which calculated method for waste generation is more accurate for the Authority.

Waste generations as shown in Table IV-7 used national average per capita projections for residential/commercial waste generation, the combination of survey results and statewide generation rates to calculate industrial waste generation, and landfill annual operating reports for exempt waste. Estimated total waste generation, as presented in Table IV-7 for 2005 is 166,132 tons (120,781 tons for the residential/commercial sector, 38,990 tons for the industrial sector, and 6,361 tons of exempt waste). The generation rate for total waste is 6.52 lbs/person/day.

Waste generations as shown in Table IV-8 used waste disposed in landfills, reported surveyed recycling quantities, and landfill annual operating reports for exempt waste. Estimated total waste generation, as presented in Table IV-8 for 2005 is 141,969 tons (100,033 tons for the residential/commercial sector, 35,574 tons for the industrial sector, and 6,361 tons of exempt waste). The generation rate for total waste is 5.57 pounds/person/day.

It is expected that the residential/commercial waste generation for the Authority should be lower than the national average. Both counties in the Authority have declining populations which would result lower waste generations. The calculated waste generation using national averages places the waste generation slightly higher than expected for this area, thus the recycling plus disposal data will be used to calculate the residential/commercial waste generation.

Industrial generation is expected to be high due the nature of the industries operating in the Authority. The generation for both methods above, however, is lower than expected. The industrial waste generation in Table IV-7 lacks industrial data obtained from the conducted survey. Although surveys were received from almost 32 percent of the industrial generators surveyed representing 76 percent of industrial employment, a significant amount of the industrial data was estimated thereby introducing the potential for significant inaccuracies. Non-respondent surveys used the methodology recommended in Appendix JJ of the *Format* to estimate generation. The generation rates recommended in Appendix JJ are averages that were calculated using survey-based data that was supplied by Ohio solid waste management districts in the early 1990s. Because they are averages and quite old, these generation rates are not necessarily representative of industrial generation for any one solid waste management district or industrial generation in 2005. Consequently, there is not a great deal of confidence in the quantity of industrial waste generated that was estimated provided in Table IV-7.

It is also probably true that the quantity of industrial waste estimated using recycling plus disposal is too low due to the lack of complete data regarding both disposal and recycling practices. Recycling data was not received from a large number of the industrial facilities surveyed. It is expected that some of the remaining industrial generators likely recycled waste as well. However, since those generators did not respond to the survey, and the *Format* prohibits estimating recycling for non-responding industries except under very specific circumstances, this Plan Update does not quantify material for non-responding generators. The Authority exports waste out of state to Pennsylvania and West Virginia. Authority industrial waste could have been mischaracterized as another district's or even another states waste. Obtaining waste disposal data from exported landfills is difficult. Some landfills do not track quantities by solid waste management district but rather by state. Therefore some waste exported out-of-state could have been mischaracterized. In addition the Authority has some industries that dispose of a large quantity of sludge due to the nature of their business, since this is not credited as solid waste it lowers the generation. These

industries also recycle very large quantities; however, since the materials have always been recycled and have never been part of the waste stream, they cannot be included in recycling.

Regardless of the shortcomings in the data used, residential/commercial waste generation and industrial waste generation will be calculated using recycling plus disposal data for the remainder of this Plan Update. Reported generations determined from recycling and disposal data as reported in Table IV-9 will be used throughout the remainder of the plan.

## **H. Waste Composition**

### *1. Residential/Commercial Sectors*

Waste composition for the residential/commercial sector is estimated based on national averages in U.S. EPA's "Municipal Solid Waste in the United States: 2001 Facts and Figures". Products are grouped into: durable goods (e.g., appliances, furniture, tires); nondurable goods (e.g., newspapers, office papers, trash bags, clothing); containers and packaging (e.g., bottles, cans, corrugated boxes); and other wastes (e.g., yard trimmings, food scraps, and miscellaneous inorganic wastes). By definition, durable goods are those that last three years or more, nondurable goods last less than three years, and containers and packaging are assumed to be discarded the same year they are purchased. The characterization study report from U.S. EPA does not include oil or HHW in the estimated waste composition. It is estimated that approximately 1% of HHW and 1% of oil is generated in the Authority.

Table IV-10 shows the District's waste stream broken down by material categories. The percentage that each material category comprises of total U. S. generation represents data for 2001 as published by U. S. EPA. Residential/commercial waste composition for the District was approximated by multiplying each of these percentages by the total residential/commercial waste generation of 100,003 tons. The adjusted waste stream percentages include the HHW and oil estimated generations.

The main purpose for evaluating the composition of the waste stream is to determine what waste types comprise the greatest portion of the waste stream and, therefore, should be the focus of the District's recycling and waste reduction efforts. As can be seen from Table IV-10, paper comprises the largest component of the residential/commercial waste stream with an estimated 20,400 tons. Cardboard is the next largest component, with 15,300 tons, followed by yard trimmings (12,200 tons) and food (11,400 tons).

### *2. Industrial Sector*

Surveys are the best mechanism to obtain information on industrial waste composition providing generation data is included by waste stream. In some cases industries may not be able to separate their generation or waste disposal by type of material and/or industry response to the surveys may be low. Both cases were prevalent in the District industrial surveys. The survey conducted for the District achieved a response rate of almost 32% and of the data received only recycling data was categorized by material waste stream.

To estimate industrial waste composition Appendix JJ of the *Format* was used to estimate non-responding industry waste generation composition. Appendix JJ presents information on industrial waste composition by SIC category from eight solid waste districts. The reported tons per employee per SIC category was multiplied by the non-responding employees in each SIC category to estimate amounts and types of waste composition. This composition is shown in Table IV-11.

In some material categories the industrial sector recycled more than the estimated non-responding industry composition. In these cases the reported recycling amounts were used for the waste

composition for that particular material type. As shown in Table IV-11 this was the case for batteries, ferrous metals, and non-ferrous metals. Determining waste composition for the industrial sector by this method under predicts the waste generation to an estimated 31,061 tons. With the limited survey data it is difficult to determine which material categories may be underestimated thus the Authority will leave the waste composition estimates as on under-projection.

## V. Planning Period Projections and Strategies

### A. Planning Period

Section V discusses projections for population, waste generation, and waste reduction for sixteen years and provides strategies to meet waste management needs for the planning years. The reference year is 2005. The beginning of the planning period is 2008 and the last year in the planning period is 2023.

### B. Population Projections

The Ohio Department of Development’s Office of Strategic Research (ODOD, OSR) provided year 2000 census data and projected estimates for the population of Jefferson and Belmont County’s for 2005, 2010, 2015, 2020, and 2025. These projected estimates are provided in Table B.1 below. In addition, Table B.1 also shows the population adjustments made for Adena Village and Wilson Village. Ohio law requires that the population of municipalities located in more than one solid waste management district (SWMD) be added to only the SWMD containing the largest portion of the jurisdiction’s population. A portion of Adena Village is located in Jefferson and Harrison Counties, with the majority of the Village’s population residing in Jefferson County. A portion of Wilson Village is located in Belmont and Monroe Counties, with the majority of the Village’s population residing in Monroe County. Therefore, total Authority population is adjusted to include Adena Village and exclude Wilson Village. The final adjusted population for the Authority is 139,623 as indicated in Table V-1. The projections for each year of the planning period were determined using straight-line interpolation.

Table B.1 District Population Calculations

	2005	2010	2015	2020	2025
Jefferson Population (OSR)	70,320	66,530	63,600	60,760	58,290
Belmont Population (OSR)	69,200	68,030	67,600	66,810	66,320
Village of Adena	139	132	126	120	115
Village of Wilson	36	35	35	35	35
Adjusted Population	139,623	134,656	131,291	127,655	124,691

### C. Waste Generation Projections

#### 1. Residential/Commercial Sector

As discussed in Section IV, waste generation in the residential/commercial sector for the reference year was determined by adding together reported recycling and disposal quantities. To project future waste generation for the planning years, the Authority used Ohio EPA’s recommendations for calculating waste generation that are provided in the document titled “Estimating Per Capita Residential/Commercial Waste Generation” available on Ohio EPA’s Division of Solid and Infectious Waste web site. In this document, the recommended per capita annual rate of increase is 1% annually through the year 2005 at which point the annual per capita rate of increase decreases to a 0.5% annual through the year 2010. Recommended projections beyond 2010 were not estimated thus the Authority kept the annual increase at 0.5% throughout the remainder of the planning period.

As illustrated in Table V-2, residential/commercial waste generation is projected to decrease from 100,033 tons in 2005 to 98,656 tons in 2023. Per capita generation is projected to increase from 3.93 pounds/person/day in 2005 to 4.29 pounds/person/day in 2023.

### 3. *Industrial Sector*

Industrial waste generation for the District's reference year was determined by adding together reported recycling and disposal data. The recycling data was reported from the industrial surveys and the disposal data was obtained from Ohio EPA's 2005 *Draft Ohio Solid Waste Facility Data Report*. The recycling data provided on the industrial surveys can be referenced to a SIC code; however the disposal data cannot be categorized by SIC code. In order to obtain a rough estimate of waste generation per SIC code, the Authority first determined, from the generation data in Table IV-3, the percentage of waste generated per SIC code. These SIC code percentages were then multiplied by the total industrial waste generation, determined by adding recycling and disposal data, to obtain generation by SIC code. The waste generation results per SIC code are shown in Table V-3 for the reference year.

To project waste generation for the remaining planning years the Authority consulted The Ohio Department of Job and Family Services "Job Outlook to 2012" guide produced by the Bureau of Labor Market Information, Office of Workforce Development. Both Jefferson and Belmont County are part of the East Central Ohio – Economic Development Region 10. Economic Development Region 10 is expected to see a 3.6% decline in manufacturing employment between the years 2002 and 2012. Allowable industries surveyed for this plan update are manufacturers which fall within the SIC categories of 20 and 22-39. Thus through the year 2012, the Authority has projected the manufacturing waste generation to decrease annually by 0.36%. Without further employment projections and accounting for the expected decline in overall Authority population the Authority has applied the 0.36% decline to the remaining years of the planning period. These projections are included in Table V-3.

### 3. *Total Waste Generation*

Table V-4 shows the total waste generation estimates for the Authority throughout the planning period. Exempt waste generation was predicted to remain constant. Shown in Table V-4, total waste generation is projected to decrease over the planning period from 141,968 tons in 2005 to 138,355 tons in 2023.

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

The relative composition of the District's waste stream is not expected to change significantly over the planning period. Therefore no projected changes are provided.

## **E. Waste Reduction Strategies through the Planning Period**

Historically, R&LP offices implemented all programs and strategies for the Authority with funding from the Authority, County contributions, and grant funds. Authority funding was appropriated to R&LP for recycling collection programs only. This funding was allocated to each County's recycling crew salaries, maintenance and repair of trucks and equipment, gasoline, and equipment capital expenditures. In 2006, R&LP lost a majority of grant funding from their largest source of grants, ODNR. Without the ODNR grant, R&LP needs support from the Authority to effectively operate the education and litter prevention strategies. Due to the funding loss the Authority agreed to fund some of the education expenses for R&LP. The lack of funding and the results of the Program Analysis, described below, resulted in changes to the Authority infrastructure.

The Authority evaluated the existing programs by using a Program Analysis developed by JAZ Environmental Consulting. The Program Analysis is an excel spreadsheet, tailored for the Authority programs and strategies, specifically evaluating each program for: the extent to which the program assists the Authority in achieving the goals of the state plan; the program's contribution to providing resident participation; and how much the program costs. At the time the Program Analysis was performed the Authority was program specific to each county thus each County's programs and strategies were independently analyzed. Programs were evaluated for reference year performance. Participation criteria were ranked relative to the entire county population participating. Cost criteria were ranked for the expenditures of the program in relation to the participation and the tonnage of waste recycled.

Setting the basic spreadsheet for analysis involved gathering existing program and strategy information on both county programs and entering the baseline data into their respective Program Analysis spreadsheet. Each county Recycling and Litter Prevention staff as well as the Authority Executive Director then met for individual eight hour sessions to evaluate each program for achieving the goals of the State Plan; the program's contribution to providing resident participation; and how much the program cost. In ranking the programs on these criteria it is key to have staff involved in daily operations of the programs for thoroughly discussing and objectively evaluating the programs. Program staff involved in daily operations gives invaluable insight to programs when evaluating at this level of detail.

Ranking for achievement of the goals of the state plan criteria are "1" for not meeting State Plan goals, "2" for somewhat meeting the State Plan goals, or "3" for meeting State Plan goals. Ranking for the program's contribution to providing resident participation criteria are "1" for low participation; "2" for good participation; or "3" for excellent participation. If participation could be improved in a program then ranking reflected room for improvement. Ranking criteria for program costs are "1" for high program costs; "2" for medium program costs; or "3" for low program costs. Costs were evaluated relative to the participation. For instance if the program received high participation and high costs, then the ranking for the cost might be low relative to the participating population.

Each program was discussed in detail for each criterion to determine the most suitable ranking possible. The highest ranking score that each program could achieve is nine. In general a nine score for a program means that program is meeting both State Plan goals, and is obtaining excellent participation at low costs to the Authority. If a program scores a nine, little if any changes are needed to improve the program.

Located in Appendix H are spreadsheets showing the results of the Program Analysis for both counties. Findings and recommendations of the Program Analysis are summarized and located in Appendix I. Based on the Program Analysis and discussions with the Board of Directors, the Authority will implement the following new strategies and changes to existing strategies as outlined below.

#### New Strategies

The Approved Plan required the Board of Trustees to employ a full-time solid waste coordinator, establish another funding mechanism, and submit quarterly fee reports and quarterly budget and implementation reports. In 2005, the Board of Trustees performed these additional strategies as well as acquired a fiscal officer, and independent legal counsel. This Plan Update will relieve the responsibilities of the Board of Trustees to submit quarterly budget and implementation reports to Ohio EPA.

#### **AUTHORITY OFFICE RESTRUCTURING:**

Program operations combined with county R&LP offices losing grant funding initiated further evaluations into the Authority infrastructure. As of January 1, 2007, all program operations and implementations are no longer individual county programs. Both county Recycling and Litter

Prevention Offices have been dissolved with assumed responsibility for program implementation from the Authority. Implementation of education and recycling programs continues through each county office (“field office”), now known as Keep Jefferson County Beautiful and Keep Belmont County Beautiful. The two “field offices” are located in each county consisting of a director, a county education coordinator, a recycling crew supervisor, a full-time crew member, and a part-time crew member. (See Appendix J for job descriptions.) Each county is responsible for implementing the solid waste management plan, county-specific programs, and education activities communicating at least monthly with the central office for support and approval of activities.

The “central office” houses the Executive Director, Director of Commercial and Industrial Services, Fiscal Officer, and Environmental Enforcement Officer (position to be filled in 2009, if conducted feasibility study determines the need). It is the responsibility of the Executive Director to supervise and manage the responsibilities of the field offices. The county directors directly report to the Executive Director as does the recycling crew staff.

To help streamline existing operations and servicing of barns and drop-off locations, the Authority will further restructure the recycling crew supervisor and crew members. In 2008, the Authority will purchase a paper recycling truck dedicated to full-time collection of the Jefferson and Belmont County Paper Collection Programs. This will require an additional full-time employee. The recycling crew will then change from one full-time and one part-time crew member, to two full-time employees per county to service the barn and drop-off programs.

The Authority, as described later in this Section, is planning to conduct a feasibility study to determine the best option for office locations. It may or may not be in the best interest of the Authority to consolidate “field offices” into one central location. At first glance consolidation may be a significant key to streamline and optimize operations within the Authority. The feasibility study will at the very minimal consider mileage, operations (current and future), and associated costs with each alternative (current and future). Both the office restructuring and feasibility study provide many unknowns the Authority may encounter. At the time of this Plan Update the Authority cannot adequately plan for all possibilities. Therefore the Authority will plan and commit to streamlined and efficient operations throughout all offices through the best capabilities provided to the Authority.

The Authority believes the roles defined above are minimal roles needed to operate the Authority but reserves the right to alter, change, or modify personnel positions as needed to implement the Plan Update. All assets including, but not limited to, vehicles, office equipment, training aids, etc. will be Authority owned assets. This list of assets is not intended to be comprehensive but rather to give an idea of assets.

**POWHATAN POINT CURBSIDE RECYCLING:**

IMPLEMENTATION DATE: January 2006

WHO WILL IMPLEMENT: As outlined in the Approved Plan, the Authority will fund start-up and operational (processing and collection) costs for a residential non-subscription curbside recycling program in a single District community having at least 625 households. The Authority targeted the village of Powhatan Point in Belmont County.

WHO WILL BENEFIT: Residents of Powhatan Point

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Accepts glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal, paper, cardboard, newspaper, magazines and glossy inserts.

STRATEGY/PROGRAM GOAL: To provide curbside recycling to residents.

STRATEGY/PROGRAM DESCRIPTION: Non-subscription curbside recycling is collected on a weekly basis. Residents are provided with one mixed stream recycling container to place at the curb. The Authority contracted with Shadyside Cartage to provide curbside recycling service in 2006 and 2007. The curbside recycling service contract is negotiated on a yearly basis. The village, along with the Authority, will provide education, awareness,

and promotion of the program. Beginning in 2009, the village will qualify for the Curbside Recycling Incentives Program.

**MEASUREMENT OF SUCCESS:** Success of curbside recycling depends on hauler contracts, resident participation, education, advertising, and a useable system. To ensure the Powhatan Point Curbside program is achieving success the Authority will monitor the program for recyclables collected. In 2006 and 2007 the program recycled 19.7 and 19.5 tons, respectively. (Data for November and December in year 2007 has not yet been provided to the Authority, thus the 2007 tonnages maybe slightly higher.) The Authority's plan is to keep at least one community in Belmont County provided with curbside recycling, albeit it may not be Powhatan Point, depending on success. For the remainder of the planning period the Authority will do the following:

1.) Measure for yearly recycling in pounds per capita.

- Decreasing pounds per capita will show the program is not achieving success. Should the Powhatan Point Curbside program see a decrease in recycling the Authority reserves the right to discontinue all funding for Powhatan Point to provide funding to a curbside recycling program in an Authority community larger than Powhatan Point but with a population less than 15,000. The Authority will not fully fund the new community curbside service but offer to fund some of the curbside service by negotiating a cost share with the community. The Authority reserves the right to locate another curbside service in either Belmont or Jefferson County or potentially both. The Authority will assist the community in pursuing contracts to service a weekly subscription or non-subscription curbside program. The Authority will provide start-up funding consisting of single stream recycling containers and promotion of the service through advertisements and education.
- Increasing pounds per capita will show the program is achieving success. Should the Powhatan Point Curbside program see an increase in recycling the Authority reserves the right to decrease funding of Powhatan Point Curbside to half of original projected budgets, or an agreed upon cost share price, so the Authority can provide funding to a curbside recycling program in an Authority community larger than Powhatan Point but with a population less than 15,000. The Authority will not fully fund the new community curbside service but offer to fund some of the curbside service by negotiating a cost share with the community. The Authority reserves the right to locate another curbside service in either Belmont or Jefferson County or potentially both. The Authority will assist the community in pursuing contracts to service a weekly subscription or non-subscription curbside program. The Authority will provide start-up funding consisting of single stream recycling containers and promotion of the service through advertisements and education.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** In 2006, Powhatan Point curbside program recycled 19.7 tons of materials and 19.5 tons in 2007. This equates to roughly 0.01 tons (23 pounds) of recyclable material per person.

The program has existed for one year thus making it difficult to project recycling tonnages. Even though population is projected to decrease for Powhatan Point the Authority is making the assumption that residents will continue to participate and recycle more. For the planning period, growth in recycling tonnages is planned to increase at 0.5% throughout the remainder of the planning period.

**ELECTRONIC RECYCLING:**

**IMPLEMENTATION DATE:** Collection events will begin in year 2008. This program will be offered two times in 2008, alternating events in each county thus holding one collection event per county a year through the planning period. The Authority may then choose to conduct a feasibility analysis to determine the need for an annual event, the need for additional electronic collection (either events more often and/or additional electronic components), and the need to assess user fees. If conducted the feasibility analysis should at a

minimum evaluate resident response, associated costs, collected volumes, estimated future volumes, as well as potential staff restraints before determining any future program changes.

**WHO WILL IMPLEMENT:** The Authority will fund, coordinate, advertise, and provide education on the collection event.

**WHO WILL BENEFIT:** This collection event will be available to all residents in both counties.

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** The Authority will, at a minimum, provide for the collection of household computers to residents.

**STRATEGY/PROGRAM GOAL:** To provide an outlet for electronics to divert from the waste stream.

**STRATEGY/PROGRAM DESCRIPTION:** The Authority will attempt to hold two collection events a year. Collection events will be open to residents of both counties, however one event will be held in Jefferson County and the other event will be held in Belmont County, alternating the sites in this manner throughout the planning period. To limit the collection and response for an electronics recycling event the Authority may limit the first collection in 2008 to household computers and their peripherals for residents. If this event is not overwhelming the Authority may decide to open successive collection events for other types of electronics.

**MEASUREMENT OF SUCCESS:** The Authority will track quantity of material collected, costs per person and cost per ton of material recycled. The Authority will also assess the location and event logistics.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** Electronic recycling projections for 2007 are conservatively based on average tonnages collected in 2006. Projections through the planning period are estimated to remain constant.

#### **COMMERCIAL AND INDUSTRIAL BUSINESS SURVEYS:**

**IMPLEMENTATION DATE:** Beginning in 2005.

**WHO WILL IMPLEMENT:** The Authority through the Director of Commercial and Industrial Services will coordinate and fund an organized survey of commercial and industrial businesses.

**WHO WILL BENEFIT:** Belmont and Jefferson County residents and businesses

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** All types of materials are targeted for recycling.

**STRATEGY/PROGRAM GOAL:** To create contact between the Authority and the commercial and industrial businesses in efforts to obtain accurate waste disposal and recycling data.

**STRATEGY/PROGRAM DESCRIPTION:** The Authority will conduct an industrial survey annually. Commercial sector surveys will be divided into two groups and surveyed every other year. Group A will consist of retail stores, thrift stores, super-centers, automobile service stations, and restaurants. Group B will consist of hardware stores, grocery stores, specialty product stores, and other miscellaneous commercial businesses. The Authority compiled an initial list of commercial businesses for the 2005 survey which will serve as a base list to add to each year as the Authority reaches more of the commercial sector.

**MEASUREMENT OF SUCCESS:** The Authority will complete survey forms for each area business and enter the data into spreadsheets. Survey forms will serve as past references to the data reported by an area business. Completed spreadsheets will easily depict the materials and tonnages of waste disposed and recycled.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** The survey conducted for the reference year resulted in 2,669 tons of recyclable materials being reported for the commercial sector. For the industrial sector, the survey resulted in 14,667 tons of recyclable materials being reported. The recyclable materials estimated for 2006 is an estimated fraction of the total waste generation based on reported recycling in 2005. The estimated tonnage for the residential/commercial sector is expected to decline at the same rate as the projected waste generation throughout the planning period. The industrial sector recycling is projected to also decline but at the same rate as the projected industrial waste generation is declining.

**ENVIRONMENTAL ENFORCEMENT OFFICER FEASIBILITY STUDY**

IMPLEMENTATION DATE: Beginning in 2008.

WHO WILL IMPLEMENT: The Authority will conduct the feasibility study.

WHO WILL BENEFIT: Belmont and Jefferson County residents and businesses

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: n/a

STRATEGY/PROGRAM GOAL: To determine the need for an environmental enforcement officer, determine specifics regarding employment status (one or two, full or part-time), and reporting structure.

STRATEGY/PROGRAM DESCRIPTION: In order to determine the need the Authority must first get a better understanding on the litter, open dumping, investigations, and complaints in both Counties. To gather baseline data a "Report an Illegal Dumper" campaign will be initiated. The goal of this campaign is to encourage resident participation in identifying areas in their communities which may need addressed. The campaign will be advertised on the website, through newspapers and through public service announcements.

The Authority will track all complaints over the period of the next year. This includes active and un-active litter and open dumping issues, complaints, illegal dumping investigations, site investigations, and incident reports. The sites will be monitored for existence, level of littering or dumping, response time from board of health, and timely resolution, clean-up or abatement action. Tracking complaints and clean-up response will give the Authority a better understanding of the magnitude of issues in the Authority, thereby helping to quantify the time needed for an environmental enforcement officer, if this feasibility study determines a need.

The Authority will gather before and after statistics on litter issues from Ohio solid waste management districts operating similar programs to determine program effectiveness. In addition the Authority will attempt to gather information on program structure and implementation. Unknowns the Authority will be looking to obtain information on: citation authority, direct reporting to board of trustees or board of health, coordination through board of health, and daily tasks. Recommendations from Ohio EPA on effective program implementation will also be gathered.

All information compiled will be reported to the Board of Trustees for approval of action. If the Board of Trustees determines a need within the Authority for an environmental enforcement officer, the need will be met in 2009. For planning purposes this Plan Update projects employment of a full-time environmental enforcement officer beginning in 2009. Based on the outcome of the feasibility study the Authority reserves the right to change the employment status to part-time or employment of two full-time officers. Employment, reporting structure, and job description will be determined as a result of the feasibility study and will be finalized before employment of the environmental enforcement officer.

MEASUREMENT OF SUCCESS: The Authority has one year to conduct the feasibility study and report findings to the Board of Trustees. Success will be completion of the study, no matter the outcome.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: none

**DISASTER DEBRIS MANAGEMENT**

IMPLEMENTATION DATE: As needed.

WHO WILL IMPLEMENT: Jefferson County and Belmont County Emergency Management Agencies in coordination with the Authority.

WHO WILL BENEFIT: Belmont and Jefferson County

AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED: Although no specific materials are targeted for recycling, the Authority will provide education about separating recyclable materials and yard waste from other general debris for management purposes.

STRATEGY/PROGRAM GOAL: To provide assistance to the Jefferson County and Belmont County Emergency Management Agencies in response to a natural disaster.

**STRATEGY/PROGRAM DESCRIPTION:** Responding to natural disasters, such as flood events, tornadoes, and severe storms, requires a great deal of coordination and time. Although the Emergency Management Agencies (EMA) are the lead agencies for coordinating response activities, the Authority is committed to assisting the EMA during a disaster event. Belmont County's Debris Control Plan clearly states upon a declaration of emergency, household solid waste will be removed by Belmont County R&LP. The Debris Control Plan was written prior to the Authority reorganization, hence the reference to Belmont County R&LP. With the reorganization the Director of Keep Belmont County Beautiful will write, update and coordinate the Belmont County Debris Control Plan as needed as well as be prepared to initiate the plan in event of a declared emergency. In Jefferson County the R&LP office did not have a direct role in providing assistance, however the Authority will offer support as needed.

In both counties the Authority will educate on proper management of debris, monitor staging sites when needed, coordinate between agencies and companies if needed, and assist with funding for debris control.

**MEASUREMENT OF SUCCESS:** There is no direct measure of success however; the Authority involvement contributes to the overall operation of both counties.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

#### **HEALTH DEPARTMENT ASSISTANCE**

**IMPLEMENTATION DATE:** 2006 - ongoing

**WHO WILL IMPLEMENT:** As authorized in Ohio Revised Code 3734.57 funding "to boards of health within the district, if solid waste facilities are located within the district, for the enforcement of this chapter and rules adopted and orders and terms and conditions of permits, licenses, and variances issued under it; to boards of health for collecting and analyzing water samples from public or private wells on lands adjacent to solid waste facilities that are contained in the approved or amended plan of the district; to boards of health within the district to for enforcing laws prohibiting open dumping; and to boards of health within the district that are on the approved list under Section 3734.08 of the Revised Code for the training and certification required for their employees responsible for solid waste enforcement by rules adopted under division (L) of Section 3734.02 of the Revised Code." Only Health Districts operating in the Authority that appear on the Director's list of approved programs for implementation of the solid waste program qualify for funding.

**WHO WILL BENEFIT:** Health and Safety of Jefferson County residents

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** n/a

**STRATEGY/PROGRAM GOAL:** To provide funding to Jefferson County Board of Health for activities described in ORC 3734.57(B). The Jefferson County Board of Health is on the Directors Board of Health approved list.

**STRATEGY/PROGRAM DESCRIPTION:** Funding provided to the Health Department by the Authority is to ensure the implementation of activities described in ORC 3734.57(B).

**MEASUREMENT OF SUCCESS:** The Health Department will be required by the Authority to submit quarterly reports on the number of inspections, nuisance complaints investigated, notice of violations issued to the landfill, assessment of operations, open dump complaints investigated, etc. In addition the health department is required to submit invoices and receipts with the reports.

**STRENGTHS AND WEAKNESSES:** none.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

#### **COMMUNITY RECYCLING AWARDS**

**IMPLEMENTATION DATE:** 2007 - ongoing

**WHO WILL IMPLEMENT:** Authority

**WHO WILL BENEFIT:** Communities and residents of Jefferson and Belmont Counties

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** n/a

**STRATEGY/PROGRAM GOAL:** To promote and award the communities on an annual basis for the recycling efforts.

**STRATEGY/PROGRAM DESCRIPTION:** The Authority wants to keep recycling fresh in the community. The plan to achieve this is to annually award communities, businesses, individuals, and schools for their recycling efforts. The Authority will host an annual banquet for both counties to personally award the recycling and source reduction efforts. Award programs, which are currently under development, may be community leader, school recycling, business or industry, community, etc.

**MEASUREMENT OF SUCCESS:** The Authority is creating this program to offer an incentive to communities, businesses, individuals, and schools. Success will be excellent participation for the banquet.

**STRENGTHS AND WEAKNESSES:** This is an incentive strategy to recognize recycling and litter prevention efforts and should receive excellent participation. It will be a constant goal for the Authority to keep this fresh with cutting edge awards and competitions for participants.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

### **PAY AS YOU THROW (PAYT)**

**IMPLEMENTATION DATE:** 2007 - ongoing

**WHO WILL IMPLEMENT:** Authority

**WHO WILL BENEFIT:** All communities in Jefferson and Belmont Counties

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** This program is a trash collection program offering non-subscription curbside recycling. Through the benefit of cheaper trash disposal, recycling will be encouraged. Materials specifically targeted will at a minimal be the materials defined in Section VII.

**STRATEGY/PROGRAM GOAL:** To promote Pay As You Throw to communities throughout Jefferson and Belmont Counties emphasizing the connection between costs and waste disposal habits.

**STRATEGY/PROGRAM DESCRIPTION:** Specifics on the type of Pay As You Throw system will be open to discussion between communities and the Authority. The Authority will promote Pay As You Throw.

**MEASUREMENT OF SUCCESS:** The Authority is not expecting community receptiveness, however it is a goal for the Authority to create self-sustaining systems and through a Pay As You Throw system the money generated from recyclables could sustain the curbside collection costs. Success will be openness by the communities to hear about the system.

**STRENGTHS AND WEAKNESSES:** A weakness is the introduction of an alternative waste disposal option among the residents. Change can be difficult even if costs for waste disposal become lower. The evident change will be increased recycling to obtain the lower waste disposal costs.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

### **UNIVERSITY PARTNERSHIPS**

**IMPLEMENTATION DATE:** 2007 - ongoing

**WHO WILL IMPLEMENT:** Authority personnel

**WHO WILL BENEFIT:** Authority and Universities

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** n/a

**STRATEGY/PROGRAM GOAL:** To promote campus recycling and create relationships between the Authority and the Universities.

**STRATEGY/PROGRAM DESCRIPTION:** In 2007 the Authority will host discussions with area universities to determine the receptiveness of initiating a recycling effort on campus. Depending on the response from area universities the initial efforts may be an awareness campaign in which the Authority helps with individual recycling needs. However, it is the hope of the Authority to begin placing containers on campus property for recycling among the students. In addition, the Authority would like to develop a coordination effort with a student group to promote awareness and education with growth towards students conducting pilot programs and projects to benefit the Authority.

In 2007, the Authority provided assistance to the Franciscan University by providing a recycling truck and the transportation for paper recycling during the University's "Clean out Your Office Day" campaign.

**MEASUREMENT OF SUCCESS:** Success will be measured by the discussions and receptiveness to recycling and student involvement. This program has already achieved success in January 2007 with the 3.92 tons (7,840 pounds) of paper collected in the Franciscan University's "Clean out Your Office Day."

**STRENGTHS AND WEAKNESSES:** It may be difficult or challenging to develop a smooth recycling system in municipalities not currently offering a recycling program.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** The Authority assumes this program will receive a lot of participation and growth in the developing years. Thus the 4 tons collected in 2007 is expected to grow by 5% throughout the first four years of the planning period then drop to a 1% growth for the remaining of the planning period.

### **ECONOMIC INCENTIVES**

**IMPLEMENTATION DATE:** 2008 - ongoing

**WHO WILL IMPLEMENT:** The Authority will issue economic incentives, but will not be responsible for implementing programs to help recipients achieve economic incentives.

**WHO WILL BENEFIT:** Jefferson County and Belmont County residents

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** n/a

**STRATEGY/PROGRAM GOAL:** Promotion of recycling by offering monetary rewards.

**STRATEGY/PROGRAM DESCRIPTION:** Authority will fund the following economic incentive programs:

#### **1.) Curbside Recycling Incentives:**

Authority will offer a financial incentive to all communities implementing a curbside recycling program. Incentives will be awarded on performance based on weight of residential recyclable material collected through the curbside program. Communities recycling more tons of material will receive a greater financial reward. The Authority will award \$100 per ton of recycling material to any participating community offering any type of curbside program. However, as discussed in Section VIII the Authority reserves the right to cap the curbside recycling incentives at a maximum of \$50,000 total for all participating communities. This monetary incentive will be paid for with Authority funds and will be distributed during the first quarter of the year. If the Authority experiences the need to cap this program the dollar per pound rate may need to be lowered to accommodate the maximum cap. Incentives are estimated to begin in 2009. The Authority will encourage communities to use the financial incentives towards sustaining their recycling program.

#### **2.) Authority Recycling Rewards:**

Rewards will be issued for a direct impact made to the environment through composting, recycling, source reduction, or litter prevention. The direct impact does not need to occur before the reward is issued so long as the impact will result from the reward. The direct impact will be defined as:

- An increase in a material(s) recycled; or
- Diversion of waste from the landfill; or
- Expansion or new target of materials to be recycled; or
- Out-of-the box concepts for targeting recyclables.

Rewards are given by the Executive Director and will be limited to a total of \$1,000 per year, since there is no formal written request. Several rewards could be issued throughout the year which would result in lower reward amounts.

#### **3.) Pay-As-You Throw (PAYT) Rebates:**

Communities offering PAYT curbside recycling programs offer financial incentives to the residents by lowering the trash collection fees while providing free curbside recycling. Authority will offer financial incentives to all communities implementing a

PAYT curbside recycling program in the form of rebates. Through the PAYT Rebates, the Authority will give monetary incentive funds to an eligible community based on the weight of residential recyclable material collected through the community's curbside collection program reported to the Authority. The Authority will award \$25 per ton of recycling material to any participating community offering PAYT. However, as discussed in Section VIII the Authority reserves the right to cap the curbside recycling incentives at a maximum of \$50,000 total for all participating communities. If the Authority experiences the need to cap this program the dollar per pound rate may need to be lowered to accommodate the maximum cap. Incentives are estimated to begin in 2009. This monetary incentive will be paid by the Authority and will be distributed during the first quarter of the year. A receiving community shall use rebate money for promotion of the PAYT and curbside programs and to offset any operating costs associated with providing the PAYT and curbside programs. The Authority will emphasize using the rebate money to encourage residents to recycle more, through educational and promotional efforts and/or incentive programs such as giving gift certificates to residents who recycle. Each community shall include the weight of recyclable material collected in the previous year through that community's curbside recycling collection program in order to receive the rebate incentive.

#### 4.) Financial Market Grants:

The Authority will directly promote market growth by offering financial market grants to new businesses that either produce products with recycled materials or recycle solid waste for resale on commodity markets. Strong markets pull recyclables through the system and if located within the Authority will help to promote the local economy. The Authority will allocate \$10,000 per year to Financial Market Grants. The grant applicant must file a complete application by June 1<sup>st</sup> of each year to be eligible for awarded grant money. The application process will be in-depth and detailed. A lump sum grant application will not be permissible (i.e., non-detailed applications requesting funding without outlined processes). All applications must specifically outline the process and include dollar estimates for each process or request. The Authority has final discretion in awarding the Financial Market Grants. Grants will be awarded in full or partial depending on the applicant and application. The Executive Director may recommend a grant award larger than the allocated funds to an applicant if the Board of Trustees approves.

The Authority will explore offering the following economic incentives:

- Municipal contracts for curbside collection of MSW, recyclables and yard waste.
- Recycling incentive grants to communities.
- Recycling incentive grants to local businesses.
- Recycling incentive grants to processors and compost facilities.
- Recycled content material incentives for communities, local government and businesses.

The Executive Director will work with the Board of Directors and community representatives to promote this program.

**MEASUREMENT OF SUCCESS:** Success will be measured through the improvement of recycling projects throughout the Authority.

**STRENGTHS AND WEAKNESSES:** Budget concerns can be a weakness. The Authority will not commit to economic incentives unless all other plan implementation expenditures have been met. Since incentives are monetary there could be areas for abuse of the system. These are concerns for the Authority and will be dealt with on an individual case. On the other hand since these are monetary grants there is a strong incentive for recycling.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

#### **RECYCLING OPERATIONS FEASIBILITY STUDY:**

**IMPLEMENTATION DATE:** 2008 - ongoing

**WHO WILL IMPLEMENT:** Executive Director will hire a consulting firm to conduct a feasibility study for recycling operations.

**WHO WILL BENEFIT:** Jefferson County and Belmont County residents

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** n/a

**STRATEGY/PROGRAM GOAL:** To help streamline recycling collections in both counties thereby maximizing the potential for market commodities. The feasibility study will pointedly decide whether to operate one recycling collection center or operate satellite field recycling locations. In addition the feasibility study will provide economic analyses for the best collection option, i.e. demonstrate which alternative is better: purchase property and improve property conditions or lease existing property.

**STRATEGY/PROGRAM DESCRIPTION:** The Authority is committed to streamline collection operations of the barn and drop-of recycling programs. In order to determine the most efficient and cost effective method of collecting barn and drop-off recycling programs in Jefferson and Belmont Counties, the Authority will conduct a feasibility study. The study will report a full economic analysis of both counties relating efficiency and cost effectiveness to collection methods. The feasibility study will also factor in long-term goals for recycling and growth of programs towards an Authority operated Class IV compost facility. The first hurdle for the feasibility study is to determine whether to run operations from a centrally located facility or run operations from county "field offices". The feasibility study will comparatively evaluate all operational costs including mileage, equipment, current and projected market conditions as well as upfront capital outlays.

**MEASUREMENT OF SUCCESS:** The Authority will target the fall of 2008 for completion of contracting a consultant and feasibility study results. The Authority Board will make a decision on operating a central collection facility or satellite field recycling locations by the end of 2008.

**STRENGTHS AND WEAKNESSES:** Conducting a feasibility study will help the Authority evaluate all possibilities for collecting recyclables in Jefferson and Belmont Counties. Through the results of the feasibility study the collection of recyclables will be conducted more efficiently and the Authority will be able to capitalize on market commodities. The downside to conducting a feasibility study is the downtime. While the feasibility study is being conducted the Authority is on hold to operate recycling collections efficiently.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

**LITTER COLLECTION/COMMUNITY CLEANUP GRANTS:**

**IMPLEMENTATION DATE:** 2008 - ongoing

**WHO WILL IMPLEMENT:** The Authority will issue grants. Grant recipients will be required to complete an application outlining the need and intent of the grant.

**WHO WILL BENEFIT:** Grants will be available to villages, municipalities, townships, community organizations or government agencies for litter or cleanup activities.

**AMOUNT AND TYPE OF MATERIAL REDUCED/RECYCLED:** n/a

**STRATEGY/PROGRAM GOAL:** Promotion of litter collection and community cleanup events.

**STRATEGY/PROGRAM DESCRIPTION:** The Authority will have available grant awards up to \$50,000 for each year available for litter collection and/or community cleanup activities. An application must be filed with the Authority detailing the cleanup or litter collection activities and the funding amount requested. The Authority reserves the right to award the full amount requested or partial funding depending on number of valid applicants and the financial state of the Authority. Issued grant monies must be used for direct litter collection or community cleanup activities. All grantee awards will be required to submit before and after pictures or suitable evidence of activity demonstration once the litter collection and/or community cleanup activities have occurred.

**MEASUREMENT OF SUCCESS:** Since the Authority is providing funding in the form of grants to villages, municipalities, townships or government agencies for litter or cleanup activities, success will be measured by the number of applicants. If grants are awarded, success will be measured by the clean and beautiful environment provided to the communities.

**STRENGTHS AND WEAKNESSES:** Awarding process is through a grant application. This could be a deterrent for some applicants. In addition evidence of the activity is required which

could also be a deterrent. These two obstacles would be weaknesses to this program implementation. A strength to this program is essentially “free” money provided to communities for litter or cleanup activities.

Existing Strategy Changes

All existing strategies discussed in Section IV are expected to continue during the planning period. However, the Authority will be making changes to some strategies. The largest change to affect all programs is the reorganization and consolidation of the Authority. Dissolving Jefferson County and Belmont County Recycling and Litter Prevention Programs moves the responsibility, funding, and implementation to the Authority. These changes will be made as discussed in the program descriptions below:

**Program Name:** Commercial/Industrial Sector TA and Education

**FUTURE STRATEGY/PROGRAM CHANGES:** The Authority employs a Director of Commercial and Industrial Services. The Director of Commercial and Industrial Services will perform the program goal and description as described in Section IV to conduct waste audits and provide education through brochures and presentations. Emphasis will be placed on contacting commercial and industrial sector businesses for waste audits. If entities refuse or don't need the waste audit, at the very least letter communications will be sent to explain a waste audit and if possible provide an example showing cost savings from recycling. Five different commercial and industrial companies are targeted for each year. The Authority will maintain communication to the commercial and industrial sectors through the Authority web page as well as continue to produce a quarterly newsletter. The Authority did not meet a publication distribution for year 2006, but will target 2008. Two areas to expand on the website are topics of interest such as: available grants for recycling activities; available low interest loans for recycling activities; and Ohio Materials Exchange.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** none

**Program Name:** Curbside Recycling

**FUTURE STRATEGY/PROGRAM CHANGES:** Curbside recycling is generally the most effective of all types of residential recycling programs. The Authority currently fully funds the Powhatan Point Curbside program in Belmont County. As outlined in the Powhatan Point Curbside program, earlier in this Section, the funding towards this program will decrease whether or not success is measured in order for the Authority to help fund a curbside recycling program in a new community. With one curbside program underway and the potential to start a new Belmont County Opportunity, the Authority will pursue an additional community for a Jefferson County Opportunity.

This will include promoting curbside to communities and preparing cost estimates for the service. The Authority will offer to negotiate contracts with haulers for communities; however, all contracts will be held by the community, they will not be Authority held. The Authority will explore establishing a hybrid subscription system whereby the community residents will be charged a monthly surcharge independent of participation. To make this program economically feasible for the communities and the Authority, the size and location of the community as well as transportation and servicing by Authority personnel will be considered.

The Authority will plan to accept the following materials: glass (clear, brown, and green), plastics #1 and #2, aluminum cans, bi-metal cans, steel cans, and ferrous and non-ferrous scrap metal, paper, cardboard, newspaper, magazines and glossy inserts on a weekly basis. To move forward with this program the Authority will solicit feasible communities targeting year 2010 as program implementation. However, this program is dependent on many outside factors therefore it is difficult to target an implementation date. If implementation does not occur in 2010 the Authority will assess the reasons for not meeting the target implementation date.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: Recycling tonnages were not estimated due to the unpredictability of the program start date.

**Program Name:** Drop-Off Recycling FS, Rural

FUTURE STRATEGY/PROGRAM CHANGES: *(This description applies to all of the Drop-Off Recycling programs.)* Drop-off recycling programs were previously implemented by the County R&LP offices. Due to the restructuring of the Authority this program will be implemented by Authority personnel. Jefferson County will continue to operate drop-off boxes and Belmont County will continue to operate barns. In 2007, the recycling crew began stockpiling Jefferson County's recyclables to try to reduce the number of trips to the District Recycling Center. Belmont County was still making several trips to both Cambridge Recycling Facility and Valley Converting.

Education and advertising for this event will be handled through the Authority by the Belmont and Jefferson County education specialists. The Authority will advertise the drop-off schedules on the website and periodically as inserts included in the water bill. The future changes described below will be advertised before, during and after changes to ensure residents are aware of the new schedules. The Authority does not receive any revenues from the sale of mixed recyclables.

In 2008 all drop-off sites in Jefferson County were converted to full-time.

Based on the assessment provided in the Program Analysis conducted in 2006 for reference year data, the Authority noted three drop-off sites in Jefferson County (Empire/Stratton Village, Richmond Village, and Saline Township) and two drop-off sites in Belmont County (Fairpoint and Holloway Village) that are underutilized. In determining whether future drop-off sites are underutilized the Authority will monitor the frequency of pulls, the tonnage of material collected, and vandalism of the containers and compare on a yearly basis to the prior year's performance. As outlined in detail in Section VII the Authority will continue to monitor these five sites for a year. If all three sites in Jefferson County continue to be underutilized the Authority will discontinue the Saline Township site in 2009 and change Empire/Stratton Villages and Richmond Village to part-time status. Discontinuation of this site will lower the access demonstration in Jefferson County to 91.6%. The other two Jefferson County sites will be maintained to demonstrate access. If both sites in Belmont County continue to be underutilized the Authority will discontinue both Fairpoint and Holloway Village in 2009. Discontinuation of these sites will lower the access demonstration in Belmont County to 93.7 %.

The Authority reserves the right to make any operational changes to the drop-off recycling programs during the planning period.

**Jefferson County changes**

- Wells Township to remain the same; available 24 hours /7 days a week.
- Richmond Village to remain the same; available 24 hours /7 days a week.
- Empire/Stratton Villages became a rural site in 2005 due to decrease in population in Knox Township. This site will be moved to a location in the southern portion of Knox Township in 2007. Available 24 hours /7 days a week.
- Mingo Junction availability will be changed from part-time to full-time in 2006. Available 24 hours /7 days a week.

**Belmont County changes**

- Bethesda to add a second barn at this location in 2007. Available 24 hours /7 days a week.
- Colerain Township to remain the same. Available 24 hours /7 days a week.
- Fairpoint to remain the same. Available 24 hours /7 days a week.
- Holloway Village to remain the same. Available 24 hours /7 days a week.
- Armstrong Mills to discontinue. A barn was not added to this location as required in the approved plan. This township is rural and lacks a location to place a barn. Rather than

add a barn in this location the Authority will add three additional barns in other locations to demonstrate access.

- Powhatan Point Village to discontinue. A barn was not added to this location because the entire village is located in a floodplain. The Authority will add additional barns in other locations to demonstrate access.
- Morristown Village added a barn in 2006. Available 24 hours /7 days a week.
- Somerton added a barn in 2006. Available 24 hours /7 days a week.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: Even though populations are projected to decrease the Authority has been seeing an increase in drop off recycling numbers since program inception. Because of adding additional barns and changing opportunities for others, recycling is expected to increase by 1% throughout each year of the planning period. When reviewing the projections made in Table V-5 it is important to remember all Jefferson County drop-off tonnages are included in the Drop-Off Recycling FS, Rural strategy.

**Program Name:** Drop-Off Recycling FS, Urban

FUTURE STRATEGY/PROGRAM CHANGES: *see description under Drop-Off Recycling FS, Rural*

**Jefferson County changes**

- Empire/Stratton Villages became a rural site in 2005 due to decrease in population in Knox Township. Knox Township is no longer defined as urban. This site will be moved to a location in the southern portion of Knox Township.
- Lincoln Elementary to remain the same. Available 24 hours /7 days a week.
- McKinley Elementary to remain the same. Available 24 hours /7 days a week.
- Island Creek Township to remain the same. Available 24 hours /7 days a week.
- Roosevelt Elementary to remain the same. Available 24 hours /7 days a week.
- Toronto City to remain the same. Available 24 hours /7 days a week.
- Wintersville (Cross Creek Twp) to remain the same. Available 24 hours /7 days a week.
- Wheeling-Pittsburgh Steel to remain the same. Available 24 hours /7 days a week.
- Wells School to discontinue. This location is provided with a box for paper recycling.

**Belmont County changes**

- Barnesville Village to add a second barn at this location in 2007. Available 24 hours /7 days a week.
- Bellaire Village to remain the same. Available 24 hours /7 days a week.
- Glencoe to remain the same. Available 24 hours /7 days a week.
- Martins Ferry to remain the same. Available 24 hours /7 days a week.
- Neffs to remain the same. Available 24 hours /7 days a week.
- Shadyside Village to remain the same. Available 24 hours /7 days a week.
- St. Clairsville to add a second barn at this location in 2007. Available 24 hours /7 days a week.
- Sunset Heights to discontinue in 2005. A barn will be added in Pease Township in 2007 located at Bridgeport. Available 24 hours /7 days a week.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: Even though populations are projected to decrease the Authority has been seeing an increase in drop off recycling numbers since program inception. Because of adding additional barns and changing opportunities for others, recycling is expected to increase by 1% throughout each year of the planning period. When reviewing the projections made in Table V-5 it is important to remember all Jefferson County drop-off tonnages are included in the Drop-Off Recycling FS, Rural strategy.

**Program Name:** Drop-Off Recycling, PT, Rural

FUTURE STRATEGY/PROGRAM CHANGES: *see description under Drop-Off Recycling FS, Rural*

**Jefferson County changes**

- Bergholz Village will change availability from seven consecutive days a month to full-service in 2008.

- Bloomingdale Village will change availability from seven consecutive days a month to full-service in 2008.
- Mount Pleasant Village will change availability from seven consecutive days a month to full-service in 2008.
- Rayland Village will change availability from seven consecutive days a month to full-service in 2008.
- Dillonvale Village will change availability from seven consecutive days a month to full-service in 2008.
- Tiltonsville Village will change availability from seven consecutive days a month to full-service in 2008..
- Mingo Junction was available full-time in 2006. Available 24 hours / 7 days a week.
- Saline Township needs to move the current location into a better viewable location. This site will continue availability four times a month. Available for four 24 hour periods.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: The Jefferson County drop-off part time rural locations were previously available seven consecutive days a week. This schedule posed two main problems – the sites filled too quickly and residents were only provided with one opportunity a month to recycle. The part time rural schedules will be modified as described above to accommodate more recycling. Thus with the change in scheduling the Authority is projecting a growth in recycling. Since all tonnages are included in the Drop-Off Recycling, FT, Rural strategy projections have already been included and will not be accounted for in this program line item.

**Program Name:** Drop-Off Recycling PT, Urban

FUTURE STRATEGY/PROGRAM CHANGES: *see description under Drop-Off Recycling FS, Rural*

**Jefferson County changes**

- Aquinas Central School will remain the same. Available every Thursday for 24 hours.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: All tonnages are included in the Drop-Off Recycling, FT, Rural strategy. No projections are included for this program line item.

**Program Name:** Household Hazardous Waste

FUTURE STRATEGY/PROGRAM CHANGES: HHW is a program still in the beginning development stages. The Authority will modify some of the goals outlined in the Approved Plan, as described below, but will also add some changes for this Plan Update.

- A specified hotline will not be added due to the low number of calls received regarding HHW; instead the Authority will educate through the website and will accept any phone calls through the Authority, Keep Jefferson County Beautiful and Keep Belmont County Beautiful offices. Staff members will record the number of calls received and types of questions asked.
- Facility lists for used oil, lead-acid batteries, antifreeze and other automotive fluids, fluorescent light fixtures, and refrigerant removal will be compiled and updated.
- A feasibility study for a household battery collection program has not been conducted. The Authority will keep this strategy setting benchmarks to obtain. These benchmarks are: investigate different methods and options of collecting household batteries by comparing notes with other Districts and interviewing battery recyclers; and gather cost estimates for the various methods if any of the methods would be feasible.
- The *2001 State Solid Waste Management Plan* states that, “Of all the materials collected in 1999, more tons of paint and related paint products were collected than any other material type” during HHW collection events. This fact in mind the Authority may choose to explore the feasibility for a paint collection and exchange program if the HHW Collection Events are flooded with paint and related low toxicity items. The Authority will evaluate and record HHW volumes, materials, participation, and costs during the HHW Collection Events. Results of the collection events may not warrant a paint

collection and exchange feasibility study. Before further study is conducted the Authority will first hold a HHW Collection Event.

- While a pesticide exchange program can be important the magnitude is not needed at this time. The Extension Office and Farm Service provide the support and assistance needed for pesticides. Should more support be needed the Authority will be willing to work with these offices.
- HHW brochures regarding the safe and proper disposal of HHW have been incorporated into Jefferson County's education and awareness. This brochure will also be used in Belmont County. The education coordinators for both county's will work together to update the brochure and incorporate more material into education events. Education events specifically targeting HHW will be recorded for attendees, meetings and discussions.
- One day collection events for HHW will be offered in each county on alternating years. One year Jefferson County will hold a one day collection for both counties to participate and the following year Belmont County will hold a one day collection for both counties. The Authority is targeting year 2008 to hold the first collection event. Types of materials accepted, costs and contractors are yet to be determined. The Authority will track participation rates, type and quantity of materials brought to the collection site, liability issues and how they were handled, and costs of the program.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: The Authority expects to recycle materials through the HHW collection event expected to be held in 2008. Ohio EPA collected individual data from each solid waste management district on HHW collected and recycled. In 2006, the mean and median value of material recycled by each of these solid waste management districts is 98.05 tons and 18.82 tons. Since the Authority consists of two counties, it is projecting to recycle approximately 98 tons each year of the planning period.

**Program Name:** Industrial Recycling and Reduction

FUTURE STRATEGY/PROGRAM CHANGES: This program will be discontinued.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: none

**Program Name:** Lead-Acid Battery Program

FUTURE STRATEGY/PROGRAM CHANGES: The Authority will continue to maintain a list of lead-acid battery recyclers available to residents.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: none

**Program Name:** Market Development Program

FUTURE STRATEGY/PROGRAM CHANGES: Each county will not be responsible for promoting markets under the reorganization. The Authority will assume the primary role for promoting markets for products containing recycled materials. In this plan update the Board is allocating monetary funds for the development of markets. All monetary disbursements will be under the sole discretion and responsibility of the Executive Director. These disbursements may be for purchasing recycled content products, developing pilot projects demonstrating the use of recycled-content products, coordinating cooperative buying and marketing products, etc. Advertisement and promotion of Buy Recycled by the Authority expending money for items will increase awareness and help close the loop.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: none

**Program Name:** Jefferson and Belmont County Paper Collection Programs

FUTURE STRATEGY/PROGRAM CHANGES: These programs will continue collecting paper, paper products, and cardboard from the schools and other organizations. The Authority will continue to provide the containers and service the locations with the recycling crew. The Authority will work with the crew to develop a schedule or if needed hire additional personnel to add schools from Belmont County which are currently on a waiting list. The Authority will also reward 100% of the proceeds from the sale of the recyclables back to

the participating schools, instead of 75%, effective in 2007. At this time the Authority will not expand this program to all commercial businesses. The other organizations include a few businesses; however this program is solely concentrated in schools with a few other organizations included. The Authority does and will offer to help any commercial business contract with private haulers for paper or any type of recycling.

**ASSUMPTIONS ASSOCIATED WITH PROJECTIONS:** Recycling projections are based from recycling tonnages collected in 2006. With most of the schools already participating in this program, the Authority is projecting a slight increase (0.5%) in recycling each year of the planning period. Please note the tonnages for Jefferson County in 2006 are estimated; at the submittal of the draft plan data was not yet available.

**Program Name:** Residential Sector Education and Awareness

**FUTURE STRATEGY/PROGRAM CHANGES:** As stated in the new strategies section of this Chapter, the Authority will employ two county education coordinators. The coordinators will:

- implement education programs in public and private schools,
- maintain and promote the Environmental Education Room,
- publish various program brochures, newsletters, and flyers,
- direct teacher workshops,
- write and implement a Plastics and Paper curriculum,
- coordinate public workshops in all phases of recycling and source reduction,
- promote classroom presentations,
- promote area contests, and
- work with 4-H, Scouts, and both adult and youth groups to promote environmental issues.

Belmont County reference year programs will be reorganized to fit within the sub-headings as Jefferson County operates.

Jefferson County reference year programs to continue	Belmont County reference year programs to continue
ORSANCO: EDUCATION/AWARENESS (all activities listed under this heading as provided in Section IV)	ORSANCO: EDUCATION/AWARENESS (all activities listed under this heading as provided in Section IV under Jefferson County) – Belmont County currently does not participate in these activities and is not planning on these activities for the planning period.
KJCB School/Group & Organization EDUCATION/AWARENESS (all activities listed under this heading as provided in Section IV)	KBCB School/Group & Organization EDUCATION/AWARENESS (all activities listed under this heading as provided in Section IV under Jefferson County) – Belmont County will be conducting these activities for the planning period. In addition Belmont County will continue the Trash to Treasure Recycling Events, such as “Trashy Art”. Belmont County does not offer an outdoor land lab.
ADULT EDUCATION/AWARENESS (all activities listed under this heading as provided in Section IV)	ADULT EDUCATION/AWARENESS (all activities listed under this heading as provided in Section IV under Jefferson County) – Includes all fair activities, presentations, and newsletters.
KEEP AMERICA BEAUTIFUL (KAB): EDUCATION/AWARENESS (all activities	KEEP AMERICA BEAUTIFUL (KAB): EDUCATION/AWARENESS – In order to

<p>listed under this heading as provided in Section IV)</p>	<p>maintain KAB certification, Belmont County will begin offering the following activities: Motorist Day, America Recycles Day, Great American Cleanup, and Make a Difference. Keep Ohio/Belmont County Beautiful Week". As well as continue offering various Earth Week Activities.</p>
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Jefferson County R&LP office currently maintains Keep America Beautiful certification. The Authority will keep the certification for Keep Jefferson County Beautiful and will apply for Keep America Beautiful certification in 2007 to receive certification by 2008 for Keep Belmont County Beautiful.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: This is an education strategy; however, Jefferson County promotes two activities during the year that target specific materials to recycle. These materials are included in this program in Table V-5. The two strategies are Earth Week (a paper drive) and Return the Warmth. In 2006, these education strategies collected approximately 17 tons of material for recycling. This amount was projected to remain steady without any significant growth through the planning period.

**Program Name:** Scrap Tire Program

FUTURE STRATEGY/PROGRAM CHANGES: The Authority will continue to work on providing the following strategies to the residents of both Jefferson and Belmont Counties:

- Scrap Tire Cleanups. Instead of offering Community Cleanups, Scrap Tire Cleanups will be offered. The cleanup events will be a combined effort from townships providing heavy equipment to compact materials, volunteers providing food and drinks, and Juvenile Court C-Cap and Drug Court providing labor. Scrap tires will be the only material accepted. Events will be free to participating residents. All tires must be brought to the site, however if the elderly or physically challenged call with materials then the Authority will accommodate with pick up service. The Authority will hold several collection events per county each year. Each event will be held per participating township.
- assure at least one facility, location, or service in accepts tires from the public on a regular basis for legal recycling or disposal at a reasonable cost;
- develop and distribute educational materials to provide information to the public about legal tire recycling and disposal options;
- prepare and distribute a list of any tire recycling facilities in the region where the public can dispose of tires;
- clean up existing tire dumps for proper disposal or recycling; and
- seek grant opportunities to initiate a tire dump cleanup program.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: Assumptions for scrap tires collected through the community cleanups for recycling are included in the Community Cleanup program.

**Program Name:** Yard Waste Program

FUTURE STRATEGY/PROGRAM CHANGES:

Education:

The Authority will educate the public about disposal restrictions on source-separated yard wastes and alternative yard waste management strategies via the website and brochures. The target for education will be to municipal residents. Any yard waste inquiries will be directed to the closest publicly available yard waste facility. In areas where there is not a publicly available facility the residents will be educated on backyard composting. The Authority will also track the inquiries for yard waste to help determine the need for publicly available composting facilities.

Total Lawn Care, Wells Township, Ohio Valley Composting, German Ridge Composting:

The four operating composting facilities will continue to operate without financial support or assistance from the Authority. The Authority will contact these facilities on a yearly basis to determine the amount of yard waste composted.

ASSUMPTIONS ASSOCIATED WITH PROJECTIONS: The facilities operating in the Authority are private facilities. Without any direct impact on these facilities and very limited education provided, yard waste tonnages are not projected to increase or decrease. All tonnages will be projected to remain constant through the planning period.

**Program Name:** Electronic Recycling

FUTURE STRATEGY/PROGRAM CHANGES: See description in new strategies section.

**Program Name:** Community Cleanups

FUTURE STRATEGY/PROGRAM CHANGES: This program will be discontinued. The Authority will be offering Scrap Tire Cleanups instead of Community Cleanups in the planning period.

All of the program strategies that the Authority will provide during the planning period have been discussed in detail either in Section IV or in this Section. The *2001 State Plan* establishes eight goals that Districts are required to achieve in their solid waste management plans. The table below demonstrates which goals of the *2001 State Plan* each strategy, existing and new, is intended to meet for the planning period. If existing programs have been discontinued, they do not appear in Table E.1.

Table E.1

	Residential/Commercial	Industrial
<b>Goal 1 Access to Alternative Waste Management Opportunities</b>		
	Curbside Recycling (Belmont County Opportunity and Jefferson County Opportunity) Powhatan Point Curbside Recycling Pay As You Throw (PAYT) Drop-Off Recycling FS, Rural Drop-Off Recycling FS, Urban Drop-Off Recycling, PT, Rural Drop-Off Recycling PT, Urban	
<b>Goal 2 Waste Reduction and Recycling Rates</b>		
	Curbside Recycling (Belmont County Opportunity and Jefferson County Opportunity) Powhatan Point Curbside Recycling Electronic Recycling Commercial and Industrial Business Surveys Jefferson and Belmont County Paper Collection Programs Drop-Off Recycling FS, Rural Drop-Off Recycling FS, Urban Drop-Off Recycling, PT, Rural Drop-Off Recycling PT, Urban	Commercial and Industrial Business Surveys
<b>Goal 3 Source Reduction</b>		
	Residential Sector Education and Awareness	Industrial Recycling and Reduction
<b>Goal 4 Technical and Informational Assistance</b>		
	Pay As You Throw Commercial/Industrial Sector TA and	Commercial/Industrial Sector TA and Education

Education	Industrial Recycling and Reduction
Residential Sector Education and Awareness	
<b>Goal 5 Restricted Wastes and Household Hazardous Wastes</b>	
Household Hazardous Waste Lead-Acid Battery Program Scrap Tire Program Yard Waste Program	
<b>Goal 6 Economic Incentives Analysis</b>	
Economic Incentives	
<b>Goal 7 Market Development Strategy</b>	
Market Development Program	
<b>Goal 8 Annual Reporting of Plan Implementation</b>	
No specific program is associated with submitting an ADR to Ohio EPA	
<b>Other Programs</b>	
Authority Office Restructuring Environmental Enforcement Officer Disaster Debris Management Health Department Assistance Community Recycling Awards University Partnerships Recycling Operations Feasibility Study Litter Collection/Community Cleanup Grants	

Table V-5 lists the strategies implemented by the Authority during the planning period and the estimated amounts of waste reduction for each residential/commercial strategy. Some strategies do not have estimated amounts because of the difficulty of directly measuring these strategies.

Table V-6 lists the strategies implemented by the Authority during the planning period and the estimated amounts of waste reduction for each industrial strategy. Projections for each year of the planning period are dependent on the calculated generation. Since generation is predicted to decline, recycling amounts are also predicted to decline throughout the planning period.

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

### A. District Methods for Management of Solid Waste

#### 1. Calculation of Capacity Needs

Table VI-1 presents the projected capacity needs for each waste management method that the Authority is expected to utilize throughout the planning period. The Authority will manage its waste through a combination of landfills, recycling programs and facilities, transfer stations, and composting facilities during the planning period. During the planning period, the Authority will need access to the following total capacities for each of the management methods that will be used to manage waste:

Recycling:	286,235 tons
Transfer:	617,407 tons
Composting:	14,106 tons
Landfilling:	1,930,788 tons

It is projected that the amount of waste that the Authority will be disposing in landfills will decrease through the planning period as a direct correlation with decreasing generation. Table VI-2 shows a summary of the waste management methods that the Authority will use to manage waste from the residential/commercial sector. Table VI-3 shows this same information for the industrial sector.

### B. Demonstration of Access to Capacity

#### Waste Management Method: Landfill

The District is expected to need a total of approximately 1,930,788 tons of landfill disposal capacity to satisfy its disposal needs for the entire planning period.

In the reference year the Authority sent more waste to landfill facilities located outside of Ohio than it did to facilities located within Ohio. Overall, approximately seventy-five percent of the Authority's waste was disposed in out-of-state landfills. The opening of the Apex Sanitary Landfill has completely changed the Authority's waste disposal management methods from the reference year. Table VI-4a shows the facilities and volumes of waste disposed from the Authority in the reference year. In addition Table VI-4a provides an analysis of where the planning period waste is estimated to be disposed. As shown in Table VI-4a, the Authority does not expect to dispose of waste in the landfill facilities in the same proportion as used in the reference year. Changes were made to the waste disposal facilities due to two factors: an in-district landfill opening and landfills projected to deplete their remaining capacity during the planning period.

A private sector company opened the Apex Sanitary Landfill in Jefferson County's Springfield Township in November 2005. The landfill has a permitted capacity of 17,516,972 cubic yards and began accepting waste December 2005. With the opening of a new landfill it is difficult for the Authority to project where waste will come from as well as how much waste will be disposed in the in-district landfill. The Authority is making projections for waste management methods (Table VI-4a) based on data obtained from Apex Sanitary Landfill and the 2005 and 2006 Facility Data Reports issued by Ohio EPA. Data presented for planning year 2007 for Apex Sanitary Landfill was prepared by Apex. The table below shows waste disposal at the Apex Sanitary Landfill for 2005, 2006, and 2007.

Waste Disposal	2005 (tons)	2006 (tons)	2007 (tons through September)
In-district	2,831.82	35,414.31	29,049.50
Out-of-district	546.37	36,512.33	24,819.66

Out-of-state	5,188.01	754,500.30	735,547.06
<b>Total</b>	<b>8,566</b>	<b>826,426.94</b>	<b>789,416.20</b>

Apex Sanitary Landfill is equipped to receive solid waste by rail and will receive large volumes of waste from out-of-state, as proven for 2006 and 2007 in the table above. At the end of 2006, Apex Sanitary Landfill disposed of 826,427 tons (71,927 tons in-state waste and 754,500 tons of out-of-state waste) and reported having 13 years of capacity. Through the first nine months of 2007 the out-of-state waste receipts show continued growth. As a result of the increasing waste receipts, the permitted capacity for the facility will be exhausted in about 10 years. The Authority believes the landfill will receive expansions continuing the life longer; however, for capacity demonstrations in this Plan Update the Authority demonstrates waste disposal at Apex Sanitary Landfill for 10 years at which point solid waste is redirected to out-of-state facilities. Should the Apex Sanitary Landfill life expectancy exceed 10 years, the Authority fully expects to use the facility for waste disposal.

It is unknown but suspected that other transfer facilities and/or haulers will also dispose of Authority waste in the Apex Sanitary Landfill throughout the planning years; thereby increasing out-of-district waste flow to the Apex Sanitary Landfill. For planning purposes the Authority will only project Apex Energy, Inc. transferred waste to the Apex Sanitary Landfill. As shown, the decrease in transferred adjusted waste and increase in waste disposal at Apex Sanitary Landfill in Table VI-4a.

As shown in Table VI-4a the life expectancy from Suburban South, American Landfill, Stony Hollow Rec. & Disposal Facility, WM Mahoning Landfill, Inc, and Apex Sanitary Landfill is expected to expire during the planning period. As American Landfill, Stony Hollow Rec. & Disposal Facility, and WM Mahoning Landfill, Inc expire solid waste disposal is redirected to Apex Sanitary Landfill until Apex Sanitary Landfill expires. When Apex Sanitary Landfill and Suburban South expire waste will be directed to out-of-state landfill facilities. The waste flow to out-of-state facilities will be divided in the same proportion as demonstrated through the planning years. Approximately 61% of the Authority waste directed to Apex Sanitary Landfill will be directed to Short Creek Landfill and the remaining 39% will be directed to Brooke County Landfill.

The disposal scenarios presented in Table VI-4a are potential disposal scenarios for waste the Authority is projected to dispose in landfill facilities. This scenario is based on the Authority's waste disposal practices in 2005.

**Regional Capacity Analysis**

As shown in Table VI-1, the District will dispose of approximately 1,930,788 tons of solid waste over the planning period. For the planning period this averages 120,674 tons annually. This will require approximately 181,011 cubic yards of disposal capacity each year (assuming each ton equals three cubic yards of solid waste and the average landfill achieves a 2.0:1.0 compaction ratio). Over the sixteen-year planning period, the District will need disposal capacity for an estimated 2,896,176 cubic yards.

Based on permitted life in 2006 the Authority has more than adequate disposal capacity available in the region to dispose of all of the solid waste projected during the planning period. Table B.1 shows landfills used by the Authority in the reference year, which are located roughly one hundred miles or less from the Authority. Apex Sanitary Landfill has adequate disposal capacity, yet because of the large daily waste receipts the landfill life is expected to expire within 13 years. Thus Apex Sanitary Landfill does not provide adequate life needed for the duration of this planning period. Out-of-district and out-of-state landfills provide adequate capacity and life.

**Table B.1 Regional Capacity Analysis**

Landfill	Gross Airspace (cubic yards) <sup>1</sup>	Remaining Life Based on Waste Receipts (years) <sup>1</sup>	Distance from Authority (miles) <sup>2</sup>
Apex Sanitary Landfill	16,270,911	13	0
Coshocton Landfill	10,098,933	76.6	87
Kimble Sanitary Landfill	44,052,158	91	63
Short Creek Landfill in West Virginia	470,000	40	15
Brooke Creek Landfill in West Virginia	250,000	50	15

<sup>1</sup>Ohio EPA's 2006 Facility Data Tables

<sup>2</sup>Distances are estimated from Steubenville courthouse

This assessment of regional disposal capacity demonstrates that the Authority does have access to several landfills with sufficient capacity that could, either alone or in combination with other facilities, manage the Authority's waste that will be disposed throughout the planning period.

Waste Management Method: Transfer Station

The facilities listed in Table VI-4b demonstrate a potential scenario for the routing of District waste through transfer stations. In the reference year 2005, Apex Energy Inc. Transfer Facility reported sending waste to Short Creek Landfill, Brooke Landfill, BFI Imperial Landfill, Kimball Sanitary Landfill and WM Mahoning Landfill. With the opening of Apex Sanitary Landfill, Apex Energy, Inc. Transfer Facility began transferring their waste to Apex Sanitary Landfill. This change resulted in less out-of-state disposal for Authority generated waste as well as a change in transferred waste in 2006.

Table VI-4a demonstrates Apex Sanitary Landfill receiving waste disposal from Apex Energy Inc., Transfer Facility. Due to direct hauling Apex Energy, Inc. Transfer Facility is transferring less waste as shown for year 2006.

Waste Management Method: Recycling

The facilities listed in Table VI-4c demonstrate the recycling facility management for the District's recycling needs throughout the planning period.

Waste Management Method: Composting

The facilities listed in Table VI-4d demonstrate the composting facility management for the District's composting throughout the planning period.

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

The implementation schedule for all facilities, strategies, programs, and activities to be used by the District throughout the planning period is provided in Table VI-5.

**D. Identification of Facilities**

Table VI-6 provides a list of landfill facilities and transfer facilities that have accepted waste from the District in the past and that may accept waste in the future. This list is not intended to be an endorsement of these facilities nor does it preclude the acceptance of waste at facilities that are not listed.

### **E. Authorization Statement to Designate**

The Board of Directors of the Jefferson Belmont Regional Solid Waste Authority is hereby precluded from establishing facility designations in accordance with Section 343.014 of the Ohio Revised Code.

### **F. Waiver Process for Undesignated Facilities**

The Board of Directors of the Jefferson Belmont Regional Solid Waste Authority is hereby precluded from establishing facility designations in accordance with Section 343.014 of the Ohio Revised Code. Thus, a waiver process is not necessary.

### **G. Siting Strategy for Facilities**

The Authority will rely upon the Ohio EPA siting strategy contained in Ohio Administrative Code 3745-27, 3745-30, and 3745-37 as well as other available siting criteria guidance from the Southeast District Office.

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

The Authority does not anticipate any capacity assurance or program implementation issues during the planning period covered by this Plan Update. Consequently, no contingencies have been planned or prepared for capacity assurance or Authority program implementation. If there is any emergency impacting the Authority, the Authority will contact Ohio EPA for guidance.

## VII. Measurement of Progress Toward Waste Reduction Goals

As discussed in Section V, the *2001 State Plan* establishes eight goals districts are required to achieve in their solid waste management plans. These goals are important to further recycling and waste minimization within the District. However, Goals #1 and Goals #2 are considered primary goals when evaluating a District's plan for compliance with the *State Plan*.

The *2001 State Plan* mandates that the Jefferson Belmont Regional Solid Waste Authority comply with either Goal #1 or Goal #2 in order to obtain an approved solid waste management plan. Solid waste management districts are encouraged to attempt to demonstrate compliance with both goals of the *2001 State Plan* but are required to demonstrate compliance with only one goal or the other.

### Goal #1 of the 2001 State Plan: - Access to Alternative Waste Management Opportunities

Provide access to recycling and waste minimization opportunities. In order to achieve Goal #1, solid waste management districts must:

- Ensure that at least 90 percent of the residential sector population in each county of the solid waste management district has access to recycling opportunities. These recycling opportunities must be in place within three years of obtaining an approved solid waste management plan and must collect a minimum of five materials that have been determined to be highly amenable to recycling in the *2001 State Plan*.
- Evaluate the waste reduction and recycling rate for the residential/commercial sector. Solid waste management districts that have a residential/commercial waste reduction and recycling rate of less than 25 percent must establish a target rate to be achieved by the third year after approval of the solid waste management plan. The target rate must be higher than the rate in the reference year.
- Ensure that commercial and institutional generators have access to recycling opportunities for the management of solid waste.
- Evaluate the waste reduction and recycling rate for the industrial sector. Solid waste management districts that have an industrial waste reduction and recycling rate of less than 66 percent must establish a target rate to be achieved by the third year after approval of the solid waste management plan. The target rate must be higher than the rate in the reference year.
- Demonstrate that the solid waste management district has programs in place to encourage participation in available recycling opportunities, both through education and awareness and financial incentives.

### Goal #2 of the 2001 State Plan - Waste Reduction and Recycling Rates

Reduce and/or recycle at least 25 percent of the solid waste generated in the residential/commercial sector and at least 66 percent of the solid waste generated in the industrial sector.

#### **A. District Will Comply with Goal(s) Identified**

The Authority will demonstrate compliance with Goal #1 - Access to Alternative Waste Management Opportunities in the reference year.

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

1. *Residential Sector*
  - a. Service Area

The service area for the Authority encompasses two counties, Jefferson and Belmont. Each county will demonstrate compliance with Goal #1.

Demonstration for **Jefferson County** is as follows:

b. Access

According to the *Format*, Access is defined as the “presence” of waste reduction/recycling services or opportunities. Opportunities are defined as drop-off recycling service, non-subscription curbside collection programs, subscription curbside collection programs, centralized material recovery facility service, or a combination of any of these services. In addition, each of the opportunities used to demonstrate compliance with Goal #1 must collect a minimum of five materials that are defined as highly amendable to recycling in the *2001 State Plan*.

The *Format* prescribes a formula for solid waste management districts to use to determine the percentage of the population that has access to recycling opportunities. This formula assigns population credits corresponding to the number of residents that can be assumed to have access to the opportunity. The amount of the credit assigned is dependent upon the type of recycling service being provided.

Non-subscription Curbside: A solid waste management district can take credit for the entire residential population that is serviced by a qualifying non-subscription curbside recycling service. Non-subscription curbside opportunities were not provided in Jefferson County for the reference year nor will be offered throughout the planning period.

Subscription Curbside: A solid waste management district can take credit for 25 percent of the residential population that has the opportunity to subscribe to the curbside recycling service. Subscription curbside services were not offered in 2005 nor will be offered during the planning period.

Drop-off Recycling Services: The number of people the *Format* designates as being served by a drop-off recycling service and can be credited towards achieving Goal #1 depends upon two factors: whether the drop-off is located in an urban or rural area; and whether the drop-off is offered on a full-service or part-time basis.

An urban area is defined as any municipality or township with a population of 5,000 or more, and a rural area is any municipality or township with a population less than 5,000. To be considered full-service, a drop-off must be available for use by the public at least 40 hours per week and collect at least five materials. A part-time drop-off is one that is available less than 40 hours per week but is made available to the public at a regularly scheduled time at least once a month. Based upon these criteria, there are four classifications of drop-offs to which population credits are assigned:

- Full-service, urban drop-off - assigned a standard population credit of 5,000.
- Full-service, rural drop-off - assigned a standard population credit of 2,500
- Part-time, urban drop-off – assigned a standard population credit of 2,500
- Part-time, rural drop-off – assigned a standard population credit of 2,500.

Full-service, Urban Drop-offs: Six full-service, urban drop-off locations were available in the reference year in 2005. Drop-off locations are available seven days a week 24 hours a day. Materials accepted are:

- paper
- magazines
- glass
- aluminum cans
- ferrous metals
- newspaper
- glossy inserts
- plastics
- bi-metal cans
- non-ferrous metals

- junkmail
- cardboard
- chipboard

Full-service, Rural Drop-offs: There were three full-service, rural drop-off locations offered within Jefferson County in 2005. Drop-off locations are available seven days a week 24 hours a day. Materials accepted are:

- paper
- magazines
- glass
- aluminum cans
- ferrous metals
- junkmail
- cardboard
- newspaper
- glossy inserts
- plastics
- bi-metal cans
- non-ferrous metals
- chipboard

Part-time, Urban Drop-offs: There is one part-time, urban drop-off location available in 2005. This location is available one day a week for 24 hours. Materials accepted are:

- paper
- magazines
- glass
- aluminum cans
- ferrous metals
- junkmail
- cardboard
- newspaper
- glossy inserts
- plastics
- bi-metal cans
- non-ferrous metals
- chipboard

In 2008, part-time drop-offs were converted to full-time in Jefferson County.

Part-time, Rural Drop-Offs: There were eight part-time, rural drop-off recycling locations available in 2005. Six locations were made available for seven consecutive days a month. The other two locations were available one day a week. Materials accepted are:

- paper
- magazines
- glass
- aluminum cans
- ferrous metals
- junkmail
- cardboard
- newspaper
- glossy inserts
- plastics
- bi-metal cans
- non-ferrous metals
- chipboard

In 2008, part-time drop-offs were converted to full-time in Jefferson County.

#### c. Participation

##### 1.) Education and Awareness

The strategies identified in Section V(E) for Goal #3 and Goal #4 adequately address the requirements for education and awareness to demonstrate compliance with the participation standard of Goal #1. To reiterate and highlight some points the Authority will continue to:

Full-service Drop-offs: Post schedules on the website and advertise through brochures.

Part-time Drop-Offs: Post schedules on the website and advertise through brochures.

## 2.) Financial Incentives

In 2005, seventy-five percent of the revenues generated from the sale of the recyclables for paper collection at schools were donated back to the schools as an incentive. In year 2007 and for the subsequent years of the planning period, the Authority will donate one hundred percent of the generated revenues to the schools.

To successfully demonstrate compliance with Goal #1, the Authority provides the following reduction/recycling needs assessment for Jefferson County.

### **Jefferson County Reduction/Recycling Needs Assessment**

- (a.) determine whether any sector of generators (residential, commercial/institutional, or industrial) does not have access to alternative management options

In preparing this Plan Update the Authority reviewed and assessed all programs with the Program Analysis developed by JAZ Environmental Consulting. The Program Analysis is a program specific analysis tool, tailored for the Authority programs and strategies, specifically evaluating each program for: the extent to which the program assists the Authority in achieving the goals of the *State Plan*: the program's contribution to providing resident participation; and how much the program costs. Using this tool it was determined that more presence in the commercial and industrial sector is needed, i.e. more concentrated efforts on communication and education with these sectors is needed. The Authority is addressing this need through the following programs: Commercial and Industrial Business Surveys, Industrial Recycling and Reduction, and Commercial/Industrial Sector TA and Education. All sectors of generators do have available access to the alternative management options.

The Authority places alternative management options in areas of need continually working with the local generators. For instance in 2005 a drop-off location was placed at the Wal-mart Distribution Center, however very little recycling was collected. The Authority believes this was due to the private recycling contracts held by the Wal-mart Distribution Center. Materials from the Distribution Center, such as paper and cardboard are diverted to the private recyclers leaving the few recyclables collected in the drop-off container to consist mostly of recycling from the distribution workers. Due to lack of participation this site was discontinued and the drop-off container moved to the Wheeling-Pittsburgh Steel location in Steubenville.

- (b.) identify any area or political jurisdiction within the Authority where a sector of generators does not have access to alternative options; and

There are two townships in Jefferson County which are not provided with any alternative management options directly within the township. Brush Creek Township has a population of 444 and Ross Township has a population of 623. Both townships are very rural without any villages serving as a population center. In fact Brush Creek Township has a very large dedicated wildlife area. In assessing the needs of the Authority for participation and costs, it was determined that if drop-off boxes were placed in these locations the costs would highly outweigh the need. Residents in both townships drive to nearby townships for shopping, entertainment, etc. Thus it was assessed that drop-off boxes located in the surrounding townships serve these two townships.

- (c.) determine whether available alternative management options are being under-utilized.

Three alternative management options are believed to be under-utilized because of the physical location. These are: Empire/Stratton Villages (population 4,769), Richmond Village (population 3,009), and Saline Township (population 1,384). The three locations under-utilized are situated in the northern rural townships of the county.

The Empire/Stratton Villages drop-off container (full service) is only three quarters full every two weeks. The Authority believes locating a site in this area is used only by the two villages. Moving the location south into Knox Township might draw more resident participation and therefore more recyclables.

The drop-off container at Richmond Village (full-service), like the Empire/Stratton Village site, is not full when pulled every two weeks. Moving the location might draw more resident participation and therefore more recyclables.

The Saline Township location is available on a part-time basis every Monday. This location is not easily visible to the public, therefore moving the location might draw more resident participation and therefore more recyclables.

While the Authority would love to provide alternative management options in every township, economically it does not make sense. Economically the Authority cannot place and service drop-off locations in areas where there is no supply, while the demand is in other areas. In completing this needs assessment the Authority is faced with the question as to why locations are under-utilized. Maybe it is because of the physical location, maybe the lack of population in rural townships, maybe lack of education and advertising. At this time the Authority is uncertain why locations are under-utilized. To further assess the three under-utilized locations in Jefferson County the Authority will analyze these locations as follows:

- All sites could potentially benefit by relocating within the township to another area, thus all locations will be moved by 2008.
- All three moved locations will be monitored for one year on the fullness of the containers.
- If after one year, these locations are not producing more full containers, the Authority will assume low township populations cannot support the existing infrastructure.
- Accounting for the demand to recycle the Authority will decrease the availability of the full-time service locations to part-time service. The part-time service location will be discontinued. (The discontinuation of Saline Township's drop-off location will not lower the access demonstration below 90% in 2009.)

The Program Analysis determined that six part-time rural drop-off locations needed a schedule revision to meet the demands of recycling. The current Approved Plan changed these alternative management options from a twice a month opportunity to seven consecutive days a month. The change on paper may seem to provide more opportunity however in practicality it did not. Offering these locations seven consecutive days a month provided residents with only one week to recycle. Residents are not using the drop-off bins daily for this opportunity but rather saving the materials throughout the month to drop off only once in the seven consecutive days available. An associated problem with this opportunity schedule is material being stockpiled for several weeks by residents, if there is no room then potentially more recyclables are thrown out for disposal versus recycled. Another associated problem is the quickness in which the drop-off bins are filled when placed in these locations. To resolve these problems the Authority will change these seven part-time rural drop-off location opportunities to full-time in 2008.

Locations in the Authority that have shown a large participation factor and demands for recycling are Wintersville and the Aquinas Central School in Steubenville. Following the needs assessment of high demand the Authority would benefit recycling by placing a full-service drop-off location in Steubenville. The Authority will meet the demand for recycling by placing a full-time container in Steubenville in year 2007.

- Demonstration for **Belmont County** is as follows:
- b. Access

According to the *Format*, Access is defined as the “presence” of waste reduction/recycling services or opportunities. Opportunities are defined as drop-off recycling service, non-subscription curbside collection programs, subscription curbside collection programs, centralized material recovery facility service, or a combination of any of these services. In addition, each of the opportunities used to demonstrate compliance with Goal #1 must collect a minimum of five materials that are defined as highly amendable to recycling in the *2001 State Plan*.

The *Format* prescribes a formula for solid waste management districts to use to determine the percentage of the population that has access to recycling opportunities. This formula assigns population credits corresponding to the number of residents that can be assumed to have access to the opportunity. The amount of the credit assigned is dependent upon the type of recycling service being provided.

Non-subscription Curbside: A solid waste management district can take credit for the entire residential population that is serviced by a qualifying non-subscription curbside recycling service. The Village of Powhatan Point offered a non-subscription curbside recycling service to its residents in 2006. The materials collected through weekly curbside collection are:

- paper
- magazines
- glass
- aluminum cans
- ferrous metals
- newspaper
- glossy inserts
- plastics
- bi-metal cans
- non-ferrous metals

Since all residents have the opportunity to participate in the curbside recycling service, the Authority can take credit for the entire population of Powhatan Point (1,712 in 2006).

Subscription Curbside: A solid waste management district can take credit for 25 percent of the residential population that has the opportunity to subscribe to the curbside recycling service. Subscription curbside services were not offered in 2005 nor will be offered during the planning period.

Drop-off Recycling Services: The number of people the *Format* designates as being served by a drop-off recycling service and can be credited towards achieving Goal #1 depends upon two factors: whether the drop-off is located in an urban or rural area; and whether the drop-off is offered on a full-service or part-time basis.

An urban area is defined as any municipality or township with a population of 5,000 or more, and a rural area is any municipality or township with a population less than 5,000. To be considered full-service, a drop-off must be available for use by the public at least 40 hours per week and collect at least five materials. A part-time drop-off is one that is available less than 40 hours per week but is made available to the public at a regularly scheduled time at least once a month. Based upon these criteria, there are four classifications of drop-offs to which population credits are assigned:

- Full-service, urban drop-off - assigned a standard population credit of 5,000.
- Full-service, rural drop-off - assigned a standard population credit of 2,500
- Part-time, urban drop-off – assigned a standard population credit of 2,500
- Part-time, rural drop-off – assigned a standard population credit of 2,500.

Full-service, Urban Drop-offs: Seven full-service, urban drop-off locations were available in the reference year in 2005. Drop-off locations are available seven days a week 24 hours a day. Materials accepted are:

- paper
- magazines
- newspaper
- glossy inserts

- glass
- aluminum cans
- ferrous metals
- junkmail
- cardboard
- plastics
- bi-metal cans
- non-ferrous metals
- chipboard

Full-service, Rural Drop-offs: There were four full-service, rural drop-off locations offered within Belmont County in 2005. Drop-off locations are available seven days a week 24 hours a day. Materials accepted are:

- paper
- magazines
- glass
- aluminum cans
- ferrous metals
- junkmail
- cardboard
- newspaper
- glossy inserts
- plastics
- bi-metal cans
- non-ferrous metals
- chipboard

Part-time, Urban Drop-offs: No part-time, urban drop-off locations were available in 2005.

Part-time, Rural Drop-Offs: No part-time, rural drop-off recycling locations were available in 2005.

c. Participation

1.) Education and Awareness

The strategies identified in Section V(E) for Goal #3 and Goal #4 adequately address the requirements for education and awareness to demonstrate compliance with the participation standard of Goal #1. To reiterate and highlight some points the Authority will continue to:

Non-subscription Curbside: Educate for the Powhatan Point Curbside program. The Authority will provide information on curbside recycling via the web page, direct mailings, and various flyers and pamphlets.

Full-service Drop-offs: Post schedules on the website and advertise through brochures.

2.) Financial Incentives

In 2005, seventy-five percent of the revenues generated from the sale of the recyclables for paper collection located at schools were donated back to the schools as an incentive. In year 2007 and for the subsequent years of the planning period, the Authority will donate one hundred percent of the generated revenues to the schools.

To successfully demonstrate compliance with Goal #1, the Authority provides the following reduction/recycling needs assessment for Belmont County:

**Belmont County Reduction/Recycling Needs Assessment:**

- (a.) determine whether any sector of generators (residential, commercial/institutional, or industrial) does not have access to alternative management options

In preparing this Plan Update the Authority reviewed and assessed all programs with the Program Analysis developed by JAZ Environmental Consulting. The Program Analysis is a program

specific analysis tool, tailored for the Authority programs and strategies, specifically evaluating each program for: the extent to which the program assists the Authority in achieving the goals of the *State Plan*: the program's contribution to providing resident participation; and how much the program costs. Using this tool it was determined that more presence in the commercial and industrial sector is needed, i.e. more concentrated efforts on communication and education with these sectors is needed. The Authority is addressing this need through the following programs: Commercial and Industrial Business Surveys, Industrial Recycling and Reduction, and Commercial/Industrial Sector TA and Education. All sectors of generators do have available access to the alternative management options.

- (b.) identify any area or political jurisdiction within the Authority where a sector of generators does not have access to alternative options; and

Five townships in 2005 were not provided with alternative options for recycling. Populations for these townships are as follows:

Township	2005 Population
Kirkwood Township	348
Smith Township	1,424
Wayne Township	615
Washington Township	529
York Township	2,609

All five of these townships are rural without any villages serving as a population center, except for York Township which contains Powhatan Point, now serviced by a non-subscription curbside recycling program. In assessing the needs of the Authority for participation and costs, it was determined that if barns were placed in Kirkwood, Wayne, and Washington Townships the costs would highly outweigh the need because of the low resident population. Residents in these townships drive to nearby townships for shopping, entertainment, etc. Thus it was assessed that drop-off boxes located in the surrounding townships serve these townships. York and Smith Townships could potentially benefit by having alternative management options available. However at this time the Authority will concentrate efforts on meeting the demands of the larger communities. These sites may be reviewed again at a later date.

- (c.) determine whether available alternative management options are being under-utilized.

Two alternative management options are believed to be under-utilized. These are Fairpoint (population 1,455) and Holloway Village (population 1,961). The Fairpoint barn needed to be emptied once a month; however it was newly placed at the end of 2005. The Authority believes the under-utilization is from the newness of the program and will increase with advertising. Holloway Village barn was successful until businesses in the area closed. This site was heavily used by local businesses, however now that commercial business has declined the site is under-utilized. The Authority believes recycling from this barn could be improved if the physical location is moved for resident visibility.

The Authority will further assess the under-utilized locations in Belmont County by analyzing these locations as follows:

- In addition to the education and awareness described above, the Authority will advertise for three consecutive months with an insert in the residential water bill about the new program in Fairpoint.
- Move the Holloway Village barn to a location assessable and visible by the residents. Advertise for three consecutive months with an insert in the residential water bill about the new location for the barn.

- If after one year, thus in 2008, these locations are not producing more recycling; the Authority will assume low township populations cannot support the existing infrastructure. At that time the Authority may choose to move these barns to other locations within their townships or discontinue, providing of course the access demonstration does not fall below 90 percent for the demonstrated year.

While the Authority would love to provide alternative management options in every township, economically it does not make sense. Economically the Authority cannot place and service drop-off locations in areas where there is no supply, while the demand is in other areas. In first analyzing the barn locations for Belmont County, the Authority thought it would work best to represent all townships with a recycling barn, if possible. While this is written in the 2000 Approved Plan, the assessment and circumstances have indicated placement of barns in a few other locations to better serve Belmont County for access.

Demographically speaking, most residents migrate to Richmond Township where a shopping mall is located in St. Clairsville. All barns are full-time access, open 24 hours a day, 7 days a week. The barn recycling option was chosen for Belmont County versus the drop-off containers because they work for the County. Residents can use these sites when it is most convenient to their schedule. Furthermore, since all barns are provided by the Authority they can be used by any townships residents anywhere in the County. Advertising for the barns is provided throughout the County in all townships, not just in the barn locations.

Placing and servicing the barn locations has provided the Authority with greater insight to the recycling needs of the County. The Authority looks at the barn locations as a work in progress. The goal is obtain the best results in recycling for the community. If that means that some locations have two barns while others have none then so be it. Nothing is known for certain what will work. As the initial barns were planned and located it was done as a mere guess. The Authority has insight and experience now and needs to grow upon this experience to best serve the community. Yes that does mean barns may need to be relocated or placed in other locations to meet needs presented by the County.

The Authority is willing to place barns in locations that need barns. It does not make sense to geographically represent Belmont County by placing a barn in each township. Case in point, Bethesda is a rural village located in a rural township however they have a need for recycling, thus the Authority is committing to place another barn in this location to meet the needs.

The Authority will place additional barns in Barnesville Village and St. Clairsville to help meet the needs as well as locate a barn in Bridgeport to replace the Sunset Heights barn.

### **Current Status**

In 2005, based on the recycling opportunities that were available to residents, the Authority was providing 85% percent of the residential population with access to recycling opportunities in Jefferson County and providing 65% percent of the residential population with access to recycling opportunities in Belmont County. The Authority's demonstration of compliance with Goal #1 is presented in Table VII-2.

### **Impediments to Meeting Goal #1**

The Authority was not able to meet Goal #1 in Jefferson or Belmont County's largely due to the fact of not appointing an Executive Director until the end of 2005. While this is not an excuse, it did hinder the Authority from accomplishing some of the goals established in the Approved Plan.

### **Aggressive Remedies for Meeting Goal #1**

Since the Executive Director has been in place, the Authority has set a plan to fully show compliance in both counties by year 2007. The remedies to meet Goal #1 include adding alternative management options in the following locations:

Locations	Jefferson County	Belmont County
Steubenville, location TBD	Full-service drop-off	
Bethesda (Goshen Twp)		Additional full-service barn
Barnesville Village (Warren Twp)		Additional full-service barn
St. Clairsville (Richland Twp)		Additional full-service barn
Bridgeport (Pease Twp)		New full-service barn

2. *Commercial/Institutional*

a. Service Area

The service area for the Authority is two service areas that encompassed all of Jefferson and Belmont Counties. Total Authority population for the year 2005 was 139,623.

b. Access

The commercial/institutional sector has access to the all of the drop-off containers in Jefferson County and all of the barns in Belmont County.

c. Participation

1.) Education and Awareness

Education and awareness are provided to the commercial/institutional sector through strategies identified in Section V(E) for Goal #3 and Goal #4.

**C. Calculating Goal #2, the Waste Reduction Rate (WRR)**

The formula below is required by the *Format* to calculate the tons of waste reduction (TWR):

$$TWR_i = R_i + (C_i - NC_i) + (I_i - A_i) + RA_i \quad (1)$$

where:

- TWR<sub>i</sub>** = the Tons of Waste Reduction for year *i*
- R<sub>i</sub>** = tons of waste source reduced and Recycled in year *i*
- C<sub>i</sub>** = tons of waste Composted in year *i*
- NC<sub>i</sub>** = tons of Non-Compostables delivered for composting, separated for landfilling in year *i*
- I<sub>i</sub>** = tons of waste Incinerated in year *i*
- A<sub>i</sub>** = tons of incinerator Ash plus bypass waste in year *i*
- RA<sub>i</sub>** = tons of Recycled incinerator Ash in year *i*

The following formula should be used to estimate generation based upon disposal and waste reduction amounts:

$$EGDWR_i = TWR_i + DL_i \quad (2)$$

where:

- EGDWR<sub>i</sub>** = Estimated Generation based upon Disposal plus Waste Reduction in year *i*
- DL<sub>i</sub>** = tons of waste Disposed in sanitary Landfills in year *i*

The waste reduction rate can be calculated by dividing the sum from equation (1) of equation (2):

$$\mathbf{WRR}_i = \frac{\mathbf{TWR}_i}{\mathbf{EGDWR}_i} * 100$$

where:

$\mathbf{WRR}_i$  = the Waste Reduction Rate in year  $i$  as a percent

**Residential/commercial waste reduction rate calculations for 2005:**

$$\begin{aligned} \mathbf{TWR}_i &= R_i + (C_i - NC_i) + (I_i - A_i) + RA_i \\ &= 3,458 \text{ tons} + (882 \text{ tons} + 0) + (0 - 0) + 0 \\ &= \mathbf{4,340 \text{ tons}} \end{aligned}$$

$$\begin{aligned} \mathbf{EGDWR}_i &= \mathbf{TWR}_i + \mathbf{DL}_i \\ &= 4,340 \text{ tons} + 95,693 \text{ tons} \\ &= \mathbf{100,033 \text{ tons}} \end{aligned}$$

$$\begin{aligned} \mathbf{WRR}_i &= \frac{\mathbf{TWR}_i}{\mathbf{EGDWR}_i} * 100 \\ &= \frac{4,340 \text{ tons}}{100,033 \text{ tons}} * 100 \\ &= \mathbf{4.3\%} \end{aligned}$$

The waste reduction rate for the residential/commercial sector in the year 2005 is 4.3%. The reference year waste reduction rate and the rate for each year of the planning period are presented in Table VII-3. Exempt waste is excluded from these calculations. Since the waste reduction rate for residential/commercial sector is less than the state targeted 25%, the Authority is establishing a target rate of 4.9% to be achieved by the third year after approval of this plan, in 2011.

**Industrial waste reduction rate calculations for 2005:**

$$\begin{aligned} \mathbf{TWR}_i &= R_i + (C_i - NC_i) + (I_i - A_i) + RA_i \\ &= 14,667 \text{ tons} + (0 + 0) + (0 - 0) + 0 \\ &= \mathbf{14,667 \text{ tons}} \end{aligned}$$

$$\begin{aligned} \mathbf{EGDWR}_i &= \mathbf{TWR}_i + \mathbf{DL}_i \\ &= 14,667 \text{ tons} + 20,907 \text{ tons} \\ &= \mathbf{35,574 \text{ tons}} \end{aligned}$$

$$\begin{aligned} \mathbf{WRR}_i &= \frac{\mathbf{TWR}_i}{\mathbf{EGDWR}_i} * 100 \\ &= \frac{14,667 \text{ tons}}{35,574 \text{ tons}} * 100 \\ &= \mathbf{41.2\%} \end{aligned}$$

The waste reduction rate for the industrial sector in the year 2005 is 41.2%. The reference year waste reduction rate and each year of the planning period are calculated in Table VII-4. Since the

waste reduction rate for the industrial sector is below the state target of 66% and due to the diminishing industry generators, the Authority is establishing to maintain 41.2% by the third year after approval of this plan update, in 2011.

Table VII-5 demonstrates the total Authority waste reduction rate for the reference year and the remaining years of the planning period.

## VIII. Cost and Financing of Plan Implementation

### A. Funding Mechanisms and Amount of Money Generated

#### 1. *Transfer Facility Contract Fees*

The Authority entered into a contract agreement with Apex Energy, Inc. on December 20, 2000 for the sale of the real property and operating license of the transfer facility. In this contract, Apex Energy, Inc. committed to compensating the Authority for the license to operate the facility at a rate of \$2.00 per ton of waste accepted at the site for eight years (until December, 2010). Based on this agreement Table VIII-1(a) shows the amount of revenues accepted in year 2005 and 2006 as well as the projected amounts of revenue covered by the agreement. Revenues from transfer facility contract fees are projected from waste transferred through the Apex Transfer Facility as shown in Table VI-4(b).

For a short period of time in 2005, the Authority agreed to suspend collection of the contract fee. This short time suspension will be added to the end of the contract with revenues collected at that time. Revenues shown collected in 2011 on Table VIII-1(a) reflect this.

#### 2. *Improved Parcel Tax Assessment*

In the year 2004, when the currently Approved Plan was approved the only secured revenue source for funding solid waste management plan implementation was the transfer facility contract fee. As determined in the Approved Plan this revenue source alone was insufficient to completely fund all of the programs, therefore the Board of Trustees of the Authority was ordered, by Ohio EPA, to select and establish another funding mechanism to implement the plan within 60 days of Ohio EPA's order to implement. Of the various funding mechanisms available to the Authority, the Board of Trustees chose to levy charges on improved parcels in Jefferson and Belmont Counties.

ORC 343.08 gives solid waste management districts authority to fix reasonable rates or charges to be paid by every person, municipal corporation, township, or other political subdivision for solid waste management services provided by the district. These charges shall be levied only against lots or parcels that are improved, or in the process of being improved, with at least one permanent, portable, or temporary building. An annual property assessment of \$6.25 was calculated for years 2004 and 2005 to ensure enough revenue for planning period expenses. As calculated in the Approved Plan an improved parcel assessment of \$6.25 for 60,055 improved parcels in the Authority was needed.

The Authority levied the improved parcel assessment fee in 2004. The 2005 and 2006 collected revenues are shown in Table VIII-1(b). The Board of Trustees voted to remove this fee in September 2005 for the anticipated opening of the Apex Sanitary Landfill in Jefferson County. Revenues shown beyond year 2005 are assessments still being collected.

Should Apex Sanitary Landfill stop accepting waste in year 2018, the Authority will need a primary source of funding to implement the plan. To fund the remaining planning period years of 2018 through 2023, the Authority will need \$7,898,502. Dividing the \$7,898,502 by 6 years (the number of years remaining in the planning period) indicates the Authority needs \$1,316,417 a year to fully fund the programs. Dividing \$1,316,417 by the number of improved parcels in the Authority (60,055) equals an approximate cost of \$21.92 a year per improved parcel. However, at the end of year 2017 the Authority is projecting to have a carryover balance of approximately \$4,500,000.

In order to keep the improved parcel assessment lower, the Authority will calculate the improved parcel cost on \$3,898,502 (\$7,898,502 minus \$4,500,000). Dividing the \$3,898,502 by 6 years indicates the Authority needs \$566,417 a year to fully fund the programs. Dividing the \$566,417 by the number of improved parcels in the Authority (60,055) equals the approximate costs of \$9.43 a year per improved parcel.

Table VIII-1(b) shows the Board of Trustees will levy charges on improved parcels in Jefferson and Belmont Counties to fund the remaining 6 years of the planning period (2018 through 2023) if, and only if, the Apex Sanitary Landfill stops accepting waste in 2018 due to limited capacity.

3. *District Disposal Fees*

A ratification of a tiered fee schedule in 1989 provided a contingent funding source of revenue for the Authority which would serve as a primary source of revenue should the contingency of an in-district landfill become available. The tiered disposal fee is \$1.00 per ton for in-district and out-of-state wastes and a \$2.00 per ton fee for out-of-district waste. The Approved Plan provided this funding mechanism contingent since no disposal facilities were operating within the Authority.

In November 2005, the Apex Sanitary Landfill opened in Jefferson County thereby allowing the Authority to collect revenues from the contingent source of revenue. As authorized by ORC 3734.57(B) and the Approved Plan, the Authority began accepting tiered disposal fees on solid waste disposed within the in-district sanitary landfill. Enacting the contingent funding source as the primary source of funding the Board of Trustees waived the improved parcel tax assessment in September 2005.

Waste disposal tonnages and revenues collected for 2005, 2006, and 2007, in Table VIII-1(c) are actual amounts reported. Apex Sanitary Landfill is permitted to dispose of 5,200 tons per day. Approximately 2,000 tons per day were disposed at the landfill in 2006 and is expected for disposal in 2007. In reality the landfill is expecting to reach 3,000 tons per day by the year 2015. Estimating fee revenues on a non-established landfill involves more assumptions than calculations. The in-district generated waste is estimated from Table VI-4(a). The out-of-district generated waste is conservatively estimated to remain steady throughout the planning period. At this time, the Authority will assume that Apex Sanitary Landfill will incrementally increase out-of-state waste disposal each year to reach disposal of 3,000 tons per day by year 2015. To increase tonnages to 3,000 tons per day by year 2015, out-of-state waste is projected to increase by 4% yearly from 2008 to 2015. After Apex Sanitary Landfill reaches the 3,000 ton per day waste disposal, the Authority is assuming incremental increases of 4% yearly to reach the permitted 5,200 tons per day waste disposal.

Revenues collected by the tiered disposal fees are collected on accrual accounting. Therefore as shown in Table VIII-1(c), end of year 2005 revenues are actually collected in 2006, and so on. The actual collected revenues for 2005, 2006, and 2007 are shown. The remaining of the planning period bases revenues on the calculated disposal projections.

4. *Contract Fee Revenues on Out-of-State Waste*

In January 2007 the Authority entered into a contractual agreement with the Apex Sanitary Landfill to collect and remit \$0.50 per ton on out-of-state waste disposed at the landfill. The contractual fee is valid for one year to expire December 31, 2008. As seen from the Authority expenditures in later tables the Authority needs this contractual fee to implement the plan. Therefore Table VIII-1(d) suggests the contractual fee revenues will be collected throughout the planning period. Should the contractual agreement with

Apex Sanitary Landfill not be renewed for at least \$0.50 per ton, the Authority will implement the contingent funding described in Section D.

According to the *1996 Format* Table VIII-2 is reserved for generation fee schedule and revenues. The Authority is not authorizing generation fees during this planning period therefore will not use Table VIII-2.

5. *Summary of District Revenues*

Table VIII-3 is included to show the summary of Authority revenues. Beginning in the reference year the Authority had two funding mechanisms, the transfer facility contract fee and the improved parcel tax assessment. As developments in the district progressed the Board of Trustees removed the improved parcel tax assessment and began collecting fees with the already in place tiered disposal fee due to the opening of the Apex Sanitary Landfill in the district.

The primary funding mechanisms for this planning period are the tiered disposal fees and the out-of-state waste disposal contractual agreement. These two funding mechanisms will serve as the primary source of funding to implement this plan. Beginning in year 2008, once the Apex Sanitary Landfill is expected to reach capacity, an improved parcel tax assessment will be levied to provide necessary funding for plan implementation through the remaining of the planning period.

Other revenue sources include transfer facility contract fee, grants, interest made from overnight repurchase agreements made by the Authority's depository with funds on deposit, and Paper Collection Program Revenues. The grant funding received in 2005 was a one time Tire Amnesty Grant and will not be projected to continue in the planning period. The interest made from funds on deposit will fluctuate through the planning period. The Authority has opted not to project any revenues due to the uncertainty of the interest. Revenues projected from the Paper Collection Program are monies received from the sale of the paper only recyclables. These revenues, beginning in year 2007, will be given back to the schools participating in the program as incentives. No increased projections are anticipated for the Paper Collection Program revenues.

The Authority does not have any outstanding loans nor does it anticipate securing loans during the planning period. Consequently, Table VIII-4, as required by the *Format*, is not included in this Plan Update.

## **B. Costs of Plan Implementation**

Table VIII-5 has been prepared to show the estimated costs associated for each program. When possible, the total cost for an individual program has been broken down into further descriptive categories. Dollar values presented for 2005 and 2006 represent actual expenditures made by the Authority for those years. In 2005, all education strategies were provided through the county R&LP offices. Funding provided to these offices by the Authority was intended for recycling collection programs not recycling and litter prevention education. Thus Table VIII-5 for the reference year does not include expense estimates for recycling and litter prevention education. To conduct education strategies the R&LP offices received funding from grants and county contributions. However, when grant monies were discontinued the Authority appropriated \$120,000 in 2006 to help implement the education strategies. In 2007, the Authority dissolved the two separate county R&LP offices to create one Authority operated entity. Therefore in 2007 office costs greatly increased to absorb the salaries/fringes of the new Authority personnel. In

addition all salary appropriations directed to the drop-off program were re-directed to office costs from absorbing recycling crew personnel.

An inflation rate of 2.5% percent was applied annually, unless otherwise noted. Please note that the budget outlined is to be used as a guideline for the Authority. As local circumstances or the needs of the Authority change, the Board of Trustees will alter plans to meet those challenges. There is authority for alterations in the detailed budget staying within the original intent of the programming. The following descriptions are provided to explain projected costs for each program.

**Program Name:** Commercial/Industrial Sector

No expenditures are allocated to this program. Costs incurred are included in Office Costs for administration salaries. Commercial and industrial surveys are expected to be performed in house with Authority personnel.

**Program Name:** Curbside Recycling

Powhatan Point's curbside recycling program is provided by a contract service. In 2005, the Authority expended monies for capital expenditures of recycling bins. All expenses for the remaining of the planning period are contract fees for collection of the recyclables. Section V discusses the Authority's goal of working towards a cost share with Powhatan Point. In the early part of 2008, a cost share has not been negotiated, thus the Authority projects expenditures for the full contract throughout the planning period.

**Program Name:** Drop-Off Programs

In 2005 and 2006 the drop-off programs for Belmont and Jefferson Counties were county programs operated under the Recycling and Litter Prevention Offices. The Authority allocated money to these programs for distributions for salaries and benefits for Jefferson and Belmont recycling crew; maintenance and repair of trucks and other equipment including gasoline, etc.; capital expenditures including drop-off containers, barns, and vehicles; and non-routine maintenance and repairs of vehicles and equipment for the recycling crew. When ODNR funding dissolved, the Authority allocated \$120,000 divided between Jefferson and Belmont Counties to help support the program.

After much consideration the Authority dissolved both county programs in 2007. Beginning in 2007 all salaries and benefits will now be categorized under Office Costs for administration salaries. The costs incurred by this program will be capital expenditures for equipment, gasoline and repairs needed to operate the drop-off program.

Expenditures shown for 2007 are appropriated expenses estimated and will be increased at a yearly 2.5% inflation throughout the planning period, except for capital outlays and the recycling supplies. Recycling supplies mostly consist of gloves, accessories, etc.; thus, it is increased at 1% inflation. The Authority has included increased capital expenditures in 2007 to account for the additional barns needed to demonstrate access in Belmont County. In addition the Authority is including expenses for the purchase of one truck in 2007 and another in 2011. Other expenses include recycling supplies, gasoline, and maintenance repairs.

**Program Name:** Household Hazardous Waste Programs

There are no direct costs allocated to updating facility lists and performing feasibility studies, however, the Authority is expecting to hold household hazardous waste collection events alternating years in each county. The first planned collection event is scheduled for year 2008 in Jefferson County. To date the Authority has not received any bids for conducting the HHW collection events. The estimated costs are based on a similar district's experience and costs associated with holding a HHW collection event. It is assumed that all materials will be accepted. The Authority does not anticipate the first collection event costs to exceed the estimated expenditure included on Table VIII-5, however, should costs exceed the estimated expenditure the

Authority reserves the right to assess the frequency of events and materials collected and adjust accordingly.

**Program Name:** Industrial Recycling and Reduction

No expenditures are allocated to this program. This program is being discontinued.

**Program Name:** Lead-Acid Battery Programs

No expenditures are allocated to this program. Costs incurred are included in Office Costs for administration salaries.

**Program Name:** Market Development Programs

Beginning in year 2008, expenditures of \$1,000 per year are allocated to this program. Expenditures for this program will be budgeted in this plan, however, the costs of implementing programs to ensure access will have a greater emphasis on the expenditures. In essence should program expenditures for drop-off and curbside programs exceed the planned expenditures indicated in this Plan then monies allocated for the Market Development Program will be used for the drop-off and curbside programs.

**Program Name:** Paper Collection Program, Belmont County

To initiate the Paper Collection Program in Belmont County, the Authority expended capital expenses for purchasing paper bins/tilt trucks for the collection of paper. In 2007 when the Authority completely takes over the program, revenues from the sale of recyclables will be awarded to participating schools as an incentive. Expenditures shown for the incentive program are anticipated revenues received and may fluctuate depending on the sale of paper only recyclables.

**Program Name:** Paper Collection Program, Jefferson County

To add additional schools to the Paper Collection Program in Jefferson County, the Authority expended capital expenses for purchasing paper bins/tilt trucks for the collection of paper. In 2007 when the Authority completely takes over the program, revenues from the sale of recyclables will be awarded to participating schools as an incentive. Expenditures shown for the incentive program are anticipated revenues received and may fluctuate depending on the sale of paper only recyclables.

**Program Name:** Electronic Recycling

Beginning in 2008, the Authority is planning to hold the first district-wide electronic collection event. The Authority is allocating \$8,000 per year to hold two electronic collection events, one in each county, through a hired contractor. Two events will be held each year.

**Program Name:** Community Cleanups

In Jefferson County, the Community Cleanups were first held in 2006 and limited to tires only. A portion of the expenses for this collection were covered through a tire amnesty grant. However in 2007 the Community Cleanup popularity grew and the number of tires greatly exceeded expectations from both Counties. The Authority is discontinuing the community cleanups. In place of the community cleanups the Authority will fund scrap tire cleanups and offer Litter Collection/Community Cleanup Grants.

**Program Name:** Authority Office Restructuring

This program was created to explain the restructuring of the Authority and Litter Prevention. Costs incurred are included in Office Costs for administration salaries.

**Program Name:** Environmental Enforcement

Expenditures will be used to hire a full-time employee for enforcement of litter issues. In Table VIII-5 all expenditures are included in the Office Costs for administration salaries. This increase is expected in 2009, hence the increase in administration salaries.

**Program Name:** Disaster Debris Management

The Authority has allocated approximately \$10,000 per year beginning in 2009 for use in debris management.

**Program Name:** Health Department Assistance

With the opening of the Apex Sanitary Landfill, the Jefferson County Health Department has requested money from the Authority to assist with the costs of monitoring and regulating the landfill. Beginning in 2006, the Authority allocated approximately \$61,000 to the Jefferson County Health Department. In 2007 the estimated expenditure was approximately \$160,000. However, the Health Department did not submit adequate invoicing or explanation of expenditures. No funding was issued to the Health Department in 2007. Funding provided to the Health Department by the Authority is to ensure the implementation of activities described in ORC 3734.57(B) and is budgeted for the remaining years in the planning period.

**Program Name:** Community Recycling Awards

The intent of this program is to give back to the community, volunteers and workers that have helped the Authority throughout the year. The first award event is scheduled for 2008 with an estimated expense of \$3,000.

**Program Name:** Pay As You Throw

No expenditures have been allocated to this program. The Authority is planning to promote pay as you throw to communities but will not commit at this time to fund any aspect of the program.

**Program Name:** University Partnerships

Expenditures for this program are estimated high at \$1,000 per year beginning in 2009. The initial phases of this program will mostly be support and contact from the Authority and may not reach the appropriated amount. Any support provided by the Authority for special recycling events will be included in the Office Costs and administration salaries. However, the Authority is budgeting for expenditures that may occur in addition to administration salaries such as any capital outlay. In the program's infancy it is difficult to budget exact amounts.

**Program Name:** Economic Incentives

The Authority is budgeting four different types of economic incentives for the planning period. Up to \$50,000 will be available for Curbside Recycling Incentives, up to \$1,000 will be available for Authority Recycling Awards, up to \$50,000 will be available for PAYT Rebates, and up to \$10,000 will be available to Financial Market Grants. In essence should program expenditures for drop-off and curbside programs exceed the planned expenditures indicated in this Plan then monies allocated for the Economic Incentive Program will be used for the drop-off and curbside programs.

**Program Name:** Recycling Operations Feasibility Study

To perform the study the Authority is allocating \$35,000 in 2008.

**Program Name:** Litter Collection/Community Cleanup Grants

The Authority is making available up to \$50,000 each year of the planning period for communities (villages, municipalities, townships or government agencies) to implement litter collection or cleanup activities.

**Program Name:** Residential Sector Education and Awareness

The majority of the Residential Sector Education and Awareness program expenditures will be Office Costs in administration salaries. However, some expenses for marketing materials such as the web page, brochures, flyers, etc were expended in 2005 and 2006.

**Program Name:** Scrap Tire Programs

The Plan budgets \$25,000 per year to Jefferson County and Belmont County for Scrap Tire Cleanups.

**Program Name:** Composting Programs

No expenditures are allocated to this program.

**Program Name:** County Assistance

An allowable expenditure as defined by ORC 3734.57(B), this program provides funding to the County to maintain roads and public facilities related to the location or operation of a solid waste disposal facility. Funds are provided to County Engineer to defray the expenses they have serving as a regional landfill location (paving roads and bridges around facilities). The Authority is making payments to the county in the sum of approximately \$80,000 for five years. This payment was agreed upon by the Authority and County for the set years. Essentially, the County borrowed money, the Authority is paying it back.

**Program Name:** Municipal Township Assistance

No expenditures are allocated to this program.

**Program Name:** Engineering Consulting Services

Engineering consulting services include assisting with annual district reports, quarterly fee reports, contract negotiations, and general consulting. Every five years an increase has been added for expenditures related to plan preparations.

**Program Name:** Legal Fees

Legal fees are anticipated costs for review, consultation, and negotiations. The Authority is anticipating a yearly expenditure of \$5,000 each year of the planning period.

**Program Name:** Office Costs

Office expenditures include administration salaries, office overhead, office supplies, insurance, lease costs, utilities, other and other contract services. Office overhead includes professional development, training, mileage reimbursements, memberships, fees, etc. Other contract services include expenses to vendors who provide a variety of services to the Authority. Most office costs are estimated to increase at 2.5% each year, other contract services estimated to increase at 0.5% each year.

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

Table VIII-6 shows the allocations of the Authority's revenues to the categories specified in ORC 3734.57(B) for each year of the planning period. All planned expenditures for the Authority are allocated to preparation and monitoring of plan implementation and implementation of the plan.

**D. Contingent Funding or Financing**

As shown in Table VIII-6 the Authority needs revenues from both the tiered disposal fee and the out-of-state contract fee in order to fully implement the proposed plan. It is uncertain whether the contract agreement on out-of-state waste disposal will be renewed. The Authority entered into a two year contract agreement with Apex Sanitary Landfill for a \$0.50 fee on out-of-state waste disposal. This contract is set to expire December 31, 2008. Should this contract expire without a renewal for at least the \$0.50, the Authority will need additional revenues to fund plan implementation. In Table D.1 below, revenues are generated showing the un-renewed contract fee.

Table D. 1 Revenues Generated without Contract Fee Renewal

Year	Disposal Fee	Grants	Improved Parcel Tax Assessment	Transfer Facility Contracts	Other	Paper Collection Revenue	Out of State Contract Fee with Apex	Reimbursements	Revenue Generated
2005	\$0	\$2,000	\$ 376,768	\$ 42,399	\$0		\$0	\$0	\$421,168
2006	\$511,242	\$0	\$ 18,140	\$ 44,206	\$1,960		\$0	\$0	\$575,549
2007	\$1,064,323	\$163,900	\$ 6,419	\$ 47,015	\$20,467	\$33,252	\$418,298	\$0	\$1,753,675
2008	\$893,389	\$0	0	\$ 47,335	\$0	\$33,252	\$392,340	\$0	\$1,366,317
2009	\$924,697	\$0	0	\$ 47,215	\$0	\$33,252	\$0	\$0	\$1,005,164
2010	\$957,257	\$0	0	\$ 47,094	\$0	\$33,252	\$0	\$0	\$1,037,603
2011	\$991,188	\$0	0	\$ 22,851	\$0	\$33,252	\$0	\$0	\$1,047,291
2012	\$1,026,476	\$0	0	\$	\$0	\$33,252	\$0	\$0	\$1,059,728
2013	\$1,063,175	\$0	0	\$	\$0	\$33,252	\$0	\$0	\$1,096,427
2014	\$1,102,000	\$0	0	\$	\$0	\$33,252	\$0	\$0	\$1,135,252
2015	\$1,141,692	\$0	0	\$	\$0	\$33,252	\$0	\$0	\$1,174,944
2016	\$1,182,960	\$0	0	\$	\$0	\$33,252	\$0	\$0	\$1,215,212
2017	\$1,225,878	\$0	0	\$	\$0	\$33,252	\$0	\$0	\$1,259,130
2018	\$0	\$0	\$566,319	\$	\$0	\$33,252	\$0	\$0	\$599,571
2019	\$0	\$0	\$566,319	\$	\$0	\$33,252	\$0	\$0	\$599,571
2020	\$0	\$0	\$566,319	\$	\$0	\$33,252	\$0	\$0	\$599,571
2021	\$0	\$0	\$566,319	\$	\$0	\$33,252	\$0	\$0	\$599,571
2022	\$0	\$0	\$566,319	\$	\$0	\$33,252	\$0	\$0	\$599,571
2023	\$0	\$0	\$566,319	\$	\$0	\$33,252	\$0	\$0	\$599,571

These revenues will not implement this Plan Update through the planning period. Below, Table D.2 estimates revenues needed (as based on expenditures from Table VIII-5) and revenues collected without the contract fee. Based on these calculations the Authority would see a shortfall in revenues and not be able to fully implement the plan through the planning period.

Table D.2 Planning Period Shortfall if no Contract Fee renewal

Year	Revenues needed to Implement Plan	Revenues collected without Contract Fee	Shortfall of Revenues
Cumulative Balance			\$296,012
2005	\$537,938	\$421,168	-\$116,770
2006	\$635,397	\$575,549	-\$59,848
2007	\$897,341	\$1,753,675	\$856,334
2008	\$1,136,501	\$1,366,317	\$229,816
2009	\$1,156,723	\$1,005,164	-\$151,559
2010	\$1,196,320	\$1,037,603	-\$158,717
2011	\$1,267,800	\$1,047,291	-\$220,509
2012	\$1,163,673	\$1,059,728	-\$103,945
2013	\$1,166,450	\$1,096,427	-\$70,023
2014	\$1,183,639	\$1,135,252	-\$48,387
2015	\$1,201,251	\$1,174,944	-\$26,307
2016	\$1,235,298	\$1,215,212	-\$20,086
2017	\$1,253,788	\$1,259,130	\$5,342
2018	\$1,257,735	\$566,319	-\$691,416
2019	\$1,277,149	\$566,319	-\$710,830
2020	\$1,297,041	\$566,319	-\$730,722
2021	\$1,332,424	\$566,319	-\$766,105
2022	\$1,353,310	\$566,319	-\$786,991
2023	\$1,374,711	\$566,319	-\$808,392
Final Cumulative Balance			(\$4,083,103.00)

As stated earlier in this Section the Authority believes the out-of-state contract fee will be renewed. However Table VIII-7 has been prepared to show a contingent revenue source to sufficiently cover the shortfall created by the lack of no contract fee on out-of-state waste. To further demonstrate projected revenues from all mechanisms used and show the summary of revenues and expenditures Tables VIII-3 *contingency* and Table VIII-8 *contingency* were created. If the Apex Sanitary Landfill life reaches capacity at year 2018, the Authority will need to raise tiered disposal fees to \$1.50:\$2.00:\$1.50 in the year 2011 to successfully cover all planned expenditures.

## E. Summary of Costs and Revenues

Table VIII-8 summarizes all expenses for the Authority for the planning period. All expenses have been discussed previously in this Section.

## **IX. District Rules**

### **A. Existing Rules**

The Authority is hereby authorized to adopt rules in accordance with and pursuant to Division (F) of Section 343.01 of the ORC and Division (C) of Section 3734.53 of the ORC, to the extent any such rules are determined by the Board from time to time to be necessary or desirable to implement any provision or to accomplish any objective of this Solid Waste Management Plan.

At this time the Authority is not proposing any rules allowed under these Divisions.

### **B. Proposed Rules**

The Authority is not proposing any rules at this time.

## **APPENDIX A**

### **District Formation Resolutions**

## **APPENDIX B**

### **Public Notices and Comments**

## **APPENDIX C**

### **Resolutions and Certification Statement**

## **APPENDIX D**

### **District Map**

**APPENDIX E**

**Residential/Commercial Recycling  
Data Survey Results**

**APPENDIX F**

**Blank Industrial Solid Waste  
Survey**

## **APPENDIX G**

### **Industrial Recycling Data Survey Results**

## **APPENDIX H**

### **Program Analysis**

## **APPENDIX I**

### **Program Analysis Summary**

## **APPENDIX J**

### **“Recommended Consolidation of Operations of the Jefferson and Belmont County Recycling and Litter Prevention Programs”**