

Adams-Clermont Solid Waste District



Solid Waste Management Plan 2010 - 2030

I. Introduction

This section contains the information requested below presented in the manner shown.

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

1. Under current approved (or ordered to be implemented) plan:

Date of Ohio EPA approval or order to implement	September 27, 2006
Counties within District	Adams and Clermont
Years in planning period	10

2. Plan to be implemented with approval of this document

Counties within District	Adams and Clermont
Years in planning period	19
Year 1 of the planning period	2012

B. Reasons for Plan Submittal

1. Mandatory five-year plan update

C. Process to Determine Material Change in Circumstances

The District will consider the following as "material changes" that will require a Solid Waste Plan (SWP) revision.

- (1). When anticipated disposal capacity at regional solid waste management facilities is less than the anticipated District disposal requirements for the remaining planning period outlined in this plan, the District will revise the plan to address disposal capacity needs. Anticipated disposal capacity will include permitted disposal capacity, that capacity having the reasonable potential of being permitted, and other waste management alternatives the Board determines necessary to provide adequate capacity. The District Board of Directors will monitor the status of disposal capacity on an annual basis in order to determine capacity. If a capacity deficiency is identified, the Board will notify the District Policy Committee (DPC) to begin a plan revision and set a mutually agreed upon schedule for its completion.
- (2). Determining material changes related to facility designations, flow control, waste generation, strategies for waste reduction and/or recycling, available revenues, and other potentially related issues, including a time table for implementation will be made on an annual basis during the annual review of plan implementation. The DPC will make the determination and recommend to the Board of Directors when a plan revision is warranted. The Board may also make the determination that a plan revision is necessary. The DPC and Board of Directors will mutually agree upon a schedule for plan revision based on the particular need at that time.
- (3). The above issues are not the only issues that may trigger a plan revision. The Board of Directors or the DPC may determine at any time the need to revise the Solid Waste Plan based on the above identified issues or other issues that are determined to warrant an unscheduled plan revision. The Board and Policy Committee will establish a mutually agreed upon schedule based on the current need.
- (4). When a material change has been determined, the respective Board or DPC will be notified and a mutually agreed upon schedule developed. After development of the schedule for the change all townships and municipalities in the District will be notified within 30 days. The notification will, at a minimum, include: the material change requiring the plan amendment; the schedule for the change, and an identification of opportunities for input to the revision process. Public notice will occur simultaneous to the municipal and township notice with similar content. The public notice will be in the form of a news release mailed to interested parties such as waste haulers, landfill operators, and recyclers that are, at the time of

the notice, identified as serving the area. It is, and will continue to be, the policy of the Board of Directors and the DPC to promote and encourage public input as much as possible.

(5). Citizens, businesses, and other groups or individuals may bring to the attention of either the Board of Directors or the DPC the need to amend the Solid Waste Plan at any regularly scheduled meeting. The Board or DPC may consider this input and act accordingly.

D. Public Notice and Certification Statement

Included as Appendix B are all public notices as they appeared in local newspapers publicizing hearings and comments on the District Plan. Appendix C contains a certification statement signed by members of the DPC asserting that the contents of the plan are true and accurate. Appendix C also includes resolutions of the DPC: 1) adopting the plan prior to ratification, and 2) certifying that the plan has been properly ratified.

Appendix C also lists all political jurisdictions in the District which voted on ratification of the plan, the population represented by each, and the percentage population of the District as represented by the political jurisdictions which ratified the plan. Additional documentation includes one copy of all resolutions from political jurisdictions in the District.

E. Policy Committee Members

Dan Wickerham
Adams Brown Recycling
9362 Mt. Orab Pike
Georgetown, Ohio 45121

John McManus, Chair
Clermont County Commissioners
101 E. Main Street
Batavia, Ohio 45103

Jason Buda
Representative for Village of West Union.
123 Cross Street
West Union, Ohio 45693

Susan Ellerhorst
Representative for City of Milford
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Brenda Emery
Monroe Township Trustee
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Manchester, Ohio 45144

Skeets Humphries
Stonelick Township Trustee
PO Box 151
Milford, Ohio 45150

Judy Bennington
Adams County Health District
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West Union, Ohio 45693

Robert Wildey
Clermont County Health District
2275 Bauer Road
Batavia, Ohio 45103

Kenny Moles
Adams County Industrial Generator Rep.
Sizzel Sticks
7601 State Route 348
Blue Creek, Ohio 45616

David Smith
Clermont County Industrial Generator Rep.
Melink Corporation
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Milford, Ohio 45150

Jeff Foster
Adams County Citizens Rep. w/o Conflict
1268 Coon Hill Road
Winchester, Ohio 45697

Cory Wright
Clermont County Citizens Rep. w/o Conflict
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Cincinnati, Ohio 45245

Steve Willson
Citizens Representative
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West Union, Ohio 45693

David Spinney
Citizens Representative
214 W. Stoneridge Drive
Milford, Ohio 45150

Tom Blust
Rotating Member
549 Oregano Drive
Cincinnati, Ohio 45244

F. Board of Directors

Adams County Commissioners
110 West Main Street
West Union, Ohio 45693

Clermont County Commissioners
101 East Main Street
Batavia, Ohio 45103

Justin Cooper
Brian Baldrige
Roger A. Rhonemus

Robert L. Proud (Chair)
Edwin Humphrey
David Uible

G. District Address and Phone Number

Adams-Clermont Solid Waste District
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e-mail: pbraasch@clermontcountyohio.gov
web: www.oeq.net

H. Technical Advisory Committee and Other Subcommittees

1. Assisting in the Planning Process

The policy of the District is to allow and encourage community input and feedback in both the planning and implementation phases of the Solid Waste Plan. The informal nature of the DPC and Board meetings provides opportunity for interested parties to provide input. Therefore, Technical Advisory Committees (TAC's) are not currently being used. The District does not preclude the development or use of TAC's now or in the future. The District reserves the right to develop and use TAC's as they deem necessary.

2. *Implementing the Plan*

There are no standing or designated committees or subcommittees relative to plan implementation. The DPC and Board may appoint such committees as they deem advantageous or necessary. As stated in section I.H.1., the informal and flexible nature of both the Board and DPC does not require establishment of these committees at this time. The District reserves the right to develop and use TAC's as they deem necessary.

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Acronyms

ABR	- Adams Brown Recycling
ACSWD	- Adams-Clermont Solid Waste District
AWAR	- Adams Waste & Recycling (aka -Transfer Station)
EPA	- Environmental Protection Agency
FGD	- flue gas desulphurization
HDPE	- High Density Polyethylene
HHW	- Household hazardous waste
MSW	- Municipal Solid Waste
OBES	- Ohio Bureau of Employment Services
OCC	- Old corrugated containers
ODNR/DRLP	- Ohio Department of Natural Resources/Division of Recycling and Litter Prevention
ONP	- Old Newspaper
OSU	- Ohio State University
PETE	- Polyethylene terephthalate
SWFDR	- Solid Waste Facility Data Report
SWP	- Solid Waste Plan

II. Executive Summary

Introduction:

The Adams-Clermont Solid Waste Management District (ACSWD) is a two-county joint district comprised of Adams County and Clermont County. The two counties are non-contiguous counties located in southwest Ohio. They are greatly different in population, industry, and development. Consequently, when developing this Revised Solid Waste Management Plan, separate calculations and assumptions have been made, which are applicable to a specific county.

Additionally, throughout the Plan, separate strategies have been identified for managing the waste stream of the vastly different populations of the District. For instance, in the more densely populated areas of western Clermont County, the District will be more reliant on curbside recycling provided by private haulers and District provided recycling drop-offs to assure access to recycling opportunities to the population. While in Adams County, the District will exclusively provide drop-off recycling service to assure recycling access.

Status of implementation of previously approved plan:

As reported in the District's Annual Reports to Ohio EPA, the Adams-Clermont Solid Waste Management District has accomplished the overall objectives of the approved 2006 Solid Waste Management Plan. Following is a brief description of past goals, accomplishments, and current and future plans.

1. Commercial/Residential Waste Reduction -- In the 2006 Plan, curbside, buy back, and drop-off recycling opportunities were expected to expand. In fact, curbside recycling opportunities were reduced or modified from non-subscription to subscription, thereby reducing the District's access credit. Buyback recycling opportunities were expanded with a new large and modern buy back operation opening for business in Clermont County; but two buy back operations in Adams County have reduced or terminated operations. The District implemented many new drop-off sites, actually more than envisioned in the Plan (38 total in Clermont and 10 total in Adams).
2. Education -- The ACSWD has a long tradition of relying on education and awareness efforts to change the waste management/recycling habits of the District's residents. Early in its existence, the District contracted with Adams-Brown Recycling (ABR) to provide education/awareness programs for both counties in the District. ABR continues to provide educational services in Adams County. Since 1996, Clermont County contracted with the Clermont County Soil and Water Conservation District for an Environmental Education Specialist. Both counties relied heavily on Ohio Department of Natural Resources/Division of Recycling and Litter Prevention (ODNR/DRLP) Grants for funding their programs and the discontinuing of these education grants has placed more burdens on local resources.

The education programs in each county have been highly successful. Through classroom presentations to students in grades K-12 in both public and private schools, presentations to civic groups, newsletters, news articles, advertisements in the local media, promotional

activities, fliers and brochures, and workshops and seminars the District's residents have become more aware of the impact they have on the environment and the impact it has on them. Increased usage of web sites, social media and electronic newsletters and electronic communication has been a significant change since the last Plan update. Additionally, the District's education/awareness program has focused on industrial waste generators by offering waste assessments, providing technical advice on industrial waste disposal and recycling, and industrial waste reduction/minimization workshops. Thus, in the revised Plan, you will see a continued emphasis on education and awareness.

3. Household Hazardous Waste (HHW) -- The District provides information to residents relative to alternatives to HHW products and the safe handling and disposal of HHW material. Additionally, the District refers to residents through a no cost voucher system to a private hazardous waste management firm when appropriate.
4. Volume Based Rates (VBR) -- The District has achieved minimal implementation of this strategy. One waste hauler operating in Adams County offers a Volume Based System in Seaman, Cherry Fork, Peebles, and Winchester. The City of Milford previously had a "Sticker" VBR system and Amelia has a modified VBR System but both communities have eliminated these programs.
5. Yard Waste -- The 2000 Plan suggested that only in the event that private enterprise did not adequately address the need for specific yard waste programs, the District would assume active participation in providing for the management of banned yard waste material. This has not become necessary. Local waste haulers, lawn care providers, landscapers, and other private entities have sufficiently provided for the management of the District's yard waste. The District maintains an active resource file on yard waste options and provides information to residents through periodic newsletters, articles, and upon telephone or web inquiry.
6. Waste Tire Disposal -- Again, the District has allowed its general guiding principle of private enterprise providing for the needs of the District to control waste tire disposal. There has been no demonstrated need within the District to provide waste tire disposal service, although there has been an increase in illegal littering or dumping of tires along the roadsides and the District provides assistance to township and county road maintenance departments to assist with tire management. The District maintains an active resource file on waste tire disposal and provides information to residents through periodic newsletters, articles, and upon telephone inquiry.
7. Enforcement of Illegal Dumping -- Illegal dumping continues to be a problem in Adams County. The Solid Waste District with the assistance of US Department of Agriculture Rural Development Grant provided funding for an "Illegal Dump Survey" in Adams County. This survey provided detailed information on all roadside visible dumps, including size, GPS coordinates, and photographs. This revised Plan continues the emphasis on reduction of illegal dumping. The District offers assistance by adding an alternative disposal option in Adams County since 2005, by constructing and operating a waste transfer station, recycling

drop-off and recycling buyback facility renamed Adams Waste & Recycling. We believe it has and will continue to have positive results in diverting some roadside dumping.

Inventories:

In preparation for this 2010 Solid Waste Plan Revision, the ACSWD conducted surveys of landfills serving the District, waste haulers and recyclers operating in and serving the District, and District industries. These surveys took place in 2011 for 2010 activities making **2010** the **reference year** for the plan.

The results of the surveys reveal that this section of the plan has changed but not substantially since the development of the District's original plan. The District continues to be served primarily by one (1) captive industrial landfill in the District, five (5) out-of district landfills, with two (2) of those out-of state landfills; two (2) transfer stations; twelve (12) waste haulers and several recycling operations both in and out of the District. A more complete list can be found in Section III of the Plan. There are currently no active incinerators or resource recovery facilities serving the District. The Dump Survey identified 116 illegal dump sites.

Reference Year Population, Waste Generation, and Waste Reduction:

The District's reference year (2010) population has been established at 224,001. This represents population figures from Adams County (28,550) and Clermont County (197,363) adjusted for the City of Loveland (-1,941), which is officially in the Hamilton County SWD, and the City of Milford (+29), the portion of which is situated in Hamilton County but is officially a part of the ACSWD.

Residential/Commercial Waste Generation calculations for the reference year relied upon information provided by Ohio EPA in its publication: Solid Waste Facility Data Report - 2010 (SWFDR). Calculations for residential/commercial waste generation included: Asbestos, General Waste, and Other Waste as reported in the SWFDR.

Industrial Waste Generation calculations relied solely on information provided through the Industrial Survey conducted by the District. Using the Harris Industrial Directory and local resources, all industrial entities in the District in the appropriate Standard Industrial Classification (SIC) Codes received survey forms. Survey responses were less than desirable and were further complicated by numerous "undeliverable" survey forms. This is likely due to firms going out of business in the recent economic recession. Industrial generation was established using survey data and the [OEPA Solid Waste Plan Format] guidance in Appendix JJ. Detailed results can be viewed in Table IV-3.

Planning Period Projections and Strategies:

The ACSWD is submitting a nineteen (19) year Plan commencing on January 1, 2010 and running through December 31, 2030. Population projections are based on Ohio Department of Development/Office of Statistical Research estimates. Waste Generation was projected using the District's reference year Generation Rate and adjusting it annually based up an Ohio EPA – Recommended Annual Increases in Generation which recommends 0.5% increase 2006 - 2030. These projections and methodologies are explained in more detail in Section V.

The District will continue to rely on private enterprise for implementing many of the strategies identified in this Plan. The District will encourage and cooperate with the private sector to supply the necessary services to meet the District's goals and objectives. The District will consider direct ownership and operation of appropriate facilities only as needed to meet the strategies identified. Additionally, the District will rely on contracting the operation of facilities and activities whenever practical and economical. This is an underlying strategy of the entire Plan.

Strategies identified in the plan have not changed significantly from those strategies, activities and programs identified in previous Solid Waste Management Plans. The District will continue to emphasize education and awareness as an important tool impacting the District's waste management practices. The District will continue to promote recycling by providing access to recycling opportunities to the residents of Adams and Clermont Counties through curbside and drop-off recycling activities. Yard waste management will continue to be provided by private enterprise, as will scrap tire disposal/management with exception of financial assistance to road maintenance entities (county & township) for disposal/management of tires.

Specific strategies include operating approximately forty-eight (48) drop-off recycling sites; a transfer station facility; providing vouchers to residents for free HHW disposal/recycling as well as providing technical advice on proper disposal of HHW and appropriate alternatives; and supporting industrial activity via industrial/commercial waste audits; and participating in a regional waste exchange; and expecting that private waste haulers and recyclers will provide recycling options.

Special Note: Duke Energy and Dayton Power & Light produce a flue gas desulphurization (FGD) waste from the four coal fired electric generation stations in the District. The District has been instructed to include the material in inventory and management considerations. In 2010 FGD waste represented 97% of all industrial waste generated and 97% of industrial waste recycled in the District. This large volume of industrial generation and recycling makes the ACSWD overall tonnages and percentages appear inconsistent to previous years or other Solid Waste Districts of comparable demographics.

Methods of Management - Facilities and Programs to be Used:

The District has estimated that the amount of District waste generated throughout the planning period will increase from 2,890,721 tons in 2010 to 3,232,539 tons in 2030. Also, throughout the planning period, the District has estimated the various amounts of waste managed by specific

activities. The District will rely on a variety of management methods including: Minimization/Reduction activities; Recycling; Composting; Transfer Station; and Landfill disposal. All facilities and programs have been specifically identified in Section VI of the plan and summarized in Table VI-1.

The District has continued in this Plan as in past Plans, to require prior to siting any licensed solid waste facility in the District to follow the District's siting strategy. This strategy requires substantial public input and consideration of local conditions before siting a facility.

Measurement of Progress Towards Waste Reduction Goals:

The District has achieved Goal #1 of the State Solid Waste Plan. The District will ensure that 90% of the population has availability of reduction and recycling alternatives, or other waste reduction methods that are alternatives to landfilling for residential/commercial waste generators. To accomplish this goal, the District will continue to evaluate existing drop-off recycling sites and look for future alternative to provide better access or more economical service. The District will continue working to maintain or increase the availability of drop-off and curbside service in the District.

Currently (2010) industrial recycling/reduction is 57%, and residential recycling/reduction is 27%, although combined overall recycling is near 58%. By the year 2030 residential recycling is projected to reach 36% and overall recycling 60%. Industrial recycling will remain at or near current levels. Consistent measurement of these percentages during Plan updates will also be a measure of the success of this Plan.

Cost and Financing of Plan Implementation:

The ACSWD will rely on a variety of funding sources for the full implementation of the Solid Waste Plan. The basic operational expenses of the District will be supported by the current \$2.00 per ton generation fee on waste generated in the District and disposed in designated landfills. This generation fee is scheduled to increase periodically over the planning period to adjust for inflation and cover the costs of this mandated Plan. Adjustments may be less than scheduled based on actual expenses, but never greater than: \$2.00 per ton from 2010 through 2012; \$3.00 per ton for 2013 through 2022; \$4.00 per ton for 2023 through 2030. Additionally, the District anticipates and approximates an average \$25,000 in 2010 and gradually increasing to \$282,000 in 2030 tipping fee income annually at the Adams County Transfer Station. This estimate is variable and dependent on waste volume to generate a sufficient amount to pay for basic municipal solid waste operation of the facility. Grant Programs have been used in the past to supplement various programs are included to assist in funding this Plan implementation. Part of the designation process is an agreement by the landfills to collect District generation fees and remit them to the District. ACSWD anticipates collection of generation fees at in-state and out-of-state landfills and continued designation is critical to funding the ACSWD.

District Rules:

The ACSWD has adopted Designation of landfills and transfer stations that accept waste generated from the ACSWD. Waste from ACSWD may only go to designated facilities. The District has no rules governing or relating to: the receipt of waste generated outside of the District; the maintenance, protection, and use of solid waste collection, transfer, disposal, recycling, or resource recovery facilities; a program to inspect out-of-state waste; or exempting an owner or operator of a solid waste facility from compliance with local zoning requirements. The District’s Board of Directors, however, adopts and maintains the authority to develop, publish and enforce such rules as specified in the Ohio Revised Code and which the Board determines to be necessary or desirable in the implementation or attainment of any provision or provisions or the accomplishment of any objective or objectives of this Plan or any amended Plan, so amended in accordance with the District Plan.

Table ES -1 General Information

District name: Adams-Clermont Solid Waste District					
District ID#:		Reference year: 2010		Planning Period: 2012 - 2030	
Plan Status: Draft Amended			Reason for Plan submittal: Mandatory update		

Table ES-2 District Coordinator / Office

Name:	Paul Braasch
Address:	4400 Haskell Lane
City/State/Zip:	Batavia, Ohio 45103
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Email:	pbraasch@clermontcountyohio.gov
Web:	www.oeq.net

Table ES -3 Plan Data Summary

		<i>2010 -reference year</i>	<i>2015</i>	<i>2020</i>	<i>2025</i>	<i>2030</i>
Population:		224,001	235,484	247,546	260,224	273,553
Generation (TPY)	Industrial	2,727,924	2,796,808	2,867,431	2,939,400	3,013,134
	Res/Comm	157,883	170,160	183,393	197,654	213,024
	Exempt	1	1	1	1	1
	Total:	2,885,808	2,966,969	3,050,824	3,137,055	3,226,159
Waste Reduction	Industrial Source Reduction	3	119	122	125	129
	Industrial Recycling	1,557,337	1,596,778	1,637,099	1,678,437	1,720,820
	Res/Comm Source Reduction	0	0	0	0	0
	Res/Comm Recycling	45,625	52,892	61,316	71,083	82,404
	MSW Composting	0	0	0	0	0
	Incineration	0	0	0	0	0
	Ash Disposed	0	0	0	0	0
	WR Total:	1,678,425	1,745,398	1,809,181	1,877,928	1,952,084
Disposal (DL)	LF-in-Dist	859,774	881,484	959,202	983,094	1,007,550
	LF-out-of- District	421,793	431,379	388,268	398,919	409,188
	Total LF	1,281,567	1,312,863	1,347,470	1,382,013	1,416,738
WRR		58.1%	58.64%	59.1%	59.6%	60.29%

Table ES-4. Existing Disposal Facilities

Existing Disposal Facilities Used in the Reference Year			
Name	County	District tons	Years left
Zimmer Landfill	Clermont	859,774	14
Rumpke Landfill	Brown	90,829	63
Rumpke Landfill	Hamilton	35,473	14.7
Hancock County Landfill	Hancock	13	12.07
Stony Hollow Landfill, Inc.	Montgomery	16	4
Pike Sanitation	Pike	2,493	19.04
Pine Grove Regional Facility	Fairfield	3	56
Bavarian Landfill	Boone Co., KY	205	43.5
CSI	Grant Co., KY	6,568	6.8
Mason County	Mason Co., KY	284,824	44.12
Rumpke	Pendleton Co., KY	180	27.8

III. Inventories [ORC Section 3734.53(A) (1)-(4)]

All Tables referred to are located at the end of each respective chapter

A. The Reference Year

In preparation for the SWP five-year revision, the ACSWD performed an industrial survey of solid waste generation and recycling for calendar year 2010. This data was then used to establish the plan update reference year.

B. Existing Solid Waste Landfills

Tables III-1 and III-7 (Out-of-State) provide information on the landfills currently in use by the ACSWD. Only one landfill is located within the District: the Zimmer Landfill. It is a captive site operated by the Duke Energy for the disposal of ash and byproducts of the coal-fired Zimmer Electric Generating Station. It is indicated on the Clermont County map in Appendix E as "CL1" (captive landfill). There is another captive facility currently being designed and permitted for similar coal fired by-products. Dayton Power and Light Company will construct and operate this landfill to serve both Stuart and Killen Stations. The proposed landfill would be located in an area known as Carter Hollow, north of U.S. Route 52, and would occupy approximately 70 acres, with a capacity of approximately 20 million tons of by-products. Completion date is expected in 2013.

There are ten out-of-district landfills used by the District. Six of these are located in Ohio, in Brown, Hamilton, Hancock, Montgomery, Fairfield and Pike Counties. The majority (95%) of the Districts residential/commercial waste is disposed of in Brown and Hamilton County Landfills owned and operated by Rumpke.

There are four landfills used by the District that are located out-of-state, in Kentucky. These include CSI-Epperson, Mason County, Bavarian Trucking Co and Rumpke-Pendleton County Landfills. A significant amount (approximately 24.5%) of the Districts Industrial waste is disposed of in the Mason County Landfill.

Data on landfill disposal in Table III-1 is taken from Ohio EPA's publication, 2010 Ohio Solid Waste Facility Data Report.

C. Existing Incinerators and Resource Recovery Facilities

There are no incinerators or resource recovery facilities operating within the District, or in use by the District. Table III-2 has been omitted.

D. Existing Transfer Facilities

The ACSWD uses two permitted transfer facilities out-of-district; both out-of-district transfer facilities are operated by Republic Waste doing business as CSI. CSI is used to consolidate greater Cincinnati packer truck route material for transport to their landfill in Williamstown, Kentucky. A third transfer facility is operated by the ACSWD in Adams County for small amounts of waste and does not accept material from packer trucks. The facility is not required to be permitted because it never has more than 40 cubic yards of waste on-site at any time. Data on transfer stations is included in Table III-3.

E. Existing Recycling and Household Hazardous Waste Collection Activities

Listed in Table III-4 are residential curbside recycling programs that service mainly residential customers in the ACSWD. Table III-4 includes the type of curbside program offered, the population served by each program, the collection frequency, the location of each program, the types of materials accepted and an estimation of processed recyclables at each location for the reference year, 2010.

Table III-5 identifies additional recycling activity such as drop-off facilities, waste hauler collection information, and Household Hazardous Waste (HHW) activity in the District for the reference year, 2010. All information has been gathered by the District from recycling surveys, hauler surveys, and reports submitted to the District by recyclers and haulers.

Not included in this list are scrap metal dealers, car shredders, paper brokers, and other related recyclers that are located in the greater Cincinnati or Portsmouth areas and available to District residents. Obviously, some recyclables from Clermont County and Adams County go to these facilities. Since scrap dealer reporting is not mandatory, the history of the industry has not been to keep records or divulge information on their customer base, or to track where material originates, we have not included them as part of the ACSWD inventory. This non-inclusion prevents us from double counting industrial scrap but likely understates our residential/commercial and industrial recycling rate. We have consistently used this approach to enable us to accurately compare one planning period to another. In Table III-5, the columns labeled "recyclables processed" and "% material from sector" are unknown because accurate records of each are not available.

Currently, there are no HHW facilities operating in the District, although several private firms located in Hamilton County do accept HHW from District residents for a fee. In addition, the ACSWD office provides alternative HHW collection/disposal advice to citizens on an individual basis. The ACSWD provides vouchers for free HHW disposal at a private HHW management firm when the nature of the HHW is identified as needing immediate and professional disposal. This voucher program is a one-on-one referral process, available year round. Recycling programs/activities located within the District are indicated on the maps in Appendix E, marked with an "⊕" and the corresponding number from Table III-5. A recent addition in recycling activities operating in the district, specifically in Clermont County, is Abitibi drop off sites. These locations are indicated on the maps in Appendix E, marked as a "★".

F. Existing Composting/Yard Waste Management Facilities

Listed in Table III-6 are registered or licensed composting facilities that accept compostable materials from the ACSWD.

The locations of these eight composting sites are shown on the maps in Appendix E, indicated by "X" preceding the corresponding number from Table III-6. There are also facilities, not identified in this Plan, in Hamilton County that serves District residents. Note that Bzak Landscaping maintains two separate compost facilities at the same location. The second facility is a Class III facility that accepted a large amount of animal waste in reference year,

2010. All other facilities used by the District offer yard waste composting. Little data exist on the processing capacity of each facility and therefore is marked unknown in the corresponding Table III-6.

G. Existing Open Dumps and Waste Tire Dumps

The list provided in Table III-8 was developed through interviews and surveys with Township Trustees, the County Engineer, the County Sheriff, and the General Health District in Clermont County.

Open dumps are areas off the road or adjacent to the road right-of-way, on which solid wastes are deposited. Occasional litter and debris is not considered an open dump. If tires make up a majority of the open dump volume, it is considered a tire dump. The sites listed in Table III-8 are shown on the maps in Appendix E, with a "solid red circle" preceding the corresponding number from the table.

Additionally, in Adams County, because of its extensive open dump problem, the ACSWD conducted a visual roadway survey of all roadways in the county. This survey was conducted in the spring of 2009. Information from this survey assisted the District in establishing a uniform measurement and accounting of open dumps in the county. The District was able to estimate the size of each open dump, using a measuring range finder. In addition to size, each site was photographed and its exact location was recorded with a GPS Unit. The detailed 2009 survey helped clarify the number and size of open dumps in the county; therefore, allowing future surveys to determine if the District's efforts to curb open dumping are successful. Compared to the last survey, completed in 1996, it is generally believed that little progress has been made on reduction of open dumping in Adams County and in fact, the number of open dump sites has grown.

H. Ash, Foundry Sand, and Slag Disposal Sites

The sites identified in Table III-9 are associated with coal-fired electric generation stations located in the District and along the Ohio River. One of the sites (Duke Pond Run Ash Disposal) is located within the District but is now inactive. It is indicated on the Clermont County map in Appendix E as "A."

I. Map of Facilities and Sites

Appendix E includes a map for each county within the District which shows the location of each facility and disposal site listed in tables, III-1 through III-9.

J. Existing Collection Systems - Haulers

Both Adams and Clermont County General Health Districts require licensing of solid waste haulers. To determine which haulers were operating in the ACSWD during the reference year, the District conducted a telephone survey of licensed haulers. The District used the survey to identify haulers that collected solid waste from residents and commercial businesses in Adams and Clermont counties. Table III-10 identifies all solid waste haulers operating in the ACSWD.

Source separated yard waste is not collected curbside by any of the haulers. Yard waste drop-offs are available to residents of some of the villages within the ACSWD.

Table III-1 Landfills used by the District

Facility Name	Type Landfill ¹	Location		Solid Waste Received from ACSWD (Tons/Year 2010)			
		County	State	Residential/Commercial	Industrial	Exempt	Total
<i>In-District facilities</i>							
Zimmer Landfill (non MSW) ²	C	Clermont	OH	0	859,774	n/a	859,774
<i>Out-of-district facilities</i>							
Rumpke Landfill	PA	Brown	OH	90,829	1,109	2,356	94,294
Rumpke Landfill	PA	Hamilton	OH	35,473	79	249	35,801
Hancock County Sanitary Landfill	PA	Hancock	OH	13	0	0	13
Stony Hollow Landfill, Inc.	PA	Montgomery	OH	0	16	18	34
Pine Grove Regional Facility	PA	Fairfield	OH	3	0	0	3
Pike Sanitation Landfill	PA	Pike	OH	2,493		2,291	4,784
<i>Out-of-state facilities</i>							
CSI-Epperson Landfill	PA	Grant	KY	0	6568	n/a	6,568
Mason County Landfill	PA	Mason	KY	3,861	280963.8	n/a	284,824
Bavarian Trucking Co Inc	PA	Boone	KY	205	0	n/a	205
Rumpke-Pendleton County	PA	Pendleton	KY	45.3	134.3	n/a	180
Totals				132,922	1,148,644	4,914	1,286,480

¹ PA=Publicly available, C=Captive

² Zimmer Landfill is a captive facility for Duke Energy coal burning electric power generation facilities in Clermont and Hamilton Counties. The waste that goes to the landfill includes flue gas desulfurization (FGD) residuals, bottom ash and fly ash.

Table III-2 Solid Waste Incinerator and Waste to Energy Facilities
This Table blank purposefully - No facilities

Table III-2 Solid Waste Incinerator and Waste to Energy Facilities

This Table blank purposefully - No facilities

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

Facility Name	Type of Facility ¹	Location					Recyclables Processed (TPY)		
		County	ST	Industrial	Exempt	Total	Recovered from waste	Total	
Covington Transfer Station	PA	Covington	KY			Unknown	0	0	
Adams Waste & Recycling	PA	Adams	OH ²			303			
Evandale Transfer Station	PA	Hamilton	OH			9,503			
Totals					0	0	9,806	0	0

¹ PA=Public ally available

² Includes asbestos, other and general solid waste

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

Curbside Recycling Name Mailing Address Phone Number	Type of Curbside ¹	Population Served	Collection Frequency	Average Population ³ Participating	Service Area		Types of Material Accepted	Recyclables Processed from the SWMD
					County	Townships/City/Village		
Rumpke Recycling 5535 Vine Street Cin., OH 45217 (513) 242-4600	NS	1,509	Weekly	1,509	Clermont	Batavia Vill.	Glass, Newsprint, Office Paper, Alum, Steel & Bi-metal Cans, #1 - #7 Plastics	1,908
	NS	6,680		6,680		City of Milford		
	S	46,416		11,604		Union Twp		
	S	40,848		10,212		Miami Twp		
	NS	794		794		Owensville		
	S	14,349		3,587		Pierce Twp		
	S	23,280		5,820		Batavia Twp		
CSI Waste Services ² 11563 Mosteller Rd Cin., OH 45241 (513) 771-4200	NS		Bi-Weekly	see footnote ³	Clermont		Glass, Newsprint, Office Paper, Aluminum, Steel and Bi-metal Cans, #1	Unknown
	S	46,416				Union Twp		
	S	40,848				Miami Twp		
	S	23,280				Batavia Twp		
TOTAL				40,206		TOTAL		1,908

¹ NS = Curbside program paid for by public entity; S = Curbside program paid for by resident on a voluntary basis

² CSI did not provide information on recyclables collected.

³ Population Participating was not counted twice where Rumpke and CSI both serve Union, Miami, & Batavia Townships.
Subscription (S) = 25% of population and non-subscription (NS) = 100% of population.

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

Facility #	Facility/Activity Name Mailing Address Phone Number 1 2	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
Adams Drop-off Locations funded by ACSWD											
1	11260 SR 41, West Union, OH ²	PA, DO	See: footnote ⁵	Adams	West Union Vill. Tiffin Twp.	5,560	168	Unknown	Available but Unknown	N/A	N/A
2	34 Nixon Ave., Peebles, OH ²	PA, DO	See: footnote ⁵	Adams	Peebles Vill. Meigs Twp.	3,905	168	Unknown	Available but Unknown	N/A	N/A
3	2033 TriCounty Hwy, Winchester, OH ²	PA, DO	See: footnote ⁵	Adams	Winchester Village and Twp.	2,208	168	Unknown	Available but Unknown	N/A	N/A
4	555 Lloyd Rd Manchester, OH ²	PA, DO	See: footnote ⁵	Adams	West Union Vill. Liberty Twp.	1,965	168	Unknown	Available but Unknown	N/A	N/A
5	2295 Moores Rd., Seaman, OH	PA, DO	See: footnote ⁵	Adams	Seaman Vill. Scott Twp.	2,180	168	Unknown	Available but Unknown	N/A	N/A
6	23 W 5th St., Manchester, OH ²	PA, DO	See: footnote ⁵	Adams	Manchester Vill. Liberty Twp.	1,965	168	Unknown	Available but Unknown	N/A	N/A
7	130 Wayne Frye Dr., Manchester, OH ²	PA, DO	See: footnote ⁵	Adams	Manchester Vill. Liberty Twp.	1,965	168	Unknown	Available but Unknown	N/A	N/A
8	95 Trefz Rd., West Union, OH ²	PA, DO	See: footnote ⁵	Adams	West Union Vill. Tiffin Twp.	5,560	168	Unknown	Available but Unknown	N/A	N/A
9	700 Peebles Indian Dr., Peebles, OH ²	PA, DO	See: footnote ⁵	Adams	Seaman Vill. Meigs Twp.	3,905	168	Unknown	Available but Unknown	N/A	N/A
10	14815 SR 136, Cherry Fork, OH ²	PA, DO	See: footnote ⁵	Adams	Cherry Fork Vill. Wayne Twp.	1,304	168	Unknown	Available but Unknown	N/A	N/A
Clermont Drop-off Locations funded by ACSWD											
11	2275 Bauer Rd., Batavia OH ¹	PA, DO	See: footnote ⁵	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	N/A	N/A
12	545 W. Plane St., Bethel, OH ¹	PA, DO	See: footnote ⁵	Clermont	Bethel Vill., Tate Twp.	9,357	168	Unknown	Available but Unknown	N/A	N/A
13	3261 US 50, Williamsburg, OH ²	PA, DO	See: footnote ⁵	Clermont	Jackson Twp	2,980	168	Unknown	Available but Unknown	N/A	N/A
14	6320 SR 133, Newtonsville, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	4,885	168	Unknown	Available but Unknown	N/A	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ¹²	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Clermont Drop-off Locations funded by ACSWD</i>											
15	2400 Clermont Center Dr ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,380	168	Unknown	Available but Unknown	N/A	N/A
16	4430 SR 222, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	N/A	N/A
17	4342 Glen Est Wthmsvl, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Union Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
18	6757 Goshen Rd, Goshen, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	15,505	168	Unknown	Available but Unknown	NA	N/A
19	1088 Wasserman Dr, Felicity, OH ¹	PA, DO	See: footnote ⁵	Clermont	Batavia Twp Newtonsville Vill	4,188	168	Unknown	Available but Unknown	NA	N/A
20	1546 SR 131, Milford, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	40,848	168	Unknown	Available but Unknown	NA	N/A
21	6101 Miejer Dr, Milford, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	40,848	168	Unknown	Available but Unknown	NA	N/A
22	6492 Branch Hill Guinea, Loveland, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	40,848	168	Unknown	Available but Unknown	NA	N/A
23	1963 Laurel Lindale, New Richmond, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	7,828	168	Unknown	Available but Unknown	NA	N/A
24	2828 SR 222, Bethel, OH ¹	PA, DO	See: footnote ⁵	Clermont	Monroe Twp Newtonsville Vill	9,357	168	Unknown	Available but Unknown	NA	N/A
25	415 Walnut Felicity, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	4,188	168	Unknown	Available but Unknown	NA	N/A
26	745 Center, Milford, OH ¹	PA, DO	See: footnote ⁵	Clermont	Miami Twp Newtonsville Vill	4,188	168	Unknown	Available but Unknown	NA	N/A
27	4400 Haskel Lane, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
28	1135 Bethel New Richmond, New	PA, DO	See: footnote ⁵	Clermont	Ohio Twp Newtonsville Vill	7,828	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ¹²	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity (tons)	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Clermont Drop-off Locations funded by ACSWD</i>											
29	2228 SR 50, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
30	950 Locust Corner, Pierce, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	14,349	168	Unknown	Available but Unknown	NA	N/A
31	4015 Filager, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
32	797 Wright (SR 131), Newtonsville, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	4,885	168	Unknown	Available but Unknown	NA	N/A
33	4529 Schoolhouse Rd, Willowville, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	46,416	168	Unknown	Available but Unknown	NA	N/A
34	1051 Front St, New Richmond, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	5,192	168	Unknown	Available but Unknown	NA	N/A
35	4350 Aicholtz Rd, Cincinnati, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	46,416	168	Unknown	Available but Unknown	NA	N/A
36	4722 Summerside Dr, Union Township, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	46,416	168	Unknown	Available but Unknown	NA	N/A
37	300 North 8th St., Williamsburg, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	5,746	168	Unknown	Available but Unknown	NA	N/A
38	333 East Main, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
39	3294 Ellick Rd., Bethel, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	9,357	168	Unknown	Available but Unknown	NA	N/A
40	2385 Lewis Rd., Amelia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Pierce Twp Newtonsville Vill	5,192	168	Unknown	Available but Unknown	NA	N/A
41	1535 Clough Pike, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
42	1154 US Route 50, Milford, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	40,848	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ¹²	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Clermont Drop-off Locations funded by ACSWD</i>											
43	2837 Old SR 32, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Batavia Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
44	289 East Main, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
45	2401 Old SR 32, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
46	1984 Ohio Pike, Batavia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	23,280	168	Unknown	Available but Unknown	NA	N/A
47	4949 Tealtown Road, Milford, OH ¹	PA, DO	See: footnote ⁵	Clermont	Union Twp Newtonsville Vill	40,848	168	Unknown	Available but Unknown	NA	N/A
48	1000 Locust Street, Owensville, OH ¹	PA, DO	See: footnote ⁵	Clermont	Wayne Twp Newtonsville Vill	5,890	168	Unknown	Available but Unknown	NA	N/A
49	52 West Main Street, Amelia, OH ¹	PA, DO	See: footnote ⁵	Clermont	Pierce Twp Newtonsville Vill	5,192	168	Unknown	Available but Unknown	NA	N/A
<i>Abitibi</i>											
50	445 Criag Rd, Cincinnati, OH ³	PA, DO	See: footnote ⁶	Clermont	Cincinnati City, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
51	5 East Main Street, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
52	1351 Clough Pike Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
53	1341 Clough Pike, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
54	402 W Plane St, Bethel, OH ³	PA, DO	See: footnote ⁶	Clermont	Bethel Vill, Tate Twp.	9,357	168	Unknown	Available but Unknown	NA	N/A
55	2170 Old State Route 32, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
56	2401 Old State Route 32, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ¹²	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Abitibi</i>											
57	1 Bulldog Place, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
58	800 Bauer Avenue, Batavia OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
59	3420 SR-125, Bethel, OH ³	PA, DO	See: footnote ⁶	Clermont	Bethel Vill. Tate Twp.	9,357	168	Unknown	Available but Unknown	NA	N/A
60	649 West Plane Street, Bethel, OH ³	PA, DO	See: footnote ⁶	Clermont	Bethel Vill. Tate Twp.	9,357	168	Unknown	Available but Unknown	NA	N/A
61	609 Brantner Lane, Cincinnati, OH ³	PA, DO	See: footnote ⁶	Clermont	Cincinnati, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
62	555 Cincinnati-Batavia Pike, Cincinnati, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
63	4949 Tealtown Rd, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Willowville, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
64	4050 Toll Gate Rd, Williamsburg, OH ³	PA, DO	See: footnote ⁶	Clermont	Williamsburg Vill. Williamsburg Twp.	5,746	168	Unknown	Available but Unknown	NA	N/A
65	78 Riverside Dr, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
66	4015 Filager Rd, Williamsburg, OH ³	PA, DO	See: footnote ⁶	Clermont	Williamsburg Vill. Williamsburg Twp.	5,746	168	Unknown	Available but Unknown	NA	N/A
67	289 Main St, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
68	2400 Clermont Center Dr, Batavia, OH	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
69	2275 Bauer Rd, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
70	4200 Clermont College Dr, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
71	2340 Clermont Center Dr, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ¹²	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Abitibi</i>											
72	463 South Broadway, Owensville, OH ³	PA, DO	See: footnote ⁶	Clermont	Owensville Vill. Stonelick Twp.	5,890	168	Unknown	Available but Unknown	NA	N/A
73	5327 Hutchinson Rd, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Loveland City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
74	2790 US 50, Owensville, OH ³	PA, DO	See: footnote ⁶	Clermont	Owensville Vill. Stonelick Twp.	5,890	168	Unknown	Available but Unknown	NA	N/A
75	808 Clough Pike, Cincinnati, OH ³	PA, DO	See: footnote ⁶	Clermont	Withamsville, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
76	5910 Price Rd, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
77	415 Washington St, Felicity, OH ³	PA, DO	See: footnote ⁶	Clermont	Felicity Vill. Franklin Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A
78	549 -B West Main St, Williamsburg, OH 1	PA, DO	See: footnote ⁶	Clermont	Williamsburg Vill. Williamsburg Twp.	5,746	168	Unknown	Available but Unknown	NA	N/A
79	4050 Toll Gate Rd, Williamsburg, OH 1	PA, DO	See: footnote ⁶	Clermont	Williamsburg Vill. Williamsburg Twp.	5,746	168	Unknown	Available but Unknown	NA	N/A
80	78 Riverside Dr, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
81	2400 Clermont Center Dr, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
82	4342 Glen Este Withamsville Rd,	PA, DO	See: footnote ⁶	Clermont	Withamsville CDP, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
83	6707 Goshen Rd, Goshen, OH ³	PA, DO	See: footnote ⁶	Clermont	Goshen, OH, Goshen Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A
84	6692 Goshen Rd, Goshen, OH ³	PA, DO	See: footnote ⁶	Clermont	Goshen, OH, Goshen Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A
85	1978 Main St, Goshen, OH ³	PA, DO	See: footnote ⁶	Clermont	Goshen, OH, Goshen Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A
86	6710 Goshen Rd, Goshen, OH ³	PA, DO	See: footnote ⁶	Clermont	Goshen, OH, Goshen Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ^{1,2}	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Abitibi</i>											
87	150 Fossyl Dr, Bethel, OH ³	PA, DO	See: footnote ⁶	Clermont	Bethel Vill., Tate Twp.	9,357	168	Unknown	Available but Unknown	NA	N/A
88	3520 State Route 132, Amelia, OH ³	PA, DO	See: footnote ⁶	Clermont	Amelia Vill. Ohio Twp.	5,192	168	Unknown	Available but Unknown	NA	N/A
89	1094 State Highway 28, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
90	1487 State RT 131, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
91	200 East Main St, Owensville, OH ³	PA, DO	See: footnote ⁶	Clermont	Owensville Vill. Stonelick Twp.	5,890	168	Unknown	Available but Unknown	NA	N/A
93	1783 Ohio Pike State Rd, Amelia, OH ³	PA, DO	See: footnote ⁶	Clermont	Amelia Vill. Ohio Twp.	5,192	168	Unknown	Available but Unknown	NA	N/A
94	6388 Branch Hill Guinea Pike, Loveland, OH ³	PA, DO	See: footnote ⁶	Clermont	Loveland City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
95	1093 OH-28, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
96	550 Cincinnati Batavia Rd, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
97	5956 Buchwheat, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
98	3431 Locust Corner Rd, Cincinnati, OH ³	PA, DO	See: footnote ⁶	Clermont	Cincinnati City, Pierce Twp.	14,349	168	Unknown	Available but Unknown	NA	N/A
99	6740 Loveland Miamiville Rd, Loveland, OH ³	PA, DO	See: footnote ⁶	Clermont	Loveland City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
100	6696 Goshen Rd, Goshen, OH ³	PA, DO	See: footnote ⁶	Clermont	Goshen, OH, Goshen Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A
101	751 Loveland-Miamiville Rd, Loveland OH ³	PA, DO	See: footnote ⁶	Clermont	Loveland City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
102	1040 Gaskins Rd, Cincinnati, OH ³	PA, DO	See: footnote ⁶	Clermont	Cincinnati City, Pierce Twp.	14,349	168	Unknown	Available but Unknown	NA	N/A
103	6101 Meijer Rd, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
104	1 Eagles Way, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ^{1 2}	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Abitibi</i>											
105	100 Castleberry Ct, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
106	2117 Laurel-Lindale Rd, Laurel, OH ³	PA, DO	See: footnote ⁶	Clermont	Monroe Twp.	7,828	168	Unknown	Available but Unknown	NA	N/A
107	2828 ST RT 222, Bethel, OH ³	PA, DO	See: footnote ⁶	Clermont	Bethel Vill, Tate Twp.	9,357	168	Unknown	Available but Unknown	NA	N/A
108	4183 Mount Carmel Tabasco Rd, Withamsville, OH ³	PA, DO	See: footnote ⁶	Clermont	Withamsville CDP, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
109	6088 Branch Hill Guinea Pike, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
110	1141 Bethel-New Richmond Rd, New Richmond, OH ³	PA, DO	See: footnote ⁶	Clermont	New Richmond Vill., Ohio Twp	5,192	168	Unknown	Available but Unknown	NA	N/A
111	1135 Bethel New Richmond Rd, New Richmond, OH ³	PA, DO	See: footnote ⁶	Clermont	New Richmond Vill., Ohio Twp	5,192	168	Unknown	Available but Unknown	NA	N/A
112	552 Main St, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
113	896 Oakland Rd, Loveland, OH ³	PA, DO	See: footnote ⁶	Clermont	Loveland City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
114	5890 Buckwheat Rd, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
115	5849 Buckwheat, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
116	800 Ohio Pike, Withamsville, OH ³	PA, DO	See: footnote ⁶	Clermont	Withamsville CDP, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
117	815 Clepper Lane, Withamsville, OH ³	PA, DO	See: footnote ⁶	Clermont	Withamsville CDP, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
118	5684 Cromley, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A

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

Facility #	Facility/Activity Name Mailing Address Phone Number ¹²	Type of Facility or Activity ⁴	Types of Materials Accepted	Service Area			Hours available to the Public (per	Recyclables Processed from the SWD (TPY) ⁵	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Abitibi</i>											
119	203 Mound Avenue, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
120	6755 Linton Rd, Goshen, OH ³	PA, DO	See: footnote ⁶	Clermont	Goshen, OH, Goshen Twp.	15,505	168	Unknown	Available but Unknown	NA	N/A
121	4473 MT Carmel Tobasco Rd, Withamsville, OH ³	PA, DO	See: footnote ⁶	Clermont	Withamsville CDP, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
122	4639 Vermona Drvie, Mt. Carmel, OH ³	PA, DO	See: footnote ⁶	Clermont	Mt. Carmel CDP, Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
123	638 Batavia Dr, Batavia, OH ³	PA, DO	See: footnote ⁶	Clermont	Batavia Vill. Batavia Twp.	23,280	168	Unknown	Available but Unknown	NA	N/A
124	3669 Appomatox Dr, Amelia, OH ³	PA, DO	See: footnote ⁶	Clermont	Amelia Vill. Pierce Twp.	14,349	168	Unknown	Available but Unknown	NA	N/A
125	5767 Wolfpen Pleasant Hill Rd, Milford, OH ³	PA, DO	See: footnote ⁶	Clermont	Milford City, Miami Twp.	40,848	168	Unknown	Available but Unknown	NA	N/A
126	1815 SR-125, Amelia, Oh ³	PA, DO	See: footnote ⁶	Clermont	Amelia Vill. Pierce Twp.	14,349	168	Unknown	Available but Unknown	NA	N/A
127	101 Fossyl Dr, Bethel, OH ³	PA, DO	See: footnote ⁶	Clermont	Bethel Vill, Tate Twp.	9,357	168	Unknown	Available but Unknown	NA	N/A
128	839 Spring St, Williamsburg, OH ³	PA, DO	See: footnote ⁶	Clermont	Williamsburg Vill. Williamsburg Twp.	5,746	168	Unknown	Available but Unknown	NA	N/A
129	500 S 5TH St, Williamsburg, OH ³	PA, DO	See: footnote ⁶	Clermont	Williamsburg Vill. Williamsburg Twp.	5,746	168	Unknown	Available but Unknown	NA	N/A
130	4529 Schoolhouse Rd, Willowville, OH ³	PA, DO	See: footnote ⁶	Clermont	Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A
131	3950 Britton Rd, Union, OH ³	PA, DO	See: footnote ⁶	Clermont	Union Twp.	46,416	168	Unknown	Available but Unknown	NA	N/A

¹ Locations served by Rumpke Recycling - 5535 Vine St., Cincinnati, OH 45217 (513) 242-4600

² Locations serviced by Adams-Brown Recycling - 9620 Mt. Orab Pike, Georgetown, OH 45121 (513)378-3431

³ Location serviced by AbiBow Recycling LLC - 5634 Vine St. Cincinnati, OH 45216 (800)-874-1301

⁴ PA=Public ally available, DO = Drop-off, HC = Hauler Collection, BB = Buy Back, DV = District Voucher program, OCC = Old corrugated containers

⁵ Glass, Newsprint, Office Paper, Aluminum, Steel, Bi-metal cans, and #1 and #2 plastic

⁶ Newspapers, Magazines, Catalogs, Office Paper, School and Office Paper, Mail

⁷ Individual site information not available

Table III-5. (cont.) Drop-offs, Buybacks, Hauler Collection, Other Recycling Activities, and HHW Collection used by the District

Facility #	Facility/Activity Name Mailing Address Phone Number	Type of Facility or Activity ³	Types of Materials Accepted ³	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY)	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity (tons)	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Buyback Recycling Facilities</i>											
132	Adams County Waste Recycling	PA, BB		Adams	All	28,550	MTRF 9-4 Sat. 9-1	Unknown	Unknown	Unknown	Unknown
133	Far-Out Recycling, 366 Blue Gill Rd, Peebles, OH 45660 (513) 544-3043	PA, BB	Aluminum, Ferrous & non ferrous Metals, Stainless Steel, and lead acid batteries	Adams	All	28,550	Mon-Sat: 10-5	Unknown	Unknown	Unknown	Unknown
134	M&R Recycling, 1272 Highway 28, Loveland, OH 45140 (513)575-0661	PA, BB	Aluminum, Ferrous & non ferrous Metals, Stainless Steel, and lead acid batteries	Clermont	All	195,461	Mon-Fri: 9-5 Sat: 9-1	Unknown	Unknown	Unknown	Unknown
135	Round Bottonm Recycling, 5100 River Valley Road Milford, Ohio 45150	PA, BB	Aluminum, Ferrous & non ferrous Metals, Stainless Steel,	Clermont	All	195,461	Mon-Fri: 8-5 Sat: 9-1	Unknown	Unknown	Unknown	Unknown
136	Way-Out Recycling, 2340 Snyder Road, Batavia, OH 45103	PA, BB	Aluminum, Ferrous & non ferrous Metals, Stainless Steel, and lead acid batteries	Clermont	All	195,461	Fri-Sat: 9-4:30	Unknown	Unknown	Unknown	Unknown

³ PA=Public ally available , DO = Drop-off, HC = Hauler Collection, BB = Buy Back, DV = District Voucher program, OCC = Old corrugated containers

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

Facility #	Facility/Activity Name Mailing Address Phone Number	Type of Facility or Activity ³	Types of Materials Accepted ³	Service Area			Hours available to the Public (per week)	Recyclables Processed from the SWD (TPY)	% of Material from Sector: Residential-R Commercial-C Industrial-I	Processing Capacity (tons)	
				County	Township /City	Population				Dailey (TPD)	Annual (TPY)
<i>Hauler Collection</i>											
137	Rumpke Waste 10795 Hughes Road, Cincinnati, OH 45251 (513) 742-2900	HC	Commercial OCC,	Clermont partial		118,533	NA	1,954	Unknown	Unknown	Unknown
			Residential Curbside	Clermont partial		118,533		2,556	Unknown	Unknown	Unknown
138	CSI 11563 Mosteller Road Cincinnati, OH	HC	Commercial	Clermont		118,533	NA	Unknown	Unknown	Unknown	Unknown
			Residential Curbside	Clermont partial		118,533					
139	Forest Green Waste 10990 St Rt 128 Harrison, OH 45030	HC	Residential Curbside	Clermont partial			NA	Unknown	Unknown	Unknown	Unknown
<i>Household Hazardous Waste Collection Programs</i>											
140	Environmental Enterprises 4650 Spring Grove Ave. Cincinnati, OH 45232	PA, DV	HHW	Adams & Clermont	All	224,011		Un-known	Unknown	Unknown	Unknown

³ PA=Public ally available , DO = Drop-off, HC = Hauler Collection, BB = Buy Back, DV = District Voucher program, OCC = Old corrugated containers

Table III-6.

Composting and/Yard Waste Management Activities Used by the District

Facility Name or Application,	Facility Type ¹	Location				Waste Received from the SWMD 2		Processing Capacity		Non-compostable landfilled (TPY)	Compost Produced (TPY)
		County	Address	City, ST	Zip Phone	Type	Amount (TPY)	Daily (TPD)	Annual (TPY)		
1 Auxier Trucking	PA	Clermont	1275 Ohio Pike	Amelia, OH	45102 (513) 753-9186	Yard Waste	Unknown			Unknown	302
2 Bzak Landscaping, Inc.	PA	Clermont	931 Roundbottom Rd	Milford, OH	45150 (513) 831-0907	Animal Waste				Unknown	3,300
3 Bzak Landscaping, Inc.	PA	Clermont	931 Roundbottom Rd	Milford, OH	45150 (513) 831-0907	Yard Waste	Unknown			Unknown	15,567
4 Grailville Composting	PA	Clermont	932 O'Bannonville	Loveland, OH	45140 (513) 683-2340	Yard Waste	1,000		1,000	Unknown	37
5 Hotel Trucking	PA	Clermont	1141 US Rt. 50	Milford, OH	45150 (513) 248-2233	Yard Waste	Unknown			Unknown	35
6 Miamiville, Inc.	PA	Clermont	State Route 126			Yard Waste	Unknown			Unknown	116
7 Ohio Mulch	PA	Clermont	4065 Mt. Carmel-Tobasco Rd.,	Cincinnati, OH	45244	Yard Waste				Unknown	-
8 Village of Williamsburg	PA	Clermont	107 West Main St.	Williamsburg, OH	45176 (513) 724-6107	Yard Waste	250	1	250	Unknown	313
9 Owens Road Composting	PA	Adams	Owens Rd	West Union, OH	45693	Yard Waste				Unknown	91
Total											19,761

¹ PA = Publicly Available

Table III-7 Facilities Used by the District Which are Located Outside Ohio

Facility Name/ Type of Facility (e.g. landfill, transfer station, etc.)	Facility Mailing Address Name Address City ST Zip Phone	Facility Owner Name Address City ST Zip Phone	Facility Operator/Manager Name Address City ST Zip Phone	Daily Waste Receipt Limit if known (TPD)	Number of Days Facility is Open During Year, if known
Mason County Landfill	Mason County Landfill 7055 Sherman-Clarkson Rd Maysville, Ky 41056 (606) 759-7049	Mason County Landfill 7055 Sherman-Clarkson Rd Maysville, Ky 41056 (606) 759-7049	Mason County Landfill 7055 Sherman-Clarkson Rd Maysville, Ky 41056 (606) 759-7049	Unknown	Unknown
Epperson Landfill	Epperson Landfill 2360 Cynthiana Rd Williamstown, KY 41097 (859) 824-3773	Epperson Landfill 2360 Cynthiana Rd Williamstown, KY 41097 (859) 824-3773	Epperson Landfill 2360 Cynthiana Rd Williamstown, KY 41097 (859) 824-3773	Unknown	Unknown
Rumpke-Pendleton County	Rumpke-Pendleton Landfill Route 2 Box 70, Bryant Butler, KY 41006 (859) 472-7339	Rumpke-Pendleton Landfill Route 2 Box 70, Bryant Butler, KY 41006 (859) 472-7339	Rumpke-Pendleton Landfill Route 2 Box 70, Bryant Butler, KY 41006 (859) 472-7339	Unknown	Unknown
Bavarian Trucking Co Inc Landfill *	Bavarian Trucking Co Inc 12764 McCoy Fork Road Walton, Kentucky 41094 (859)485-4416	Bavarian Trucking Co Inc 12764 McCoy Fork Road Walton, Kentucky 41094 (859)485-4416	Bavarian Trucking Co Inc 12764 McCoy Fork Road Walton, Kentucky 41094 (859)485-4416	Unknown	Unknown

* This is a non-designated facility receiving waste in violation of designation rules.

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

Site ID #	Site Location (Provide brief description)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Land Owner Mailing Name Address City ST Zip Phone	Description of Materials dumped at site	Approximate Size of Site (in square yards)	Time Period Site Has Existed
1001	Adams County S. R. 247	38° 42' 36.139" N	83° 30' 36.059" W	Unknown	Household Refuse, Misc. Steel	2 piles, each 50	Recent Activity
1002	Adams County US 52	38° 41' 47.183" N	83° 33' 55.422" W	Unknown	Household Refuse	150 linear yards	Recent Activity
1003	Adams County US 52	38° 41' 42.562" N	83° 34' 15.972" W	Unknown	Household Refuse, Tires	2 piles, 200 and 30	Recent Activity
1004	Adams County US 52	38° 41' 41.412" N	83° 34' 15.664" W	Unknown	Household Refuse, Tires		
1005	Adam County Bentonville Rd.	38° 44' 23.513" N	83° 36' 9.335" W	Unknown	Lightly scattered debris, Appliances	790	No Recent Activity
1006	Adam County Bentonville Rd.	38° 43' 32.718" N	83° 35' 29.059" W	Unknown	Household Refuse, Tires	2700	Recent Activity
1007	Adam County Island Creek Rd.	38° 41' 50.517" N	83° 35' 6.777" W	Unknown	280 Tires		Recent Activity
1008	Adams County Island Creek Rd.	38° 41' 53.812" N	83° 35' 3.749" W	Unknown	Household Refuse		
1009	Adams County Buckhorn Rd.	38° 42' 51.975" N	83° 33' 31.273" W	Unknown	Household Refuse	190	No Recent Activity
1010	Adams County Island Creek Rd.	38° 43' 29.029" N	83° 34' 21.260" W	Unknown	Household Refuse, Abandoned Trailer	50 and 40	
1011	Adams County Island Creek Rd.	38° 43' 29.678" N	83° 34' 21.166" W	Unknown	Household Refuse	150	No Recent Activity
1012	Adams County 196 Browns Hill Rd.	38° 41' 5.397" N	83° 38' 58.207" W	Unknown	Household Refuse, Wood, Old Mobile Home	29 Linear Yards	Recent Activity
1013	Adams County Lick Skillet Rd.	38° 39' 7.597" N	83° 40' 57.748" W	Unknown	Household Refuse, Tires	35	Recent Activity
1014	Adams County Buttermilk Rd. 29 yards from St Rt 41	38° 40' 54.919" N	83° 41' 32.177" W	Unknown	Mix	Several Piles	Recent Activity
1015	Adams County Roush Hill Rd.	38° 41' 32.650" N	83° 36' 53.623" W	Unknown	Yard Waste	100	Recent Activity
1016	Adams County Roush Hill Rd.	38° 41' 30.139" N	83° 36' 50.226" W	Unknown	Household Refuse	Unknown	Recent Activity
1017	Adams County	38° 40' 55.247" N	83° 37' 17.957" W	Unknown	Fabric	30	Recent Activity
1018	Adams County US 52	38° 41' 4.584" N	83° 37' 19.532" W	Unknown	3 couches		No Recent Activity
1019	Adams County US 52	38° 41' 5.463" N	83° 37' 19.547" W	Unknown	20 Tires		No Recent Activity
1020	Adam County 3823 Eagle Creek Dr.	38° 48' 0.124" N	83° 37' 26.283" W	Unknown	Tires	75	Recent Activity

Table III-8. (cont.) Open Dumps and Waste Tire Dumps Located in the District

Site ID #	Site Location (Provide brief description)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Land Owner Mailing Name Address City ST Zip Phone	Description of Materials dumped at site	Approximate Size of Site (in square yards)	Time Period Site Has Existed
1025	Adams County Germany Hill Dr. 60 yards from road	38° 43' 33.466" N	83° 30' 10.025" W	Unknown	Household Refuse	150	Recent Activity
1026	Adams County Trent Rd.	38° 45' 53.720" N	83° 30' 6.084" W	Unknown	Household Refuse	360	Very Active Dump Site
1028	Adams County Popular Ridge Rd.	38° 44' 35.094" N	83° 29' 3.776" W	Unknown	Mix Waste	660	Recent Activity
1029	Adams County Steep Hill Rd.	38° 44' 46.692" N	83° 28' 59.182" W	Unknown	Household Refuse	570	Recent Activity
1027	Adams County Steep Hill Rd.	38° 45' 12.517" N	83° 30' 4.693" W	Unknown	Household Refuse, Appliances	1575	Very Active Dump Site
1030	Adams County Upper Roam Rd	38° 39' 52.840" N	83° 22' 37.468" W	Unknown	Household Refuse, Couch	100	Recent Activity
1031	Adams County Franklin Rd.	38° 37' 8.782" N	83° 18' 12.099" W	Unknown	Household Refuse	100	Recent Activity
1032	Adams County Lower Twin Creek Rd.	38° 42' 7.415" N	83° 18' 49.308" W	Unknown	Household Refuse	500	Recent Activity
1033	Adams County Tanager Rd.	38° 44' 4.889" N	83° 17' 41.949" W	Unknown	Appliances	50	Recent Activity
1034	Adams County West Fork Rd	38° 42' 51.896" N	83° 25' 10.372" W	Unknown	Household Refuse	15	Very Recent Activity
1035	Adams County Tulip Rd.	38° 44' 56.986" N	83° 25' 22.524" W	Unknown	Appliances	250	Recent Activity
1036	Adams County Mahogany Rd	38° 45' 41.699" N	83° 26' 32.907" W	Unknown	Tires	64	Recent Activity
1037	Adams County Weaver Rd.	38° 46' 27.521" N	83° 26' 2.079" W	Unknown	Household Refuse, Appliances	100	Recent Activity
1038	Adams County Middle Branch Rd	38° 45' 35.053" N	83° 22' 53.165" W	Unknown	Household Refuse	180	Recent Activity
1039	Adams County Riley Hollow Rd	38° 45' 43.828" N	83° 22' 15.941" W	Unknown	Household Refuse, Appliances	250	Recent Activity
1040	Adams County Blue Creek Rd	38° 44' 5.356" N	83° 21' 33.013" W	Unknown	Household Refuse	224	Very Recent Activity
1041	Adams County Sunshine Ridge Rd	38° 43' 23.981" N	83° 22' 55.620" W	Unknown	Household Refuse	400	Inactive
1042	Adams County Blue Creek Rd	38° 43' 33.993" N	83° 22' 5.986" W	Unknown	Household Refuse	2 Piles, 190 and 1575	Recent Activity
1043	Adams County Hog Run Rd	38° 44' 34.686" N	83° 20' 10.385" W	Unknown	Tires	20 Tires	
1044	Adams County Reel Ridge Rd.	38° 44' 12.320" N	83° 19' 49.284" W	Unknown	Household Refuse	391	Old but active site
1045	Adams County SR 348 & SR 125	38° 46' 46.522" N	83° 27' 9.454" W	Unknown	Household Refuse and Construction Debris	225	Recent Activity
1046	Adams County Bethony Ridge Rd.	38° 47' 37.278" N	83° 23' 39.809" W	Unknown	Household Refuse	50	Recent Activity
1047	Adams County Wintersteen Rd	38° 45' 42.553" N	83° 17' 13.975" W	Unknown	Household Refuse, Couch	20 linear yards	Inactive

Table III-8. (cont.) Open Dumps and Waste Tire Dumps Located in the District

Site ID #	Site Location (Provide brief description)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Land Owner Mailing Name Address City ST Zip Phone	Description of Materials dumped at site	Approximate Size of Site (in square yards)	Time Period Site Has Existed
1052	Adams County Spurgeon Hill Rd.	38° 50' 28.795" N	83° 25' 52.541" W	Unknown	Household Refuse	52	Active
1053	Adams County Spurgeon Hill Rd. & Paradise Valley Rd.	38° 51' 19.795" N	83° 27' 39.126" W	Unknown	Household Refuse, Furniture, A/C Unit	153	Active
1054	Adams County Vaughn Ridge Rd.	38° 50' 26.439" N	83° 28' 16.648" W	Unknown	Household Refuse, Tires, Scrap Metal	1800	Active
1055	Adams County Bracken Ridge Rd.	38° 49' 24.602" N	83° 16' 20.158" W	Unknown	Household Refuse	25	Active
1056	Adams County Bracken Ridge Rd.	38° 49' 26.856" N	83° 16' 3.412" W	Unknown	Household Refuse, Mattresses	35	Active
1057	Adams County Bracken Ridge Rd.	38° 49' 23.871" N	83° 16' 6.916" W	Unknown	Household Refuse, Scrap Metal	60	Active
1058	Adams County Mt. Ungar Rd.	38° 49' 4.132" N	83° 16' 20.344" W	Unknown	Household Refuse, Scrap Metal	1275	Active
1059	Adams County Mt. Ungar Rd.	38° 49' 38.377" N	83° 16' 34.153" W	Unknown	Household Refuse	42	Active
1060	Adams County Lucas Rd.	38° 53' 21.631" N	83° 22' 18.713" W	Unknown	Household Refuse	49	Recent Activity
1061	Adams County Davis Memorial Rd.	38° 56' 0.279" N	83° 21' 49.555" W	Unknown	Household Refuse	130	Inactive
1062	Adams County SR 73 & Porstmouth Rd.	38° 57' 22.787" N	83° 18' 52.077" W	Unknown	Household Refuse, Roofing Materials	2 Piles, 300 and 18	Active
1063	Adams County SR 73	38° 57' 58.034" N	83° 19' 37.584" W	Unknown	Houshold Refuse, Tires	24	Recent Activity
1064	Adams County Hackleshin Rd.	38° 59' 6.547" N	83° 20' 55.100" W	Unknown	Household Refuse, Tires, Scrap Metal	13000	Active
1065	Adams County Frog Hollow Rd.	38° 58' 36.574" N	83° 21' 51.689" W	Unknown	Household Refuse	40	Active
1066	Adams County Curt Wilson Rd.	38° 59' 25.669" N	83° 21' 31.992" W	Unknown	Household Refuse, 100 +Tires, Scrap Metal	2255	Active
1067	Adams County Curt Wilson Rd.	38° 59' 19.966" N	83° 21' 32.593" W	Unknown	Household Refuse	360	Active
1068	Adams County SR 73 & SR 41	38° 59' 11.510" N	83° 22' 26.696" W	Unknown	Household Refuse, Burnt Garbage, Semi Truck	861	
1069	Adams County McCoy Rd.	39° 0' 28.563" N	83° 21' 17.471" W	Unknown	Household Refuse	16	Recent Activity
1070	Adams County McCoy Rd.	39° 0' 34.431" N	83° 21' 7.560" W	Unknown	Household Refuse, Burnt Garbage	72	Recent Activity
1071	Adams County Poplar Grove Rd.	38° 59' 54.652" N	83° 20' 7.345" W	Unknown	Household Refuse, Rubble, Scrap Metal	225	Active
1072	Adams County Poplar Grove Rd. 30 yards from road	39° 2' 2.371" N	83° 18' 53.464" W	Unknown	Household Refuse	225	Active

Table III-8. (cont.) Open Dumps and Waste Tire Dumps Located in the District

Site ID #	Site Location (Provide brief description)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Land Owner Mailing Name Address City ST Zip Phone	Description of Materials dumped at site	Approximate Size of Site (in square yards)	Time Period Site Has Existed
1077	Adams County Tener Rd.	39° 3' 5.519" N	83° 20' 35.586" W	Unknown	Household Refuse, Furniture	960	Unknown
1078	Adams County Edwin Shoemaker Rd 45 yards from road	39° 3' 8.522" N	83° 22' 36.571" W	Unknown	Household Refuse, Furniture	Scattered	Unknown
1079	Adams County SR 41 & Parker Ridge Rd.	39° 2' 14.837" N	83° 23' 3.873" W	Unknown	Household Refuse, Wood	121	Unknown
1080	Adams County SR 41 & Lick Run Rd.	38° 49' 7.487" N	83° 30' 47.161" W	Unknown	Household Refuse, Tires, Scrap Metal	20	Inactive
1081	Adams County Robinette Rd & Unity Rd.	38° 51' 35.345" N	83° 32' 10.367" W	Unknown	Household Refuse	35	Recent Activity
1082	Adams County Laurel Rd.	38° 50' 11.899" N	83° 33' 31.518" W	Unknown	Tires	266	Recent Activity
1083	Adams County Walt Assgood Rd.	38° 52' 9.605" N	83° 29' 43.960" W	Unknown	Household Refuse, Scrap Metal	693	Unknown
1084	Adams County SR 41 & Freeland Hollow Rd.	38° 51' 4.182" N	83° 28' 59.379" W	Unknown	Household Refuse	35	Unknown
1085	Adams County Hull Rd.	38° 54' 11.498" N	83° 27' 54.667" W	Unknown	Household Refuse	720	Recent Activity
1086	Adams County SR 32 & Lawshe Rd.	38° 56' 9.628" N	83° 27' 56.811" W	Unknown	Household Refuse	81	Unknown
1087	Adams County Measley Ridge Rd. & Thomas Stone Rd.	38° 56' 8.919" N	83° 26' 26.078" W	Unknown	Household Refuse	400	Recent Activity
1088	Adams County Malcom & Lawshe Rd.	38° 57' 31.309" N	83° 27' 44.167" W	Unknown	Household Refuse	111	Recent Activity
1089	Adams County Horner Chapel Rd. & Parker Ridge Rd	39° 1' 54.199" N	83° 24' 56.591" W	Unknown	Household Refuse, Tires, Scrap Metal	2 Piles, 16 and 12	Recent Activity
1090	Adams County 1589 Parker Ridge Rd.	39° 2' 14.852" N	83° 24' 4.247" W	Unknown	Household, Mattresses, Plastics, Tires	195	Unknown
1091	Adams County Williamson Rd.	39° 2' 17.041" N	83° 28' 33.334" W	Unknown	Household Refuse, Mixed Paper	294	Recent Activity
1092	Adams County Ward Rd.	39° 1' 8.043" N	83° 27' 41.694" W	Unknown	Household Refuse, Scrap Metal, Appliances	276	Unknown
1093	Adams County Marble Furnace & Cemetary Rd.	38° 58' 45.692" N	83° 25' 24.147" W	Unknown	Household Refuse	100	Unknown
1094	Adams County Chruch Rd.	38° 59' 11.300" N	83° 28' 5.930" W	Unknown	Household Refuse, Mattresses, Scrap Metal, 100+ Tires	2030	Recent Activity
1095	Adams County	38° 58' 17.417" N	83° 27' 56.444" W	Unknown	Household Refuse, Yard Waste	99	Unknown

Table III-8. (cont.) Open Dumps and Waste Tire Dumps Located in the District

Site ID #	Site Location (Provide brief description)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Land Owner Mailing Name Address City ST Zip Phone	Description of Materials dumped at site	Approximate Size of Site (in square yards)	Time Period Site Has Existed
1100	Adams County McCraith Rd.	38° 56' 54.357" N	83° 32' 25.307" W	Unknown	Household Refuse, Scrap Metal	30	Inactive
1101	Adams County Montgomery Rd.	38° 56' 18.458" N	83° 31' 33.269" W	Unknown	Household Refuse, Scrap Metal, Appliances	2625	Active
1102	Adams County Montgomery Rd. & Nichols Rd	38° 56' 24.004" N	83° 31' 33.215" W	Unknown	Household Refuse, Scrap Metal, Appliances	675	Inactive
1103	Adams County Nichols Rd	38° 56' 22.240" N	83° 29' 22.314" W	Unknown	Household Refuse, Seat Cushions	144	Unknown
1104	Adams County Wylie Rd. & Flat Run	39° 0' 39.264" N	83° 32' 18.645" W	Unknown	Household Refuse	54	Recent Activity
1105	Adams County Wylie Rd.	39° 0' 44.450" N	83° 32' 56.536" W	Unknown	Household Refuse	60	Recent Activity
1106	Adams County Greenbriar Rd.	39° 1' 24.947" N	83° 34' 2.705" W	Unknown	Unknown	440	Active
1107	Adams County Greenbriar Rd.	39° 1' 25.481" N	83° 34' 5.283" W	Unknown	Household Refuse, Wood	420	Active
1108	Adams County Tri County Rd. & Hampton Rd.	38° 57' 9.703" N	83° 37' 7.114" W	Unknown	Household Refuse, Tires, Appliances	280	Unknown
1109	Adams County SR 136 & Stout Rd.	39° 0' 28.134" N	83° 40' 39.239" W	Unknown	Household Refuse	36	Recent Activity
1110	Adams County SR 136	38° 57' 56.818" N	83° 39' 14.608" W	Unknown	Household Refuse, Scrap Metal, Wood	323	Inactive
1111	Adams County Bloom Dr.	38° 48' 42.950" N	83° 35' 33.704" W	Unknown	Household Refuse, Scrap Metal, Plastic	20	Active
1112	Adams County Sininger Rd.	38° 50' 43.239" N	83° 39' 9.361" W	Unknown	Scrap Metal		Inactive
1113	Adams County Mathias Rd.	38° 54' 11.249" N	83° 36' 34.659" W	Unknown	Household Refuse, Wood, Scrap Metal, Appliances, Tires	1015	Unknown
1114	Adams County Cherry Fork Rd.	38° 53' 8.670" N	83° 37' 57.087" W	Unknown	Household Refuse	35	Recent Activity
1115	Adams County Rickey Rd.	38° 52' 4.757" N	83° 39' 27.395" W	Unknown	Household Refuse, Wood, Scrap Metal	300	Unknown
1116	Adams County Patton Rd.	38° 55' 36.220" N	83° 37' 44.576" W	Unknown	Household Refuse, Furniture	72	Unknown

Table III-9. Ash, Foundry Sand, and Slag Disposal Sites used by the District

Site Location (Provide brief description)	Land Owner Mailing Address Name Address City ST Zip Phone	Description of materials dumped at site	Approximate Size of site (in acres)	Time Period Site has existed
J.M. Stuart Station LF #9 U.S. Route 52 Brown County, OH	Dayton Power and Light P.O. Box 468 Aberdeen, OH 45101 (513) 549-2641	Ash	400	Site opened in 1983 and has undergone expansion in 1988 and 1996
Duke Pond Run Ash Disposal New Richmond, OH	Duke Energy 139 E. 4th Street Cincinnati, OH 45202 (513) 287-3943	Ash	100	Since Feb. 1990
Mason County Landfill Special Cell Sherman Clarkson Rd Maysville, KY	Mason County Fiscal Court 7055 Sherman Clarkson Rd. Maysville, KY 41056 (606) 759-7049	Ash	545	

Information in Table III-9 was obtained from Duke Energy and OEPA Ohio Solid Waste Facility Data Report except Mason Co.

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

Name of Hauling Company	Mailing Address: Street City ST Zip Phone	Description of Collection Routes (In-clude townships, cities, villages in District where waste is collected)	Type of Materials Collected	Tons Collected from the District (TPY)	Name of Facilities used by haulers
All Star Container	2040 E. Kemper Road Cincinnati, OH 45240 (513) 533-0667	Clermont County	Industrial Construction	Unknown	Various
C&D Waste Services	1528 Gest St. Cincinnati, OH (513) 542-1200	Customer request	Construction	Unknown	Various
Cincy Reliable Hauling	3921 Warwick Cincinnati, OH 45229	Customer request	Industrial Construction	Unknown	Various
Clarke	9740 Cincinnati Dayton Rd West Chester, OH 45069 (513) 779-2000	Customer request	Construction	Unknown	Various
Donnie Combs Trucking	1503 State Route 28 Loveland, Ohio 45140 (513) 575-0006	Clermont County	Construction	Unknown	Unknown
CSI Waste	1563 Mosteller Rd Cincinnati, OH 45241 (513) 771-4200	Clermont County Townships and	General Solid Waste, Recyclables, Residential &	Unknown	CSI Transfer Station Rumpke Landfills: Brown County Hamilton County Epperson Landfill, KY
Forest Green	11298 Sebring Dr. Cincinnati, OH (513)851-9036	Customer Request	Construction Boxes, Genertal Solid Waste	Unknown	Various
Roger Hayslip	16979 State Route 125 West, Union, OH 45693 (931) 544-5230	Adams County	General Solid Waste, Residential & Commercial	Unknown	Mason County Landfill Mayville, KY
On Demand Container	5511 Winton Road, Cincinnati, OH	Clermont County	Industrial	Unknown	Various
McNeilan's Trash Removal	504 East Eighth Street Manchester, OH 45144 (513) 544-2838	Adams County: Townships Green Liberty West Manchester Monroe Sprigg	General Solid Waste, Residential & Commercial	1,829	Rumpke - Brown County
Pike Sanitation, Inc	123 South Lock St. Waverly, OH 45690 (740) 947-4200	Adams County: West Union	General Solid Yard Waste Residential		Pike County Landfill
Rumpke Transportation Co., LLC	9427 Beyers Rd Georgetown, OH 45121 (937) 378-4126	All Adams County Townships and Villages: Clermont County Townships and Villages: All	General Solid Industrial Yard Waste Recyclables Industrial	90,509 51 Unknown 377 72	Rumpke - Brown C-ounty Hamilton County City Center Recyclery

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

All Tables referred to are located at the end of each respective chapter.

This section of the plan contains population, waste generation, and waste reduction estimates for the reference year.

A. Reference Year Population and Residential/Commercial Waste Generation

The District's reference year (2010) population has been established at 224,001. This represents population figures from Adams County – 28,550 and Clermont County – 197,363 with adjustments for the City of Loveland -- (-) 1,941 and the City of Milford -- (+) 29. These figures are based upon information provided by the U.S Census Bureau (2010 U.S. Census Data). This information is shown in Table IV-2.

In determining the Residential/Commercial Waste Generation for the reference year 2010, the District relied upon information provided by Ohio EPA in its publication, Solid Waste Facility Data Report—2011 report for year 2010, for data on residential/commercial waste disposed in landfills. These data were included in Table III-1. Recycling data was developed from surveys, conducted in 2011, of recyclers serving the District.

Projected residential/commercial generation rates for 2011 through 2030 were based on the Ohio EPA Document, *Estimating Per Capita Residential/Commercial Waste Generation*, dated September 4, 2002. The recommended rate of increase is 0.5%.per year. The plan used 0.5% for 2011 through 2030.

In calculating the Residential/Commercial Generation, the District included: Total Waste Generated (2,885,809 tons, from table IV-8); then subtracted total waste generated by industry (2,727,925 tons, from table IV-3); and then subtracted exempt waste (1 ton, from table IV-4). The total residential/commercial waste generation for the reference year was calculated to be 157,883 tons. This includes an estimate of 1,282 tons at open dump sites (estimated by visual inspection of dump sites in 2009 and assuming the same level of activity in 2010 and acknowledging the highly questionable accuracy of any such estimate) and 121,623 tons of waste reduction, reported in the District's 2010 *Annual District Report*. This results in a generation rate of 3.86 lbs/person/day.

The District arrived at its generation rate by performing the following calculations:

B. Industrial Waste Generation

1. *Districts Conducting an Industrial Survey for the Plan Update*

In 2011, the ACSWD conducted an extensive industrial survey for the reference year 2010. Using the Harris Industrial Directory, the Clermont County Office of Economic Development list, the Telephone Directory, and other local resources, all industrial enterprises in the District in Standard Industrial Classifications (SIC) 20 and 22 – 39, received surveys via mail. Industries that did not respond to the initial mail survey, were followed up via phone survey and/or sent a second request. It was determined, from non-deliverable surveys, that a large portion of businesses in the District have been closed due to the economic downturn. A total of 419 Industries were surveyed. The District received results from a total of 80 Industries (19% of industries), representing 4,139 employees or 59% of total employees in the District. The number of Industries surveyed for each SIC category is as follows: SIC 20:11, SIC 22:8, SIC 23:12, SIC 24:46, SIC 25:13, SIC 26:7, SIC: 27:53, SIC 28:19, SIC 29:3, SIC 30:21, SIC 31:2, SIC 32:19, SIC 33:2, SIC 34:37, SIC 35:85, SIC 36:22, SIC 37:5, SIC 38:13, SIC 39:37 and SIC 49:4. Responses were received from all SIC codes except SIC code #23, which has twelve industries with 29 employees and SIC #33, which has only two industries with 5 employees. SIC Codes 23, 24, 25, 30, 33, 35 and 39 had less than desirable results. For these SIC codes, a per ton waste generation rate was taken from *Appendix JJ - Industrial Waste Generation Estimation and Composition of the District Solid Waste Plan Format (1996) version 3.0* for the respective SIC codes.

Appendix F of the Plan has three sections of differing views of industrial survey results. Appendix F-1 reports industrial survey results for waste generation by SIC code and waste type in tons per year. Appendix F-2 reports recycling by each responding industry and specific material recycled. Industries are identified by number "industry #" to assure privacy for survey respondents. Industries with no reported recycling have no entries in their column. Appendix F-3, reports recycling survey results by industry # and SIC code.

Data gathered in industrial surveys is displayed in Table IV-3.

A sample copy of the "Industrial Survey" is included in Appendix F. Note that all volumes were reported in either tons or cubic yards (compacted or uncompacted). Standard Conversion Factors used to convert all reported totals to "tons" are included in Appendix H.

The Harris Directory was used for the number of employees for each employer, unless the survey response indicated differently, in which case, we used survey data as best available data. Industrial waste generation for the District was based upon the information gained through this survey. Specifically, the amount generated by the survey respondents/per SIC code was divided by the number of employees/per SIC code to yield a per employee disposal rate/per SIC code as indicated by the Harris Directory (and modified by employer response). This rate was then multiplied by the total number of industrial employees for each specific SIC code to determine a total disposal for each

specific SIC code. Reported recycling by each SIC code was added to the total disposal to determine total generation by each SIC code. Total industrial generation was divided by projected or reported employees per year by specific SIC codes to determine a per employee generation rate in tons per year. The amounts from each SIC code, for waste disposed and waste recycled, were then added together to provide the annual industrial generation.

A unique situation exists within the ACSWD with regards to waste generated from Duke Energy's Zimmer Electric Generating Station, Duke Energy's Beckjord Station, Dayton Power & Electric Stuart Station and Dayton Power & Electric Killen Station. The vast majority of this waste is flue gas desulphurization (FGD) waste from the coal-fired electric generation facilities. The ACSWD does not include fly ash or bottom ash as part of waste generation.

Although these facilities do not fall into the SIC classifications included in the Industrial Waste Survey, the FGD waste from the plant is properly considered to be industrial waste, per Ohio EPA instructions, and must be included in the total industrial waste generation under SIC #49. This waste accounts for 98% of the industrial waste generated in the District. There was 2,656,336 tons of FGD waste generated by these facilities in 2010. Of the 2,656,336 tons generated, 1,517,092 tons of that waste was recycled in 2010. These numbers have been added to the industrial generation data gathered from the Industrial Waste Survey, and is included in Table IV-3.

C. *Exempt Waste*

The amounts of exempt waste in Table IV-4 are based upon information obtained from the *Ohio EPA, Annual District Report Review Form* for Adams-Clermont Joint SWMD, 2010. Table 14 of that publication reports 1 ton of exempt waste generated in ACSWD and disposed by landfilling. A total of 4,913 tons of Construction & Demolition Debris (C&DD) was generated in the District and added to the Exempt Waste total. C&DD was reported by the landfills operating in the District to the OEPA.

D. *Total Waste Generation*

Table IV-5 contains a summary of residential/commercial, industrial, exempt, and total waste generation during the reference year, 2010. Waste generation includes waste that was landfilled and recycled. Residential/commercial tonnage is taken from 2010 Waste Reduction survey results (Table IV-6) and from landfill disposal, reported by the Ohio EPA (Table III-1), and also includes an estimated 1,282 tons of waste illegally disposed at open dumps. Industrial Waste generation was taken from the 2010 Industrial Waste Survey results. It is the sum of reported waste landfilled, extrapolated waste and waste reduced/recycled for SIC classifications 20, 22-39 and 49 (from table IV-3). This includes FGD waste disposed at Zimmer landfill and FGD waste recycled.

E. *Reference Year Waste Reduction & Recycling*

1. Commercial/Residential Waste Reduction Strategies

Private Enterprise with Public Policy -

The ACSWD will encourage and cooperate with the private sector to supply the necessary services to meet the District's goals. The District will consider ownership of appropriate facilities and providing direct services only as is needed to meet the strategies and goals of the ACSWD. The ACSWD intends to contract for the operation of those facilities and activities whenever feasible and economical. This is an underlying strategy considered in development and implementation of this Plan.

a. *Waste Reduction Amounts*

The waste reduction data in Table IV-6 does not include any reference Year waste reduction (minimization) actual or estimated amounts. There were no definitive or reported waste reduction amounts available. There were certainly waste reduction efforts and gains in the District in the reference year. These were not documented and therefore ineligible for reporting here. This exclusion of any estimated amount of waste reduction occurring in the reference year will conservatively underestimate the recycling/reduction rate for the District.

b. *Recycling Amounts - Reference Year*

The residential/commercial recycling data in Table IV-6 reflects actual reported amounts from various sources. These sources include: waste haulers; buyback recycling centers operating in the area; and some identified retail establishments. Care was taken to assure that double counting did not occur. District staff clarified with the three main sources of information (Adams Brown Recycling, Rumpke Recycling, and Cincinnati Paperboard) as to the need to not count material coming from outside the District and not counting anything from the other reporting recyclers. As noted in Section III-E., many scrap metal dealers outside the District were not surveyed because they do not record which SWD the material was generated in, nor do they care. All counted material was clearly identified as being generated in ACSWD and is reported amounts. It does not include any extrapolation or estimated values. Again, this methodology results in under-reporting of actual recycling activity.

c. *Waste Reduction & Recycling Activities in the District -*

Activity: Adams Waste & Recycling (AWAR)

Strengths/Weaknesses: Provides a local opportunity for waste disposal and recycling; / The volume of waste and tipping fees do not generate enough money to pay operating costs.

Maintaining Entity: The facility is on property owned by the Adams County Commissioners, equipment is owned by the ACSWD, and a private contractor (currently Adams Brown Recycling) operates AWAR.

Service Area: All Adams County – residential, commercial, and industrial, see Table III-3.

Type & Amount of Material: Municipal solid waste is taken for a per pound fee, tires and refrigerant bearing appliances are accepted for a fee, free drop-off recycling for all paper, glass, plastic containers (1-7), aluminum & steel containers, ferrous & non-ferrous metal. A buyback program is available for aluminum cans & scrap as well as some other non-ferrous metals and miscellaneous items based on market conditions and contractor willingness and ability. In 2010 AWAR recycled 238 tons and 329 tons solid waste was transferred at AWAR.

Assumptions of Future Projections: AWAR Transfer/Drop-Off/Buy-Back will operate as a one-stop for solid waste management. Residents, commercial and industrial generators may bring solid waste to the site. If they separate the recyclables from the municipal solid waste (MSW), they can reduce their waste disposal cost by self-depositing recyclables in appropriate containers for no cost. The idea of the facility is to provide Adams County residents a local alternative waste management option to reduce illegal dumping and the economic burden of traveling to neighboring counties for landfill access. By charging for waste by the pound we will overcome the common complaint of small loads going to Rumpke Landfill in Georgetown where the minimum fee is for one ton. We expect to see an increasing volume of waste and recyclables from year to year. Although economic and market conditions may cause fluctuations in buyback customers.

Activity: **Drop-off (Clermont County)**

Strengths/Weaknesses: Free single stream recycling available 24 hours usually at public facilities with easy access, sites can be expanded or contracted to adjust for changes in participation; / Sites are unmanned and can become littered or large item dump sites.

Maintaining Entity: The sites are serviced by private contractors and maintained by the entity owning the site and ACSWD. The ACSWD contracts with the Clermont County Municipal Court to inspect clean and remove inappropriate items at the sites, at least two times per week. See Table III-5.

Service Area: The sites are open to all residential, commercial, and industrial generators although service area is usually considered the Township where the site is located.

Type & Amount of Material: all paper, glass containers, plastic containers (1-7), aluminum & steel containers. 2,778 tons were collected in 2010 at drop-offs in Clermont County.

Assumptions of Future Projections: We have seen an annual increase in material at drop-off sites. Although we expect that rate of increase to slow, we do expect it to rise each year assuming that curbside programs do not expand through franchising or hauler initiated.

Activity: **Drop-off (Adams County)**

Strengths/Weaknesses: Free single stream recycling available 24 hours usually at public facilities with easy access, sites can be expanded or contracted to adjust for changes in participation; / Sites are unmanned and can become littered or large item dump sites.

Maintaining Entity: The sites are serviced by a private contractor and maintained by the entity owning the site. Compactors are used to consolidate material to reduce hauling costs. The compactors and collection boxes are owned and maintained by the ACSWD. See Table III-5.

Service Area: The sites are open to all residential, commercial, and industrial generators although service area is usually considered the Township where the site is located.

Type & Amount of Material: all paper, glass containers, plastic containers (1-7), aluminum & steel containers. 383 tons were collected in 2010 at drop-offs in Adams County.

Assumptions of Future Projections: We have seen an annual increase in material at drop-off sites. Although we expect that rate of increase to slow, we do expect it to rise each year assuming that curbside programs do not expand through franchising or hauler initiated.

Activity: **Curbside Collection of Recyclables**

Strengths/Weaknesses: This is the most convenient residential recycling method; / this is also the most expensive residential recycling method and only available in the more densely populated areas of the District and only in parts of Clermont County. Curbside collection is available at the discretion of the private waste hauler and costs extra for both individual subscription and community franchising arrangements.

Maintaining Entity: Private waste haulers offer the service and maintain all aspects of the service.

Service Area: Determined by the private hauler, and will change over time. Currently curbside collection is only available in parts of Clermont County, see Table III-4.

Type & Amount of Material: All paper, glass containers, plastic containers (1-7), aluminum & steel containers. Rumpke reported 2,556 tons recycled in 2010 from curbside collection, CSI the only other curbside collection program did not report.

Assumptions of Future Projections: We assume curbside will remain only partially available in the more densely populated areas, and we expect to see curbside collection numbers increase with addition of large carts replacing the smaller bins. We expect to see curbside collection tonnage increase slowly in future years.

Activity: **Buyback**

Strengths/Weaknesses: This is entirely run by private business and pays individuals to recycle material. It requires no funds or management by the District; / provides an incentive for theft.

Maintaining Entity: Private entrepreneurs, see Table III-5.

Service Area: Adams & Clermont Counties

Type & Amount of Material: Aluminum cans, ferrous and nonferrous scrap, lead, lead acid batteries, appliances, various auto parts (items may change with vendor and market conditions). In 2010 buybacks reported 6,131 tons were reported purchased or donated.

Assumptions of Future Projections: If market prices continue to stay at current levels or above we assume this type and volume of material will remain steady or increase. Although market fluctuations are common and volumes could easily decrease.

Activity: **Yard Waste**

Strengths/Weaknesses: Several mulch companies accept yard waste from residents and business at no charge and turn it into mulch for resale or compost the material for soil amendments; / all facilities that accept yard waste for free are located in the western part of Clermont County.

Maintaining Entity: Private entrepreneurs, see Table III-6.

Service Area: Adams County / Clermont County

Type & Amount of Material: Yard waste including brush, logs, leaves, grass and clean wood. 97,948 tons of yard waste was reported composted in 2010.

Assumptions of Future Projections: The free disposal of brush and yard waste is recent and the assumption it will continue to be free. There is considerable yard waste disposal and composting that occurs in rural and suburban areas and is unreported. We expect the reported number to gradually grow as we expect the unreported to grow. We also assume that private entrepreneurs will continue to service this waste stream.

Activity: **Household Hazardous Waste Vouchers**

Strengths/Weaknesses: Vouchers are issued to ACSWD residents for free disposal of HHW year round after a one-on-one consultation with District staff to determine if there are less expensive alternative disposal options (reuse, recycling, paint drying, etc.). Voucher is good for one year making self transport of HHW to a private hazardous waste management company flexible and more convenient. This resident transport allows the District to avoid transportation and liability costs making it more cost effective; / Individuals must transport HHW to one of two locations in Hamilton County (inconvenient) and even more inconvenient for Adams County residents.

Maintaining Entity: ACSWD & private hazardous waste management entity, see Table III-5.

Service Area: Adams County / Clermont County

Type & Amount of Material: 53 vouchers issued

Assumptions of Future Projections: This program will continue as long as hazardous waste companies are willing to take individual deliveries. The program provides an alternative for hazardous materials on a year round basis.

Activity: **Lead Acid Battery**

Strengths/Weaknesses: Batteries have value and Ohio Revised Code requires entities that sell lead acid batteries to take them back; / Value of batteries increases theft.

Maintaining Entity: Private entrepreneurs

Service Area: State of Ohio

Type & Amount of Material: Lead acid batteries, include vehicle and numerous rechargeable sealed batteries including power backup systems for computers. No recovery amount data available.

Assumptions of Future Projections: The vast majority of lead acid batteries are being recycled and tracking of amounts has not been aggressively assessed, although lead acid batteries are included in buyback reports. We assume that the value of lead will remain at a level that provides the economic incentive to motivate recovery. When the value of having the information on amounts of lead acid batteries recycled exceeds the value of obtaining the information we will obtain and report the amounts.

Activity: **Used Motor Oil**

Strengths/Weaknesses: Used motor oil has value as heating source and can be recycled; / Messy and hard to handle

Maintaining Entity: Public and private (Clermont County Vehicle Maintenance Department, auto parts stores, repair shops, and quick change oil businesses).

Service Area: Adams County / Clermont County

Type & Amount of Material: Used motor oil, amounts recycled for alternative uses has not been surveyed.

Assumptions of Future Projections: Having alternative management options is important to prevent this valuable commodity from entering the waste stream as a household hazardous waste. We assume the price of oil will remain at a level that makes it attractive for recycling or as a heat source. There are numerous collection options available and we assume that will continue. When the value of having the information on amounts of used oil recycled exceeds the value of obtaining the information we will obtain and report the amounts.

Activity: **Electronics**

Strengths/Weaknesses: Recently electronics have started to have a value that encourages private entrepreneurs to enter the collection business, they are common and plentiful; / the variety of items accepted and value differs greatly, bulky, inclusion of cathode ray tubes detracts, mixed materials causes processing problems, historic mismanagement and marginable value.

Maintaining Entity: Private and non-profit entities (non-profit refurbishers - Cincinnati Computer Cooperative & Crayon to Computers; electronics retailers – Best Buy, Office Depot; nonprofits – Goodwill, Salvation Army and Adams Brown Recycling, etc.)

Service Area: Adams County / Clermont County

Type & Amount of Material: Various entities accept different types of material. The field is changing rapidly and competitive entities are accepting a wider variety of material

Assumptions of Future Projections: This is a burgeoning market and a rapidly changing and varying supply of materials (computers, TV's, hand held devices, remote controllers, etc.) with relative short life spans. The District assumes that recent growth in electronics recovery will continue to grow and meet consumer demand. Given the Districts philosophy of allowing private entities provide services where possible, the District is not planning on any program or infrastructure investment at this time. If the private market does not continue to increase services the District may institute programs to meet the needs. In 2010 electronics reported recycled was 6 tons. This is likely under reported but still likely to grow in coming years.

Activity: **Scrap Tires**

Strengths/Weaknesses: There is a large quantity available; / There are numerous legacy tire dumps/piles/collections unreported, there is almost daily tire dumping in small quantities, tires have a negative value and procrastination or avoidance of disposal costs is motivating illegal disposal.

Maintaining Entity: ACSWD

Service Area: Adams County / Clermont County

Type & Amount of Material: Scrap tires (truck, car, agricultural, construction). In 2010 in the District 1,291 tons of tires were collected and recycled.

Assumptions of Future Projections: The District assumes that the cost of tire disposal will be a negative number and many will appropriately manage tires but, many will not. Given the economic incentive to dump and store tires, we expect to see large quantities of tires inappropriately managed and the tires will become a public responsibility. We expect to see the number increase for a number of years because of legacy tire collections before decreasing to a static level.

Activity: **White Goods (appliances & refrigerators)**

Strengths/Weaknesses: These have a positive value in the current market and buyback (scrap yards) are paying for them; / bulky and hard to move, refrigerators may contain refrigerant that must be removed before recycling which requires sophisticated equipment and knowledge.

Maintaining Entity: Private and non-profit entities

Service Area: Adams County / Clermont County

Type & Amount of Material: Steel appliances (stoves, refrigerators, washing machines, dryers, and microwaves). 28 tons were reported recycled in 2010, although the scrap yards do not separate white goods from scrap steel.

Assumptions of Future Projections: There have been numerous reports of white goods as well as other steel items being removed from historic roadside dumps because of their increased value and difficult economic times. The District assumes that with the addition of a second recycler in the area willing to remove refrigerant at no cost and the current market conditions for steel scrap, no subsidized white goods recycling will be necessary by the District and we expect this to continue.

Activity: **Education**

Strengths/Weaknesses: Knowledge is necessary to make informed decisions and change behaviors, by contracting with education professionals that have expertise in solid waste and environmental issues combined with current teaching disciplines allows economical delivery of services; / Education costs time and money and measuring success is difficult.

Maintaining Entity: ACSWD contracts with Adams Brown Recycling and Clermont County Soil & Water Conservation District

Service Area: Adams County / Clermont County

Type & Amount of Material: Not applicable.

Assumptions of Future Projections: The education program will continue in the classroom as long as cooperative agreements continue with area schools. Non-school education programs will continue in various areas and are adjusted year to year.

Activity: **Litter Collection**

Strengths/Weaknesses: Removing litter and illegal dumps from area roadways with assistance of alternative sentencing individuals, being able to address areas of concern to citizens, citizens seeing offenders provide a public service; / cost of organizing, transporting and supervising alternative sentencing individuals

Maintaining Entity: Agreements with Clermont County Municipal Court Probation Department & Adams County Sheriff and Adams County Common Pleas Judge

Service Area: Adams County / Clermont County

Type & Amount of Material: Road side litter, dumped items such as tires, mattresses and appliances. In 2010 Adams County collected 65.7 tons of litter and illegal dumped material was collected and Clermont County collected 98.6 tons from 1,591 miles of roadway.

Assumptions of Future Projections: This program is highly dependent on the supply of alternative sentencing assigned to the litter collection supervisors by area Judges.

Additionally, weather also greatly affects effectiveness of the program. We are assuming that litter and illegal dumping will continue, although we believe that illegal dumping is being reduced, especially in Adams County due to better access to waste collection and the AWAR facility. We assume that levels of effort will remain near the same level and results will also remain at or near current levels.

***Activity:* Local Emergency Planning Committee (LEPC)**

Strengths/Weaknesses: Having the Solid Waste Director as a member of the LEPC allows for regular planning for debris management during a disaster, it also establishes familiarity with are members of the disaster response team; / Requires substantial time commitment

Maintaining Entity: ACSWD Director

Service Area: Adams County / Clermont County (although mutual aid may extend area)

Type & Amount of Material: Disaster debris & amount is highly dependent on specific disaster.

Assumptions of Future Projections: The assumption is there never will be another disaster and all the preparation will be useless and there will be a disaster and preparation and knowledge of the system will be time well spent.

***Activity:* Commercial Recycling Collection**

Strengths/Weaknesses: Convenient at door service allowing reduction of waste disposal costs, typically recycling collection is less expensive than MSW collection; / typically requires space for two containers, requires separation of materials by employees.

Maintaining Entity: Private commercial or industrial customer and private waste hauler.

Service Area: Clermont County (currently no collection program is available in Adams County because of the rural nature of the community)

Type & Amount of Material: Old corrugated cardboard only or a single stream accepting all paper, glass containers, plastic containers (1-7), aluminum & steel containers. In 2010 waste haulers reported 2,496 tons commercial recycling collected (this may also include some industrial).

Assumptions of Future Projections: The assumption is that this program will continue to grow as more businesses see the cost savings of single stream recycling. If waste disposal cost increase we also expect to see an increase diversion to commercial recycling provided, recycling is less expensive than waste disposal.

Activity: Volume Based Waste Collection Fees

Strengths/Weaknesses: Currently there are volume based fees for most commercial waste generator (they pay by container size of frequency of service) and this provides an economic incentive to reduce waste; / volume based fees for residential customers are not available and the fixed cost of going from house to house is such a large portion of the costs incurred by haulers, the incentive for volume reduction would be minimal.

Maintaining Entity: Private waste haulers

Service Area: Adams County / Clermont County

Type & Amount of Material: Solid Waste, no amount available

Assumptions of Future Projections: Private waste haulers are assumed to continue the commercial/industrial volume based fees and will continue to not offer volume based rates for residential customers.

Activity: Web Site

Strengths/Weaknesses: The web has become the primary source of information to the majority of District residents; / There are numerous low income individuals and others without internet access or even more without high speed access which limits amount of data easily available, especially in rural areas, web site maintenance and keeping information up to date is a never ending time consuming task.

Maintaining Entity: ACSWD staff and Clermont County Information Systems Department staff

Service Area: World wide

Type & Amount of Material: Information Solid Waste & 17,986 hits were recorded to the web site in 2010.

Assumptions of Future Projections: Web access will become more available and high speed access will also increase. The District will increase information and expects more visitors/hits.

Activity: Waste Audits

Strengths/Weaknesses: District staff offer a cost free service to businesses, both commercial and industrial, of waste assessments where District staff review the businesses solid waste stream and management practices to determine any waste reduction or cost saving options that may be available; / private companies provide similar or more detailed services which also include hazardous and liquid wastes, businesses are also leery of government reviewing their operations.

Maintaining Entity: ACSWD staff

Service Area: Adams County / Clermont County

Type & Amount of Material: Material may include the common materials recycled in our drop-off or curbside programs but may include exotic items on case by case basis. In 2010 there were no amounts associated with waste audits.

Assumptions of Future Projections: Because of a small industrial/commercial base this program is not consistently used but is available on an as needed basis.

Activity: Flue Gas Derived (FGD) Waste

Strengths/Weaknesses: District staff does nothing because FGD is recycled or landfilled directly by the Utility Industry; / District staff does nothing because FGD is recycled or landfilled directly by the Utility Industry

Maintaining Entity: Public Utility staff

Service Area: Adams County / Clermont County

Type & Amount of Material: FGD is a waste product of air pollution control technology that produces a waste product that has been widely used in the production of dry wall. In 2010 the utilities located in ACSWD recycled 1,515,949 tons of FGD waste.

Assumptions of Future Projections: This materials recycling rate is subject to housing market demand, an increasing supply from coal burning power plants being required to increase air pollution controls, and national pressure to reduce coal burning power generation. These broad and unpredictable market conditions make future projection beyond the ability of ACSWD. The ACSWD assumes we will have no control over FGD management as a recycled commodity or waste material.

2. Industrial Sector

Private Enterprise with Public Policy -

The ACSWD will encourage and cooperate with the private sector to supply the necessary services to meet the District's goals. The District will consider ownership of appropriate facilities and providing direct services only as is needed to meet the strategies and goals of the ACSWD. The ACSWD intends to contract for the operation of those facilities and activities whenever feasible and economical. This is an underlying strategy considered in development and implementation of this Plan.

a. *Waste Reduction Amounts*

The waste reduction data in Table IV-6 does not include any reference year waste reduction (minimization) actual or estimated amounts. There were no definitive or reported waste reduction amounts available. There were certainly waste reduction efforts and gains in the District in the reference year. These were not documented and therefore ineligible for reporting here. This exclusion of any estimated amount of waste reduction occurring in the reference year will conservatively underestimate the recycling/reduction rate for the District.

b. *Recycling Amounts - Reference Year*

The industrial recycling data in Table IV-7 reflects actual reported amounts from industrial surveys and detailed in Appendix F. Care was taken to assure that double counting did not occur and although waste generation was extrapolated for non-respondents, recycling was not. Again, this methodology results in under-reporting of actual recycling activity.

c. **Waste Reduction & Recycling Activities in the District –**

Activity: Industrial Recycling Collection

Strengths/Weaknesses: Convenient at door service allowing reduction of waste disposal costs, typically recycling collection is less expensive than MSW collection; / typically requires space for two containers, requires separation of materials by employees.

Maintaining Entity: Private commercial or industrial customer and private waste hauler.

Service Area: Adams County / Clermont County

Type & Amount of Material: Old corrugated cardboard only or a single stream accepting all paper, glass containers, plastic containers (1-7), aluminum & steel containers, ferrous metals, non-ferrous metals, plus other items (see Table IV-7). In 2010 industry reported 1,557,334 tons material recycled (note: this includes FGD waste, see FGD heading below).

Assumptions of Future Projections: The assumption is that this program will continue to grow as more industries see the cost savings of recycling and avoidance of waste disposal costs. If waste disposal cost increase we also expect to see an increase diversion to recycling provided, recycling is less expensive than waste disposal.

Activity: Volume Based Waste Collection Fees

Strengths/Weaknesses: Currently there are volume based fees for most industrial waste generators (they pay by container size or frequency of service) and this provides an economic incentive to reduce waste; / Monitoring waste disposal costs may not be hire priority if is not a substantial portion of operating costs.

Maintaining Entity: Private waste haulers

Service Area: Adams County / Clermont County

Type & Amount of Material: Solid Waste, no amount available

Assumptions of Future Projections: Private waste haulers are assumed to continue the commercial/industrial volume based fees and will continue.

Activity: Waste Audits

Strengths/Weaknesses: District staff offer a cost free service to businesses, both commercial and industrial, of waste assessments where District staff review the businesses solid waste stream and management practices to determine any waste reduction or cost saving options that may be available; / private companies provide similar or more detailed services which also include hazardous and liquid wastes, businesses are also leery of government reviewing their operations.

Maintaining Entity: ACSWD staff

Service Area: Adams County / Clermont County

Type & Amount of Material: Material may include the common materials recycled in our drop-off or curbside programs but may include exotic items on case by case basis. In 2010 there were no amounts associated with waste audits.

Assumptions of Future Projections: Because of a small industrial/commercial base this program is not consistently used but is available on an as needed basis.

Activity: **Flue Gas Derived (FGD) Waste**

Strengths/Weaknesses: District staff does nothing because FGD is recycled or landfilled directly by the Utility Industry; / District staff does nothing because FGD is recycled or landfilled directly by the Utility Industry

Maintaining Entity: Public Utility staff

Service Area: Adams County / Clermont County

Type & Amount of Material: FGD is a waste product of air pollution control technology that produces a waste product that has been widely used in the production of dry wall. In 2010 the utilities located in ACSWD recycled 1,515,949 tons of FGD waste.

Assumptions of Future Projections: This materials recycling rate is subject to housing market demand, an increasing supply from coal burning power plants being required to increase air pollution controls, and national pressure to reduce coal burning power generation. These broad and unpredictable market conditions make future projection beyond the ability of ACSWD. The ACSWD assumes we will have no control over FGD management as a recycled commodity or waste material.

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

There are many ways to estimate waste generation. The ACSWD has used what we believe to be methodology consistent over time (years), conservative (under), documentable (based on reported amounts), and relatively economical to obtain.

In short, we added reported waste disposed at landfills, an estimate of open dumping, residential/commercial reported recycling, and information based upon based on industrial responses for various SIC Codes and number of employees. Admittedly missing from this estimate are non-reported residential/commercial/industrial recycling, composting activities (backyard), and waste minimization activities. We feel that these factors balance each other out and any estimation would be purely conjecture and no more accurate than an estimate with their omission.

Table IV-8 contains data for the Reference year 2010 and from 1993-2002. The District is certain that additional waste reduction/ recycling were taking place during these years. However, due to the lack of verifiable documentation such amounts are not included here. Landfill disposal data in Table IV-8 is taken from the Ohio Facility Data Report for the appropriate year, and includes District waste landfilled both in-state and out-of-state.

We feel the most accurate picture is the amount that is going to disposal (landfills). Landfills are the only place in the waste management option that waste is consistently measured. And since our goal is to reduce the material going to landfills, that is the most reasonable measuring point. Planning options and needed capacity will not change with adjustments in generation.

Table IV-8 includes all landfilled waste, including that disposed at the Zimmer Landfill and at out-of-state facilities and all reported waste reductions in the District. The quantities are taken from Ohio EPA's Ohio Facility Data Reports for 2010, the estimated

amount of open dumping and the Districts Industrial and Residential/Commercial Surveys. Please see Section IV.B. For a discussion of the waste disposed at the Zimmer landfill and its effect on the solid waste planning process.

G. Reconciliation of Waste Generation

There is a significant difference between two methods of industrial generation estimation.

Survey Method: For “Table IV-3, Industrial Generation”, a survey was conducted and respondent results were added to non-respondent extrapolations for waste disposal only with recycling only counted for respondents. This methodology resulted in an industrial generation of 2,727,924 tons in 2010.

Landfill Records Method: In “Table IV-5, Reference Year (2010) Adjusted Total Waste Generation for the District”, landfill operators reported that 1,148,644 tons of industrial waste was landfilled. This methodology (Table IV-5) also includes surveyed recycling for industrial generators the same as used in the survey method, mentioned above.

Summary: Both methods of industrial generation have questionable reliability. Residential/Commercial waste generation is calculated by subtracting industrial waste generation from total generations; therefore, the industrial generation methodology impacts all sectors. The “landfill records” method can be expected to be inaccurate, due to waste haulers frequently mixing, commercial and industrial collection routes. These combined routes may be reported as industrial or commercial; therefore, either under or over reporting. Likewise questionable, the “Survey Method” requires industrial waste generators to accurately fill out a survey for waste generation, which they have little, or no measuring ability and little interest. The surveys are many times viewed as another governmental requirement or intrusion. With this type of attitude and lack of consistent or uniform measurement, reported results are questionable.

The District believes that the most accurate information is the survey method. The 2010 Industrial Survey Results, including the extrapolated amounts most accurately represent waste generation in the District. The industrial survey not only includes reported waste and extrapolated waste but also includes reported recycling from industry, which the landfill data lacks. Landfill waste may not be accurately segregated by industrial or residential/commercial generator. Because of these reasons, using the “Survey Method” appears to be the best alternative. Therefore, throughout the remainder of this Plan, waste generation estimations will be based on the values found in Table IV-9, Survey Method. The two methods are compared in Table IV-9 and the “Survey Method” resulted in a residential/commercial per person generation rate closest to 4.0+ pounds, per person, per day, that would be expected.

H. Waste Composition

1. Residential/Commercial Sectors

Based upon financial considerations, availability of other reliable data, and the practical need for the data, the ACSWD did not conduct a waste characterization study in preparation for this Plan Revision. The District believes that the waste composition of the District has not changed significantly enough since the development of the approved 1992 Solid Waste Management Plan to warrant a waste characterization study expense. Consequently, the District has relied on data contained therein and adjusted the generation totals based upon the District's Annual District Report and the 2010 Ohio EPA Solid Waste Facility Data Report.

An estimate based on the US EPA document titled "Characterization of Municipal Solid Wastes in the United States: 1994 Update", is included in Table IV-10. This estimate is based on national averages and includes residential waste generated and some, but not all, commercial waste generated. These estimates are certainly in question, both nationally and locally. The estimates can only be verified through a waste composition study at the local level. The District does not anticipate the need to use this type of detailed waste composition data and, therefore, does not plan a waste composition study to verify the national average waste composition estimate. Table IV-10. "*Estimated Residential/Commercial Waste Stream Composition for the District for the Reference Year*" is developed using the total municipal waste generated and percent composition of products, packaging and other materials for total generation and assuming those same percentages apply to residential/commercial generation. Calculations are simply multiplying respective percentage times the total residential/commercial waste generated taken from Table IV-9, Reference Year (2010) Total Waste Generation for the District; Row - Residential/Commercial and Column - Tons/Year.

2. Industrial Waste Sector

An estimation of industrial sector waste composition was based on a survey sent to all industries in the District for calendar year 2010 and is included in Table IV-11. Responses were categorized by SIC code and a per employee waste disposal rate for each SIC code was established based on responses. Waste disposal and characterization were extrapolated for non respondents in each SIC code. Reported recycling was added to the extrapolated disposal to determine waste generation for each SIC code. This extrapolation method is an estimate; however, it is the best estimation methodology available and acceptable to Ohio EPA. The data gathered was used in Table IV-11. Tabulations are included in Appendix F. Additional explanations of industrial generation methodologies are included in Section IV.B.1.

amount of open dumping and the Districts Industrial and Residential/Commercial Surveys. Please see Section IV.B. For a discussion of the waste disposed at the Zimmer landfill and its effect on the solid waste planning process.

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Landfill Records Method: In “Table IV-5, Reference Year (2010) Adjusted Total Waste Generation for the District”, landfill operators reported that 1,148,644 tons of industrial waste was landfilled. This methodology (Table IV-5) also includes surveyed recycling for industrial generators the same as used in the survey method, mentioned above.

Summary: Both methods of industrial generation have questionable reliability. Residential/Commercial waste generation is calculated by subtracting industrial waste generation from total generations; therefore, the industrial generation methodology impacts all sectors. The “landfill records” method can be expected to be inaccurate, due to waste haulers frequently mixing, commercial and industrial collection routes. These combined routes may be reported as industrial or commercial; therefore, either under or over reporting. Likewise questionable, the “Survey Method” requires industrial waste generators to accurately fill out a survey for waste generation, which they have little, or no measuring ability and little interest. The surveys are many times viewed as another governmental requirement or intrusion. With this type of attitude and lack of consistent or uniform measurement, reported results are questionable.

The District believes that the most accurate information is the survey method. The 2010 Industrial Survey Results, including the extrapolated amounts most accurately represent waste generation in the District. The industrial survey not only includes reported waste and extrapolated waste but also includes reported recycling from industry, which the landfill data lacks. Landfill waste may not be accurately segregated by industrial or residential/commercial generator. Because of these reasons, using the “Survey Method” appears to be the best alternative. Therefore, throughout the remainder of this Plan, waste generation estimations will be based on the values found in Table IV-9, Survey Method. The two methods are compared in Table IV-9 and the “Survey Method” resulted in a residential/commercial per person generation rate closest to 4.0+ pounds, per person, per day, that would be expected.

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An estimation of industrial sector waste composition was based on a survey sent to all industries in the District for calendar year 2010 and is included in Table IV-11. Responses were categorized by SIC code and a per employee waste disposal rate for each SIC code was established based on responses. Waste disposal and characterization were extrapolated for non respondents in each SIC code. Reported recycling was added to the extrapolated disposal to determine waste generation for each SIC code. This extrapolation method is an estimate; however, it is the best estimation methodology available and acceptable to Ohio EPA. The data gathered was used in Table IV-11. Tabulations are included in Appendix F. Additional explanations of industrial generation methodologies are included in Section IV.B.1.

**Table IV-1.
Residential/Commercial Waste
Generation Rates (unadjusted)**

Year ¹	Pounds /person /Day	Year ¹	Pounds /person /Day
2010	3.86	2021	4.08
2011	3.88	2022	4.10
2012	3.90	2023	4.12
2013	3.92	2024	4.14
2014	3.94	2025	4.16
2015	3.96	2026	4.18
2016	3.98	2027	4.20
2017	4.00	2028	4.22
2018	4.02	2029	4.25
2019	4.04	2030	4.27
2020	4.06		

¹ Rate was increased 0.5% per year based on EPA's recommendation, *Estimating Per Capita Residential/Commercial Waste Generation*, September 04, 2002.

**Table IV-2 Reference Year Population and Residential/Commercial
Generation**

County	Population		Generation Rate Res/Com ¹ (lbs./person/day)	Total District Res/Com ¹ Generation (TPY)
	Before Adjustment	After Adjustment		
Adams	28,550	28,550		
Clermont	197,363	197,363		
City of Loveland	1,941	-1,941		
City of Milford	29	29		
Clermont (adjusted)		195,451		
Totals	225,913	224,001	3.86	157,883

¹ Source Table IV-9.

Table IV-3. Industrial Waste Generation

Survey Respondents vs. Unreported

Standard Industrial Classification Category (SIC)	Based Survey Respondents (reported)						Based Upon Secondary Data (unreported)				Grand Total Industrial Waste Generated (tons/yr.)	
	# of Industries	# of Employees	Tons of Waste Landfilled /Year	Tons of Waste Recycled /Year	Tons of Waste Generated /Year	Generation Rate (tons per employee/yr)	# of Industries	# of Employees	Tons of Waste Generated /Year	Generation Rate* (tons per employee /yr)		
20	4	31	54	1	55	2	7	38	67	2	122	
22	2	175	105	79	184	1	6	11	12	1	196	
*23	-	-	-	-	-	-	12	29	81	3	81	
*24	4	82	43	36,000	36,043	440	42	138	7,124	52	43,167	
*25	1	1	-	0	0	0	12	38	68	2	68	
26	2	652	380	-	380	1	5	15	9	1	389	
27	4	160	1,095	708	1,803	11	49	172	1,939	11	3,742	
28	5	191	1,412	1,243	2,655	14	14	108	1,501	14	4,157	
29	1	10	3	-	3	0	2	9	3	0	6	
*30	8	424	1,080	109	1,189	3	13	1,006	7,334	7	8,522	
31	1	25	4	-	4	0	1	6	1	0	5	
32	2	150	532	1,669	2,201	15	17	85	1,247	15	3,448	
*33	-	-	-	-	-	-	2	5	185	37	185	
34	10	664	289	257	546	1	27	290	239	1	785	
*35	16	232	182	82	264	1	69	495	2,831	6	3,096	
36	8	216	277	52	329	2	14	162	246	2	575	
37	2	121	74	4	78	1	3	5	3	1	81	
38	3	150	257	37	294	2	10	31	61	2	354	
*39	3	5	2	0	3	1	34	241	1,113	5	1,116	
(Zimmer)49	4	850	1,140,738	1,517,092	2,657,830	3,127	-	-	-	6,865	2,657,830	
Totals	80	4,139	1,146,527	1,557,334	2,703,861	653	339	2,884	24,063	8	2,727,925	
										Grand Total Generation Rate/employee/yr		388

* For SIC Codes 23, 24, 25, 30, 33, 35 & 39 industries with less than desirable response , a per ton employee generation rate was used from Ohio EPA Plan Format Appendix JJ for respective SIC codes.

Table IV-4. Exempt Waste Generation in the District and disposed in Publicly Available Landfills

Type of Waste Stream	Generation Rate (lbs./person/day)	Total Exempt Waste ¹ Generation (TPY)
Ohio EPA Facility Data Report	0.12	4914
Totals	0.12	4914

¹ TPY Reported on *Ohio EPA Annual District Report Review Form for ACSWD*.

Table IV-5 Reference Year (2010) Total Waste Generation for the District

(Waste landfilled & recycled) -Reported^{1,2,3}

Type of Waste	(lbs/person/day)	Tons/Year
Residential/Commercial ¹	4.40	179,829.52
Industrial ²	66.19	2,705,978.06
Exempt ³	0.13	4914
Total Waste Generation	75.86	2,890,721.58

¹ Calculated using in-state and out-of-state general solid waste (gsw) + other + asbestos as reported on *2010 Annual District Report Review Form for ACSWD, Ohio EPA* and Residential/Commercial Reduction from Table IV-6. Includes open dumping.

² Calculated using the ACSWD 2010 Industrial Survey for recycling and reported waste landfilled from *2010 Annual District Report Review Form for ACSWD, Ohio EPA*.

³ TPY Reported on *Ohio EPA Annual District Report Review Form for ACSWD*.

Table IV-6. Reference Year Residential/Commercial Waste Reduction in the District

Type of Waste Source Reduced	TPY	Type of Waste Recycled ¹	TPY	Incineration, Composting, Resource Recovery		
				Total Waste Received	Residual Landfilled	Net Waste Processed
		Appliances	28	Incineration	Ash -	Net Inciner.
		Glass	1,051	0	0	0
		Ferrous Metal	5,046	Composting	Residuals	Net Compost.
		Non-Ferrous Metals	1,470	0	0	0
		Corrugated Cardboard	6,545	ResourceRc	Ash	Net RR
		All Other Paper	3,955			
		Plastics	411			
		Scrap Tires	1,291			
		Wood	22			
		Yard Waste	19,761			
		Commingled Recyclables	515			
		Electronics	6			
		Lead-shooting range	175			
		Biosolids	5,349			
Subtotal	0	Subtotal	45,625	Grand Total (TPY)		45,625

¹ As reported on surveys from processors and generators with no double counting, & reported on revised 2010 Annual District Report to Ohio EPA.

Table IV-7 Reference Year Industrial Waste Reduction in the District ¹

Type of Waste Source Reduced	TPY	Type of Waste Recycled	TPY	Incineration, Composting, Resource Recovery		
				Total Waste Received	Residual Landfilled	Net Waste Processed
None	0	Cardboard & other paper	738.86	Incineration 0	Ash 0	Net Inciner. 0
		Ferrous (iron/steel)	1,733.91			
		Non-Ferrous (alum/copper/etc.)	578.95			
		Glass	1,560.03	Composting 0	Residuals 0	Net Compost 0
		Plastic	82.50			
		Wood Pallets & Packing	18,013.29			
		Yard Waste	18,000.00	Resource Rc 0	Ash 0	Net RR 0
		Food Waste	0.01			
		Concrete	0.02			
		FGD Ash + other ash	1,515,599.20			
		Sludge	24.00			
		Batteries	0.61			
		Other: Compost	0.55			
		Calcium Hydroxide	1,000.00			
		Pottasium Hydroxide	0.12			
		Electronics	1.30			
		Light Bulbs	0.62			
Subtotal	0	Subtotal	1,557,333.96			
			Grand Total (TPY)	1,557,333.96		

¹ Material and tons reported from industrial survey 2010 and identified by industry number in Appendix F

Table IV-8. Total Waste Generation Based Upon Disposal Plus Waste Reduction

Year	Management Method Used in TPY						Total Waste (TPY)
	Source Reduction & Recycling	Yard Waste Compost	Yard Waste Land Application	Open Dumped	MSW Compost	Landfill Disposal ¹	
1993	35,954	Unknown	Unknown	1,282	0	1,695,436	1,732,672
1994	43,386	Unknown	Unknown	1,282	0	1,650,063	1,694,731
1995	50,249	Unknown	Unknown	1,282	0	1,687,670	1,739,201
1996	46,627	Unknown	Unknown	1,282	0	2,056,395	2,104,304
1997	36,736	Unknown	Unknown	1,282	0	1,673,883	1,711,901
1998	34,641	Unknown	Unknown	1,282	0	1,956,287	1,992,210
1999	35,545	Unknown	Unknown	1,282	0	1,748,351	1,785,178
2000	146,082	Unknown	Unknown	1,282	0	1,133,294	1,280,658
2001	536,345	Unknown	Unknown	1,282	0	496,407	1,034,034
2002	624,218	Unknown	Unknown	1,282	0	486,626	1,112,126
2003	622,749	Unknown	Unknown	1,282	0	472,032	1,096,063
2004	626,374	Unknown	Unknown	1,282	0	762,157	1,389,813
2005	664,557	18,225	Unknown	1,282	0	784,241	1,450,080
2006	691,247	11,279	Unknown	1,282	0	718,908	1,411,437
2007	500,083	13,816	Unknown	1,282	0	698,563	1,199,928
2008	233,555	53,170	Unknown	1,282	0	1,166,005	1,400,842
2009	994,346	99,078	Unknown	1,282	0	909,391	1,905,019
2010	1,583,198	19,761	Unknown	1,282	0	1,286,480	2,890,722

¹ Calculated using *OEPA 2010 Summary of Solid Waste Management in Ohio* and reported landfill data from Kentucky. Also reported in Table III-1 of this Plan.

Table IV-9. Adjusted Reference Year Total Waste Generation for the District

Landfill Records Method: Not Used

Type of Waste	(lbs/person/day)	Tons/Year
Residential-/Commercial ¹	4.40	179,830
Industrial ⁵	66.19	2,705,978
Exempt ³	0.12	4,914
Total Waste Generation ⁴	70.71	2,890,722

¹ Residential/Commercial generation is Total Generation - Industrial Generation - Exempt Generation

² Industrial Generation is determined using survey data for disposal & recycling, and extrapolating disposal only for non-respondents Table IV-3.

³ Exempt Waste is taken from Table IV-5 as reported by Ohio EPA

⁴ Total Waste Generation is from Table IV-8, reported landfilled and known recycling

⁵ Calculated using in-state and out-of-state industrial solid waste landfilled disposed + industrial recycling as reported on Revised 2010 Annual District Report Review Form for ACSWD.

Survey Method: Used

Type of Waste	(lbs/person/day)	Tons/Year
Residential-/Commercial ¹	3.86	157,882.96
Industrial ²	66.73	2,727,924.62
Exempt ³	0.12	4,914
Total Waste Generation ⁴	70.71	2,890,722

Table IV-10. Estimated Residential/Commercial Waste Stream Composition for the District for the Reference Year

Waste Stream Type	% of Total Generation Waste Stream 2000 ¹	Residential/Commercial Tons	Waste Stream Type (continued)	% of Total Generation Waste Stream 2000 ¹	Residential/Commercial Tons
Major Appliances	1.7%	2,684	Glass Food & Other Bottles &	2.3%	3,631
Small Appliances	0.3%	474	Steel Beer & Soft Drink Bottles	0.1%	158
Furniture & Furnishings	3.7%	5,842	Steel Food & Other Cans	1.3%	2,052
Carpets & Rugs	1.1%	1,737	Other Steel Packaging	0.1%	158
Rubber Tires	1.8%	2,842	Aluminum Beer & Soft Drink	0.8%	1,263
Batteries, Lead Acid	0.9%	1,421	Aluminum Foil & Closures	0.2%	316
Misc. Durables	7.1%	11,210	Paper Corrugated Boxes	14.2%	22,419
Newspaper	6.6%	10,420	Paper Milk Cartons	0.2%	316
Books	0.5%	789	Paper Folding Cartons	2.5%	3,947
Magazines	1.4%	2,210	Other Paperboard Packaging	0.1%	158
Office Paper	3.9%	6,157	Paper Bags & Sacks	1.0%	1,579
Telephone Books	0.4%	632	Wrapping Papers	0.0%	0
Third Class Mail	2.2%	3,473	Other Paper Packaging	0.5%	789
Other Commercial Printing	2.9%	4,579	Plastic Soft Drink Bottles	0.3%	474
Tissue Paper & Towels	1.6%	2,526	Plastic Milk Bottles	0.3%	474
Paper Plates & Cups	0.4%	632	Other Plastic Containers	1.5%	2,368
Plastic Plates & Cups	0.2%	316	Plastic Bags & Sacks	0.6%	947
Trash Bags	0.5%	789	Plastic Wraps	0.8%	1,263
Disposable Diapers	1.3%	2,052	Other Plastic Packaging	1.0%	1,579
Other Non Packaging Paper	2.5%	3,947	Wood Packaging	5.1%	8,052
Clothing & Footwear	2.2%	3,473	Other Misc. Packaging	0.1%	158
Towels, Sheets & Pillowcases	0.4%	632	Food Wastes	6.4%	10,105
Other Misc. Nondurable	1.9%	3,000	Yard Trimmings	10.2%	16,104
Glass Beer & Soft Drink Bottles	2.5%	3,947	Misc. Inorganic Wastes	1.5%	2,368
Glass Wine & Liquor Bottles	0.9%	1,421	Total	100.0%	157,883

¹ Source: Worksheet for Estimates of Residential/Commercial Fractions of MSW, 1993," *Characterization of Municipal Solid Wastes in the United States: 1994 Update*, U.S. EPA.

Table IV-11. Estimated Industrial Waste Composition for the Reference Year in the District

Waste Stream Type	TPY	Waste Stream Type	TPY	Waste Stream Type	TPY
aluminum	150.81	litho/photo film	0.07	plastics	1,558.79
ash FGD	2,656,970.26	lubricants	0.00	refractories	0.14
bark	2,813.43	metal dust	414.60	rubber	643.66
batteries	26.32	metals, ferrous	4,537.25	sawdust	2,959.11
cardboard	2,555.67	metals, nonferrous	329.35	silica/alumina	85.97
concrete	100.39	mixed waste	6,048.05	slag	247.08
drums	1.95	non-haz. chemicals	1,102.75	sludge	495.54
dust collector fines	0.70	oil	16.66	stone/clay/sand	2,293.54
fabric/textiles	118.01	paper, office	1,042.89	scrap wood & pallets	18,622.68
food wastes	268.61	paper, misc	1,456.48	other: non specified	3,263.12
glass	1,744.12	paper, newsprint	20.05	Other: Paint Solids	0.83
ink	0.16	plaster	0.90	yard waste	18,035.47
Subtotal	2,664,750.44	Subtotal	14,969.05	Subtotal	48,205.94
				Grand Total	2,727,925

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

All Tables referred to are located at the end of each respective chapter.

A. Planning Period

This plan is for a nineteen (19) year period starting on January 1, 2012, and running through December 31, 2030.

B. Population Projections

Table V-1 contains population projections for the District for: the reference year (2010) and each year of the planning period. An explanation of adjustments to population for jurisdictions which lie in more than one county is included in the labeled column of the Table.

All calculations rely on the accuracy of the information provided by the U.S. Census Bureau, 2010 Census and the Ohio Department of Development/Office of Statistical Research. Projections were based upon 2000 and 2010 census results. It was determined that Clermont County experienced a 10.9% population increase from years 2000-2010, an annual population increase of 1.09%, and that Adams County experienced a 4.5% population increase, .45% annually, during that same time period. Since there is such a demographic disparity between the two counties, separate population projections were conducted. A straight-line methodology was used to estimate population increases from the reference year 2010, to 2030. Loveland and Milford were projected the same as Clermont County.

Due to the significant demographic disparity between the two counties and the difference in available population data for the two counties, projections were calculated separately for each county then added for each year of the planning period to produce one annual District population. That information is shown in Table V-1. Adjustments to the population figures have been made to eliminate the Clermont County portion of the population in the City of Loveland, and to include the Hamilton County portion of the population in the City of Milford. These calculations provide the annual District population projections through the planning period.

C. Waste Generation Projections

1. Residential/Commercial Sector

To project residential/commercial waste generation over the planning period, the District has used Ohio EPA, "Recommended Annual Increases in Generation", September 4, 2002, as supplied to the District in the draft plan comments. These recommendations identify a 0.5% increase from 2011 to 2030. The results are presented in Table V-2. The reference year generation rate of 3.86 pounds, per person, per day, is taken from Table IV-9.

2. Industrial Sector

Relying primarily on the results of the District's 2010 Industrial Survey, Industrial Waste Generation Projections are shown in Table V-3. Projections for industrial waste generation were calculated based upon information provided by the Ohio Bureau of Employment Service for Economic Development Region 5 (Clermont County) and Economic Development Region 7 (Adams County). Adams County has a projected growth rate of 4.0% until 2018 and Clermont County has a projected growth rate of 5.1% until 2018. Using this information, the District used a weighted average of the two counties to arrive at one annual growth rate for the District of 5.01% or 0.5% annually. That rate was then projected using a straight line methodology, to continue beyond 2018, and into 2030. The following calculation provided the Industrial Waste Generation Projections:

$$\text{Projected Growth Rate} = ((\text{Adams Growth Rate} \times \text{Adams Employee \#}) + (\text{Clermont Growth Rate} \times \text{Clermont Employee \#})) / \text{Total \# of Employees}$$

Once this calculation had been performed on all SIC codes, the projections were added for all SIC codes to arrive at the Total Industrial Waste Generation for the specified SIC classifications.

The values presented in Table V-3 are derived from the 2010 Industrial Survey and estimates of industrial growth from 2008 to 2018 in Adams County and Clermont County obtained from the Ohio Bureau of Employment Services (OBES). Specifically, the 2010 values are obtained directly from the 2010 Industrial Survey for each SIC code. Then, the net change in employment from 2008 to 2018 for each county (from OBES) is multiplied by the percentage of the total employee population in the 2010 Industrial Survey from that county to generate a weighted average change for that SIC code over ten years. For example, if the OBES data indicates a 10% increase for Adams County, and Adams County has 20% of the employees in that SIC code, while the OBES data for Clermont County predicts a 5% change and Clermont County has the remaining 80% of the employees, the weighted average change would be $(0.10 * 0.20) + (0.05 * 0.80) = 0.06$ or a 6% weighted average change in employees for that SIC code over ten years. This number is then divided by ten (a ten year

projection, 2008-2018) to get the annual weighted average change in employees. The total annual growth rate was then added to the total waste generation for each SIC and then estimated from the reference year, 2010, until 2030 in a straight line methodology. This amount is then added to the amount from the 2010 Industrial Survey for each successive year over the nineteen year period.

3. Total Waste Generation

Total generation is determined by adding:

- Waste disposed at landfills in and out of state (as reported)
- Residential/Commercial reported recycling (no extrapolation)
- Industrial recycling (no extrapolation)
- Estimated illegal dumping (1,280 tons)

Other factors were considered but no amounts are included:

- Incinerator ash (none)
- Incineration (none)
- composting (as reported & included in recycling)
- Waste minimization (no accurate reporting/measuring mechanism)

See Table V-4

D. Projections for Waste Stream Composition

We are assuming there will be no significant change in waste composition during the planning period.

E. Waste Reduction Strategies through the Planning Period

Tables V-5 and V-6 record the proposed continuation strategies and corresponding waste reductions projected throughout the planning period for Residential/Commercial and Industrial Waste Reduction, respectively.

Private Enterprise with Public Policy -

The ACSWD will encourage and cooperate with the private sector to supply the necessary services to meet the District's goals. The District will consider ownership of appropriate facilities and providing direct services only as is needed to meet the strategies and goals of the ACSWD. The ACSWD intends to contract for the operation of those facilities and activities whenever feasible and economical. This is an underlying strategy considered in development and implementation of this Plan.

Reserve the right to use alternative technology and methodology to meet the goals -

The ACSWD has consistently embraced solid waste composting as a potential solid waste management alternative to reclaim organic material from the waste stream. Recently there have been numerous new technologies introduced to reclaim energy, fiber, and various other component of the waste stream. The District reserves the right to consider any of these as technology and economic conditions warrant. The District wished to move toward a zero landfill goal for both residential/Commercial and industrial discards.

Goal #1: Ensure the Availability of Reduction, Recycling and Minimization Alternatives for Municipal Solid Waste;

1. Residential/Commercial Waste Reduction Strategies (existing)

a. Adams Waste & Recycling (AWAR)

AWAR provides a local opportunity for waste disposal and recycling; / The volume of waste and tipping fees do not generate enough money to pay operating costs. Municipal solid waste is taken for a per pound fee, tires and refrigerant bearing appliances are accepted for a fee, free drop-off recycling for all paper, glass, plastic containers (1-7), aluminum & steel containers, ferrous & non-ferrous metal. A buyback program is available for aluminum cans & scrap as well as some other non-ferrous metals and miscellaneous items based on market conditions and contractor willingness and ability. The facility is expected to continue much as it has in the last several years.

b. Drop-off (Clermont County)

There are 38 free single stream recycling available 24 hours usually at public facilities with easy access, sites may be expanded or contracted to adjust for changes in participation. The sites are open to all residential, commercial, and industrial generators and material accepted includes all paper, glass containers, plastic containers (1-7), aluminum & steel containers. These are provided through a contract with private contractor(s) and the ACSWD expects to continue this program over the planning period.

c. Drop-off (Adams County)

There are 10 free single stream recycling available 24 hours usually at public facilities with easy access, sites may be expanded or contracted to adjust for changes in participation. The sites are open to all residential, commercial, and industrial generators and material accepted includes all paper, glass containers,

plastic containers (1-7), aluminum & steel containers. These are provided through a contract with private contractor(s) and the ACSWD expects to continue this program over the planning period.

These sites differ from Clermont County sites because compactors are used to consolidate material to reduce hauling costs in the rural areas. The compactors and collection boxes are owned and maintained by the ACSWD and serviced by a private contractor. ACSWD expects to continue this program over the planning period.

d. Curbside Collection of Recyclables

This is only available in the more densely populated areas of the District (western part of Clermont County). Curbside collection is available at the discretion of the private waste hauler and costs extra for both individual subscription and community franchising arrangements. The private haulers collect all paper, glass containers, plastic containers (1-7), aluminum & steel containers. We assume curbside will remain only partially available in the more densely populated areas, and we expect to see curbside collection numbers increase with addition of large carts replacing the smaller bins. We expect to see curbside collection tonnage increase slowly in future years.

e. Buyback

This is entirely run by private business and pays individuals to recycle material. It requires no funds or management by the District and collects aluminum cans, ferrous and nonferrous scrap metals, lead, lead acid batteries, appliances, and various auto parts (items may change with vendor and market conditions). We expect this to remain a waste management option in the future.

f. Yard Waste

Several mulch companies accept yard waste from residents and business at no charge and turn it into mulch for resale or compost the material for soil amendments. Additionally the ACSWD encourages back yard composting as well as forest floor application of yard waste. There are several commercial and community class IV composting facilities that also accept yard waste. The free disposal of brush and yard waste is recent change and the assumption it will continue to be free. There is considerable yard waste disposal and composting that occurs in rural and suburban areas and is unreported. We expect the reported number to gradually grow as we expect the unreported to grow. We also assume that private entrepreneurs will continue to service this waste stream. The ACSWD provide composting advice and information is posted on the web site to assist.

g. Household Hazardous Waste (HHW) Vouchers

HHW vouchers are issued to ACSWD residents for free disposal of HHW year round after a one-on-one consultation with District staff to determine if there are less expensive alternative disposal options (reuse, recycling, paint drying, etc.). The HHW voucher program is promoted on the District website and in educational presentations. Vouchers are good for one year making self transport of HHW to a private hazardous waste management company flexible and more convenient. This program will continue as long as hazardous waste companies are willing to take individual deliveries at a reasonable price.

h. Lead Acid Battery

Batteries have value and Ohio Revised Code requires entities that sell lead acid batteries to take them back and also buy back recycling programs also accept them. The vast majority of lead acid batteries are being recycled and tracking of amounts has not been aggressively assessed, although lead acid batteries are included in buyback reports. We assume that the value of lead will remain at a level that provides the economic incentive to motivate recovery. This program will be retained until a better one comes along.

i. Used Motor Oil

Public and private (Clermont County Vehicle Maintenance Department, auto parts stores, repair shops, and quick change oil businesses) entities accept used motor oil for alternative uses. We assume the price of oil will remain at a level that makes it attractive for recycling or as a heat source or recycling. There are numerous collection options available and we expect them that to continue.

j. Electronics

Recently electronics have started to have a value that encourages private entrepreneurs to enter the collection business any becoming more common and plentiful. The District will continue to sponsor collection events if alternative or regular options are not available. The field is changing rapidly and competitive entities are accepting a wider variety of material. The District assumes that recent growth in electronics recovery will continue to grow and meet consumer demand. Given the Districts philosophy of allowing private entities provide services where possible, the District is not planning on any program or infrastructure investment at this time. If the private market does not continue to increase services the District may institute programs to meet the needs.

k. Scrap Tires

There is a large quantity available and numerous legacy tire dumps/piles/collections. There is almost daily tire dumping in small quantities, tires have a negative value and procrastination or avoidance of disposal costs is motivating illegal disposal. The ACSWD will continue to collect illegally disposed of tires and arrange for their recycling. The District assumes that the cost of tire disposal will be a negative number and many will appropriately

manage tires but, many will not. Given the economic incentive to dump and store tires, we expect to see large quantities of tires inappropriately managed and the tires will become a public responsibility. We expect to see the number increase for a number of years because of legacy tire collections before decreasing to a static level. The ACSWD will continue the tire collection program with townships, County Engineers and municipal entities in addition to promoting responsible tire management through tire retailers. In recent years small tire dumps (1 to 100 tires) have been frequent and ACSWD litter crews, township and county road maintenance crews and private individuals have started to consolidate these small dumps into one and Ohio EPA has then removed these as a "consensual tire cleanup" at no cost to the ACSWD. The ACSWD will also continue to seek Tire Amnesty Grants to assist in legacy tire removal. The ACSWD see tires as never ending issue as long as there is an economic incentive to illegally discard them. A long term deposit program at a state or national level is needed.

l. White Goods (appliances & refrigerators)

Steel appliances (stoves, refrigerators, washing machines, dryers, and microwaves) have recently become a positive value in the current market and buyback (scrap yards) are paying for them. There have been numerous reports of white goods as well as other steel items being removed from historic roadside dumps because of their increased value and difficult economic times. The District assumes that with the addition of a second recycler in the area willing to remove refrigerant at no cost and the current market conditions for steel scrap, no subsidized white goods recycling will be necessary by the District and we expect this to continue.

m. Education

The education program will continue in the classroom as long as cooperative agreements continue with area schools. Currently the ACSWD contracts for in school educational services and continue with adjustments year to year.

n. Litter Collection

Removing litter and illegal dumps from area roadways with assistance of alternative sentencing individuals is very popular and allows citizens see offenders provide a public service. The ACSWD contracts with Clermont Municipal Court and the Adams County Sheriff to provide supervision and coordination. We assume that levels of effort and results will remain near the same level as the program will continue in the future.

o. Local Emergency Planning Committee (LEPC) and Debris Management

The ACSWD Director will continue as a member of the LEPC allowing for regular planning for debris management during a disaster, it also establishes familiarity with are members of the disaster response team in case there is ever another disaster needing debris removal. In the last 20 years there have been two

disasters (flood & tornado) needing extensive debris disposal assistance from the ACSWD. The District Policy Committee has directed that \$300,000 be budgeted as reserve for disaster debris response. This would be used as first response for debris management, and later used as match for state or federal declared disaster, or as an outright cost in smaller non state or non federal declared disasters at the direction of the ACSWD Board of Directors.

p. Commercial Recycling Collection

This program is totally dependent on private waste haulers and entrepreneurs to provide at door service allowing reduction of waste disposal costs, typically this takes the form of old corrugated board collection or single stream recycling collection and is less expensive than MSW collection. In both counties it is common for grocers and some larger retail establishments to have old corrugated containers (OCC) baling or compacting equipment which enables them to sell directly to brokers or paper mills. Adams County has far fewer hauler provided recycling opportunities. The assumption is that this program will continue to grow as more businesses see the cost savings of single stream or OCC recycling. If waste disposal cost increase we also expect to see an increase diversion to commercial recycling provided, recycling is less expensive than waste disposal. The ACSWD hopes and expects this program to continue as a waste management alternative.

q. Volume Based Waste Collection Fees

Currently there are volume based fees for most commercial waste generator (they pay by container size or frequency of service) and this provides an economic incentive to reduce waste. Volume based fees for residential customers are not available and the fixed cost of going from house to house is such a large portion of the costs incurred by haulers, the incentive for volume reduction would be minimal. Private waste haulers are assumed to continue the commercial/industrial volume based fees and will continue to not offer volume based rates for residential customers.

r. Web Site/Electronic Communication

The web has become the primary source of information to many of District residents and the ACSWD will attempt to keep the www.oeq.net up to date and relevant. Web access and high speed accessibility will likely increase the usefulness of this tool over time. In addition other forms of electronic media are currently being used by the ACSWD sparingly and may become more useful over time. The District will increase information available through electronic media and expects more visitors/hits. This area will continue to grow and evolve over time. The ACSWD will use this tool as time and budget allow.

s. Community Contracting Assistance

The ACSWD will assist townships and municipalities to contract for waste collection services. This may take the form of advising on contractual details or assisting with development and evaluation of franchising contracts for waste collection and . This service is a highly flexible custom designed service based on the need and desire of the community.

2. Industrial Strategies (Existing)

Currently (2010), the ACSWD has an industrial recycling rate of 57%. This is a result of the three strategies listed below. Although this is an excellent rate, the ACSWD will continue to support additional waste reduction through a broad range of strategies identified throughout Section V. It should be noted that FGD waste is such a large part of our industrial waste stream that comparison to other communities is not a fair representation.

a. Buyback

Industry produces a generally homogenous waste stream and therefore frequently generates large quantities of material that have an economic value. Private and non-profit recyclers compete for these recyclables from industry as industry strives to manage its waste in a manner that enhances the recycling value and reduces operating expense. Recyclers can pay some value for some material, making it worthwhile to industry. In some cases, material is repurchased by raw product suppliers for reuse as is the case for OCC collection especially in the baled form.

b. Waste Hauler Recycling Collection

Private waste haulers/recyclers also provide reduced cost (below waste collection cost) collection for some mixed recyclables, and OCC. Although not a buy back situation, this collection at no or reduced cost provides an incentive for recycling within the industrial and commercial sectors.

c. Volume Based Fees

The ACSWD encourages adoption of volume based fees for residential waste generators (See Goals #1 & #2 1.f.) as industrial and commercial generators have always paid for waste collection on a volume basis. This is a fair and equitable method that provides an economic incentive to encourage recycling.

d. FGD Recycling

The four coal burning power generation facilities located in the District have scrubbers that remove sulfur dioxide by injecting lime slurry into the flue gas neutralizing the acid and producing calcium sulfite. Calcium sulfate is the primary ingredient in gypsum that is used in the manufacture of wallboard for residential and commercial construction. The calcium sulfate can be loaded onto

barges on the Ohio River and shipped to several wall board manufacturing facilities. In past Plan updates only the Zimmer facility was generating FGD waste, now all three power plants located in the District are generating FGD waste and increasing the supply. The current economic conditions have reduced construction and thus the demand for wall board. As construction increases so will the amount of FGD waste recycled increase. The District will work with the power generating industry to try and find additional beneficial reuse programs. Although, the power generating industry has considerable more resources and economic motivation to institute a solution, than does ACSWD. We expect this to be a major part of industrial recycling for the District but may see volumes because of oversupply of FGD.

e. Waste Exchange

The ACSWD participates in a regional industrial/commercial waste exchange managed by Hamilton County Waste District. Businesses can list waste/excess/unwanted material for exchange that others may be able to use. This is a no cost service and serves the greater Cincinnati area.

Goal #3: Provide Informational and Technical Assistance on Source Reduction

1. Informational and Technical Assistance (Existing)-

a. Education & Awareness -

The District recognizes that education is an important and productive tool available to impact reduction, reuse, and recycling. The District will continue the strong education program in place by maintaining its cooperation with Adams Brown Recycling educational programs to provide the ongoing solid waste management education and awareness program. The program will provide education through several means, such as: promotional items, teacher workshops, presentations at county schools (grades K-12), newsletters, presentations, science fairs, special events and awareness activities. Awareness will be increased through such activities as: newspaper advertisements, mobile display (The Green Machine), maintaining a web site with pertinent information and use of social media. The District will contract with Adams Brown Recycling, Valley View Foundation, Clean & Green, Soil and Water Conservation Districts, or other entities, to provide educational and awareness programs. The District will also search for new partnerships and methods to increase education and awareness, such as: organizing river sweeps, participating in annual education events and coordinating solid waste and environmental events like the Free Tree Program. The education program should be flexible and able to adapt to rapidly changing social and communication structures. Team building between private business, environmental organizations, different government entities, and community groups such as Clean and Green is necessary to maximize the message and minimize the costs.

These efforts include information dissemination through television, radio, newspaper, newsletter, internet, websites, social media, school presentations, civic organizations, churches, telephone referrals, and word of mouth advertising. The education and awareness program is both local and regional in nature. Due to the large commuting population among surrounding counties, many issues are specific to a neighborhood, but many others are regional in nature. Regional cooperation on such issues may serve many Solid Waste Districts with the same effort as a neighborhood. In these cases, it is logical to adopt a policy of cooperation with surrounding Solid Waste Districts to develop a regional approach to common issues. One of the basic roles of the District is to provide education and awareness to the community (business and residents) using the methods listed above. The District will promote waste reduction, indicating why and how, and site specific examples where reduction has occurred. This information will be made available through as many mediums as possible, and always looking for new opportunities. Citizens will be challenged to adopt successful practices as well as create new opportunities. Businesses (industrial & commercial) will also be targeted to make their buyers, customers, and personnel aware that small actions on their part can have substantial impact on solid waste generation. We often don't think minimize/reduce, but not many years ago we didn't think recycle. The education program will provide increased awareness with regards to reducing before recycling. The District's Policy Committee and/or Board of Directors will annually establish and review measurable goals and objectives for the Education and Awareness Program.

b. *Waste Audits -*

The District will provide expertise to local businesses (commercial and industrial) both small and large to attempt to identify ways they can reduce waste and at the same time save money. District staff may provide the expertise needed or may seek outside expertise as each individual case requires. Cooperative arrangements will be developed with Chambers of Commerce, local governments, recyclers, and waste haulers to identify potential waste audit targets. Audits will attempt to identify areas where waste may be reduced, reused, or recycled. This audit may include, but is not limited to, identifying alternative materials that are more recyclable, identifying alternative markets for nontraditional waste material, and evaluating waste management techniques to determine economic viability.

2. *Informational and Technical Assistance -*

a. *Waste Exchange (Existing) -*

The Interchange is an existing waste exchange serving southwest Ohio and northern Kentucky. The Hamilton County Solid Waste District carries the vast burden of responsibility for managing and maintaining the database and communications with users. The Interchange provides a regional listing of

material wanted and material available. The District will promote the exchange, referrals and electronic links, and track usage with industries and businesses within the District. This program will act as a catalog or clearing house to list and advertise materials available and materials wanted. The service is chiefly used for industrial waste generators but will also be available to commercial generators. A residential waste exchange may be included at a later date. An electronic catalog may be produced quarterly throughout the year. The regional nature (Greater Cincinnati area) of this exchange will strengthen the value of the overall exchange as compared to a single county exchange, because the market will be larger but still generally within a reasonable commuting distance. The ability of this program to continue and be successful is chiefly dependent upon the Hamilton County Solid Waste District's willingness to continue the management of the program.

b. Volume Based Waste Collection Fees - See Goals 1.f. (Existing/Expand)

The ACSWD will continue to promote increased use of volume based rate systems and provide technical assistance regarding development and/or review of proposals and/or requests for bids. The District may provide legal or technical assistance, as needed.

Goal #4: Provide Informational and Technical Assistance on Recycling, Reuse, and Composting Opportunities

1. Information and Technical Assistance (Existing)-

As stated earlier (Goal #3 1.a.), one of the chief roles of the District is to provide education, awareness, and information to the community (industrial, commercial and residential). The entire SWP strategy is dependent on education and awareness.

a. Recycling -

The ACSWD will provide information for both public and private recycling opportunities. Information will include brochures, web site, social media, advertisements, public presentations, and displays indicating recycling options and materials accepted. All forms of media will be used, if possible, to communicate with all waste generators.

b. Composting -

The District, in addition to promoting waste reduction, waste minimization and recycling, will promote alternative approaches to waste management. The ACSWD has long supported all types of composting in addition to land application of yard waste and other organics when appropriate. The District has and will continue to provide or partner with others for backyard composting workshops or educational programs. Technical assistance is supplied by individual consultations and providing detailed written material produced in conjunction with the OSU Cooperative Extension Services and Soil and Water

Conservation Districts to all waste generators. This also includes biosolids from wastewater treatment facilities.

c. Waste Audits - See Goal #3.1.b.

d. Community Technical Assistance -

The ACSWD provides technical assistance to local governments and/or commercial/industrial waste generators for the purpose of establishing or revising waste collection contracts to assist in increasing recycling and/or decreasing costs. This may include contract review and providing input on contract negotiation, franchising waste management, or other support that may be of assistance with regards to solid waste management.

e. Other Assistance -

The ACSWD may also consider other direct or indirect assistance that may encourage increased waste reduction, minimization, and/or recycling by encouraging economic conditions that create or improve markets for recyclables or waste reduction. This SWP is specifically designed to have a high degree of flexibility to address the ever and rapidly changing conditions and needs in the future. The SWP empowers the ACSWD Board of Directors to adjust resources to best serve the residents of the ACSWD while advancing waste reduction directly or indirectly.

f. Debris Management -

The District will participate in Local Emergency Planning Committees and assist communities in disaster debris management that is consistent with the directives of the Debris Management Plan and the needs and resources of the local community(s) as directed by the SWD Board of Directors in response to local needs. The District will establish a debris management reserve fund that may be accessed in cases of emergency at the discretion of the Board of Directors. Roles and responsibilities of the District relating to debris management will be incident driven and developed in conjunction with local and State Emergency Management Agencies and local officials. Debris management is unique for each event and driven by local, state and federal resources, the nature and scope of the event, and available resources. The reserve fund will be established to allow the District to provide immediate response or matching resources for debris management to enable timely and efficient delivery of services.

g. Scrap Tires -

Most retailers accept tires from the general public for a small fee to cover their costs. The County Engineers and Township Trustees, remove tires disposed along road sides. The District will assist public officials in recycling/disposal of these tires. The District may assist municipalities, townships, and County Engineers, to have tire collection events, sharing both costs and staff.

Additionally, AWAR, in Adams County, accepts tires from anyone for a small fee.

h. Lead Acid Batteries - Are accepted at most retailers who sell lead acid batteries. Auto part stores, auto service centers, and recycling buy back, all accept lead acid batteries because they have economic value. The District does not see a need to provide assistance in this area but may if current management practices or economics change.

Goal #5: Strategies for Scrap Tires and Household Hazardous Waste

1. Scrap Tire Management -

The District's approach remains consistent with the 1999 SWP. Reliance on private enterprise to manage scrap tires has functioned well in the past for responsible individuals and we expect private industry to provide the necessary services in the future. The problem comes from irresponsible individuals and illegal disposal, especially in small numbers. The encouragement of alternative uses/markets for scrap tires is very important to the future. The District will encourage and support beneficial reuse whenever possible. The District will work with local Health Districts to track problems with scrap tire management and address issues as they are identified. Current economic conditions (2010/2011) have likely provided more pressure on illegal tire disposal and there seems to be no reduction in roadside dumping of tires. As always, education is and will be a very important part of the program.

Responsible tire disposal will be handled through private industry and entrepreneurs. Irresponsible tire disposal is a problem and the problem is not inadequate waste tire management facilities or services, but the economic incentive to illegally dispose of tires. The ACSWD will continue to assist and work with township, municipal and county road maintenance entities to collect and recycle orphaned tires on public property. The district will continue to seek assistance from any funding source to offset the cost of tire disposal/recycling. The District may institute a waste tire processing facility if needed and/or evaluate necessary changes to ensure proper disposal of tires. At this time there are sufficient tire management facilities, just improper behavior.

The ACSWD will maintain a list of tire transporters and recyclers in the District or serving the District. The District may fund occasional removal of scrap tires as they are identified by ongoing litter collection activities. Currently, small tire dumps are identified and it is appropriate to remove those tires before more tires are disposed of at the same site. Responsible tire management is also a topic for ACSWD education program.

2. Household Hazardous Waste (HHW) -

The District will provide HHW education regarding the definition of HHW is, the impact it has on the environment, non-hazardous alternatives, best management practices, and disposal alternatives. This education will be targeted to all age groups. The District will provide an HHW telephone advice line to be operated by District personnel or contracted to another establishment if deemed appropriate by the Board of Directors.

The ACSWD contracts with a hazardous waste management firm, to accept and recycle or dispose of HHW from residents. The ACSWD provides residents with a voucher that identifies the material and approximate amount. The private hazardous waste firm uses the voucher to bill ACSWD for material processing. For residents to receive a voucher, personal contact is made with ACSWD staff that may suggest other disposal or recycling alternatives. As with all activities in the Plan, the District retains the option to adjust the activity to meet changing economic, social, and technical conditions. The cost of HHW collection has the potential to be very high producing a minimal positive environmental impact. For this reason, collection will be evaluated and adjustments made on an ongoing basis. The ACSWD Board of Directors will coordinate for the collection of specific materials depending on economical, social, and environmental considerations. The existing voucher has proven to be economical and effective and the ACSWD will continue it.

Goal #6: Annual Reporting of Plan Implementation

The ACSWD staff will report annually to the ACSWD Policy Committee, the ACSWD Board of Directors, and Ohio EPA. The report will include the following:

1. Status of ongoing, new and proposed facilities, programs and activities listed in the implementation schedule of this plan.
2. An inventory of alternative management methods available in the ACSWD and the types and quantities of waste managed through these alternatives.
3. Identification of source reduction activities.
4. Quantities of waste generated in the ACSWD and disposed of in out-of-state landfills.
5. Copies of rules adopted or revised under ORC 343.01(G).
6. An inventory of municipalities or townships that levy a host fee under ORC 3734.57).

7. An evaluation and report on the effectiveness HHW management plan.

Goal #7: Market Development Strategy

The ACSWD actively encourages and supports development of markets for recycled content products. The success of recycling requires economic viability of recycling markets and a balanced approach to supply (recycling collection) and demand (markets for recycled content products).

1. Education and Promotion of Buy Recycled

The District intends to participate in local, state and national campaigns to promote overall demand for recycled content products. District staff will support buy recycled promotions and provide technical assistance on utilization and value of using recycled content products when feasible. This will be incorporated into regular ongoing education efforts as well as special events.

2. Financial and Technical Support

The District will also consider assistance on a case by case basis for local businesses utilizing recycled material. The District, directly or indirectly, may also supply other technical assistance to encourage use of recycled content products.

3. Product Standards

The ACSWD strongly supports the development of common sense recycled content product standards that are based on protection of the health, safety and the environment. This includes compost as well as any other recycled content product.

Table V-1 District Population Projections

<i>Year</i>	County Populations		Adjustments to Population		Total District Population
	Adams	Clermont	Loveland (subtract)	Milford (add)	
2010	28,550	197,363	1,941	29	224,001
2011	28,678	199,514	1,962	29	226,260
2012	28,808	201,689	1,984	30	228,543
2013	28,937	203,887	2,005	30	230,849
2014	29,067	206,110	2,027	30	233,180
2015	29,198	208,356	2,049	31	235,536
2016	29,330	210,627	2,071	31	237,916
2017	29,462	212,923	2,094	31	240,322
2018	29,594	215,244	2,117	32	242,753
2019	29,727	217,590	2,140	32	245,210
2020	29,861	219,962	2,163	32	247,692
2021	29,995	222,360	2,187	33	250,201
2022	30,130	224,783	2,211	33	252,736
2023	30,266	227,233	2,235	33	255,298
2024	30,402	229,710	2,259	34	257,887
2025	30,539	232,214	2,284	34	260,504
2026	30,676	234,745	2,309	34	263,148
2027	30,814	237,304	2,334	35	265,820
2028	30,953	239,891	2,359	35	268,520
2029	31,092	242,505	2,385	36	271,249
2030	31,232	245,149	2,411	36	274,006

Population projections were calculated by determining an annual growth rate of 1.004% from 2000 - 2010, using U.S. Census data from the 2000 U.S. Census and the 2010 U.S. Census. That rate was then projected, using a straight-lined methodology.

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

<i>Year</i>	District Population	Per Capita Generation Rate ¹ (lbs./person/day)	Total Residential/ Commercial Generation (TPY)
<i>2010</i>	224,001	3.86	157,883
<i>2011</i>	226,260	3.88	160,265
<i>2012</i>	228,543	3.90	162,692
<i>2013</i>	230,849	3.92	165,155
<i>2014</i>	233,180	3.94	167,657
<i>2015</i>	235,536	3.96	170,198
<i>2016</i>	237,916	3.98	172,777
<i>2017</i>	240,322	4.00	175,397
<i>2018</i>	242,753	4.02	178,057
<i>2019</i>	245,210	4.04	180,758
<i>2020</i>	247,692	4.06	183,501
<i>2021</i>	250,201	4.08	186,287
<i>2022</i>	252,736	4.10	189,115
<i>2023</i>	255,298	4.12	191,987
<i>2024</i>	257,887	4.14	194,904
<i>2025</i>	260,504	4.16	197,866
<i>2026</i>	263,148	4.18	200,873
<i>2027</i>	265,820	4.20	203,928
<i>2028</i>	268,520	4.22	207,029
<i>2029</i>	271,249	4.25	210,179
<i>2030</i>	274,006	4.27	213,377

¹ Rate was increased 0.5% per year from 2010 until 2030 based on Ohio EPA Recommendations September 4, 2002 Estimating Per Capita Residential/Commercial Waste Generation . 2010 rate is established in Table IV-9.

Table V-3. Projected Industrial Waste Generation (TPY)

SIC Code	Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
20	122	123	123	124	124	125	126	126	127	128
22	196	197	198	199	200	201	202	203	204	205
23	81	81	82	82	83	83	83	84	84	85
24	43,167	43,383	43,600	43,818	44,037	44,257	44,478	44,701	44,924	45,149
25	68	68	69	69	69	70	70	70	71	71
26	389	391	393	395	397	399	401	403	405	407
27	3,742	3,761	3,780	3,798	3,817	3,836	3,856	3,875	3,894	3,914
28	4,157	4,178	4,199	4,220	4,241	4,262	4,283	4,305	4,326	4,348
29	6	6	6	6	6	6	6	6	6	6
30	8,522	8,565	8,607	8,650	8,694	8,737	8,781	8,825	8,869	8,913
31	5	5	5	5	5	5	5	5	5	5
32	3,448	3,465	3,483	3,500	3,517	3,535	3,553	3,571	3,588	3,606
33	185	186	187	188	189	190	191	192	193	193
34	784	788	792	796	800	804	808	812	816	820
35	3,096	3,111	3,127	3,143	3,158	3,174	3,190	3,206	3,222	3,238
36	575	578	581	584	587	590	592	595	598	601
37	81	81	82	82	83	83	83	84	84	85
38	354	356	358	359	361	363	365	367	368	370
39	1,116	1,122	1,127	1,133	1,138	1,144	1,150	1,156	1,161	1,167
49	2,657,830	2,671,119	2,684,475	2,697,897	2,711,387	2,724,944	2,738,568	2,752,261	2,766,023	2,779,853
Totals TPY	2,727,924	2,741,564	2,755,272	2,769,048	2,782,893	2,796,808	2,810,792	2,824,846	2,838,970	2,853,165

Table V-3. (continued)

SIC Code	Year										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
20	128	129	130	130	131	131	132	133	133	134	135
22	206	207	208	209	210	211	212	213	214	215	217
23	85	86	86	86	87	87	88	88	89	89	89
24	45,375	45,601	45,829	46,059	46,289	46,520	46,753	46,987	47,222	47,458	47,695
25	71	72	72	73	73	73	74	74	74	75	75
26	409	411	413	415	417	419	421	423	426	428	430
27	3,933	3,953	3,973	3,993	4,013	4,033	4,053	4,073	4,093	4,114	4,135
28	4,370	4,391	4,413	4,435	4,458	4,480	4,502	4,525	4,547	4,570	4,593
29	6	6	6	6	6	6	6	7	7	7	7
30	8,958	9,003	9,048	9,093	9,138	9,184	9,230	9,276	9,322	9,369	9,416
31	5	5	5	5	5	5	5	5	5	5	6
32	3,624	3,642	3,661	3,679	3,697	3,716	3,734	3,753	3,772	3,791	3,810
33	194	195	196	197	198	199	200	201	202	203	204
34	824	828	832	837	841	845	849	853	858	862	866
35	3,254	3,271	3,186	3,103	3,023	2,944	2,868	2,793	2,721	2,650	2,581
36	604	607	599	591	583	575	568	560	552	545	537
37	85	86	86	86	87	87	88	88	89	89	89
38	372	374	376	378	380	381	383	385	387	389	391
39	1,173	1,179	1,185	1,191	1,197	1,203	1,209	1,215	1,221	1,227	1,233
49	2,793,752	2,807,721	2,821,759	2,835,868	2,850,047	2,864,298	2,878,619	2,893,012	2,907,477	2,922,015	2,936,625
Totals TPY	2,867,431	2,881,768	2,896,064	2,910,435	2,924,880	2,939,400	2,953,995	2,968,666	2,983,413	2,998,235	3,013,134

Table V-4. Total Waste Generation for the District During the Planning Period (Tons per Year)

<i>Year</i>	Residential / Commercial ¹ (TPY)	Industrial ² (TPY)	Exempt ³ (TPY)	Total Waste Generation ⁴ (TPY)	GenerationRate (lbs/person/day)⁵
2010	157,883	2,727,924	4,914	2,890,721	70.71
2011	160,265	2,741,564	4,978	2,906,807	70.40
2012	162,692	2,755,272	5,028	2,922,991	70.08
2013	165,155	2,769,048	5,079	2,939,282	69.77
2014	167,657	2,782,893	5,130	2,955,680	69.45
2015	170,198	2,796,808	5,182	2,972,187	69.14
2016	172,777	2,810,792	5,234	2,988,803	68.84
2017	175,397	2,824,846	5,287	3,005,530	68.53
2018	178,057	2,838,970	5,341	3,022,368	68.22
2019	180,758	2,853,165	5,395	3,039,318	67.92
2020	183,501	2,867,431	5,449	3,056,381	67.61
2021	186,287	2,881,768	5,504	3,073,559	67.31
2022	189,115	2,896,064	5,560	3,090,739	67.01
2023	191,987	2,910,435	5,617	3,108,039	66.71
2024	194,904	2,924,880	5,674	3,125,457	66.41
2025	197,866	2,939,400	5,731	3,142,997	66.11
2026	200,873	2,953,995	5,789	3,160,658	65.81
2027	203,928	2,968,666	5,848	3,178,442	65.52
2028	207,029	2,983,413	5,907	3,196,349	65.23
2029	210,179	2,998,235	5,967	3,214,381	64.93
2030	213,377	3,013,134	6,028	3,232,539	64.64

¹ Residential/Commercial waste is projected from Table V-2

² Industrial waste is the projected industrial waste from Table V-3, including FGD waste recycled and disposed at the Zimmer Landfill.

³ Exempt waste is projected using per person generation rate in 2010 of 0.022 pounds per person per day, assume that that rate stays the same and is multiplied by population projections in Table V-1 for each respective year.

⁴ Total waste generation is calculated by adding Residential/Commercial + Industrial + Exempt.

⁵ Pounds per Person per Day is calculated dividing Total Generation (TPY) by District Population for the respective year in Table V-1, then multiplying that quotient by 2000 pounds/ton and dividing by 365 days/year. Note the generation rate decreases over time because the population increases at 1% and waste generation increases at 0.5%.

Table V-5. Residential/Commercial Waste Reduction Strategies (TPY)

Strategy	Type of Material Reduced and/or Recycled ²	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Source Reduction Strategies											
Educ/Awareness		Unknown									
Volume Based Fees		Unknown									
	<i>Subtotals</i>	0	0	0	0	0	0	0	0	0	0
Recycling Strategies											
Curbside	A,S,P,N,G,M,O,C	2,556	2,632	2,711	2,793	2,876	2,963	3,052	3,143	3,237	3,335
Buy Back	A,O,C,F,-F,Z	6,306	6,496	6,691	6,891	7,098	7,311	7,530	7,756	7,989	8,229
Drop-Off	A,S,P,N,G,M,O,C	4,151	4,276	4,404	4,536	4,672	4,812	4,956	5,105	5,258	5,416
Comm. Recycler Hauler Collection	A,S,P,N,G,M,O,C,F,-F	6,180	6,365	6,556	6,753	6,955	7,164	7,379	7,600	7,828	8,063
Yard waste -	D,a,h	19,761	20,354	20,964	21,593	22,241	22,908	23,596	24,304	25,033	25,784
Scrap tires -	D,a,h	1,291	1,329	1,369	1,410	1,453	1,496	1,541	1,587	1,635	1,684
HHW Recycled	D,a,h	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Biosolids		5,349	5,509	5,674	5,844	6,020	6,200	6,386	6,578	6,775	6,979
Electronic	D,a,h	6	7	7	7	7	7	8	8	8	8
Refrigerant Bearing Appliances	D,a,h	26	27	28	28	29	30	31	32	33	34
	<i>Subtotals</i>	45,625	46,994	48,404	49,856	51,352	52,892	54,479	56,113	57,797	59,531
Grand Total (TPY)		45,625	46,994	48,404	49,856	51,352	52,892	54,479	56,113	57,797	59,531

Table V-5. Residential/Commercial Waste Reduction Strategies (TPY)
(continued)

Strategy	Type of Material Reduced and/or Recycled ²	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Source Reduction Strategies												
Educ/Awareness		Unknown										
Volume Based Fees		Unknown										
	<i>Subtotals</i>	0	0	0	0	0	0	0	0	0	0	0
Recycling Strategies												
Curbside	A,S,P,N,G,M,O,C	3,435	3,538	3,644	3,753	3,866	3,982	4,101	4,224	4,351	4,481	4,616
Buy Back	A,O,C,F,-F,Z	8,475	8,730	8,992	9,261	9,539	9,825	10,120	10,424	10,736	11,058	11,390
Drop-Off	A,S,P,N,G,M,O,C	5,579	5,746	5,918	6,096	6,279	6,467	6,661	6,861	7,067	7,279	7,497
Comm. Recycler Hauler Collection	A,S,P,N,G,M,O,C,F,-F	8,305	8,554	8,811	9,075	9,347	9,628	9,916	10,214	10,520	10,836	11,161
Yard waste -	D,a,h	26,557	27,354	28,174	29,020	29,890	30,787	31,711	32,662	33,642	34,651	35,691
Scrap tires -	D,a,h	1,734	1,786	1,840	1,895	1,952	2,011	2,071	2,133	2,197	2,263	2,331
HHW Recycled	D,a,h	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Biosolids		7,188	7,404	7,626	7,854	8,090	8,333	8,583	8,840	9,105	9,379	9,660
Electronic	D,a,h	9	9	9	9	10	10	10	11	11	11	12
Refrigerant Bearing Appliances	D,a,h	35	36	37	38	39	40	42	43	44	46	47
	<i>Subtotals</i>	61,316	63,156	65,051	67,002	69,012	71,083	73,215	75,412	77,674	80,004	82,404
Other Waste Reduction Strategies												
Grand Total (TPY)		61,316	63,156	65,051	67,002	69,012	71,083	73,215	75,412	77,674	80,004	82,404

* As reported on Annual District Report

¹ Transfer Station included in above strategies. Transfer Station is just a place for the strategies to take place.

² Type material: A=aluminum cans, S = steel cans, P= plastic #1 , N = newspaper, G = glass containers, M = mixed paper, O = office paper, C = old corrugated containers, F = ferrous metals, -F = non ferrous metals, W = wood, Z = other material, D,a,h = self explanatory

Table V-6. Industrial Waste Reduction Strategies (TPY)

Strategy	Type of Material Reduced and/or Recycled ¹	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Source Reduction											
Educ/Awareness		Unknown									
Volume Based Fees		Unknown									
Waste Audits		0	0	0	0	0	0	0	0	0	0
Subtotals		0									
Recycling											
Buyback	A,O,C,F,-F,Z	Unknown									
Drop-Off	A,S,P,N,G,M,O,C	Unknown									
Ind. Hauler Recycler Collection	A,M,O,C,F,W,Z	41,735	41,944	42,153	42,364	42,576	42,789	43,003	43,218	43,434	43,651
Yard Waste	D,a,h	Unknown									
Scrap Tires	D,a,h	Unknown									
FGD Ash	D,a,h	1,515,599	1,523,177	1,530,793	1,538,447	1,546,139	1,553,870	1,561,639	1,569,447	1,577,295	1,585,181
Lead-acid batteries	D,a,h	0	Unknown								
Waste Exchange	A,S,M,O,C,F,W,Z, & other	3	117	118	118	119	119	120	121	121	122
Subtotals		1,557,337	1,565,238	1,573,064	1,580,929	1,588,834	1,596,778	1,604,762	1,612,786	1,620,850	1,628,954
Other Waste Reduction Strategies											
Transfer Station		Unknown									
Grand Total		1,557,337	1,565,238	1,573,064	1,580,929	1,588,834	1,596,778	1,604,762	1,612,786	1,620,850	1,628,954

Table V-6. Industrial Waste Reduction Strategies (TPY)
(continued)

Strategy	Type of Material Reduced and/or Recycled ¹	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Source Reduction												
Educ/Awareness		Unknown										
Volume Based Fees		Unknown										
Waste Audits		0	0	0	0	0	0	0	0	0	0	0
Subtotals		0										
Recycling												
Buyback	A,O,C,F,-F,Z	Unknown										
Drop-Off	A,S,P,N,G,M,O,C	Unknown										
Ind. Hauler Recycler Collection	A,M,O,C,F,W,Z	43,869	44,089	44,309	44,531	44,753	44,977	45,202	45,428	45,655	45,883	46,113
Yard Waste	D,a,h	Unknown										
Scrap Tires	D,a,h	Unknown										
FGD Ash	D,a,h	1,593,107	1,601,072	1,609,078	1,617,123	1,625,209	1,633,335	1,641,502	1,649,709	1,657,958	1,666,247	1,674,579
Lead-acid batteries	D,a,h	Unknown										
Waste Exchange	A,S,M,O,C,F,W,Z, & other	122	123	124	124	125	125	126	127	127	128	129
Subtotals		1,637,099	1,645,284	1,653,511	1,661,778	1,670,087	1,678,437	1,686,830	1,695,264	1,703,740	1,712,259	1,720,820
Other Waste Reduction Strategies												
Transfer Station		Unknown										
Grand Total		1,637,099	1,645,284	1,653,511	1,661,778	1,670,087	1,678,437	1,686,830	1,695,264	1,703,740	1,712,259	1,720,820

¹ Type material: A=aluminum cans, S = steel cans, P= plastic #1 & #2, N = newspaper, G = glass containers, M = mixed paper, O = office paper, C = old corrugated containers, F = ferrous metals, -F = non ferrous metals, W = wood, Z = other material, D,a,h = self explanatory

Industrial Waste Reduction Rates were increased by 0.5% per year, same as total industrial waste generation projection rate

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

All Tables referred to are located at the end of each respective chapter

This section shows the total amount of waste to be managed by each method (land filling, recycling, transfer, and composting) and identifies all of the facilities which will be used.

A. District Methods for Management of Solid Waste

1. Calculation of Capacity Needs

Table VI-1 shows estimated waste generation and management methods for the reference year and the years of the planning period. Quantities of waste generated in the reference year are taken from Table IV-8. Reference year data for methods of management also come from Table IV-8. All other data is estimated as indicated below:

Tons of Solid Waste Generated

Beginning with 2010, this column is the sum of tons of total waste generated (from Table V-4) and the tons source reduced (from Table VI-2).

Tons Source Reduced

No source reduction was documented in the reference year, but reduction through successful participation in the regional "Interchange" waste exchange, has been reported in more recent years. With the continuation of waste reduction efforts described in Section V, a modest amount of source reduction is expected to be achieved. Firms participating in waste exchanges report amounts to Hamilton County Solid Waste District and they in-turn report amounts to ACSWD. Modest estimates, based on past results, are included in Table V-6.

Net Tons to be Managed

Tons of solid waste generated less tons source reduced.

Recycling

The recycling quantity for this table is the sum of the recycling subtotals for residential/commercial from Table V-5 and industrial from Table V-6.

Transfer

In the reference year less than 1% of the material landfilled passed through three transfer facilities and then on to landfills. For the two CSI transfer facilities, Evendale and Covington, following years were projected with the assumption this percentage of the landfilled waste stream would remain constant.

Late in 2005, the new Adams County Transfer (ACT) Station began operation and the name was changed in 2008 to Adams Waste & Recycling (AWAR) to better communicate to

citizens the purpose of the facility. A WAR accepted 303 tons of municipal solid waste for transfer in 2010 and, we are projecting this to increase 3% a year over the planning period. These estimates are based on the best professional judgment.

Yard Waste Composting

Composting amounts in 2010 were 19,761 tons were verified from facilities in the District and an increase of 3% per year was projected for future years. Although, in reality, there is likely more composting occurring but, being consistent with other portions of the Plan, if we cannot confirm it, we do not count it.

Yard Waste Land Application

No amount is entered, although it is a wide-spread practice, no documentation exists.

Biosolids Land Application

In 2010 the Clermont County Water Resources Department revived their land application of biosolids with 5,349 tons being land applied and the remaining going to a landfill. Land application is mostly limited to agricultural production fields and is highly dependent on “seasonal windows” to allow application before planting or after harvesting when the ground is not too wet and the material can be incorporated into the soil. The seasonal and weather dependent factors make consistent predictions difficult. We project that the amount of biosolids land applied will increase 5% each year of the planning period.

Open Dumping

Small illegal dumping areas exist throughout the District. Quantities disposed in open dumps during the reference year were estimated by conducting a visual survey. Through a concerted educational and cleanup effort, the District anticipates that illegal dumping will decline gradually over the planning period. The estimation of 1,282 tons was held constant for the planning period, although solid waste generation is increasing.

MSW Composting

A possible MSW composting facility is included in this plan as a contingency. No quantities are projected.

Land filling

Quantity landfilled is the net tons to be managed less the sum of the other management methods, except transfer. It is assumed that transferred waste will eventually be landfilled.

Tables VI-2 and VI-3 provide similar information for the residential/commercial and industrial sectors. The footnote following each table indicates the source of the data. In each case, landfilling is calculated as the difference between the tons generated and the sum of the other management methods. For the sake of simplicity, each table shows only those management methods used by that sector.

B. Demonstration of Access to Capacity

The District has estimated that over the next 19-year planning period, waste landfilled will be 28,417,991 tons or 85,239,236 cubic yards. The landfills identified in Table VI-4 are currently or recently being used by the District with approximately 169,756,624 cubic yards or 56,585,541 tons available remaining capacity. This is more than 2 times our needs. The Adams-Clermont Solid Waste District has no efficient method of projecting regional waste flow from other Districts and therefore can only account for its own District's waste generation and waste flow to disposal facilities. The District believes that there is sufficient landfill permitted disposal capacity in the Rumpke-Georgetown, municipal-Mason County and Bavarian to except regional waste flow. In addition Duke Energy is in the process of expanding the Duke Energy Zimmer Landfill and Dayton Power & Light is in the process of building Carter Hollow Landfill new captive landfill in Adams County for coal generation ash and FGD waste. Carter Hollow is being designed with a 15,110,000 cubic yard capacity, having a 25 to 30 year life expectancy, in addition to the available capacity stated earlier in this paragraph.

Landfills that are projected to reach capacity (Rumpke-Hamilton County, Republic-Epperson, Hancock County) within the planning period could easily be replaced with other landfills used by the District. Once capacity is reached, waste that would normally flow to those landfills will most likely be diverted to the Rumpke-Brown County landfill. The landfills expected to reach capacity within the planning period include the Rumpke Sanitary Landfill in Hamilton County with 14 year's capacity and an expansion planned but not approved, the Stony Hollow Landfill with 4-5 years capacity, and the Republic Epperson Landfill with approximately 8 years capacity with a planned but not permitted expansion. Table VI-4 displays remaining capacity and waste flows for the District.

In addition to current available capacity, there is the likelihood, if more capacity is needed, more will be built. All municipal solid waste in the District is hauled by private haulers and almost all is hauled by a private hauler that also owns a landfill. The entrepreneurs will make more capacity, if needed. Figure VI-I, is a regional map showing sites identified and designated by the District.

Clermont County Solid Waste Management Plan Regional Landfill Facilities

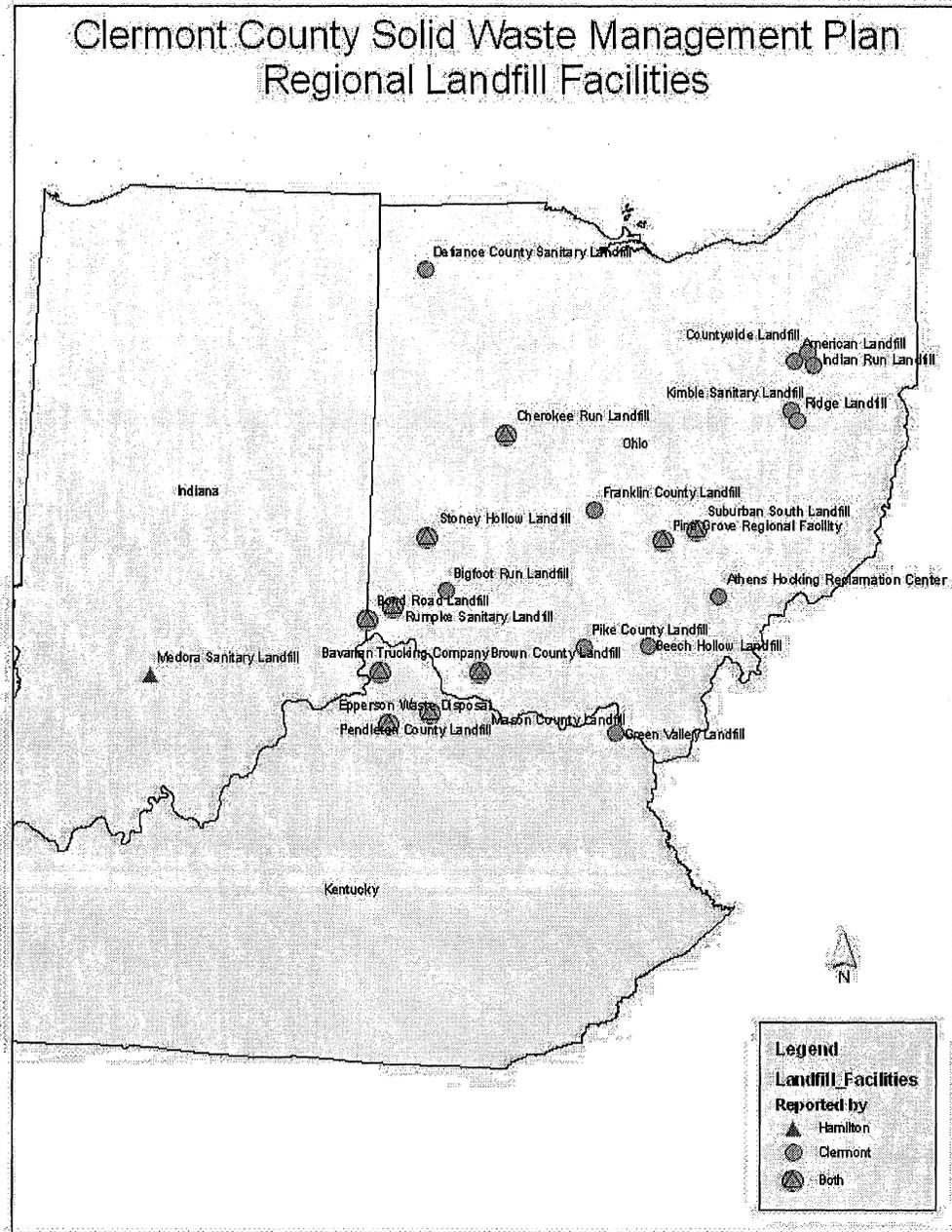


Figure VI-I

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

Table VI-5 comprises the District's schedules for new facilities, expansions, and closures for all facilities to be used by the District. Additionally, all new and expanded programs are listed and assigned a time-frame for expansion or implementation.

D. Identification of Facilities

Table VI-6 identifies solid waste disposal facilities that the District has designated and intends to use or may use throughout the planning period. In addition the list also identifies facilities the District may use if the need arises. However, the District does not limit additions to the designation or identification lists throughout the planning period.

E. Authorization Statement to Designate

The Board of Directors of the Adams-Clermont Joint Solid Waste Management District established facility designations under Section 343.014 of the ORC by resolutions issued on June 23, 2009 and November 30, 2009. The Board is hereby authorized to maintain the existing facility designations and to alter the facility designations in accordance with that section.

F. Waiver Process for Undesignated Facilities

The Board of Directors of the Adams-Clermont Joint Solid Waste Management District is authorized to issue waivers authorizing the delivery of solid waste to a facility that is not designated in accordance with Section 343.01(I)(2) of the ORC.

G. Siting Strategy for Facilities

The following siting process is included to describe a general concept of the District's desire to thoroughly consider siting of facilities. The process described here should not be considered an exact blue print of how the process will happen. The Board of Directors reserves the right to adjust the process to better address the issues at the time. The overall goal being thorough consideration of all issues and open and broad community input in siting of facilities.

The four step site selection process begins with Ohio EPA approval of the plan. At that time a site selection task force is formed. This task force will review Ohio EPA and District siting criteria, gather pertinent environmental and social data, and develop a scoring system by which potential sites will be judged.

Any licensed solid waste facility wishing to be sited within the District, whether part of this Solid Waste Plan or not, shall initiate the following steps. The four steps are as follows:

- I. Origination of Task Force
- II. Review of District Ranking Criteria and Available Sites
- III. Selection of Sites
- IV. Mediation

The following time tables are presented as an estimate of time necessary to perform the four steps outlined above and detailed in following text. Steps II, III, and IV may vary in length depending greatly on the number of potential sites, type of facility being sited and public attitude and input. The time table should not be used as a limiting factor. It is important to understand that a thorough review of criteria and available sites, and ample opportunity for public comment the most important parts of the siting process.

<u>Steps</u>	<u>Estimated Time Frame</u>
I. Origination of Task Force	3 months
II. Review of District Ranking Criteria and Available Sites	9 months
III. Selection of Sites	3 months
IV. Mediation	1 month to a year

The major components of the four steps are:

- I. **Origination of Task Force - To begin after Ohio EPA approval of the plan.**
 - A. Site selection task force will be appointed by the Board of Directors and may include, but is not limited to, the District Director, Representatives of County Commissioner(s), and a Representative from each County Health District, a Representative from Clermont County Planning Commission, and a Technical Representative(s). The use of consultants may also be considered. The District Board of Directors will designate a Task Force leader to assume responsibility for facilitating meetings and necessary information gathering. This leader will most likely be the District Director or District Consultant.
 - B. The District Board of Directors will affirm that mediation will be used if necessary to settle disputes.
 - C. Review of solid waste management plan by task force.
 - D. Review of current District rules and regulations by task force.

- E. Review of current Ohio and U.S. EPA regulations by task force.
- F. Task force will obtain and review siting criteria.
- G. Task force will obtain county base maps showing political jurisdictions and available land use data such as population density and transportation routes.
- H. Task force will obtain and compile data on such subjects as rivers, streams, wetlands, watershed boundaries, flood plain, aquifer boundaries, public waste systems, geology, topography, public and private utilities, archeological/historical sites, and information on other criteria such as parks and conservancy districts, natural areas, wildlife areas, and threatened species habitats.
- I. Task force will record data and information on map overlays.
- J. Task force will apply Ohio EPA and District exclusionary criteria to District map to determine where potential sites exist.
- K. Task force will select a weighting system for the ranking criteria. This is specific to the type of waste management facility, with the weighting factor for specific criterion remaining constant for each site.
- L. Task force will conduct public meetings for review of weighting and ranking system.
- M. Task force will apply District criteria to those areas that remain after the application of Ohio EPA and District Exclusionary criteria under I.J. This must be done separately for each type of facility.
- N. Task force will inform those communities where there are potential sites for future solid waste management facilities.

II. Task Force Will Review and Apply District Ranking Criteria to Available Proposed Sites - Activation based upon implementation schedule or entity wishing to site facility. Proposed Facility Owner may become member of task force. District Board of Directors may also wish to appoint additional technical representative(s) to the task force. Addition of a mediator may be appropriate at this time.

- A. The task force will conduct public meetings describing Ohio EPA exclusionary criteria and District ranking criteria; Show which areas of the District remain as potential sites after application of Ohio EPA exclusionary criteria under Phase I; Describe District ranking criteria and how they will be applied; and Explain bidding process by which communities may offer, or bid, to have facilities sited.
- B. District Board of Directors or the task force will invite communities to bid on having facilities sited. If no bids are presented, task force will review potential sites. The purpose of the bid request from communities is to allow them to define the terms and conditions under which they would welcome specific facilities. These bids could provide inducements for a facility to locate at a specific location or define specific operating, facility design, hours of operation and/or limits or activities that the community would require for their acceptance of the facility.
- C. District Board of Directors will add one or more representatives from the political jurisdiction(s) most directly affected to the task force. Additionally, all residents within 0.5 miles of the site(s) should be notified by mail by the task force and invited to attend task force meetings.
- D. Task force will review ranking criteria, based upon additional information available, and community bids.
- E. Task force will make recommendations to District Board of Directors.

III. Selection of Sites

- A. District Board of Directors will review ranked sites and consider public comments.
- B. District Board of Directors will make Announcement of Selected Sites.
- C. District Board of Directors or consultant will conduct public involvement and education programs for recommended sites.

IV. Mediation

- A. Mediation is included as the last step but is a necessary component throughout the siting process. This step may be facilitated by a professional mediator, District staff, or consultant.

2. SITING CRITERIA

General

During the implementation phase of the District's solid waste management plan, the District may require the use of siting criteria. These criteria will assist in narrowing a number of possible sites to a list of potential sites for further consideration. The criteria are divided into exclusionary and ranking categories. The exclusionary criteria are those which are mandated by Ohio EPA and District regulations. The ranking criteria are those which have been established by the District.

Exclusionary Criteria

Exclusionary criteria, for all solid waste facilities shall be applied in accordance with all applicable Federal and State of Ohio rules and regulations.

District Exclusionary Criteria

Due to significant differences between Adams and Clermont Counties with regard to the number of threatened or endangered species, the **following** District exclusionary criteria may serve as guidelines for Clermont County but shall be strictly adhered to for Adams County.

- Endangered or threatened species. No solid waste management facility may be sited within 2 miles of any recorded population of threatened or endangered species.
- Geology. No solid waste facility may be sited in an area where there is less than five feet of mean soil depth between surface and bedrock.

Ranking Criteria

The ranking criteria are divided into three general categories: environmental criteria, suitability criteria, and socio-political criteria. These criteria include, but are not limited to the following:

Environmental Criteria--

- Noise: Preferable sites should have a minimum adverse impact on noise levels in surrounding residential or other noise-sensitive areas. Noise levels may result from traffic to and from the facility, construction and operation of the facility.
- Endangered Species: Preferable sites minimize the affect on the habitat of known rare or endangered species.
- Screening: Natural screens such as trees and topography should be utilized when designing the facility.
- Aquifer location: Underground aquifers should be considered when locating facilities. An impact should be determined for aquifers and the possible effect on public and private water supplies.
- Well Head Exclusion Zone: Preferred sites should not be located within a recharge zone.
- Watershed protection: Sites impact on surface water quality should be considered.
- Air Quality: Preferred sites should minimize adverse air quality impacts. Buffer zone distances, natural air currents, prevailing winds, and facility design should be considered with relation to air quality, especially for landfills and composting facilities.

Suitability Criteria--

Suitability criteria encompass those aspects having to do with the location, size, shape, use, and accessibility of the site.

- Site Location: While still satisfying the other criteria, the facility should be located as close as possible to the waste generation areas or other related waste management facilities to minimize the cost of transporting the waste. For areas with widely dispersed waste generation, a system of facilities may be more economical, using transfer stations to service a single solid waste management facility or siting more than one waste management facility. Environmental and/or public opinion factors may outweigh the economic savings of a close location and require a more remote site.
- Traffic: Preferable sites should minimize congestion and adverse safety effects of facility traffic on the existing traffic flows in the

vicinity of the site. Turning functions, site distance from areas of heavy traffic congestion, facility traffic volume, noise, and aesthetics are all factors to consider.

- **Accessibility:** The facility should be easily accessible from improved major roadways. This is due to the number and type of trucks and transfer vehicles which will be using the facility. Transporting waste through residential or commercial areas should be minimized. Good access on improved roads will minimize impact on residential streets; reduce impact on normal traffic flow, and lower transportation time and expense. Also, the facility should be located at a reasonable distance to waste generation or other related waste management facilities to minimize transportation costs.
- **Site Size and Shape:** Preferable sites should be large enough for the facility buildings and structures, construction areas and open space buffer areas. There should be sufficient space to provide optimum vehicle movement, parking areas, queuing space, and private vehicle/truck separation.
- **Land Availability:** Preferable sites should be readily available for acquisition at a reasonable cost. Site acquisition should not require condemnation of properties.
- **Single Ownership:** Preferable sites would be comprised of a single piece of property in order to limit the number of parties with which to negotiate.
- **Adjacent Land Use:** Preferable sites should be located a reasonable distance away from residential, community, and commercial development. However, the site should be conveniently located to encourage participation.
- **Local Zoning:** Preferable sites should be compatible with local zoning.
- **Access to Utilities:** Preferable sites should have ready access to all required utilities. These will include electricity for purchase and sale of power (as appropriate), potable water, process water, wastewater disposal, and telephone. All utilities should have adequate capacity to supply the facility with its design requirements.
- **Access to Markets:** Convenient access to the markets for materials recovered at a facility may be an important factor, depending upon the type of facility and the materials. Market determination is

usually based on the market value of the material and the transportation cost to that specific market.

- Topography: Preferable sites should have topographic characteristics which are compatible with the type of facility being sited.
- Soils and Geology: Existing soils of the site must be adequate to support structures, roads and highways without adverse impacts or excessive costs. Some soils types and properties may make development of a site difficult due to excessive costs or difficulty in providing adequate structural support.

Socio-Political Criteria-

- Impact on Surrounding Areas: Preferable sites should cause minimal real or perceived environmental or economic impacts on surrounding areas. Public opinion can be a major factor in the relative importance and effect of this criterion.
- Public Attitude: Preferable sites should minimize public opposition by maximizing the sites conformance to the suitability and environmental criteria described above.
- Governmental Cooperation: Preferable sites should be located within the District or within the jurisdiction of the facility owner to reduce intergovernmental conflicts.
- Public Participation: The process of selecting a site should be an open process with ample opportunity for public comment and review of documents, plans, and potential impacts.
- Prior Use: Affects public opinion.

When the task force begins to develop the weight factors, impact ratings and mitigation factors for the ranking criteria, the public will need to be involved in the process. Otherwise, it will be virtually impossible to minimize public controversy when siting a facility.

Additionally, the public may have extremely useful information on the sites which are being considered.

Section VI.G.3. Below addresses the ranking of potential sites.

3. RANKING OF POTENTIAL SITES

Potential sites will be ranked relative to one another in order to provide the task force the best possible site(s) to recommend to the District Board of Directors. The ranking system compares the suitability of sites for a particular type of facility.

Since the ranking criteria are broad based in nature, and apply to the siting of all types of solid waste management facilities, a weighting system has been developed. This weighting system allows the task force to administer the ranking system on a facility specific basis. The Weight Factors range between 0 and 10 and remain constant for all potential sites for each type of facility.

Although the ranking system produces a quantifiable number, this number is not an absolute measurement of a specific site's suitability. The ranking system is only a guide to help reduce the number of possible sites to a manageable level.

After determining the weighting factor for each of the criteria, an impact rating is assigned. The impact ratings are site specific and provide a relative measure of how the various criteria will be affected for each site.

Mitigation factors are those aspects which tend to lessen the impact on certain criteria. These mitigation factors may come about as a result of guidelines contained within operational procedure manuals for each type of facility, or as part of the compensation package agreed upon during the bidding process. They are, therefore, considered to be a key component of the mediation process described in the following section (VI.G.4). These mitigation factors are divided into three general categories: operations and management, design, and compensation. These factors include, but are not limited to the following:

Operations and Management--

- Hours of Operation
- Traffic Routing
- Traffic Safety Devices
- Traffic Safety Enforcement
- Street Sweeping
- Litter Control
- Wheel Washing
- Right for Local Inspection
- Commitment to Ongoing Communications with Neighbors

Design--

- Landscaping/Berming
- Final Land Use Plan
- Local Ordinance Compatibility
- Fencing
- Development of Non-fill Areas
- Noise Abatement
- Air Movement

Compensation--

- Host Fee
- Surcharge on Waste Disposal
- Property Values of Neighbors
- Services to Host Community
- Assistance with Existing and Future Environmental Problems

Scoring

For each criteria the Weight Factor (A), will be multiplied by the Impact Rating (B) minus the Mitigation Factor (C) to equal the Net Impact D, using the following formula:

$$A \times (B - C) = D$$

The Net Impact scores will be totaled to provide an Overall Impact. This process will be duplicated for each potential site.

It is important to realize that ranking is only intended to aid in the final decision, not to make a site-specific determination.

4. MEDIATION PROCESS

Non-binding mediation may be used to help resolve conflicts, disputes, and impasses associated with siting of solid waste facilities. A mediator or otherwise disinterested 3rd party will be brought into the siting process to assure all sides that their views and inputs will be fairly considered. The mediator can act as a link for opposing interests, fostering communications, and encouraging cooperation. The mediator can clarify issues and concerns, offer constructive suggestions, possible compromises, and potential solutions.

The use of a mediator should be used when the parties need help in establishing communications. The mediator may be used under circumstances which follow:

- When excessive personal time would be demanded
- When the direction of a negotiated outcome is contrary to current District policy
- When the District chose to be or is seen as a party to the issue rather than an umpire
- When the parties need help in establishing communication
- When special group process skills are needed
- When sensitive information is involved
- When fresh ideas/potential solutions are needed
- When negotiations are threatened by disagreements within groups
- When a process is not working.

Since it is highly advisable to involve a mediator at the beginning of the citing process, a mediator will be selected by the District, upon the recommendation of the Task Force. This will help assure differing factions that the citing criteria outlined in the solid waste plan is being evenly and fairly addressed.

The mediation process will be helpful for difficult issues. The preferred way to avoid an impasse is to have a mediator address issues before conflict arises. The District Directors will develop lines of communication with interested parties and will coordinate the selection process. It may be advisable for the District Director to play as minor a role as possible to assure overall acceptance of the mediator. The Board of Directors will define the role of the District Director.

To achieve acceptance of various factions, the Directors will need to identify the various interest groups and incorporate them into the selection process. It is essential that all parties be confident of the capability and neutrality of the mediator.

H. Contingencies for Capacity Assurance and Program Implementation

Disposal capacity is expected to be available at several of the current facilities throughout the planning period as discussed in VI. B. Although some of the currently designated or identified facilities may close during the planning period. It is the belief that both of Rumpke's facilities will continue to operate and especially

the Brown County facility will be able to expand to accept rerouted waste flows from other closed facilities.

Given the unforeseen circumstances that all the facilities currently accepting solid waste from the ACSWD would stop accepting waste, the following are reasonable alternatives. The following is a list of potential facilities that may accept waste from the ACSWD. It should be noted that there is no contractual agreement or disposal price established. We have included the approximate distance from the ACSWD border to the facility as information to help make a reasonable availability determination. The list certainly indicates that there are potential alternatives. The real question is the cost of the disposal which changes with supply and demand, transportation distance, regulatory requirements, and facility operating costs.

Athens Hocking Reclamation Center Logan, Ohio	75 miles
American Landfill Warren, Ohio	250 miles
Beech Hollow Landfill Wellston, Ohio	45 miles
Defiance County Landfill Defiance, Ohio	110 miles
Henry County Landfill Napoleon, Ohio	180 miles
Mahoning Landfill Warren, Ohio	250 miles
Green Valley Landfill Ashland, Kentucky	40 miles
<i>Other Possibilities</i>	
Bond Hill Landfill, OH	40 miles
Preble County Landfill, OH	60 miles
City of Wilmington Sanitary Landfill, OH	50 miles
New Paris Pike Landfill, IN	70 miles
Decatur Hill Landfill, IN	80 miles
Valley View Trimble County, KY	70 miles
Republic Franklin County, KY	75 miles
Randolph Farms Landfill, IN	95 miles
Hayes Landfill, IN	100 miles
Caldwell Landfill, IN	100 miles
Bartholomew County Landfill, IN	105 miles

Local Sanitation of Rowan County, KY	85 miles
Clark Floyd Landfill, IN	105 miles
Medora Sanitary Landfill, IN	110 miles
Jay County Landfill, IN	110 miles
Rumpke Montgomery County, KY	105 miles
Williams Landfill, KY	100 miles
SWACO Franklin County, OH	110 miles
Washington County Landfill, IN	120 miles
Waste Management - Louisville, KY	110 miles
Republic Estill County, KY	115 miles
Southside Landfill, IN	130 miles
Belmont Ash Landfill, IN	130 miles
Cooksey Brothers Disposal, Inc., KY	125 miles
Nelson County Fiscal Court, KY	130 miles
Monroe County Landfill, IN	135 miles
Republic Lincoln County, KY	130 miles
Twin Bridges R&D Facility, IN	145 miles
Hardin County Fiscal Court, KY	140 miles
Wyandot Sanitary Landfill, OH	140 miles
Worthington Landfill, IN	150 miles
Midwest Disposal Landfill, IN	155 miles
Huntington City Landfill, IN	155 miles
Wabash Valley Landfill, IN	155 miles
MacBeth Road Landfill, IN	160 miles
United Refuse Landfill, IN	160 miles
Daviess County Landfill, IN	165 miles
Oak Ridge R&D Facility, IN	170 miles
Victory Environmental Landfill, IN	170 miles
Noble Road Landfill, OH	165 miles
Evergreen Recycling and Disposal, Inc., OH	165 miles
Wood County Landfill, OH	165 miles
Sullivan County Landfill, IN	175 miles
San Lan Landfill, OH	165 miles
County Line Landfill, IN	180 miles
Blackfoot Lanfill, IN	180 miles
LWS Williams County Landfill, OH	170 miles
Kosciusko Landfill, IN	185 miles
West Clinton Landfill, IN	185 miles
Ottawa County Landfill, OH	180 miles
Earthmovers Landfill, IN	200 miles
Elkhart County Landfill, IN	200 miles
Kimble Sanitary Landfill, OH	195 miles
Laubscher Meadows Landfill, IN	205 miles
Lorain County II Landfill, OH	200 miles
Countywide RDF, OH	210 miles
Deercroft R&D Facility, IN	220 miles

Newton County LF Partnership, IN	220 miles
Prairie View R&D Facility, IN	220 miles
Republic Carbon Limestone Sanitary Landfill, OH	250 miles

Table VI-1.

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

<i>Year</i>	Tons of SW Generated ¹	Tons Source Reduced ²	Net Tons to be Managed by SWMD ³	Recycle Res/Com ¹⁰	Recycled Ind	Total Recycling ²	AWAR	CSI Transfer ⁴	Yard Waste Composting ⁵	Biosolids Land Application ⁶	Open Dumping ⁷	MSW Compost ⁸	Landfilling ⁹
2010	2,890,721	0	2,890,721	20,516	1,557,334	1,577,850	303	9,503	19,761	5,349	1,282	0	1,286,480
2011	2,906,807	0	2,906,807	23,934	1,565,238	1,589,171	334	9,978	20,354	5,509	1,282	0	1,290,491
2012	2,922,991	0	2,922,991	24,652	1,573,064	1,597,716	367	10,477	20,964	5,674	1,282	0	1,297,355
2013	2,939,282	0	2,939,282	25,391	1,580,929	1,606,321	404	11,001	21,593	5,844	1,282	0	1,304,242
2014	2,955,680	0	2,955,680	26,153	1,588,834	1,614,987	424	11,551	22,241	6,020	1,282	0	1,311,150
2015	2,972,187	0	2,972,187	26,938	1,596,778	1,623,716	445	12,129	22,908	6,200	1,282	0	1,318,081
2016	2,988,803	0	2,988,803	27,746	1,604,762	1,632,508	467	12,735	23,596	6,386	1,282	0	1,325,031
2017	3,005,530	0	3,005,530	28,578	1,612,786	1,641,364	491	13,372	24,304	6,578	1,282	0	1,332,002
2018	3,022,368	0	3,022,368	29,436	1,620,850	1,650,285	515	14,040	25,033	6,775	1,282	0	1,338,992
2019	3,039,318	0	3,039,318	30,319	1,628,954	1,659,273	541	14,742	25,784	6,979	1,282	0	1,346,001
2020	3,056,381	0	3,056,381	31,228	1,637,099	1,668,327	557	15,479	26,557	7,188	1,282	0	1,353,027
2021	3,073,559	0	3,073,559	32,165	1,645,284	1,677,449	574	16,253	27,354	7,404	1,282	0	1,360,070
2022	3,090,739	0	3,090,739	33,130	1,653,511	1,686,641	591	17,066	28,174	7,626	1,282	0	1,367,017
2023	3,108,039	0	3,108,039	34,124	1,661,778	1,695,902	609	17,919	29,020	7,854	1,282	0	1,373,980
2024	3,125,457	0	3,125,457	35,148	1,670,087	1,705,235	627	18,815	29,890	8,090	1,282	0	1,380,960
2025	3,142,997	0	3,142,997	36,202	1,678,437	1,714,639	646	19,756	30,787	8,333	1,282	0	1,387,956
2026	3,160,658	0	3,160,658	37,288	1,686,830	1,724,118	666	20,744	31,711	8,583	1,282	0	1,394,965
2027	3,178,442	0	3,178,442	38,407	1,695,264	1,733,671	686	21,781	32,662	8,840	1,282	0	1,401,987
2028	3,196,349	0	3,196,349	39,559	1,703,740	1,743,299	706	22,870	33,642	9,105	1,282	0	1,409,021
2029	3,214,381	0	3,214,381	40,746	1,712,259	1,753,005	727	24,014	34,651	9,379	1,282	0	1,416,065
2030	3,232,539	0	3,232,539	41,968	1,720,820	1,762,788	749	25,214	35,691	9,660	1,282	0	1,423,119

¹ From Table V-4

² From Table V-5 and V-6

³ Difference between tons generated and tons disposed

⁴ Value for year 2010 is from Table III-3 representing Cincinnati Transfer Station following years these two facilities are tonnage is held in porportion to 2010 tons managed, with the exception of Adams County Transfer (ACT) starts solid waste management in year 2005. See note #4 on Table VIII-5D detailing ACT expected volumes.

⁵ Year 2010 values are taken from Table III-6 and following years are taken from projections in Table V-5. Land application of yard waste occurs, the District has no documentation of amounts, therefore no value is provided in this table.

⁶ Land application of biosolids is highly dependent on weather and agricultural field availability.

⁷ Open dumping estimation is discussed in Section IV.A. The District expects the problem continue but level off, actually decreasing per capita.

⁸ There is considerable potential here but due to unreasonable and oppressive regulations this colume will be zero.

⁹ Value for 2010 equals total landfill amount in Table IV-8. This value was calculated by taking total tons of waste generated and subtracting total recycling, yard waste/compost, open dumping and biosolids.

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

Year	Tons Generated ¹	Source Reduction & Recycling ²	Open Dumping ³	Yard Waste Composting ⁴	Land filling ⁵
2010	157,883	25,864	1,282	19,761	110,976
2011	160,265	26,640	1,282	20,354	111,989
2012	162,692	27,439	1,282	20,964	113,006
2013	165,155	28,263	1,282	21,593	114,017
2014	167,657	29,110	1,282	22,241	115,024
2015	170,198	29,984	1,282	22,908	116,024
2016	172,777	30,883	1,282	23,596	117,016
2017	175,397	31,810	1,282	24,304	118,002
2018	178,057	32,764	1,282	25,033	118,978
2019	180,758	33,747	1,282	25,784	119,946
2020	183,501	34,759	1,282	26,557	120,903
2021	186,287	35,802	1,282	27,354	121,849
2022	189,115	36,876	1,282	28,174	122,782
2023	191,987	37,982	1,282	29,020	123,703
2024	194,904	39,122	1,282	29,890	124,610
2025	197,866	40,296	1,282	30,787	125,501
2026	200,873	41,504	1,282	31,711	126,376
2027	203,928	42,750	1,282	32,662	127,234
2028	207,029	44,032	1,282	33,642	128,073
2029	210,179	45,353	1,282	34,651	128,893
2030	213,377	46,714	1,282	35,691	129,691

¹ Taken from Table V-2.

² Taken from Table V-5, less yard waste/composting

³ Taken from Table VI-1.

⁴ Taken from Table V-5

⁵ Tons generated less source reduction & recycling, open dumping, and yard waste composting.

Table VI-3. Summary for Industrial Waste Management Methods

Year	Tons per year Generated ¹	Management Methods in TPY	
		Source Reduction & Recycling ²	Land filling Total ³
2010	2,727,924	1,557,337	1,170,587
2011	2,741,564	1,565,238	1,176,326
2012	2,755,272	1,573,064	1,182,208
2013	2,769,048	1,580,929	1,188,119
2014	2,782,893	1,588,834	1,194,059
2015	2,796,808	1,596,778	1,200,030
2016	2,810,792	1,604,762	1,206,030
2017	2,824,846	1,612,786	1,212,060
2018	2,838,970	1,620,850	1,218,120
2019	2,853,165	1,628,954	1,224,211
2020	2,867,431	1,637,099	1,230,332
2021	2,881,768	1,645,284	1,236,484
2022	2,896,064	1,653,511	1,242,554
2023	2,910,435	1,661,778	1,248,657
2024	2,924,880	1,670,087	1,254,793
2025	2,939,400	1,678,437	1,260,963
2026	2,953,995	1,686,830	1,267,166
2027	2,968,666	1,695,264	1,273,402
2028	2,983,413	1,703,740	1,279,672
2029	2,998,235	1,712,259	1,285,976
2030	3,013,134	1,720,820	1,292,314

¹ Taken from Table V-3.

² Taken from Table V-6.

³ Landfill Total is calculated by subtracting source reduction from generation.

Table VI-4 Landfills Used by the District

Facilities used by District: Name and Location	Owner	Remaining Capacity		
		AMDWRL ³ Tons	Remaining Capacity in Cubic Yards	Capacity in Years
<i>Landfills</i>				
Zimmer Landfill (Captive facility) - Clermont County, Ohio ^{5,6}	Duke Energy	5,051	6,362,280	20.0
Rumpke Brown County Landfill ¹	Rumpke Waste, Inc.	3,000	44,902,000	53.2
Rumpke Sanitary Landfill - Hamilton County ¹	Rumpke Waste, Inc.	10,000	33,906,586	14.1
Hancock County Sanitary landfill ²	Hancock County Commissioners	750	7,304,801	40.1
Stoney Hollow Landfill ¹	Waste Management, Inc.	4,500	1,770,305	4.4
Pine Grove Regional Facility ¹	Republic Services of Ohio III LLC	5,000	18,165,168	51.2
Pike Sanitation Landfill ²	Pike Sanitation, Inc.	2,000	18,231,787	54.9
Epperson Landfill ¹	Republic Services of Kentucky, LLC	650,000 ⁴	3,454,832	7.8
Maysville-Mason County, Ky Landfill ¹	Mason County Fiscal Court	N/A	11,152,955	28.8
Bavarian Landfill, Ky (undesignated) ¹	Bavarian Trucking Company	No limit	13,352,955	44.5
Rumpke Pendleton County, Ky Landfill ¹	Rumpke of Kentucky, Inc.	N/A	11,152,955	28.8
Landfill Subtotal		N/A	169,756,624	N/A

<i>Recycling Facilities</i>	<i>Transfer Facilities</i>
Rumpke Recycling - Hamilton County, Ohio	Adams Waste & Recycling - Adams County, Ohio
CSI Waste - Grant County, Ky.	Evendale Transfer Station - Hamilton County, Oh.
Adams Brown Recycling - Brown County, Ohio	Covington Transfer Station - Covington, Ky.
Adams Waste & Recycling - Adams County, Ohio	
Far Out Recycling, Adams County, Ohio	
M&R Recycling - Clermont County, Ohio	
Way Out Recycling, Clermont County, Ohio	
Round Bottom Recycling - Clermont County	
LaFarge Corporation - Campbell County, Ky.	
Other Industrial & Commercial Recyclers	

¹ AMDWRL and Remaining Capacity source: Hamilton County Draft Solid Waste Plan, 2010

² AMDWRL and Remaining Capacity source: OEPA Approved, Pending, and Remaining Capacity at Ohio's Publicly Available Landfills July 31, 2008 with adjustments to reflect 12-31-10 estimate.

³ AMDWRL = Authorized Maximum Dailey Waste Receipt Limit

⁴ AMDWRL is 1,300,000 tons in any two year period

⁵ Reflects capacity for all material which includes bottom ash, fly ash, and FGD waste.

⁶ Capacity source from OEPA PTI Number 05-12631

Table VI-4 Landfills Used by the District
(continued)

Landfills Used by District: Name and Location	Tons managed by each facility									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Zimmer Landfill (Captive facility) - Clermont County, Ohio	859,774	859,774	859,774	859,774	859,774	859,774	859,774	859,774	859,774	859,774
Rumpke Brown County Landfill	91,939	91,939	91,939	91,939	91,939	91,939	91,939	91,939	91,939	91,939
Rumpke Sanitary Landfill - Hamilton County ³	35,552	35,552	35,552	35,552	35,552	35,552	35,552	35,552	35,552	35,552
Hancock County Sanitary landfill	13	13	13	13	13	13	13	13	13	13
Stoney Hollow Landfill ³	16	16	16	16	0	0	0	0	0	0
Pine Grove Regional Facility (undesignated)	3	3	3	3	3	3	3	3	3	3
Pike Sanitation Landfill	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493
Epperson Landfill ³	6,568	6,568	6,568	6,568	6,568	6,568	6,568	6,568	0	0
Maysville-Mason County, Ky Landfill	284,824	284,824	284,824	284,824	284,824	284,824	284,824	284,824	284,824	284,824
Bavarian Landfill, Ky (undesignated)	205	205	205	205	205	205	205	205	205	205
Rumpke Pendleton County, Ky Landfill	180	180	180	180	180	180	180	180	180	180
subtotal - In State	996,724	996,724	996,724	996,724	996,724	996,724	996,724	996,724	990,156	990,156
subtotal - Out of State	284,843	284,843	284,843	284,843	284,827	284,827	284,827	284,827	284,827	284,827
Landfill Total ^{2B}	1,281,567	1,297,355	1,304,242	1,311,150	1,318,081	1,325,031	1,332,002	1,338,992	1,346,001	1,353,027

^{1B} Zimmer Landfill and Mason County Landfill both accept FGD waste from area coal burning electric generating plants, Mason County also accepts municipal solid waste.

^{2B} Total landfilled is from Table III-1 and each landfill's projected amount managed over planning period at same percentage as 2010.

³ Landfill projected to reach Capacity during planning period

Table VI-4 Landfills Used by the District

continued

Landfills Used by District: Name and Location	Tons managed by each facility										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Zimmer Landfill (Captive facility) - Clermont County, Ohio	959201.92	963997.93	968733.27	973494.37	978281.32	983094.19	987933.07	992798.02	997689.14	1002606.5
Rumpke Brown County Landfill	124678.82	132684.35	140754.51	148901.13	197577.16	246728.89	296360.16	346474.82	397076.74	448169.8	499757.91
Rumpke Sanitary Landfill - Hamilton County ³	39663.384	39861.701	40057.509	40254.383	0	0	0	0	0	0	0
Hancock County Sanitary landfill	14.503375	14.575892	14.647492	14.719481	14.791861	14.864632	14.937797	15.011357	15.085312	15.159664	15.234414
Stoney Hollow Landfill ³	0	0	0	0	0	0	0	0	0	0	0
Pine Grove Regional Facility (undesignated)	3.3469328	3.3636674	3.3801904	3.3968032	6838.7774	13741.963	21137.153	28605.43	36146.721	43761.614	51450.699
Pike Sanitation Landfill	2781.3011	2795.2076	2808.9382	2822.7435	2836.6237	2850.5791	2864.6099	2878.7163	2892.8986	2907.157	2921.4918
Epperson Landfill ³	0	0	0	0	0	0	0	0	0	0	0
Maysville-Mason County, Ky Landfill	317762.7	319351.52	320920.23	322497.48	324083.29	325677.69	327280.71	328892.36	330512.68	332141.7	333779.44
Bavarian Landfill, Ky (undesignated)	229.15333	230.2991	231.43037	232.5678	233.7114	234.86119	236.0172	237.17944	238.34793	239.52269	240.70374
Rumpke Pendleton County, Ky Landfill	200.36971	201.37156	202.36073	203.35529	204.35524	205.36061	206.37142	207.38767	208.40938	209.43658	210.46928
subtotal - In State	1126769.5	1139785.4	1152802.7	1165923.3	1179148	1233128.7	1287615.2	1342611.1	1398120.6	1454147.6	1510696
subtotal - Out of State	317766.05	319354.88	320923.61	322500.88	330922.07	339419.66	348417.86	357497.79	366659.4	375903.31	385230.14
Landfill Total ^{2B}	1347576.5	1354564.3	1361455	1368362.4	1375285.4	1382223	1389174	1396137.3	1403111.7	1410095.9	1417088.7

^{1B} Zimmer Landfill and Mason County Landfill both accept FGD waste from area coal burning electric generating plants, Mason County also accepts municipal solid waste.

^{2B} Total landfilled is from Table III-1 and each landfill's projected amount managed over planning period at same percentage as 2010.

³ Landfill projected to reach Capacity during planning period

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

pg 1 of 3

Name of Facility, Strategy, Program or Activity	Location (*sites address has changed over the years although general location/community serviced is the same)	Description of the Program	Approx. Date When the	
			Operation Begins	Operation Ceases
Drop-offs	Address-Clermont Co. Township			
ACSWD Drop-off	* 415 Washington St. - Franklin	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	3261 US 50 - Jackson	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	300 North 8th St.-Williamsburg	Residential / Commercial Drop-Off of mixed recyclables	1995	2030+
ACSWD Drop-off	6320 SR 133 - Wayne	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	1088 Wasserman Way - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	333 East Main - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	2228 SR 50 - Stonelick	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	1963 Laurel Lindale Rd. - Monroe	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	2828 SR 222 - Monroe	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	3294 Elklick Rd. - Tate	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	2837 Old SR 32 - Williamsburg	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	289 East Main, Bat. - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	2400 Clermont Center Dr.-Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	2275 Bauer Rd. - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	2401 Old SR 32 - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	1984 Ohio Pike - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	* 1260 Ohio Pike - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	* 6101 Meijer Dr. - Miami	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	6492 Branch Hill-Guinea Pike - Miami	Residential / Commercial Drop-Off of mixed recyclables	2005	2030+
ACSWD Drop-off	950 Locust Corner Rd. - Pierce	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	* 6757 Goshen Rd. - Goshen	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	545 West Plane St. - Tate	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	4342 Gleneste-Withamsville Rd.-Union	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	4949 Tealtown Road - Union	Residential / Commercial Drop-Off of mixed recyclables	2005	2030+
ACSWD Drop-off	* 1051 Front St. - Ohio	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	4529 Schoolhouse Rd. - Union	Residential / Commercial Drop-Off of mixed recyclables	2005	2030+
ACSWD Drop-off	1000 Locust Street - Stonelick	Residential / Commercial Drop-Off of mixed recyclables	2005	2030+
ACSWD Drop-off	4015 Filager Rd. - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2004	2030+
ACSWD Drop-off	1135 Bethel-New Richmond Rd. - Ohio	Residential / Commercial Drop-Off of mixed recyclables	2005	2030+
ACSWD Drop-off	1535 Clough Pike - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2006	2030+
ACSWD Drop-off	745 Milford - City of Milford	Residential / Commercial Drop-Off of mixed recyclables	2006	2030+
ACSWD Drop-off	4350 Aicholtz Rd. - Union	Residential / Commercial Drop-Off of mixed recyclables	2009	2030+
ACSWD Drop-off	4722 Summerside Rd. - Union	Residential / Commercial Drop-Off of mixed recyclables	2009	2030+
ACSWD Drop-off	797 Wright St. - Wayne	Residential / Commercial Drop-Off of mixed recyclables	2006	2030+
ACSWD Drop-off	1154 US 50 - Miami	Residential / Commercial Drop-Off of mixed recyclables	2009	2030+
ACSWD Drop-off	4400 Haskell Lane - Batavia	Residential / Commercial Drop-Off of mixed recyclables	2008	2030+
ACSWD Drop-off	1546 Sr 131 - Miami	Residential / Commercial Drop-Off of mixed recyclables	2009	2030+
ACSWD Drop-off	52 W. Main St.	Residential / Commercial Drop-Off of mixed recyclables	2010	2030+

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

(continued) pg 2 of 3

Name of Facility, Strategy, Program or Activity	Location (*sites address has changed over the years although general location/community serviced is the same)	Description of the Program	Approx. Date When the	
			Operation Begins	Operation Ceases
Drop-offs Address- Adams County Township				
ACSWD Drop-off	11260 SR 41 - Tiffin Twp.	Residential / Commercial Drop-Off of mixed recyclables	2005	2030
ACSWD Drop-off	95 Trefz Rd., Tiffin Twp.	Residential / Commercial Drop-Off/Transfer Station of mixed recyclables & waste	2005	2030
ACSWD Drop-off	* 555 Loyd Rd, - Tiffin Twp.	Residential / Commercial Drop-Off of mixed recyclables	2009	2030
ACSWD Drop-off	34 Nixon Ave. - Meigs Twp.	Residential / Commercial Drop-Off of mixed recyclables	2002	2030
ACSWD Drop-off	2033 TriCounty Hwy, - Winchester Twp.	Residential / Commercial Drop-Off of mixed recyclables	2000	2030
ACSWD Drop-off	23 W. 5th Street - Manchester Twp.	Residential / Commercial Drop-Off of mixed recyclables	2000	2030
ACSWD Drop-off	14595 St Rt 136 - Wayne Twp.	Residential / Commercial Drop-Off of mixed recyclables	2005	2030
ACSWD Drop-off	700 Peebles Indian Dr. - Meigs Twp.	Residential / Commercial Drop-Off of mixed recyclables	2009	2030
ACSWD Drop-off	2295 Moores Rd. - Scott Twp.	Residential / Commercial Drop-Off of mixed recyclables	2009	2030
ACSWD Drop-off	130 Wayne Fry Dr. - Manchester Twp.	Residential / Commercial Drop-Off of mixed recyclables	2009	2030
Buy Backs				
Far-Out Recycling	Adams County	Residential/Commercial Buy-back	19??	unknown
M & R Recycling	Clermont County	Residential/Commercial Buy-back	19??	unknown
Adams Waste & Recycling	Adams County	Residential/Commercial Buy-back	2005	2030
Roundbottom Recycling	Clermont County	Residential/Commercial Buy-back	2007	unknown
Transfer Station				
Adams Waste & Recycling	Adams County	Residential/Commercial Drop-off/Buy Back/MSW Transfer Station	2005	2030
Evendale Transfer	Hamilton County	Private Transfer Station for MSW open to the public	Ongoing	unknown
Covington Transfer	Covington, Ky.	Private Transfer Station for MSW open to the public	Ongoing	unknown
Curbside Collection of Recyclables				
Village of Owensville	Clermont County	Non-subscription Curbside collection of mixed recyclables	2010	unknown
Village of Batavia	Clermont County	Non-subscription Curbside collection of mixed recyclables	unknown	unknown
City of Milford	Clermont County	Non-subscription Curbside collection of mixed recyclables	unknown	unknown
Batavia Township	Clermont County	Subscription Curbside collection of mixed recyclables	unknown	unknown
Miami Township	Clermont County	Subscription Curbside collection of mixed recyclables	unknown	unknown
Ohio Township	Clermont County	Subscription Curbside collection of mixed recyclables	unknown	unknown
Union Township	Clermont County	Subscription Curbside collection of mixed recyclables	unknown	unknown
Pierce Township	Clermont County	Subscription Curbside collection of mixed recyclables	unknown	unknown
Hauler Collection				
Rumpke Waste	Clermont County	Collects recyclables from residential commercial & industrial generators	Ongoing	2030
CSI	Clermont County	Collects recyclables from residential commercial & industrial generators	Ongoing	2030
Forest Green	Clermont County	Collects recyclables from residential commercial & industrial generators	Ongoing	2030
Household Hazardous Waste Collection				
Environmental Enterprises	Adams & Clermont Counties	HHW Vouchers supplied to residents year round	2000	2030

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

(continued) pg 3 of 3

Name of Facility, Strategy, Program or Activity	Location	Description of the Program	Approx. Date When the	
			Operation Begins	Operation Ceases
Composting				
Auxier Trucking	Clermont County (Amelia)	Accept Yard Waste form the public for a fee	unknown	unknown
Ohio Mulch	Clermont County (Mt. Carmel)	Accept Yard Waste form the public for a free	2010	unknown
Bzak Landscaping	Clermont County	Accept Yard Waste form the public for a fee	unknown	unknown
Evans Landscaping	Hamilton County	Accept Yard Waste form the public for a fee	unknown	unknown
Grailville Composting	Clermont County	Accept Yard Waste form the public for a free	unknown	unknown
Hotel Trucking	Clermont County	Accept Yard Waste form the public for a fee	unknown	unknown
Miamiville, Inc.	Clermont County	Accept Yard Waste form the public for a fee	unknown	unknown
Village of Williamsburg	Clermont County	Accept Yard Waste form village residents	unknown	unknown
Village of West Union	Adams County	Accept Yard Waste form village residents	unknown	unknown
Volume Based Rates				
Village of Seaman	Adams County	Bag system - Residents must purchase special bags to dispose of waste	Ongoing	unknown
Village of Manchester	Adams County	Bag system - Residents must purchase special bags to dispose of waste	Ongoing	unknown
Village of Cherry Fork	Adams County	Bag system - Residents must purchase special bags to dispose of waste	Ongoing	unknown
Village of Winchester	Adams County	Bag system - Residents must purchase special bags to dispose of waste	Ongoing	unknown
Commercial Waste Generators	Adams & Clermont Counties	Dumpster size and frequency of service impact cost	Ongoing	unknown
Industrial Waste Generators	Adams & Clermont Counties	Dumpster size and frequency of service impact cost	Ongoing	unknown
FGD Ash Recycling				
Duke Energy	Clermont County	Recycling FGD ash into wall board (various markets)	Ongoing	unknown
Dayton Power & Light	Adams County	Recycling FGD ash into wall board (various markets)	2009	unknown
Land Application of Biosolids				
Clermont County Water Resources Dept.	Clermont County	Beneficial use of wastewater solids on agricultural fields	2009	2030
Technical Assistance				
Education and Awareness	Regional	General programs to increase participation in District goals	Ongoing	2030
Waste Audits	Adams & Clermont Counties	Technical assistance to industrial and commercial generators to reduce waste and costs	Ongoing	2030
Interchange (waste exchange)	Regional	Facilitate exchange of unwanted material	Ongoing	2030
MSW Composting - contingent future strategy				
Dan Harris Memorial CF	TBD	Mixed waste composting facility	TBD	eternity

Table VI-6. Facilities Identified and Current Designations

Facilities Identified		Facilities Currently Designated	
Facility Name	Location (County, State)	Facility Name	Location (County, State)
Brown County Landfill	Brown County, OH	Brown County Landfill	Brown County, OH
Rumpke Sanitary Landfill	Hamilton County, OH	Rumpke Sanitary Landfill	Hamilton County, OH
Pendleton County Landfill	Pendleton County, KY	Pendleton County Landfill	Pendleton County, KY
Mason County Landfill	Mason County, KY	Mason County Landfill	Mason County, KY
Pike County Landfill	Pike County, OH	Pike County Landfill	Pike County, OH
Epperson Waste Disposal	Grant County, KY	Epperson Waste Disposal	Grant County, KY
Stoney Hollow Landfill	Montgomery County, OH		
Suburban South Landfill	Perry County, OH		
Bavarian Trucking Company	Boone County, OH		
American Landfill	Stark County, OH		
Pine Grove Region Facility	Fairfield county, OH		
Bond Road Landfill	Hamilton County, OH		
Athens Hocking Reclamation Center	Athens County, OH		
Rumpke Beech Hollow Landfill	Jackson County, OH	Rumpke Beech Hollow Landfill	Jackson County, OH
Defiance County Sanitary Landfill	Defiance County, OH	Defiance County Sanitary Landfill	Defiance County, OH
Franklin County Landfill	Franklin County, OH		
Cherokee Run Landfill	Logan County, OH		
Countywide Landfill	Stark County, OH		
Indian Run Landfill	Stark County, OH		
Kimble Sanitary Landfill	Tuscarawas County, OH		
Ridge Landfill	Tuscarawas County, OH		
Bigfoot Run Landfill	Warren County, OH		
Green Valley Landfill	Greenup County, KY	Green Valley Landfill	Greenup County, KY
		Hancock County Landfill	Hancock County, OH
		WMI Evergreen Recycling & Disposal	Wood County, OH

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

All Tables referred to are located at the end of each respective chapter.

A. District Will Comply with Goal(s) Identified

The Adams Clermont Solid Waste District has met and will continue to meet Goal #1 of ORC, Section 3734.53(A), which is to ensure the availability of reduction and recycling, and other waste reduction methods that are alternatives to landfilling for residential/commercial solid waste.

B. Demonstration of Compliance with Goal #1:

1. Residential

a. Service Areas:

- Adams County
- Clermont County

b. Access:

Access in each service area has been met according to specifications and calculations defined in Ohio EPA District Solid Waste Management Plan Format (version 3.0). Determination and populations used are identified in Tables VII-2a and VII-2b. Drop-offs located in a specific village are assumed to serve the village and associated township unless there is a restricted service area. In reality, many of the drop-offs serve several townships. The drop-off and collection programs listed in these tables accept at a minimum at least the four materials specified for the residential sector and the three others for the commercial/institutional sector.

In the reference year 2010, both Adams and Clermont County exceeded the 90 percent access requirement. The addition of several new recycling drop-offs opportunities for District residents allowed both counties to comply with Goal #1. These strategies are briefly described as follows:

Adams County Service Area: The largely rural nature of the county presents logistical challenges to providing recycling access to residents. There are several communities that serve as “shopping centers” for surrounding areas: West Union, Winchester, Peebles, Manchester, and Cherry Fork and drop-offs were established in each of these. In addition drop-off recycling was added to each of the four school campuses, each of which functions as a community focus point. Full-service drop-offs are available to residents 24 hours a day, 7 days a week with the exception of the staffed site at Adams Waste & Recycling (AWAR) on Trefz Road which is open 9:00AM to 4:00PM Mon., Tue., Thur.,

Fri. and 9:00AM to 2:00PM Sat.. Addresses of these sites can be found in Table VII-2a and Table III-5.

Clermont County Service Area: Clermont County is a more urban area; much of the county's population is located in areas that are considered part of the Greater Cincinnati (Hamilton County) metropolitan area. The Cities of Loveland and Milford straddle the border between Clermont and Hamilton counties. Many residents make use of drop-off facilities in nearby Hamilton County communities. Three communities have non-subscription curbside recycling collection and four communities have a subscription collection program available. Full service recycling drop-offs are operating at 38 locations during the reference year 2010 (see Table III-5 and Table VII-2b). 35 of these are in urban areas, with populations of 5,000 or more and three are in a rural area. These locations have moved and more may move and fluctuate over time. Potential sites include schools, libraries, parks, retail centers, grocery stores, and township or county owned facilities.

c. Participation:

Education and Awareness:

Target Audiences will include residents of Adams County and Clermont County, including adults and children. Information may be provided to audiences through several mediums including, but not limited to: newspaper articles and advertisements; regular newsletters; web sites and social media; brochures placed in county offices and other public places; and displays set up at public events such as the county fairs. The Solid Waste Director and contract education specialists working with other organizations such as Adams Brown Recycling, Soil & Water Conservation Districts, Valley View Foundation, waste haulers or other local entities public or private as funds allow.

Success of the drop-offs will be measured by tracking use of recycling drop off boxes determined by the level of contamination and frequency of removal, by tracking weight of recyclables collected, by frequency of calls in response to information in news articles and advertisements, and by interest of residents in public displays. Curbside collection will be evaluated by number of customers receiving service and reported collected volumes if available from haulers on an annual basis. To reinforce participation and interest, the information will be publicized continued and increased participation.

- Recycling Inventory Annual Update - The District will maintain an updated list of waste management alternatives available to District residents. The ACSWD will supply this information to public media and use various means to disseminate this information to the general public. This may include but not limited to newspaper articles, news releases, newsletter articles,

brochures, posters, public service announcements, web page, social media and talking yellow page listings.

Financial Incentives

Financial incentives are discussed in Section V.E.1.f. Waste Reduction Strategies - Volume Based Waste Collection Fees. The District has long appreciated the fact that economic incentives are the best motivator. Efforts to encourage volume based fees or any other economic incentive will be used when appropriate.

2. Commercial/Institutional (CI)

a. Service Areas:

- Adams County
- Clermont County

b. Access:

Adams County

The drop-off and collection programs listed in this Table VII-2b accept at a minimum at least the four materials specified for the residential sector and the three others for the commercial/institutional sector. In addition the Adams Waste & Recycling (AWAR) will accept all of these materials plus steel, tires, refrigerant bearing and other appliances, electronics, and municipal solid waste. All buy backs and auto parts stores accept lead acid batteries. Private scrap dealers accept major appliances.

Clermont County

In Clermont County commercial waste haulers provide a recycling collection service for a fee. This service varies but generally includes collection of OCC, or a single stream accepting mixed paper, aluminum cans, steel containers, plastic containers (#1-7), glass containers. All buy backs and auto parts stores in the County accept lead acid batteries. In addition, businesses may drop off their recyclables at the drop-off sites in the County. All drop-offs located in the County will accept at a minimum, plastic containers, mixed paper, aluminum containers, and steel containers, glass containers, and corrugated containers from residential, commercial and institutional sources.

In addition, many of the institution generators have implemented office paper recycling programs with Abitibi and are identified in Table III-5 items 42-123. Abitibi is a private paper company that pays a small price for newspaper and higher grades of paper. Each container is weighed and recorded on pickup. The ACSWD has encouraged the deployment of these containers.

c. Participation:

Education and Awareness:

All education and awareness activities discussed for residential generators will also apply for commercial/institutional generators.

d. Target for Waste Reduction:

The District has set a goal of 25% waste reduction for the commercial sector to be achieved by the end of the planning period. Although measuring this target is difficult due to lack of realistic and economical measuring techniques, although the Abitibi system allows for accurate reporting.

3. Targets for Reduction and Recycling:

a. Residential/Commercial

The District has set a goal of reducing and recycling 21+% of residential/commercial waste generated. (See Table VII-3).

b. Industrial

The District has exceeded the 50% industrial recycling goal established by Ohio EPA and expects to reach a goal of 57+% for the planning period. (See Table VII-4).

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

Goal #2 of the 2001 *State Plan* states that Ohio should "...reduce and/or recycle at least 50 percent of the total generation of solid waste statewide by the year 2000..." In order to implement this goal, the Solid Waste Advisory Council established two objectives:

- Objective #1 - SWMDs must reduce or recycle at least 25 percent of the residential/commercial waste generated; and
- Objective #2 - SWMDs must reduce or recycle at least 66 percent of the industrial waste generated.

The District has not met Objective #1 and Objective #2 of Goal #2. The District intends to continue to make efforts to increase both the residential/commercial and industrial recycling rates during the planning period.

In order to establish waste reduction goals, the District first calculated the tons of waste reduction (TWR) for the district, using the following formula:

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

where:

TWR_i = the Tons of Waste Reduction for year I

R_i = tons of waste source reduced and Recycled in year I

C_i = tons of waste Composted in year I

- NC_i = tons of Non-Compostables delivered for composting, separated for land filling in year I
 I_i = tons of waste Incinerated in year I
 A_i = tons of incinerator Ash plus bypass waste in year I
 RA_i = tons of Recycled incinerator Ash in year I

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

$$EGDWR_i = TWR_i + DL_i$$

where:

$EGDWR_i$ = Estimated Generation based upon Disposal plus Waste Reduction in year I

DL_i = tons of waste Disposed in sanitary Landfills in year I .

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

$$WRR_i = \frac{TWR_i}{EGDWR_i} \times 100$$

where:

WRR_i = the Waste Reduction Rate in year I as a percent

The amount of waste reduction per capita per day is calculated as follows:

$$PCWR_i = \frac{TWR_i \times 2000 \text{ lbs.}}{P_i \times 365 \text{ days}}$$

where:

$PCWR_i$ = the Per Capita Waste Reduction rate in pounds per person per day in year I .

P_i = the Population of the district in year

These calculations were repeated for each year of the planning period to determine the annual rates of waste reduction for the residential/commercial and industrial sectors, and total District waste reduction. The tabulations are found in Tables VII-3 (residential/commercial), VII-4 (industrial), and VII-5 (total).

Table VII-1 Materials designated to Demonstrate Compliance with Goal # 1

Eleven Materials Highly Amenable to Recycling, etc.	Four Materials Designated for the Residential	Four Materials Designated for the Commercial / Institutional Sector	Number of Times Materials is Designated
Corrugated containers		X	1
Office paper		X	1
Newspaper		X	1
Glass containers ¹	X		1
Steel containers ¹	X	X	2
Aluminum containers ¹	X		1
Plastic containers	X		1
Wood packaging & pallets			0
Lead-acid batteries			0
Major appliances			0
Yard wastes			0
Totals	4	4	8

¹ Includes food and beverage containers only

Table VII-2a Calculation of Access for Residential Sector: Adams County Service Area

Program	Reference Year 2010		
	Township	Population	Population w/ Access Credit
<i>Full Service Drop-off (Urban Area)</i>			
11260 SR 41, West Union, OH	Tiffin	5,560	5,000
95 Trefz Rd., West Union, OH.	Tiffin	5,560	5,000
175 Loyd Rd, West Union	Tiffin	5,560	5,000
<i>Full Service Drop-off (Rural Area)</i>			
34 Nixon Ave., Peebles, OH	Meigs	3,905	2,500
2033 TriCounty Hwy, Winchester, OH	Winchester	2,208	2,500
2295 Moores Rd., Seaman, OH	Scott	2,180	2,500
700 Peebles Indian Dr., Peebles, OH	Meigs	3,905	2,500
27 East 4th St., Manchester, OH	Manchester	3,905	2,500
130 Wayne Frye Dr., Manchester, OH	Manchester	3,905	2,500
14595 St Rt 136, Cherry Fork, OH	Wayne	1,304	2,500
Total Population with Access			32,500
Reference Year Service Area Population = 28,550	Access % (total pop. with access / service area pop.)	Access % (total pop. with access / service area pop.)	113.8%

Table VII-2b. Calculation of Access for Residential Sector: Clermont County Service Area

Program	Reference Year 2010		
	Population ²	Population w/ Access Credit	
<i>Non-Subscription Curbside</i>			
Village of Ownesville	794	794	
Village of Batavia	1,509	1,509	
City of Milford	6,719	6,719	
<i>Subscription Curbside ¹</i>			
Batavia Township	23,280	4,062	
Miami Township	32,217	7,156	
Pierce Township	14,349	1,408	
Union Township	46,416	7,591	
<i>Full Service Drop-off (Rural Area)</i>			
<i>Address</i>	<i>Township</i>		
415 Walnut St	Franklin	4,188	2,500
6320 SR 133	Wayne	4,885	2,500
797 Wright Street	Wayne	4,885	2,500
3261 US 50	Jackson	2,980	2,500
<i>Full Service Drop-off (Urban Area)</i>			
<i>Address</i>	<i>Township</i>		
300 North 8th St.	Williamsburg	5,746	5,000
1088 Wasserman Way	Batavia	23,280	5,000
333 East Main	Batavia	23,280	5,000
2228 SR 50	Batavia	23,280	5,000
1963 Laurel Lindale Rd.	Monroe	7,828	5,000
2828 SR 222	Monroe	7,828	5,000
3294 Elklick Rd.	Tate	9,357	5,000
1546 State Route 131	Miami	38,936	5,000
745 Center St	Miami	38,936	5,000
6101 Meijer Drive	Miami	38,936	5,000
6757 Goshen Road	Goshen	15,505	5,000
4400 Haskell Ln	Batavia	23,280	5,000
52 W Main St	Pierce	14,349	5,000
1051 Front Street	Ohio	5,192	5,000
3685 Lewis Rd	Pierce	14,349	5,000
1535 Clough Pike	Batavia	23,280	5,000
4350 Aicholtz Road	Union	46,416	5,000
4772 Summerside Rd	Union	46,416	5,000
1154 US Route 50	Miami	38,936	5,000
2837 Old SR 32	Batavia	23,280	5,000
289 East Main, Bat.	Batavia	23,280	5,000
2400 Clermont Center Dr.	Batavia	23,280	5,000
2275 Bauer Rd.	Batavia	23,280	5,000
2401 Old SR 32	Batavia	23,280	5,000
1984 Ohio Pike	Batavia	23,280	5,000
6492 Branch Hill-Guinea Pike	Miami	38,936	5,000
950 Locust Corner Rd.	Pierce	14,349	5,000
545 West Plane St.	Tate	9,357	5,000
4342 Gleneste-Withamsville Rd.	Batavia	23,280	5,000
4949 Tealtown Road	Union	46,416	5,000
4529 Schoolhouse Rd.	Union	46,416	5,000
1000 Locust Street	Stonelick	5,890	5,000
4015 Filager Rd.	Batavia	23,280	5,000
1135 Bethel-New Richmond Rd.	Ohio	5,192	5,000
Total Population with Access			209,239
Reference Year Service Area Population	195,461	Access % (total pop. w/ access / service area pop.)	107.0%

¹ Access determined in reference year by adding reported customers by Rumpke and CSI as reported in Table III-4. For Year 2007 the same percent of population with subscription curbside was assumed.

² 2010 Population was taken from the 2010 US Census Bureau. 2015 population projections were based on the annual rate of growth from the 2000 US Census to the 2010 US Census.

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

<i>Year</i>	R ¹	C ²	NC ³	I ⁴	A ⁵	RA ⁶	DL ⁷	TWR ⁸	EGDWR	P ⁹	WRR ¹⁰	PCWR ¹¹
2010	25,864	19,761	0	0	0	0	111,989	45,625	158,897	224,001	28.71%	1.12
2011	26,640	20,354	0	0	0	0	113,006	46,994	161,282	226,260	29.14%	1.14
2012	27,439	20,964	0	0	0	0	114,017	48,404	163,703	228,543	29.57%	1.16
2013	28,263	21,593	0	0	0	0	115,024	49,856	166,162	230,849	30.00%	1.18
2014	29,110	22,241	0	0	0	0	116,024	51,352	168,657	233,180	30.45%	1.21
2015	29,984	22,908	0	0	0	0	117,016	52,892	171,191	235,536	30.90%	1.23
2016	30,883	23,596	0	0	0	0	118,002	54,479	173,763	237,916	31.35%	1.25
2017	31,810	24,304	0	0	0	0	118,978	56,113	176,374	240,322	31.82%	1.28
2018	32,764	25,033	0	0	0	0	119,946	57,797	179,024	242,753	32.28%	1.30
2019	33,747	25,784	0	0	0	0	120,903	59,531	181,715	245,210	32.76%	1.33
2020	34,759	26,557	0	0	0	0	121,849	61,316	184,447	247,692	33.24%	1.36
2021	35,802	27,354	0	0	0	0	122,782	63,156	187,220	250,201	33.73%	1.38
2022	36,876	28,174	0	0	0	0	123,703	65,051	190,036	252,736	34.23%	1.41
2023	37,982	29,020	0	0	0	0	124,610	67,002	192,894	255,298	34.74%	1.44
2024	39,122	29,890	0	0	0	0	125,501	69,012	195,795	257,887	35.25%	1.47
2025	40,296	30,787	0	0	0	0	126,376	71,083	198,741	260,504	35.77%	1.50
2026	41,504	31,711	0	0	0	0	127,234	73,215	201,731	263,148	36.29%	1.52
2027	42,750	32,662	0	0	0	0	128,073	75,412	204,767	265,820	36.83%	1.55
2028	44,032	33,642	0	0	0	0	128,893	77,674	207,848	268,520	37.37%	1.59
2029	45,353	34,651	0	0	0	0	129,691	80,004	210,977	271,249	37.92%	1.62
2030	46,714	35,691	0	0	0	0	129,691	82,404	213,377	274,006	38.62%	1.65

¹ Tons of residential/commercial waste source reduced and recycled from Table VI-2.

² Tons of residential/commercial waste composted as shown in Table VI-2.

³ Tons of non-compostable residential/commercial waste.

⁴ Tons of residential/commercial waste incinerated as shown in Table VI-2.

⁵ Tons of residential/commercial incinerator ash and bypass waste produced.

⁶ Tons of residential/commercial incinerator ash recycled.

⁷ Tons of residential/commercial waste disposed in landfills as shown in Table VI-2.

⁸ Tons of residential/commercial waste reduction (sum of C+R).

⁹ District populations shown in Table V-1.

¹⁰ Residential/commercial waste reduction as a percentage $TWR/(DL + TWR)*100$.

¹¹ Residential/commercial waste reduction per capita in pounds per person per day $(TWR*100)/(P*365)$.

Table VII-4 Annual Rate of Waste Reduction: Industrial Waste, Including Zimmer Landfill

<i>Year</i>	<i>R</i> ¹	<i>C</i> ²	<i>NC</i> ³	<i>I</i> ⁴	<i>A</i> ⁵	<i>RA</i> ⁶	<i>DL</i> ⁷	<i>TWR</i> ⁸	<i>P</i> ⁹	<i>WRR</i> ¹⁰	<i>PCWR</i> ¹¹
2010	1,557,337	0	0	0	0	0	1,170,587	1,557,337	224,001	57.09%	38.10
2011	1,565,238	0	0	0	0	0	1,176,326	1,565,238	226,260	57.09%	37.91
2012	1,573,064	0	0	0	0	0	1,182,208	1,573,064	228,543	57.09%	37.72
2013	1,580,929	0	0	0	0	0	1,188,119	1,580,929	230,849	57.09%	37.53
2014	1,588,834	0	0	0	0	0	1,194,059	1,588,834	233,180	57.09%	37.34
2015	1,596,778	0	0	0	0	0	1,200,030	1,596,778	235,536	57.09%	37.15
2016	1,604,762	0	0	0	0	0	1,206,030	1,604,762	237,916	57.09%	36.96
2017	1,612,786	0	0	0	0	0	1,212,060	1,612,786	240,322	57.09%	36.77
2018	1,620,850	0	0	0	0	0	1,218,120	1,620,850	242,753	57.09%	36.59
2019	1,628,954	0	0	0	0	0	1,224,211	1,628,954	245,210	57.09%	36.40
2020	1,637,099	0	0	0	0	0	1,230,332	1,637,099	247,692	57.09%	36.22
2021	1,645,284	0	0	0	0	0	1,236,484	1,645,284	250,201	57.09%	36.03
2022	1,653,511	0	0	0	0	0	1,242,554	1,653,511	252,736	57.10%	35.85
2023	1,661,778	0	0	0	0	0	1,248,657	1,661,778	255,298	57.10%	35.67
2024	1,670,087	0	0	0	0	0	1,254,793	1,670,087	257,887	57.10%	35.49
2025	1,678,437	0	0	0	0	0	1,260,963	1,678,437	260,504	57.10%	35.30
2026	1,686,830	0	0	0	0	0	1,267,166	1,686,830	263,148	57.10%	35.12
2027	1,695,264	0	0	0	0	0	1,273,402	1,695,264	265,820	57.11%	34.95
2028	1,703,740	0	0	0	0	0	1,279,672	1,703,740	268,520	57.11%	34.77
2029	1,712,259	0	0	0	0	0	1,285,976	1,712,259	271,249	57.11%	34.59
2030	1,720,820	0	0	0	0	0	1,292,314	1,720,820	274,006	57.11%	34.41

¹ Tons of industrial waste source reduced and recycled from Table VI-3.

² Tons of industrial waste composted as shown in Table VI-3.

³ Tons of non-compostable industrial waste.

⁴ Tons of industrial waste incinerated as shown in Table VI-3.

⁵ Tons of industrial incinerator ash and bypass waste produced.

⁶ Tons of industrial incinerator ash recycled.

⁷ Tons of industrial waste disposed in landfills as shown in Table VI-3.

⁸ Tons of industrial waste reduction.

⁹ District population as shown in Table V-1.

¹⁰ Industrial waste reduction as a percentage $WRR = R / (R + DL) * 100$

¹¹ Industrial waste reduction per capita in pounds per person per day $RCWR = (TWR * 2000) / (P * 365)$.

Table VII-5. Annual Rate of Waste Reduction: Total District Solid Waste

<i>Year</i>	<i>R</i> ¹	<i>C</i> ²	<i>NC</i> ³	<i>I</i> ⁴	<i>A</i> ⁵	<i>RA</i> ⁶	<i>DL</i> ⁷	<i>TWR</i> ⁸	<i>P</i> ⁹	<i>WRR</i> ¹⁰	<i>PCWR</i> ¹¹
2010	1,577,850	19,761	0	0	0	0	1,286,480	1,597,611	224,001	55.39%	39.08
2011	1,589,171	20,354	0	0	0	0	1,290,491	1,609,525	226,260	55.50%	38.98
2012	1,597,716	20,964	0	0	0	0	1,297,355	1,618,680	228,543	55.51%	38.81
2013	1,606,321	21,593	0	0	0	0	1,304,242	1,627,914	230,849	55.52%	38.64
2014	1,614,987	22,241	0	0	0	0	1,311,150	1,637,228	233,180	55.53%	38.47
2015	1,623,716	22,908	0	0	0	0	1,318,081	1,646,624	235,536	55.54%	38.31
2016	1,632,508	23,596	0	0	0	0	1,325,031	1,656,103	237,916	55.55%	38.14
2017	1,641,364	24,304	0	0	0	0	1,332,002	1,665,667	240,322	55.57%	37.98
2018	1,650,285	25,033	0	0	0	0	1,338,992	1,675,318	242,753	55.58%	37.82
2019	1,659,273	25,784	0	0	0	0	1,346,001	1,685,056	245,210	55.59%	37.65
2020	1,668,327	26,557	0	0	0	0	1,353,027	1,694,884	247,692	55.61%	37.49
2021	1,677,449	27,354	0	0	0	0	1,360,070	1,704,803	250,201	55.62%	37.34
2022	1,686,641	28,174	0	0	0	0	1,367,017	1,714,815	252,736	55.64%	37.18
2023	1,695,902	29,020	0	0	0	0	1,373,980	1,724,922	255,298	55.66%	37.02
2024	1,705,235	29,890	0	0	0	0	1,380,960	1,735,125	257,887	55.68%	36.87
2025	1,714,639	30,787	0	0	0	0	1,387,956	1,745,426	260,504	55.70%	36.71
2026	1,724,118	31,711	0	0	0	0	1,394,965	1,755,828	263,148	55.73%	36.56
2027	1,733,671	32,662	0	0	0	0	1,401,987	1,766,332	265,820	55.75%	36.41
2028	1,743,299	33,642	0	0	0	0	1,409,021	1,776,941	268,520	55.77%	36.26
2029	1,753,005	34,651	0	0	0	0	1,416,065	1,787,656	271,249	55.80%	36.11
2030	1,762,788	35,691	0	0	0	0	1,423,119	1,798,479	274,006	55.83%	35.97

¹ Total tons of waste source reduced and recycled from Table VI-1.

² Total tons of waste composted as shown in Table VI-1.

³ Total tons of non-compostable waste.

⁴ Total tons of waste incinerated as shown in Table VI-1.

⁵ Total tons of incinerator ash and bypass waste produced.

⁶ Total tons of incinerator ash recycled.

⁷ Total tons of waste disposed in landfills as shown in Table VI-1.

⁸ Total tons of waste reduction $TWR=R+C$.

⁹ District population as shown in Table V-1.

¹⁰ Total waste reduction as a percentage $WRR=R/(R+DL)*100$

¹¹ Total waste reduction per capita in pounds per person per day $RCWR=(TRW*2000)/(P*365)$.

VIII. Cost and Financing of Plan Implementation [ORC Section 3734.53 (A) (9), (12) and (B)]

All Tables referred to are located at the end of each respective chapter.

A. Fund Mechanisms and Amount of Money Generated

1. *District Disposal Fees [ORC Section 3734.57 (B)]*

There are no disposal facilities located in the District, therefore, the District has not established disposal fees and does not anticipate doing so, at this time. Table VIII-1 has been omitted from this Plan.

2. *Generation Fee (ORC Section 3734.573)*

The District has established a \$2 per ton generation fee on all waste generated in the ACSWD. This Plan establishes an increase to \$3.00/ton in 2013 and another to \$4.00/ton in 2023. Although the 2023 increase will have two scheduled Plan updates and more realistic projections will be made during those updates. See Table VIII-2 for schedule and amount of expected increases.

The Policy Committee of the ACSWD has established a goal in the past of maintaining a one to two year operating reserve to assure continued Plan implementation if financial conditions change. The reserve has been projected reduced to .6 years in some years. This change in policy is a reflection of much tighter fiscal constraints governments are currently working under. This reserve will provide limited time for Plan rewrite to address changes in circumstances, if needed. The Policy Committee also requested there be a reserve of \$300,000 for disaster debris emergency response. The generation fee increases established in Table VIII-2 are a maximum and the Board of Directors has the authority to not increase the generation fee if financial circumstances do not require it. There are no loans anticipated by the District.

3. *Summary of District Revenues*

Expenses for various activities are detailed in Tables VIII-5A through Table VIII-5F. Detailed costs are separated for Education and Awareness, Table VIII-A; Residential Drop-off, Table VIII-B; Appliance Recycling, Tire Collection, Litter Collection, Household Hazardous Waste, Table VIII-C; Adams Waste & Recycling, Table VIII-D; and Summary Table, including annual carryover in dollars and as a multiplier of annual budget. Also included in the Summary Table is a row labeled difference, which reflects annual income less revenues. Note that a number of years, have a negative balance, requiring spending from previous carryover balances. A three percent annual rate of inflation was factored into most expected expenses.

TableVIII-1 District Disposal Fee Schedule and Revenues Generated

This Table blank purposefully - No facilities

Table VIII-2 Generation Fee Schedule and Revenue

<i>Year</i>	Generation Fee	Amount of Generation Fee Eligible Waste to be Disposed (tons) ¹	Total \$ Generation Fee ²
2010*	\$2.00	164,813	\$325,592
2011	\$2.00	172,822	\$345,644
2012	\$2.00	174,162	\$348,325
2013	\$3.00	175,498	\$526,493
2014	\$3.00	176,827	\$530,482
2015	\$3.00	178,151	\$534,452
2016	\$3.00	179,467	\$538,401
2017	\$3.00	180,775	\$542,326
2018	\$3.00	182,075	\$546,224
2019	\$3.00	183,364	\$550,093
2020	\$3.00	184,643	\$553,930
2021	\$3.00	185,910	\$557,731
2022	\$3.00	187,052	\$561,157
2023	\$4.00	188,183	\$752,730
2024	\$4.00	189,300	\$757,200
2025	\$4.00	190,403	\$761,613
2026	\$4.00	191,491	\$765,965
2027	\$4.00	192,563	\$770,251
2028	\$4.00	193,616	\$774,464
2029	\$4.00	194,650	\$778,600
2030	\$4.00	195,663	\$782,653

¹Tons calculated from Table VI-4 Total Landfilled less 859,774 tons Zimmer FGD waste and 282,848 tons from FGD Mason County waste. For 2010 actual \$ amounts are provided.

²In 2010 generation fees were collected on 116% of eligible waste. Following years were projected with 100% successful collection expectation. 2010 Annual District Report reported \$325,778 generation fee collected based on cash basis accounting. Fee generation is reported & projected in this table on an annual accrual basis. Additional explanation on generation fees collected in excess of reported disposal is necessary. At press time there is not a clear answer although one explanation is: Fees were paid on material sent to Evendale Transfer Station per designation agreement but reported in landfill records as waste coming from Hamilton County where Evendale TS is located. Further complicating the issue is a suspicion that 6,568 tons reported landfilled in Epperson Landfill was from direct haul and did not pay generation fees and is in violation of our facility designation. An investigation is under way

* Generation fees are actual.

Table VIII-3 Summary of Revenue Generated and Mechanisms Used

Type of Revenue and Mechanisms and Amount Generated						Adams Waste & Recycling Revenue Detail			
Year	Generation Fee	AWAR Tip Fee ¹ (see detail)	Grants ²	Other ³	Total Revenue Generated ⁴	AWAR Total Waste TPY ⁵	AWAR Waste@ no Charge TPY ⁶	AWAR Tip Fee \$/Ton ⁷	AWAR Revenue ⁸
2010*	\$325,592	\$ 24,858	\$25,944	\$3,427	\$379,821	329	80	\$ 100	\$ 24,858
2011	\$345,644	\$ 29,780	\$22,000	\$3,496	\$400,920	395	97	\$ 100	\$ 29,780
2012	\$348,325	\$ 37,376	\$20,000	\$3,565	\$409,266	474	100	\$ 100	\$ 37,376
2013	\$526,493	\$ 56,221	\$20,000	\$3,637	\$606,351	569	100	\$ 120	\$ 56,221
2014	\$530,482	\$ 68,221	\$20,000	\$3,709	\$622,413	669	100	\$ 120	\$ 68,221
2015	\$534,452	\$ 80,221	\$20,000	\$3,784	\$638,457	769	100	\$ 120	\$ 80,221
2016	\$538,401	\$ 91,621	\$20,000	\$3,859	\$653,882	864	100	\$ 120	\$ 91,621
2017	\$542,326	\$ 102,421	\$20,000	\$3,937	\$668,684	954	100	\$ 120	\$ 102,421
2018	\$546,224	\$ 131,392	\$20,000	\$4,015	\$701,631	1,039	100	\$ 140	\$ 131,392
2019	\$550,093	\$ 142,592	\$20,000	\$4,096	\$716,780	1,119	100	\$ 140	\$ 142,592
2020	\$553,930	\$ 153,092	\$20,000	\$4,177	\$731,199	1,194	100	\$ 140	\$ 153,092
2021	\$557,731	\$ 162,892	\$20,000	\$4,261	\$744,884	1,264	100	\$ 140	\$ 162,892
2022	\$561,157	\$ 171,992	\$20,000	\$4,346	\$757,495	1,329	100	\$ 140	\$ 171,992
2023	\$752,730	\$ 206,162	\$20,000	\$4,433	\$983,325	1,389	100	\$ 160	\$ 206,162
2024	\$757,200	\$ 214,962	\$20,000	\$4,522	\$996,683	1,444	100	\$ 160	\$ 214,962
2025	\$761,613	\$ 222,962	\$20,000	\$4,612	\$1,009,187	1,494	100	\$ 160	\$ 222,962
2026	\$765,965	\$ 230,162	\$20,000	\$4,705	\$1,020,832	1,539	100	\$ 160	\$ 230,162
2027	\$770,251	\$ 266,132	\$20,000	\$4,799	\$1,061,181	1,579	100	\$ 180	\$ 266,132
2028	\$774,464	\$ 272,432	\$20,000	\$4,895	\$1,071,791	1,614	100	\$ 180	\$ 272,432
2029	\$778,600	\$ 277,832	\$20,000	\$4,992	\$1,081,425	1,644	100	\$ 180	\$ 277,832
2030	\$782,653	\$ 282,332	\$20,000	\$5,092	\$1,090,077	1,669	100	\$ 180	\$ 282,332

* Actual values, all others are estimated.

¹ See detail ^{5,6,7,8}

² Grants are unpredictable and unreliable income source and a conservative plan projects no income increase.

³ Other Income includes fees for tires, Freon bearing appliance and other miscellaneous income (annual increase 2% / yr).

⁴ Tip fees are \$.05 per lb. 2010-2012; \$.06 per lb. 2013-2017; \$.07 per lb. 2018-2022; \$.08 per lb. 2023-2026; \$.09 per lb. 2027-2030

⁵ AWAR Total Waste includes customer receipts plus AWAR waste @ no charge.

⁶ AWAR waste @ no charge includes roadside litter and illegal dump material collected in community events and municipal sponsored activities.

⁷ AWAR Tip Fee held steady until 2013 using an 3% annual increase of rounded whole cents per pound appearing in 2013, 2018, 2023 & 2027.

⁸ AWAR Revenue calculated: AWAR Total Waste TPY minus AWAR Waste @ No Charge TPY times AWAR Tip Fee \$/Ton.

Table VIII-4 Anticipated Loans Secured by the District

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Table VIII-4 Anticipated Loans Secured by the District
This Table blank purposefully - No loans anticipated

Table VIII-5A Estimated Annual Costs*

Education and Awareness

<i>Year</i>	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Contract Services - Clermont County ¹	\$12,210	\$12,210	\$12,210	\$12,210	\$12,576	\$12,954	\$13,342	\$13,742	\$14,155	\$14,579
Contract Services - Adams County ¹	\$18,000	\$18,000	\$18,000	\$18,000	\$18,540	\$19,096	\$19,669	\$20,259	\$20,867	\$21,493
Advertising	\$1,221	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633	\$652
Travel	\$600	\$618	\$637	\$656	\$675	\$696	\$716	\$738	\$760	\$783
Training	\$800	\$824	\$849	\$874	\$900	\$927	\$955	\$984	\$1,013	\$1,044
Misc. (10%)	\$3,484	\$3,589	\$3,696	\$3,807	\$3,921	\$4,039	\$4,160	\$4,285	\$4,414	\$4,546
Total	\$36,315	\$35,756	\$35,922	\$36,093	\$37,176	\$38,291	\$39,440	\$40,623	\$41,842	\$43,097

(continued)

Education and Awareness

<i>Year</i>	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Contract Services - Clermont County	\$15,017	\$15,467	\$15,931	\$16,409	\$16,901	\$17,409	\$17,931	\$18,469	\$19,023	\$19,593	\$20,181
Contract Services - Adams County	\$22,138	\$22,802	\$23,486	\$24,190	\$24,916	\$25,664	\$26,434	\$27,227	\$28,043	\$28,885	\$29,751
Advertising	\$672	\$692	\$713	\$734	\$756	\$779	\$802	\$826	\$851	\$877	\$903
Travel	\$806	\$831	\$855	\$881	\$908	\$935	\$963	\$992	\$1,021	\$1,052	\$1,084
Training	\$1,075	\$1,107	\$1,141	\$1,175	\$1,210	\$1,246	\$1,284	\$1,322	\$1,362	\$1,403	\$1,445
Misc.	\$4,682	\$4,823	\$4,967	\$5,117	\$5,270	\$5,428	\$5,591	\$5,759	\$5,931	\$6,109	\$6,293
Total	\$44,390	\$45,722	\$47,094	\$48,506	\$49,962	\$51,460	\$53,004	\$54,594	\$56,232	\$57,919	\$59,657

* 3% annual rate of inflation applied to each year expenses w/ some exceptions as noted.

¹ Years 2011, 2012 & 2013 are actual with no inflation escalation

Table VIII-5B

Estimated Annual Costs*

Residential Drop-off	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<i>Capital Costs</i>										
Capital Costs 8 Roll-off Boxes	\$14,400			\$7,000	\$7,210	\$7,426	\$7,649	\$7,879	\$8,115	\$8,358
Capital Cost - 50 %Vehicle (share w/ Litter Collection)		\$12,500					\$14,491			
total	\$14,400	\$12,500	\$0	\$7,000	\$7,210	\$7,426	\$22,140	\$7,879	\$8,115	\$8,358
<i>Operating Costs</i>										
Contract- Rumpke ¹	\$98,200	\$110,000	\$121,000	\$133,100	\$146,410	\$159,587	\$172,354	\$184,419	\$195,484	\$205,258
Contract-ABRS ¹	\$15,000	\$18,000	\$19,800	\$21,780	\$23,958	\$26,114	\$28,203	\$30,178	\$31,988	\$33,588
Contract Muni Court Processing ²	\$7,500	\$7,500	\$7,500	\$7,500	\$7,725	\$7,957	\$8,195	\$8,441	\$8,695	\$8,955
Contract Muni Court Inspection/Cleanup ²	\$14,420	\$14,420	\$14,420	\$14,420	\$14,853	\$15,298	\$15,757	\$16,230	\$16,717	\$17,218
Recycle Box Maint.	\$0	\$500	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615
Disposal	\$200	\$206	\$212	\$219	\$225	\$232	\$239	\$246	\$253	\$261
Site Improvements	\$0	\$4,000	\$2,000	\$2,000	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319
M & R - Compactors	\$200	\$2,000	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898	\$2,985	\$3,075
M & R - Boxes	\$0	\$10,000	\$500	\$500	\$500	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251
Vehicle O & M (50%)	\$2,500	\$2,000	\$750	\$773	\$796	\$820	\$844	\$869	\$896	\$922
Fuel	\$3,000	\$4,000	\$4,120	\$4,244	\$4,371	\$4,502	\$4,637	\$4,776	\$4,919	\$5,067
Misc. (10%)	\$0	\$17,263	\$17,330	\$18,762	\$20,402	\$22,185	\$23,779	\$25,294	\$26,697	\$27,953
Total	\$141,020	\$189,889	\$190,632	\$206,387	\$224,422	\$244,032	\$261,567	\$278,238	\$293,667	\$307,482
Grand Total	\$155,420	\$202,389	\$190,632	\$213,387	\$231,632	\$251,459	\$283,707	\$286,117	\$301,782	\$315,840

(continued)

Residential Drop-off	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<i>Capital Costs</i>											
Capital Costs 8 Roll-off Boxes	\$8,609	\$8,867	\$9,133	\$9,407	\$9,690	\$9,980	\$10,280	\$10,588	\$10,906	\$11,233	\$11,570
Capital Cost - 50 %Vehicle (share w/ Litter Collection)		\$16,799					\$19,475				
total	\$8,609	\$25,666	\$9,133	\$9,407	\$9,690	\$9,980	\$29,755	\$10,588	\$10,906	\$11,233	\$11,570
Contract- Rumpke ¹	\$213,468	\$219,872	\$226,468	\$233,263	\$240,260	\$247,468	\$254,892	\$262,539	\$270,415	\$278,528	\$286,883
Contract-ABRS ¹	\$34,931	\$35,979	\$37,058	\$38,170	\$39,315	\$40,495	\$41,710	\$42,961	\$44,250	\$45,577	\$46,945
Contract Muni Court Processing	\$9,224	\$9,501	\$9,786	\$10,079	\$10,382	\$10,693	\$11,014	\$11,344	\$11,685	\$12,035	\$12,396
Contract Muni Court Inspection/Cleanup	\$17,735	\$18,267	\$18,815	\$19,379	\$19,961	\$20,559	\$21,176	\$21,812	\$22,466	\$23,140	\$23,834
Recycle Box Maint.	\$633	\$652	\$672	\$692	\$713	\$734	\$756	\$779	\$802	\$826	\$851
Disposal	\$269	\$277	\$285	\$294	\$303	\$312	\$321	\$331	\$340	\$351	\$361
Site Improvements	\$2,388	\$2,460	\$2,534	\$2,610	\$2,688	\$2,768	\$2,852	\$2,937	\$3,025	\$3,116	\$3,209
M & R - Compactors	\$3,167	\$3,262	\$3,360	\$3,461	\$3,564	\$3,671	\$3,781	\$3,895	\$4,012	\$4,132	\$4,256
M & R - Boxes	\$2,319	\$2,388	\$2,460	\$2,534	\$2,610	\$2,688	\$2,768	\$2,852	\$2,937	\$3,025	\$3,116
Vehicle O & M (50%)	\$950	\$979	\$1,008	\$1,038	\$1,069	\$1,101	\$1,134	\$1,168	\$1,204	\$1,240	\$1,277
Fuel	\$5,219	\$5,376	\$5,537	\$5,703	\$5,874	\$6,050	\$6,232	\$6,419	\$6,611	\$6,810	\$7,014
Misc. (10%)	\$29,030	\$29,901	\$30,798	\$31,722	\$32,674	\$33,654	\$34,664	\$35,704	\$36,775	\$37,878	\$39,014
Total	\$319,333	\$328,913	\$338,781	\$348,944	\$359,413	\$370,195	\$381,301	\$392,740	\$404,522	\$416,658	\$429,157
Grand Total	\$327,943	\$354,580	\$347,914	\$358,352	\$369,102	\$380,175	\$411,056	\$403,328	\$415,428	\$427,891	\$440,727

* 3% annual rate of inflation applied to each year expenses w/ some exceptions as noted.

¹ Drop-off contracts have and are expected to increase 10%/yr 2010 to 2014 then start a gradual slowdown of .1% each year until 2021 when a steady 3% increase is projected

² Years 2011, 2012 & 2013 are actual with no inflation escalation

Table VIII-5C

Estimated Annual Costs*

Appliance Recycling	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Contracts ¹	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000

(continued)

Appliance Recycling	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Contracts ¹	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000

Tire Collection	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Contracts ²	\$7,108	\$11,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000

(continued)

Tire Collection	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Contracts ²	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000

Litter Collection	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<i>Capital Costs</i>										
Capital Costs - Clermont Vehicle (50%)			\$12,500				\$14,491			
Capital Costs - Adams Vehicle				\$25,750				\$28,982		
Capital Costs - Trailer				\$6,000						
Total	\$0	\$0	\$12,500	\$31,750	\$0	\$0	\$14,491	\$28,982	\$0	\$0
<i>Operating Costs</i>										
Contracts (Muni Court)+(spring Cleanup) ³	\$44,200	\$44,200	\$44,200	\$44,200	\$45,526	\$46,892	\$48,299	\$49,747	\$51,240	\$52,777
Litter Officer - Adams County ³	\$5,000	\$5,000	\$5,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970
Disposal	\$900	\$927	\$955	\$983	\$1,013	\$1,043	\$1,075	\$1,107	\$1,140	\$1,174
Supplies	\$5,500	\$5,665	\$5,835	\$6,010	\$6,190	\$6,376	\$6,567	\$6,764	\$6,967	\$7,176
Vehicle O & M (50%)	\$2,500	\$2,000	\$750	\$773	\$796	\$820	\$844	\$869	\$896	\$922
Misc. (10%)	\$6,011	\$5,980	\$8,375	\$12,248	\$6,069	\$6,245	\$9,325	\$12,410	\$6,806	\$7,004
Total	\$64,111	\$63,772	\$65,115	\$69,214	\$64,744	\$66,680	\$71,573	\$76,525	\$72,845	\$75,024
Grand Total	\$64,111	\$63,772	\$77,615	\$100,964	\$64,744	\$66,680	\$86,064	\$105,507	\$72,845	\$75,024

(continued)

Litter Collection	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<i>Capital Costs</i>											
Capital Costs - Clermont Vehicle (50%)		\$16,799					\$19,475				
Capital Costs - Adams Vehicle			\$33,598					\$38,949			
Capital Costs - Trailer	\$7,379							\$9,075			
Total	\$7,379	\$16,799	\$33,598	\$0	\$0	\$0	\$19,475	\$48,024	\$0	\$0	\$0
<i>Operating Costs</i>											
Contracts	\$54,360	\$55,991	\$57,671	\$59,401	\$61,183	\$63,019	\$64,909	\$66,856	\$68,862	\$70,928	\$73,056
Litter Officer - Adams County	\$6,149	\$6,334	\$6,524	\$6,720	\$6,921	\$7,129	\$7,343	\$7,563	\$7,790	\$8,024	\$8,264
Disposal	\$1,210	\$1,246	\$1,283	\$1,322	\$1,361	\$1,402	\$1,444	\$1,488	\$1,532	\$1,578	\$1,626
Supplies	\$7,392	\$7,613	\$7,842	\$8,077	\$8,319	\$8,569	\$8,826	\$9,091	\$9,363	\$9,644	\$9,934
Vehicle O & M (50%)	\$950	\$979	\$1,008	\$1,038	\$1,069	\$1,101	\$1,134	\$1,168	\$1,204	\$1,240	\$1,277
Vehicle O & M	\$950	\$979	\$1,008	\$1,038	\$1,069	\$1,101	\$1,134	\$1,168	\$1,204	\$1,240	\$1,277
Misc. (10%)	\$7,101	\$7,314	\$7,534	\$7,760	\$7,992	\$8,232	\$8,479	\$8,733	\$8,995	\$9,265	\$9,543
Total	\$94,890	\$116,074	\$152,087	\$87,378	\$89,940	\$92,578	\$134,246	\$194,143	\$100,978	\$103,948	\$107,006
Grand Total	\$94,890	\$116,074	\$152,087	\$87,378	\$89,940	\$92,578	\$134,246	\$194,143	\$100,978	\$103,948	\$107,006

Household Hazardous Waste	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Contractor	\$3,578	\$3,685	\$3,796	\$3,910	\$4,027	\$4,148	\$4,272	\$4,400	\$4,533	\$4,668

(continued)

Household Hazardous Waste	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Contractor	\$4,809	\$4,953	\$5,101	\$5,254	\$5,412	\$5,574	\$5,742	\$5,914	\$6,091	\$6,274	\$6,462

* 3% annual rate of inflation applied to each year expenses w/ some exceptions as noted.

¹ Refrigerant bearing appliances historically have decreased in recent years and we expect the trend to continue, therefore budgeting a flat amount.

² Tire disposal cost could easily exceed budgetary availability, therefore budget is being capped at \$12,000 annually.

³ Years 2011, 2012 & 2013 are actual with no inflation escalation

Table VIII-5D Estimated Annual Costs*

Adams Waste & Recycling

<i>Capital Costs</i>	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019
Building ¹	\$0	\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Operating Costs</i>										
Facility Management Contract	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000
Utilities incl. Electric & Telephone	\$ 4,200	\$ 4,326	\$ 4,456	\$ 4,589	\$ 4,727	\$ 4,869	\$ 5,015	\$ 5,165	\$ 5,320	\$ 5,480
Insurance ²	\$ 1,100	\$ 1,133	\$ 1,167	\$ 1,202	\$ 1,238	\$ 1,275	\$ 1,313	\$ 1,353	\$ 1,393	\$ 1,435
Compactor Maintenance	\$ -	\$ 300	\$ 809	\$ 833	\$ 858	\$ 884	\$ 911	\$ 938	\$ 966	\$ 995
Bobcat Maintenance		\$ 375	\$ 386	\$ 398	\$ 410	\$ 422	\$ 435	\$ 448	\$ 461	\$ 475
Scale Maintenance		\$ 1,500	\$ 950	\$ 979	\$ 1,008	\$ 1,038	\$ 1,069	\$ 1,101	\$ 1,134	\$ 1,168
Site Maintenance	\$ 300	\$ 309	\$ 318	\$ 328	\$ 338	\$ 348	\$ 358	\$ 369	\$ 380	\$ 391
Security & Safety	\$ -	\$ 3,000	\$ 200	\$ 600	\$ 1,200	\$ 1,236	\$ 1,273	\$ 1,311	\$ 1,351	\$ 1,391
Waste Disposal ³	\$ 18,423	\$ 22,131	\$ 25,819	\$ 30,986	\$ 36,689	\$ 42,707	\$ 48,800	\$ 54,959	\$ 61,175	\$ 67,438
Advertising	\$ 500	\$ 515	\$ 530	\$ 546	\$ 563	\$ 580	\$ 597	\$ 615	\$ 633	\$ 652
Misc. (10%)	\$ -	\$ 5,759	\$ 5,864	\$ 6,446	\$ 7,103	\$ 7,736	\$ 8,377	\$ 9,026	\$ 9,681	\$ 10,343
Total	\$ 48,523	\$ 63,348	\$ 64,500	\$ 70,907	\$ 78,134	\$ 85,095	\$ 92,148	\$ 99,285	\$ 106,496	\$ 113,769
Grand Total	\$ 48,523	\$ 63,348	\$ 74,500	\$ 70,907	\$ 78,134	\$ 85,095	\$ 92,148	\$ 99,285	\$ 106,496	\$ 113,769

Adams Waste & Recycling (continued)

<i>Capital Costs</i>	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030
Building ¹	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Operating Costs</i>											
Facility Management Contract	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
Utilities incl. Electric & Telephone	\$5,644	\$5,814	\$5,988	\$6,168	\$6,353	\$6,543	\$6,740	\$6,942	\$7,150	\$7,365	\$7,586
Insurance ²	\$1,478	\$1,523	\$1,568	\$1,615	\$1,664	\$1,714	\$1,765	\$1,818	\$1,873	\$1,929	\$1,987
Compactor Maintenance	\$1,025	\$1,056	\$1,087	\$1,120	\$1,153	\$1,188	\$1,224	\$1,260	\$1,298	\$1,337	\$1,377
Bobcat Maintenance	\$489	\$504	\$519	\$535	\$551	\$567	\$584	\$602	\$620	\$638	\$658
Scale Maintenance	\$1,203		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Site Maintenance	\$403	\$415	\$428	\$441	\$454	\$467	\$481	\$496	\$511	\$526	\$542
Security & Safety	\$1,433	\$1,476	\$1,520	\$1,566	\$1,613	\$1,661	\$1,711	\$1,762	\$1,815	\$1,870	\$1,926
Waste Disposal ³	\$73,736	\$80,058	\$86,391	\$92,720	\$99,031	\$105,306	\$111,528	\$117,678	\$123,736	\$129,679	\$135,485
Advertising	\$672	\$692	\$713	\$734	\$756	\$779	\$802	\$826	\$851	\$877	\$903
Misc. (10%)	\$11,008	\$11,554	\$12,221	\$12,890	\$13,557	\$14,223	\$14,884	\$15,538	\$16,185	\$16,822	\$17,446
Total	\$121,093	\$127,091	\$134,436	\$141,788	\$149,132	\$156,448	\$163,719	\$170,923	\$178,039	\$185,043	\$191,909
Grand Total	\$ 121,093	\$ 127,091	\$ 134,436	\$ 141,788	\$ 149,132	\$ 156,448	\$ 163,719	\$ 170,923	\$ 178,039	\$ 185,043	\$ 191,909

¹ Existing office building is enlarged and/or refurbished.

² Liability insurance also covers all District drop-off sites.

³ Waste disposal based on waste estimates in Table VIII-3 with current hauling and disposal costs held steady until 2013, and 2014 to 2030 have a 3% increase annually.

Table VIII-5E Estimated Annual Costs*

Administration	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Salary & Fringe	\$84,873	\$84,873	\$86,113	\$88,696	\$91,357	\$94,098	\$96,921	\$99,829	\$102,823	\$105,908
Rent/Utilities/Support ¹	\$7,307	\$5,935	\$6,113	\$6,296	\$6,485	\$6,680	\$6,880	\$7,087	\$7,299	\$7,518
Telephone	\$1,000	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,230	\$1,267
Travel/Vehicle/Fuel	\$5,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$6,149	\$6,334
Training	\$1,000	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,690	\$3,800
Membership/Subscription	\$350	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633
Supplies/Postage	\$455	\$1,000	\$516	\$531	\$547	\$564	\$1,581	\$598	\$616	\$634
Reproduction	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,230	\$1,267	\$1,305
Misc. (10%)	\$0	\$10,234	\$10,359	\$10,670	\$10,990	\$11,319	\$11,759	\$12,009	\$12,369	\$12,740
Total	\$100,985	\$112,572	\$113,947	\$117,365	\$120,886	\$124,513	\$129,348	\$132,095	\$136,058	\$140,140

(continued)

Administration	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Salary & Fringe	\$109,085	\$112,358	\$115,729	\$119,201	\$122,777	\$126,460	\$130,254	\$134,161	\$138,186	\$142,332	\$146,602
Rent/Utilities/Support ¹	\$7,744	\$7,976	\$8,215	\$8,462	\$8,716	\$8,977	\$9,247	\$9,524	\$9,810	\$10,104	\$10,407
Telephone	\$1,305	\$1,344	\$1,384	\$1,426	\$1,469	\$1,513	\$1,558	\$1,605	\$1,653	\$1,702	\$1,754
Travel/Vehicle/Fuel	\$6,524	\$2,487	\$2,536	\$2,587	\$2,639	\$2,692	\$2,746	\$2,800	\$2,856	\$2,856	\$2,856
Training	\$3,914	\$4,032	\$4,153	\$4,277	\$4,406	\$4,538	\$4,674	\$4,814	\$4,959	\$5,107	\$5,261
Membership/Subscription	\$652	\$672	\$692	\$713	\$734	\$756	\$779	\$802	\$826	\$851	\$877
Supplies/Postage	\$653	\$1,173	\$693	\$714	\$735	\$757	\$1,280	\$803	\$827	\$852	\$877
Reproduction	\$1,344	\$1,384	\$1,426	\$1,469	\$1,513	\$1,558	\$1,605	\$1,653	\$1,702	\$1,754	\$1,806
Misc. (10%)	\$13,122	\$13,143	\$13,483	\$13,885	\$14,299	\$14,725	\$15,214	\$15,616	\$16,082	\$16,556	\$17,044
Total	\$144,344	\$144,569	\$148,311	\$152,732	\$157,286	\$161,976	\$167,356	\$171,778	\$176,901	\$182,114	\$187,483

¹ Support includes indirect costs including office space, information systems access and support, County Auditor services, legal and other cost allocation charges.

Plan Preparation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Personnel/Consultant	\$0	\$6,000					\$10,000			

(continued)

Plan Preparation	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Personnel/Consultant		\$12,000					\$15,000				

Table VIII-6 Revenues and Allocations in Accordance with ORC 3734.57, ORC 3734.572 and ORC3734.57

Year	Revenue	Allocation of ORC 3734.57 and ORC 3734.573 Revenue for the following Purposes*									Cumulative Balance	
		1	2	3	4	5	6	7	8	9		
											Beginning Balance	\$577,752
2010*	\$379,821	\$0	\$419,040	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$538,533
2011	\$400,920	\$6,000	\$495,522	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$437,931
2012	\$409,266	\$0	\$511,412	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$335,786
2013	\$606,351	\$0	\$557,626	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$384,510
2014	\$622,413	\$0	\$551,599	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$455,324
2015	\$638,457	\$0	\$585,186	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$508,596
2016	\$653,882	\$10,000	\$649,980	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$502,498
2017	\$668,684	\$0	\$683,029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$488,153
2018	\$701,631	\$0	\$678,556	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$511,228
2019	\$716,780	\$0	\$707,539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$520,469
2020	\$731,199	\$0	\$743,859	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$507,809
2021	\$744,884	\$12,000	\$782,323	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$458,370
2022	\$757,495	\$0	\$840,810	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$375,055
2023	\$983,325	\$0	\$799,604	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$558,776
2024	\$996,683	\$0	\$826,144	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$729,316
2025	\$1,009,187	\$0	\$853,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$885,270
2026	\$1,020,832	\$15,000	\$920,368	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$970,734
2027	\$1,061,181	\$0	\$1,005,093	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,026,823
2028	\$1,071,791	\$0	\$937,764	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,160,850
2029	\$1,081,425	\$0	\$966,955	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,275,319
2030	\$1,090,077	\$0	\$996,674	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,368,722

* Actual revenue

1 = preparation and monitoring of plan implementation;

2 = implementation of approved plan;

3 = financial assistance to boards of health for SW enforcement;

4 = financial assistance to counties to defray costs of maintaining roads and other public services related to the location or operation of solid waste facilities;

5 = contracts with boards of health for collecting and analyzing samples from water wells adjacent to solid waste facilities;

6 = out-of-state waste inspection program;

7 = financial assistance to local boards of health to enforce ORC 3734.03 or to local law enforcement agencies having jurisdiction within the district for anti littering;

8 = financial assistance to boards of health for employees to participate in Ohio EPA's training and certification programs for solid waste operators and facility inspectors;

9 = financial assistance to local municipalities and townships to defray the added costs of roads and services related to the operation of solid waste facilities.

Table VIII-7 Contingent Funding Sources

This Table blank purposefully - No contingent sources needed or identified

Table VIII-7 Omitted

Table VIII-8 Summary of District Revenues and Expenses

Summary Table	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Education and Awareness	\$36,315	\$35,756	\$35,922	\$36,093	\$37,176	\$38,291	\$39,440	\$40,623	\$41,842	\$43,097
Residential Drop-off	\$155,420	\$202,389	\$190,632	\$213,387	\$231,632	\$251,459	\$283,707	\$286,117	\$301,782	\$315,840
Appliance Recycling	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Tire Collection	\$7,108	\$11,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Litter Collection	\$64,111	\$63,772	\$77,615	\$100,964	\$64,744	\$66,680	\$86,064	\$105,507	\$72,845	\$75,024
Household Hazardous Waste	\$3,578	\$3,685	\$3,796	\$3,910	\$4,027	\$4,148	\$4,272	\$4,400	\$4,533	\$4,668
Adams Waste & Recycling	\$48,523	\$63,348	\$74,500	\$70,907	\$78,134	\$85,095	\$92,148	\$99,285	\$106,496	\$113,769
Administration	\$100,985	\$112,572	\$113,947	\$117,365	\$120,886	\$124,513	\$129,348	\$132,095	\$136,058	\$140,140
Plan Preparation	\$0	\$6,000	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0
Total Expense	\$419,040	\$501,522	\$511,412	\$557,626	\$551,599	\$585,186	\$659,980	\$683,029	\$678,556	\$707,539

Cash Flow Balance	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Income	\$379,821	\$400,920	\$409,266	\$606,351	\$622,413	\$638,457	\$653,882	\$668,684	\$701,631	\$716,780
Difference (Revenue -Income)	(\$39,219)	(\$100,602)	(\$102,146)	\$48,725	\$70,814	\$53,272	(\$6,098)	(\$14,345)	\$23,075	\$9,241
Disaster & Emergency Reserve Fund	\$577,752	\$538,533	\$437,931	\$335,786	\$384,510	\$455,324	\$508,596	\$502,498	\$488,153	\$511,228
Reserve Fund as X total budget	1.4	1.1	0.9	0.6	0.7	0.8	0.8	0.7	0.7	0.7

Summary Table	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Education and Awareness	\$44,390	\$45,722	\$47,094	\$48,506	\$49,962	\$51,460	\$53,004	\$54,594	\$56,232	\$57,919	\$59,657
Residential Drop-off	\$319,333	\$328,913	\$338,781	\$348,944	\$359,413	\$370,195	\$381,301	\$392,740	\$404,522	\$416,658	\$429,157
Appliance Recycling	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Tire Collection	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Litter Collection	\$94,890	\$116,074	\$152,087	\$87,378	\$89,940	\$92,578	\$134,246	\$194,143	\$100,978	\$103,948	\$107,006
Household Hazardous Waste	\$4,809	\$4,953	\$5,101	\$5,254	\$5,412	\$5,574	\$5,742	\$5,914	\$6,091	\$6,274	\$6,462
Adams Waste & Recycling	\$121,093	\$127,091	\$134,436	\$141,788	\$149,132	\$156,448	\$163,719	\$170,923	\$178,039	\$185,043	\$191,909
Administration	\$144,344	\$144,569	\$148,311	\$152,732	\$157,286	\$161,976	\$167,356	\$171,778	\$176,901	\$182,114	\$187,483
Plan Preparation & Monitoring	\$0	\$12,000	\$0	\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0
Total Expense	\$743,859	\$794,323	\$840,810	\$799,604	\$826,144	\$853,232	\$935,368	\$1,005,093	\$937,764	\$966,955	\$996,674

Cash Flow Balance	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Income	\$731,199	\$744,884	\$757,495	\$983,325	\$996,683	\$1,009,187	\$1,020,832	\$1,061,181	\$1,071,791	\$1,081,425	\$1,090,077
Difference (Revenue -Income)	(\$12,660)	(\$49,439)	(\$83,315)	\$183,721	\$170,539	\$155,955	\$85,464	\$56,088	\$134,027	\$114,470	\$93,403
Disaster & Emergency Reserve Fund	\$520,469	\$507,809	\$458,370	\$375,055	\$558,776	\$729,316	\$885,270	\$970,734	\$1,026,823	\$1,160,850	\$1,275,319
Reserve Fund as X total budget	0.7	0.6	0.5	0.5	0.7	0.9	0.9	1.0	1.1	1.2	1.3

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Appendix A

Resolution of District Formation

(Not Required)

Appendix B

Copies of Public Notices

And

Comment

Appendix C

Copies of Resolutions and Certification

Statements Documenting

Ratification

Appendix D

Identification of Consultants Retained

For

Plan Preparation

Cummins Consulting

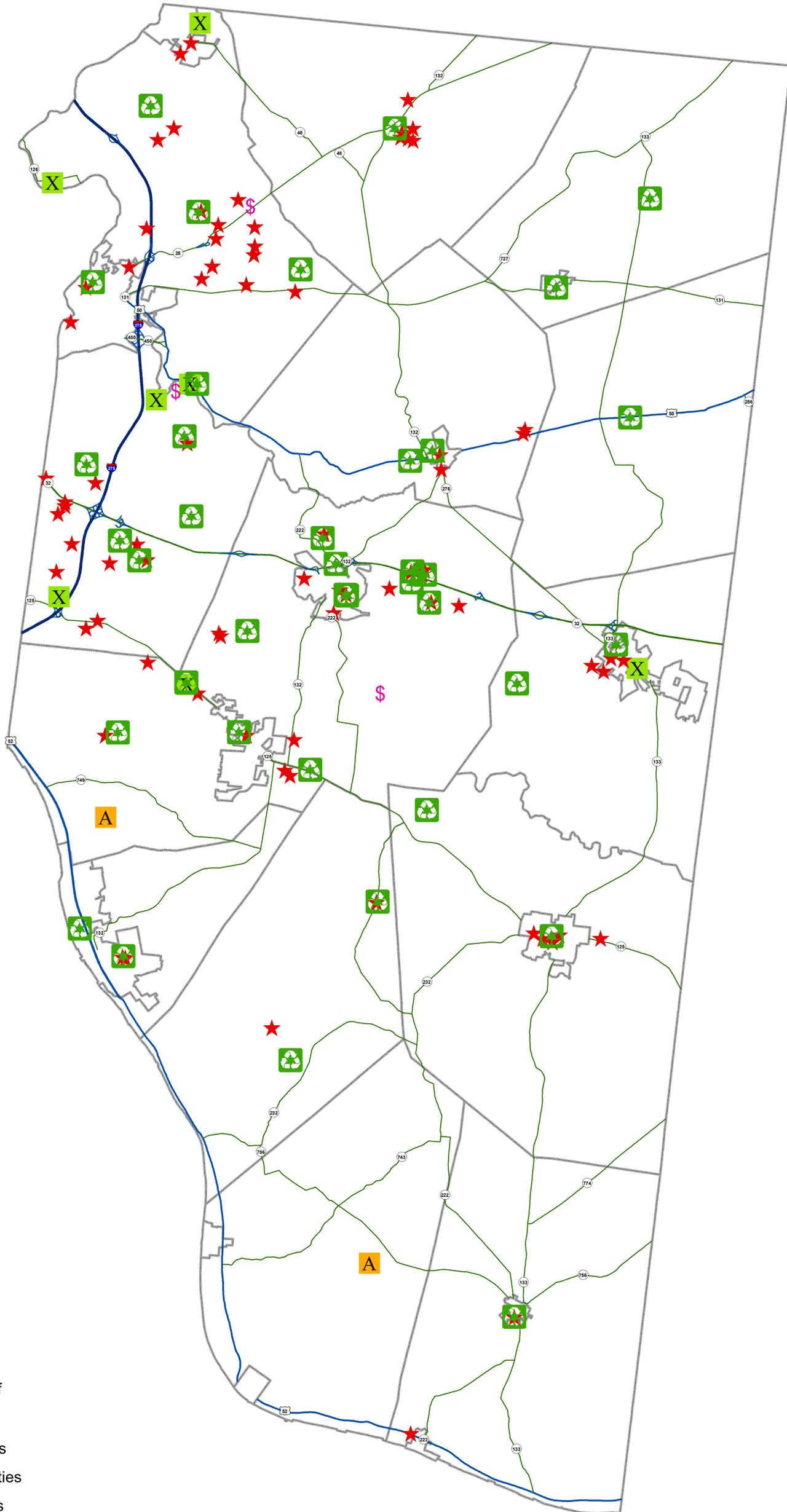
Adam R. Cummins

5398 McCoy Rd.

Oxford, OH 45056

Appendix E

District Maps

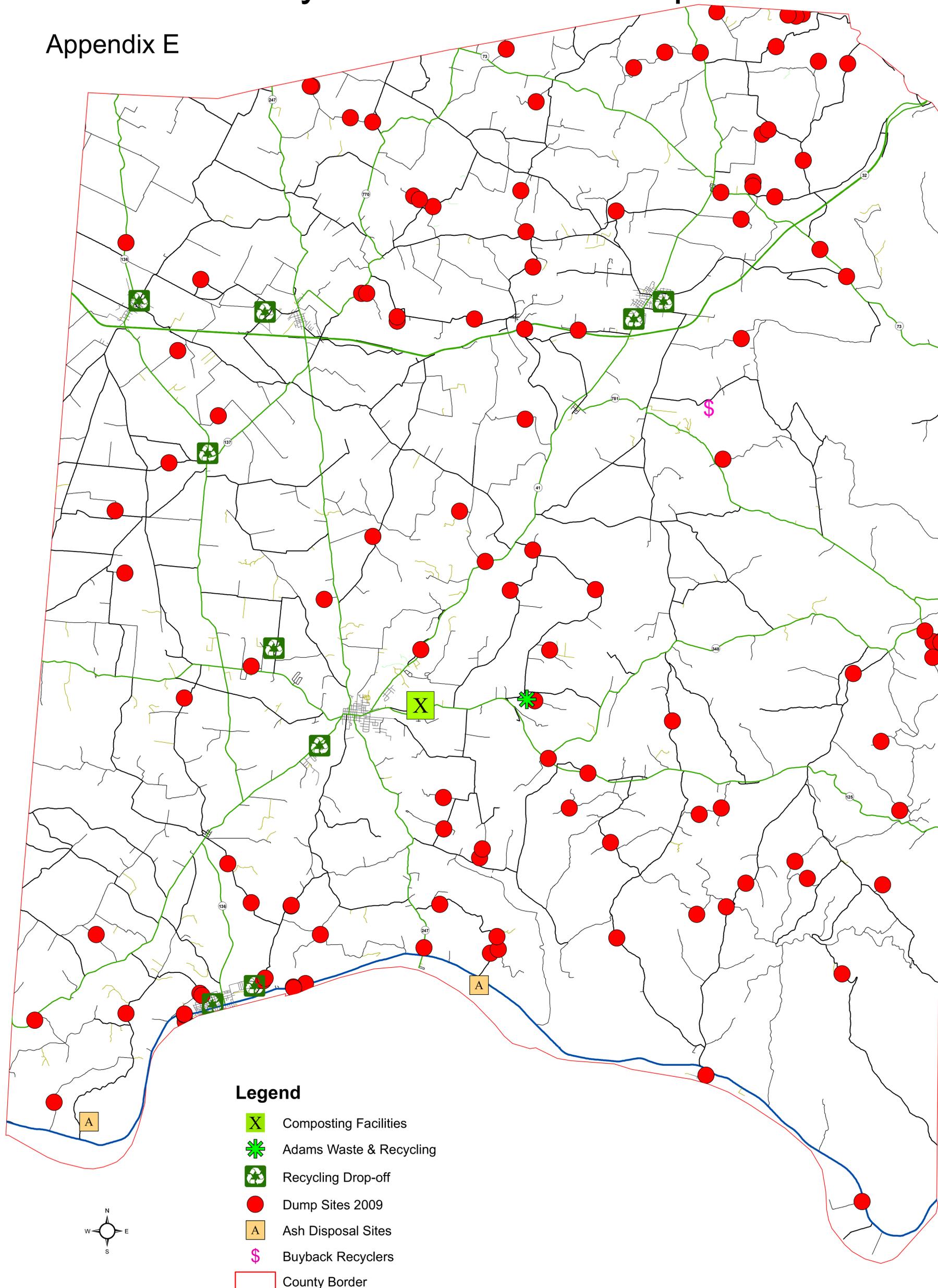


Legend

-  Recycling Drop-off
-  Abitibi
-  Buyback Recyclers
-  Composting Facilities
-  Ash Disposal Sites

Adams County Facilities and Dump Sites 2011

Appendix E



- Legend**
- X Composting Facilities
 - ★ Adams Waste & Recycling
 - ♻️ Recycling Drop-off
 - Dump Sites 2011
 - A Ash Disposal Sites
 - 💰 Buyback Recyclers
 - ▭ County Border

Appendix – F

Industrial Survey Results

F-1	Blank Industrial Survey	Pages F-1 through F-2
F-2	Survey Results by SIC Code and Waste Type	Pages F-3 through F-4
F-3	Survey Results by Industry # and Waste Type	Pages F-5 through F-7
F-4	Survey Results by Industry # and SIC Code	Page F-8



2010 Industrial Solid Waste Survey

This industrial solid waste survey is being conducted by the Adams-Clermont Solid Waste District (District), a non-regulatory government agency, to fulfill state-mandated reporting requirements. Responses will be used to calculate the District's progress in meeting state and local recycling goals.

Instructions: Please complete all of the following tables to the best of your ability. Please return the completed survey by March 31, 2011. A postage paid return envelope is enclosed for your convenience. If you would prefer, you may fax or e-mail your completed survey to (513) 732-7310 or pbraasch@co.clermont.oh.us.

Industrial Solid Waste: Includes any non-hazardous solid waste that results from or is the residue of an industrial process. Some examples are metal, plastic or wood scrap, ash, slag, or non-excluded foundry sand. Industrial solid waste includes both industrial process wastes such as trimmings and scrap, and non-process wastes such as paper, pallets, drums, cans, packaging, and food and yard waste.

Note: This survey is only in regard to industrial waste generated by your company's facilities located in Adams or Clermont Counties, Ohio. Do not include data from corporate facilities located outside of these Counties or data related to construction and demolition debris (C&DD).

Confidentiality: The District will use the information in this survey for summary purposes only and to identify the types of waste that may be further reduced or recycled. No company's survey response will be reported individually; data will be summarized by SIC or NAICS categories.

If you have questions regarding the completion of this survey please call Paul Braasch at (513) 732-7745.

Part 1 – General Information

Company Name: _____

Mailing Address: _____

Physical Address (if different): _____

City/State/Zip: _____

Contact Name: _____ Title: _____

Phone: _____ Email address¹: _____

SIC(s)²: _____ NAICS(s)³: _____

Employment count within those codes (number of employees): _____

Company web page (URL): _____

¹ Email addresses will be used for follow-up purposes only by the ACSWD. Your email address will not be sold to any company or organization.

² If you do not know your SIC, please check at www.osha.gov/pls/imis/sic_manual.html.

³ If you do not know your NAICS designation, please check at www.census.gov/eos/www/naics/.

Part 2 – Program Resources

1. Do you currently subscribe to the free e-newsletter, *The Interchange*? (Please check) **YES** ___ **NO** ___
The Interchange is a regional quarterly publication listing unwanted and wanted waste materials and is designed to aid businesses in diverting materials from the solid waste landfill.
2. Would you like to be added to the mailing list? **YES** ___ **NO** ___ If so, please provide your email address:

3. The District, a non-regulatory entity, provides free waste assessments for District industries. This confidential service can assist your business in assessing and reducing the amount of waste for disposal. The District reviews your waste disposal processes and offers suggestions to reduce, reuse, and recycle your waste and may assist in finding markets for waste materials.
Would you be interested in a free waste assessment? **YES** ___ **NO** ___

Part 3 – Solid Waste Disposed and Recycled in 2010

In Table 1, please report to the best of your ability the amount of solid waste **disposed** of **AND recycled** from your facility in 2010. Please be sure to indicate the units of measure for each entry. If you do not have specific values for waste disposal, use Table 2 to estimate solid waste disposed.

Table 1. Solid Waste Disposal and Recycling in 2010

<i>Column 1</i> Type of Waste Material	<i>Column 2</i> Amount Disposed in 2010	<i>Column 3</i> Measure (Units) Check one	<i>Column 4</i> Amount Recycled in 2010	<i>Column 5</i> Measure (Units) Check one	<i>Column 6</i> Comments
Appliances		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Food ¹		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Glass		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Ferrous Metals ²		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Non-ferrous Metals ²		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Corrugated Cardboard		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
All other paper		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Plastics		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Rubber (including tires)		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Textiles		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Asphalt/Concrete		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Wood ³		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Yard Waste		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Ash		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Non-excluded Foundry Sand		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
FGD/Sludge		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Stone/Clay/Sand		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Non-hazardous Chemicals (solids only)		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Other (specify)		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Other (specify)		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	
Mixed		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number		<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input type="checkbox"/> Number	

¹ Spent cooking fat or vegetable oil from commercial sources is a liquid waste and should not be included.

² Do not include metals from auto bodies, train boxcars, or construction and demolition debris (C&DD) in the ferrous and/or non-ferrous categories. C&DD includes metals used in the construction of residential buildings such as plumbing, siding, framing, etc.

³ Report all wood waste except wood originating from yard waste and C&DD. Wood originating from yard waste should be reported on the next line (i.e., "Yard Waste").

If you were unable to complete Table 1, please use Table 2 to estimate your company's annual solid waste disposal and recycling.

Table 2. Solid Waste Disposal & Recycling Estimation

Dumpster	Size of dumpster (cubic yards)	No. of pickups per month	Compacted? (Circle Y or N)	Designated for one material? (If yes, please specify)	Percentage full when picked up (estimate)
<i>Example: Waste</i>	<i>8</i>	<i>8 (twice a week)</i>	<i>Y</i> (N)	<i>No</i>	<i>80%</i>
			Y N		
			Y N		
			Y N		
			Y N		
Recycling			Y N		

Thank you for your time and participation.

Please mail, fax or e-mail this survey to:

4400 Haskell Lane, Batavia, Ohio 45103

**Fax: (513) 732-7310
Telephone: (513) 732-7745
pbraasch@co.clermont.oh.us**

If you have questions please call or send email.

Appendix F-1

2010 Industrial Survey Results

Waste Generation by SIC Code and Waste Type (Tons per Year)

SIC Code	20	22	23	24	25	26	27	28	29
2010 Total TPY	122.00	196.00	81.20	43,166.84	68.26	388.68	3,742.16	4,156.62	5.93
aluminum	0.23	0.04	0.10	0.43	0.01	0.17	8.27	1.69	0.00
ash	4.62	-	-	22.13	0.05	3.04	-	406.45	-
bark	-	-	-	2,813.43	-	-	-	-	-
batteries	-	-	-	25.70	-	-	0.61	-	-
cardboard	8.47	56.52	41.18	-	15.19	1.97	126.63	107.93	0.07
concrete	1.02	-	-	-	-	-	-	24.25	0.19
dirty powder	-	-	-	-	-	-	-	-	-
drums	-	-	-	-	-	-	1.40	-	-
dust collector fines	-	-	-	-	-	-	-	-	-
fabric/textiles	0.03	1.89	11.04	0.15	2.36	-	0.04	0.28	0.00
food wastes	26.64	-	5.53	4.56	1.32	0.04	24.37	12.86	0.00
glass	1.18	0.16	7.73	4.79	0.03	0.00	3.72	13.90	0.01
ink	-	-	-	-	-	-	0.16	-	-
litho/photo film	-	-	-	-	-	-	0.06	-	-
lubricants	-	-	-	-	-	-	-	-	-
metal dust	-	-	-	-	-	-	414.60	-	-
metal, ferrous	4.06	17.51	0.03	1.02	4.86	0.04	1,322.03	163.48	0.04
metal. Non- ferrous	0.89	1.91	0.26	40.51	0.24	0.02	2.94	108.25	0.00
mixed waste	56.49	107.10	1.83	48.79	0.02	380.33	178.33	1,635.45	3.28
non-haz. Chemicals	0.12	0.08	-	-	-	0.00	0.25	1,020.23	0.00
non-specified	2.29	1.08	0.01	5.73	3.31	0.51	319.83	191.44	0.04
oil	0.14	-	-	0.06	-	0.00	0.75	0.77	0.01
paper, office	0.65	0.04	1.22	10.60	16.21	1.17	462.81	20.91	0.00
paper, misc.	1.95	6.30	7.48	1.76	3.48	0.27	779.64	63.27	0.05
paper, newsprint	-	-	-	0.00	0.03	-	10.09	0.02	0.00
plaster	0.23	-	-	-	-	-	-	-	-
plastics	1.35	3.03	2.75	1.19	5.89	0.24	30.01	50.52	0.01
refractories	-	-	-	-	-	-	-	-	-
rubber	0.93	-	-	0.00	0.00	0.00	11.76	9.30	0.00
sawdust	-	-	-	2,959.11	-	-	-	-	-
silica/alumina	-	-	-	-	-	-	-	-	-
slag	-	-	-	-	-	-	-	231.29	-
sludge	7.76	-	-	3.25	0.76	0.67	-	53.41	0.76
stone/clay/sand	1.17	-	-	1,223.63	0.21	-	0.17	37.24	1.44
wood	1.26	0.33	1.77	18,000.00	13.52	0.19	39.16	-	0.03
yard waste	0.62	-	0.27	18,000.00	0.7655542	0.00	4.55	3.69	0.00
Total	122.10	195.98	81.20	43,166.84	68.26	388.68	3,742.16	4,156.62	5.93

Appendix F-1 (continued)

2010 Industrial Survey Results

Waste Generation by SIC Code and Waste Type (Tons per Year)

35	36	37	38	39	49	Totals TPY
3,095.54	575.05	81.15	354.18	1,115.94	2,657,830.20	
29.51	2.86	0.09	0.40	6.23		150.81
122.47	-	0.05	-	-	2,656,336.80	2,656,970.26
-	-	-	-	-		2,813.43
0.00	-	-	-	-		26.32
273.98	82.39	0.51	19.10	559.07		2,555.67
27.28	1.61	0.16	-	3.49		100.90
-	-	0.00	-	-		0.01
0.06	-	-	-	-		1.95
-	-	-	-	-		0.70
0.60	3.72	0.01	4.77	22.85		118.01
65.34	5.22	0.21	3.57	48.46		268.61
50.47	40.56	0.03	1.61	35.97		1,744.12
-	-	-	-	-		0.16
-	0.01	-	-	-		0.07
-	-	-	-	-		0.00
-	-	-	-	-		414.60
905.26	14.20	2.12	5.79	67.06	1,431.00	4,537.25
78.73	36.93	1.69	3.28	15.52		329.35
402.28	310.03	73.75	289.68	21.76		6,048.05
25.32	0.02	0.00	-	1.08		1,102.75
206.51	15.90	0.11	1.43	1.61		3,263.12
11.69	0.07	0.05	-	0.14		16.66
137.89	11.00	0.05	7.99	70.77		1,042.89
216.53	20.53	0.28	4.32	152.58	62.40	1,456.48
1.74	-	-	-	-		20.05
-	-	-	-	-		0.90
32.98	2.99	0.07	3.01	13.89		1,558.79
-	-	-	-	-		0.14
10.33	3.22	0.21	0.01	7.49		643.66
-	-	-	-	-		2,959.11
82.21	-	-	-	-		85.97
-	-	-	-	-		247.08
210.69	1.14	0.08	0.02	0.04		495.54
56.12	10.00	0.27	-	13.05		2,293.54
125.59	12.48	1.37	9.15	72.91		18,622.68
21.97	0.18	0.02	0.04	1.95		18,035.47
3,095.54	575.05	81.15	354.18	1,115.94	2,657,830.20	2,727,925

Appendix F-2

2010 Industrial Survey Results

Recycling by Industry and Waste Type (Tons per Year)

Industry #	3	6	10	11	15	16	18	20	26	28	29	30	33
Paper:													
Cardboard		55.00		0.05	1.74	29.06			25.60		3.60		
Newspaper													
Other		5.00		0.10	34.25				2.40				
Metals:													
Ferrous (iron/steel)		17.51					104.50						
Non-Ferrous (alum/copper/etc.)		1.91				414.60	104.50						
Other													
Glass:													
Plate													
Containers													
Other				0.03									
Plastic:													
HDPE													
PET													
Other				0.05					52.00	15.00			
Rubber													
Textiles/Fabric													
Wood:													
Pallets													
Packing													
Sawdust/Scrap/Bark			18,000.00										
Stone/Clay/Sand													
Yard Waste			18,000.00										
Food Waste													
Concrete				0.02									
Ash													
Oils/Lubricants													
Sludge													
Batteries						0.61							
Drums						1.40							
Dust/Fines													
Ink													
Plaster/Ceramics													
Sand/Slag/Silica													
Non-haz. Chemicals													
Mixed Waste						223.76		34.03				10.40	14.56
Other: (specify)													
Compost	0.55												
Calcium Hydroxide							1,000.00						
Pottasium Hydroxide						0.12							
Electronics						1.10							
Light Bulbs						0.62							
TOTAL	0.55	79.43	36,000.00	0.24	35.98	671.27	1,209.00	34.03	80.00	15.00	3.60	10.40	14.56

Appendix F-2 (continued)

2010 Industrial Survey Results

Recycling by Industry and Waste Type (Tons per Year)

Industry #	34	35	37	45	47	48	49	53	59	60	61	62	63	64	66
Paper:															
Cardboard	26.00				0.01		20.80			0.70	20.80				10.40
Newspaper															
Other	24.00		2.34									1.00			
Metals:															
Ferrous (iron/steel)	6.00		140.00	24.00	0.02	0.65			4.00	0.10					0.50
Non-Ferrous (alum/copper/etc.)		0.50	19.00	24.00		0.40			4.00			1.17	0.50		
Other															3.75
Glass:															
Plate															
Containers															
Other	1,560.00														
Plastic:															
HDPE															
PET															
Other	14.60									0.25					
Rubber															
Textiles/Fabric															
Wood:															
Pallets										0.50					
Packing										0.25					
Sawdust/Scrap/Bark															
Stone/Clay/Sand															
Yard Waste															
Food Waste										0.01					
Concrete															
Ash															
Oils/Lubricants															
Sludge	24.00														
Batteries															
Drums															
Dust/Fines															
Ink															
Plaster/Ceramics															
Sand/Slag/Silica															
Non-haz. Chemicals															
Mixed Waste		95.50						2.54							
Othr Compost															
Othr Calcium Hydroxide															
Othr Pottasium Hydroxide															
Othr Electronics															0.20
Othr Light Bulbs															
TOTAL	1,654.60	96.00	161.34	48.00	0.03	1.05	20.80	2.54	8.00	1.81	20.80	2.17	0.50	11.10	3.75

Appendix F-2 (continued)
2010 Industrial Survey Results
Recycling by Industry and Waste Type (Tons per Year)

Industry #	67	69	70	60	71	73	75	76	77	78	79	80	Total
Paper:													
Cardboard						0.60							194.4
Newspaper													0.0
Other							0.02				62.40		131.5
Metals:													
Ferrous (iron/steel)		0.10	1.50		2.37			0.25			1,040.00	391.00	1,732.5
Non-Ferrous (alum/copper/etc.)		0.10	1.50		2.37	0.60		0.05					575.2
Other													3.8
Glass:													
Plate													0.0
Containers													0.0
Other													1,560.0
Plastic:													
HDPE													0.0
PET													0.0
Other						0.60							82.5
Rubber													
													0.0
Textiles/Fabric													
													0.0
Wood:													
Pallets			1.10			11.44							13.0
Packing													0.3
Sawdust/Scrap/Bark													18,000.0
Stone/Clay/Sand													
													0.0
Yard Waste													
													18,000.0
Food Waste													
													0.0
Concrete													
													0.0
Ash													
									407,818.88	640,665.32	271,999.00	195,116.00	1,515,599.2
Oils/Lubricants													
													0.0
Sludge													
													24.0
Batteries													
													0.6
Drums													
													1.4
Dust/Fines													
													0.0
Ink													
													0.0
Plaster/Ceramics													
													0.0
Sand/Slag/Silica													
													0.0
Non-haz. Chemicals													
													0.0
Mixed Waste	13.52				18.70								413.0
Oil Compost													
													0.5
Oil Calcium Hydroxide													
													1,000.0
Oil Potassium Hydroxide													
													0.1
Oil Electronics													
													1.3
Oil Light Bulbs													
													0.6
TOTAL	13.52	0.20	4.10	0.00	23.44	13.24	0.02	0.30	407,818.88	640,665.32	273,101.40	195,507.00	1,557,334.0

Appendix F-3 (continued)

2010 INDUSTRY SURVEY RESULTS: RECYCLING BY SIC

SIC * 31	SIC * 32	SIC * 34	SIC * 35	SIC * 36	SIC * 37	SIC * 38	SIC * 39	SIC *49	Recyclable Categories	Totals
									Appliances	-
			0.01						Food	0.01
	1,560.00								Glass	1,560.03
	6.00	140.00	28.67	0.50	1.60	2.37	0.25	1,431.00	Ferrous Metals	1,732.40
		19.00	30.68	5.42	1.60	2.97	0.05		Non-Ferrous Metals	167.63
	40.56		21.51	31.20		0.60			Corrugated Cardboard	206.21
	24.00	2.34		1.00				62.40	All other paper	131.51
	14.60		0.25			0.60	0.02		Plastics	82.52
									Rubber (including tires)	-
									Textiles	-
									Asphalt/Concrete	-
			0.50		1.10	11.40			Wood	18,013.02
									Yard Waste	18,000.00
								1,515,599.20	Ash	1,515,599.20
									Non-excluded Foundry Sand	-
	24.00								FGD/Sludge	24.00
									Stone/Clay/Sand	-
									Non-hazardous Chemicals (solids)	0.12
									Other (specify)	0.55
									Other (specify)	1,000.00
			0.25						Other (specify)	0.25
		95.50		13.52		18.70			Mixed	175.75
									Various other recyclables	-
									Lead-Acid Batteries	0.61
				0.20					Electronics	1.30
		0.21							used oil	0.68
									Light Bulbs	0.62
									Solvent waste	8.22
									Empty Drums (material not specified)	1.40
									Ink & Absorbant	0.05
									Litho Substrates	548.26
									Litho Plates	5.52
									Cold Foil	73.82
									Litho Film	0.50
-	1,669.16	257.05	81.87	51.84	4.30	36.64	0.32	1,517,092.60	Grand Total	1,557,334.16

40,241.56

Appendix G

Documentation of Provision of Services and Capacity

(Not Required)