

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

This section shows the total amount of waste to be managed by each method (e.g. landfilling, incineration, recycling, etc.) and names of all facilities which will be used. The District has provided contracts, letters of intent, or signed agreements with all facilities used to demonstrate access to sufficient capacity in Appendix G.

A. District Methods for Management of Solid Waste

1. Calculation of Capacity Needs Based Upon Waste Generation.

The flowchart Figure VI-1 was completed by entering the total amount of waste to be managed in the first year of the planning period and then entering the amounts of waste expected to be managed by each method. All information entered here are from reported amounts obtained by surveys.

Figure VI-1. Waste Management Methods Used in the District in 1995

Waste Generated	172 TPD 62,926 TPY
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Source Reduced *	0 TPD 0 TPY
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* No estimates are given for amounts source reduced because none can be verified for 1995.

Net Waste to be Managed	172 TPD 62,926 TPY
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Recycling Processing Capacity Needed 76 TPD 27,720TPY	Transfer Processing Capacity Needed 2 TPD 566 TPY	Yard Waste Composting Capacity 0 TPD 0 TPY
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Incineration Capacity Needed 0 TPD 0 TPY	MSW Composting Capacity Needed 0 TPD 0 TPY	Land Application of Yard Waste Capacity 0 TPD 0 TPY
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Calculated Landfill Capacity Needed	96 TPD 35,206 TPY
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Table VI-1 provides the same information for each year of the planning period.

Explanations and assumptions for Figure VI-1 and Table VI-1:

Column B, "Tons of SW Generated": Totals in this column are as entered in Table IV-6, "Total Waste Generation."

Column C, "Tons Source Reduced": The District has not projected any amounts for source reduction in any of the three tables because of the difficulty in documenting such amounts. The District may claim source reduced tons in the future if documentation is received.

Column D, "Net Tons to be Managed by SWMD:": Entries in this column are derived by subtracting Column C from Column B. Since no entries have been made in Column C, the amounts to be managed are the same as generated in Column B.

Column E, "Recycling:": Entries in this column are the sum of the projected recycling totals from Table VI-5a. Please note that double-counting has not been eliminated in this table.

Column F, "Transfer:": The total for 1995 was taken from Table III-3

Column G, "Yard Waste Composting:": According to the *State Format*, each management method shown in this table should show the total processing capacity needed for receipt of waste. The entries in this column are the sum of the projected amounts of yard waste managed by backyard composting, Class IV Composting facilities, "Don't Bag It" programs, and private service providers. These projections are shown in Table V-7.

Column H, "Yard Waste Land Application:": Entries in this column are taken from Table V-7.

Column I, "Incineration:": Entries in this column are taken from Table V-5.

Column J, "MSW Composting:": No MSW Composting is anticipated in the District.

Column K, "Landfilling:": Entries in this column are not the sum of the preceding tables. The totals for landfill capacity needed for solid waste were derived by subtracting the total amount of waste recycled (Column E), subtracting the total amount waste incinerated (Column I), subtracting the total amount of restricted waste (which is prohibited from disposal in landfills) shown in Table V-6 from the total amount of solid waste to be managed by the District (Column D) and adding back in the batteries and tires recycled in Column E because batteries and tires were subtracted again in the total for restricted wastes.

Calculated Landfill Capacity Needed (Method B)

Calculations of 1995:

	62,926 tons	Total Waste Generated in 1995 (from Table IV-6)
-	0 tons	Source Reduced
-	27,720 tons	Total Recycling Capacity Needed in 1995
-	3,280 tons	Restricted Wastes (from Table V-6)
-	0 tons	Incineration (from Table V-5)
	31,926 tons	Landfill Capacity needed in 1995

The actual landfilling numbers for 1995 and 1996 do not match projected. For explanation of this discrepancy, please see Section 6.A.2.

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

	Tons of SW Generated From Table IV-6	Tons Source Reduced ²	Net Tons to be Managed by SWMD ³	Management Method Used and Processing Capacity Required in TPD and TPY ⁴										
				Recycling ⁵	Transfer	Yard Compositi ng	YW Land Applicati on	Incinerati on	MSW Composting	Landfilling ⁶ Projected	Landfilling ⁷ Calculated	Landfilling ⁸ EPA Comments	Landfilling ⁸ EPA Website GenSW@Celina	
				1995	62,926	0	62,926	27,720	560	0	0	0	0	18,360
1996	63,345	1,494	61,851	29,736	560	0	0	0	0	19,207	28,853	25,580	xxx	
1997	63,350	1,997	61,353	31,693	560	0	0	0	0	26,376	26,416	29,619	22,851	
1998	63,354	2,505	60,849	33,651	560	0	0	0	0	23,932	23,972	30,311	xxx	
1999	63,359	3,004	60,355	35,605	560	0	0	0	0	21,502	21,542	33,217	27,824	
2000	63,363	3,083	60,280	35,704	560	0	0	0	0	21,347	21,387	31,336	xxx	
2001	63,973	3,177	60,796	35,866	560	0	0	0	0	21,641	21,681	33,141	20,866	
2002	63,952	3,275	60,677	36,030	560	0	0	0	0	21,379	21,420	xxx	xxx	
2003	63,977	3,381	60,596	36,227	560	0	0	0	0	21,123	21,164	xxx	xxx	
2004	63,910	3,476	60,434	36,362	560	0	0	0	0	20,848	20,889	xxx	xxx	
2005	63,892	3,583	60,309	36,434	560	0	0	0	0	20,674	20,715	xxx	xxx	
2006	63,871	3,611	60,260	36,717	560	0	0	0	0	20,363	20,405	xxx	xxx	
2007	63,870	3,647	60,223	37,033	560	0	0	0	0	20,031	20,073	xxx	xxx	
2008	63,852	3,684	60,168	37,354	560	0	0	0	0	19,678	19,720	xxx	xxx	
2009	63,834	3,720	60,113	37,677	560	0	0	0	0	19,322	19,364	xxx	xxx	
2010	63,816	3,758	60,059	38,004	560	0	0	0	0	18,962	19,005	xxx	xxx	
2011	63,800	3,795	60,004	38,334	560	0	0	0	0	18,599	18,642	xxx	xxx	
2012	63,783	3,833	59,950	38,667	560	0	0	0	0	18,234	18,277	xxx	xxx	
2013	63,768	3,871	59,896	39,004	560	0	0	0	0	17,865	17,908	xxx	xxx	
2014	63,753	3,910	59,842	39,343	560	0	0	0	0	17,493	17,537	xxx	xxx	
2015	63,738	3,949	59,789	39,686	560	0	0	0	0	17,118	17,162	xxx	xxx	
2016	63,724	3,989	59,735	40,032	560	0	0	0	0	16,740	16,784	xxx	xxx	
2017	63,710	4,029	59,682	40,382	560	0	0	0	0	16,359	16,403	xxx	xxx	
2018	63,697	4,069	59,628	40,735	560	0	0	0	0	15,974	16,018	xxx	xxx	
2019	63,685	4,110	59,575	41,092	560	0	0	0	0	15,586	15,630	xxx	xxx	
2020	63,673	4,151	59,522	41,451	560	0	0	0	0	15,194	15,239	xxx	xxx	

1 This amount is consistent with the "Total Waste Generated" found in Table IV-6.

2 The "Tons Source Reduced" is the sum source reduced in Tables V-3 and V-4.

3 The "Net Tons to be Managed by SWMD" is the difference between the "Tons of SW Generated" and the "Tons Source Reduced". Please note that the "Tons of SW Generated" has not been already decreased by subtracting the "Tons Source Reduced".

4 The sum of the tons shown under each management method for a given year is not necessarily equal to the "Net Tons to be Managed by the SWMD". For example, a major portion of the waste going through a transfer station will also be added to the total for landfill capacity needs. In addition, each management method shows the total processing capacity needed for receipt of wastes. ("YW Land Application" is yard waste land application.)

- 5 Totals as show in Table VI-5a. Please note that double-counting has not been eliminated in this column.
- 6 Totals in this column are the sums as shown in Table VI-2 and VI-3. The Total for disposal (landfilling) does not necessarily the total of Generation-Source Reduction. Landfilling for years 1995 and 1996 are actual landfilling totals as reported by facilities Subsequent years are theoretical generation-waste reduction and recycling-restricted wastes
- 7 Calculated Disposal = Projected generation – Projected reductions – Projected Restricted wastes
- 8 EPA comments on Disposal – Sept 2003
- 9 EPA website, Facility Data Reports – General Solid Waste from Mercer County reported to be disposed in Celina Landfill

**Table VI-2.
Summary for Residential/Commercial Waste**

		Source	Incineration ⁴	MSW	Landfilling ⁵	Ash Disposal ⁵
		Reduction		Composting ⁴		
		& Recycling ³				
1995	24,606	4,473	0	0	15,528	0
1996	24,618	6,991	0	0	16,375	0
1997	24,630	8,532	0	0	12,854	0
1998	24,643	10,078	0	0	11,339	0
1999	24,655	11,611	0	0	9,836	0
2000	24,667	11,795	0	0	9,683	0
2001	25,283	12,056	0	0	9,979	0
2002	25,268	12,321	0	0	9,720	0
2003	25,253	12,597	0	0	9,451	0
2004	25,237	12,863	0	0	9,192	0
2005	25,222	13,044	0	0	9,018	0
2006	25,207	13,359	0	0	8,709	0
2007	25,191	13,493	0	0	8,583	0
2008	25,176	13,628	0	0	8,454	0
2009	25,161	13,764	0	0	8,325	0
2010	25,145	13,901	0	0	8,194	0
2011	25,130	14,040	0	0	8,061	0
2012	25,115	14,181	0	0	7,928	0
2013	25,099	14,323	0	0	7,792	0
2014	25,084	14,466	0	0	7,656	0
2015	25,069	14,611	0	0	7,518	0
2016	25,054	14,757	0	0	7,378	0
2017	25,038	14,904	0	0	7,237	0
2018	25,023	15,053	0	0	7,095	0
2019	25,008	15,204	0	0	6,951	0
2020	24,993	15,356	0	0	6,805	0

1 The values as shown in Table IV-6 are used.

2 The sum of the tons shown under each management method for a given year will not necessarily be equal to the "Tons Generated."

3 "Grand Totals" as shown in Table V-3 and V-7 are used. Table V-3 includes totals for tires and lead acid battery recycling also shown in Table V-7.

4 The values developed in Section V.D. are used.

5 The totals for landfilling were obtained by subtracting the residential recycling totals in Table V-3, the restricted waste streams as shown in Table V-6, and the tons incinerated from

the total tons generated in Table IV-6.. For years 1995 and 1996, actual landfilling totals minus known industrial landfilling were used.
Sample Calculation:

Table VI-3: Summary for Industrial Waste

Year	Tons Generated	Management Method in TPY ²				
		Source Reduction & Recycling	Incineration ⁴	MSW Composting	Exempt Waste Not Disposed in MSW LF	Landfilling ⁵
1995	38,281	23,247	0	0	0	2,832
1996	38,688	24,239	0	0	0	2,832
1997	38,680	25,158	0	0	0	13,522
1998	38,671	26,078	0	0	0	12,593
1999	38,664	26,998	0	0	0	11,666
2000	38,656	26,992	0	0	0	11,664
2001	38,649	26,987	0	0	0	11,662
2002	38,643	26,984	0	0	0	11,659
2003	38,683	27,011	0	0	0	11,672
2004	38,631	26,975	0	0	0	11,656
2005	38,629	26,973	0	0	0	11,656
2006	38,623	26,969	0	0	0	11,654
2007	38,637	27,188	0	0	0	11,449
2008	38,634	27,410	0	0	0	11,224
2009	38,631	27,634	0	0	0	10,997
2010	38,629	27,860	0	0	0	10,768
2011	38,627	28,089	0	0	0	10,538
2012	38,626	28,320	0	0	0	10,306
2013	38,625	28,552	0	0	0	10,073
2014	38,625	28,788	0	0	0	9,837
2015	38,625	29,025	0	0	0	9,601
2016	38,626	29,265	0	0	0	9,362
2017	38,628	29,507	0	0	0	9,121
2018	38,630	29,751	0	0	0	8,879
2019	38,632	29,997	0	0	0	8,635
2020	38,635	30,246	0	0	0	8,389

- 1 The values as shown in Table IV-6 are used.
- 2 **The sum of the tons shown under each management method for a given year will not necessarily be equal to the "Tons Generated."**
- 3 The "Grand Totals" as shown in Table V-4 are used.
- 4 The values developed in Section V.D. are used.
- 5 Tons landfilling = Tons Generated - Tons Source Reduced & Recycling - Tons Incineration - Exempt Waste not disposed in MSW Landfill. For 1995 and 1996, known industrial landfilling numbers (found in Appendix F) were used.
Sample Calculation:
Assumptions:

2. Capacity Needs Comparison - Historical Trends

For those years in Table VI-1 using reported amounts (1991-1996) processed by each management method, the reported amounts are not necessarily consistent with the amount which would be calculated based upon waste generation projections. In many cases (as it is here), calculating processing needs based upon waste generation projections results in higher amounts than the actual reported quantities. Many factors contribute to this differential. The District believes it is a combination of many factors, including:

- inflated generation numbers;
- reporting errors on surveys conducted by the District;
- non-response by some entities surveyed by the District;
- difficulty in accurately tracking all District waste flows, especially those to adjacent states;
- Misreporting of waste disposal;
- illegal or open dumping; and
- a combination of all of the above.

In tables VI-1, VI-2, VI-3, the numbers for landfilling do not reflect the historic landfilling numbers as reported by Ohio EPA in the Facility Data Reports. Actual landfilling is as follows:

Historic Landfilling 1996:
According to EPA comments
Total 25,580

Historic Landfilling 1995:
According to EPA comments
Total 23,126

Projected Landfilling 1996:
Total 19,207

Projected Landfilling 1995:
Total 18,360

The discrepancy for 1995 projected disposal and reported disposal is 4,766 tons (20%). The discrepancy for 1996 projected disposal and reported disposal is 6,733 tons (25%). To find a solution to this discrepancy, the District intends to improve data collection efforts, working with the representatives of the solid waste industry operating in Mercer County and with the disposal facilities who accept Mercer County waste to better track the District's waste flows.

However, it is important to note that the numbers converge in the later years of the planning cycle and are nearly identical in the years 1997 through 2020.

**Table VI-4.
Processing Capacity Needs
Based Upon Historical Trends**

Year ¹	Management Method Used and Processing Capacity Required in TPY ²						
	Recycling	Transfer	Yard Waste Composting	YW Land Appl.	Incineration	MSW Com- posting	Landfilling
	1989						
1990							
1991							
1992	5,415						17,197
1993			0	0	0	0	20,596
1994	7,184		0	0	0	0	6,174
1995	27,720		0	0	0	0	18,360
1996	29,736		0	0	0	0	19,207
1997	31,693		0	0	0	0	26,376
1998	33,651		0	0	0	0	23,932
1999	35,605		0	0	0	0	21,502
2000	35,704		0	0	0	0	21,347
2001	35,866		0	0	0	0	21,641
2002	36,030		0	0	0	0	21,379
2003	36,227		0	0	0	0	21,123
2004	36,362		0	0	0	0	20,848
2005	36,434		0	0	0	0	20,674
2006	36,717		0	0	0	0	20,363
2007	37,033		0	0	0	0	20,031
2008	37,354		0	0	0	0	19,678
2009	37,677		0	0	0	0	19,322
2010	38,004		0	0	0	0	18,962
2011	38,334		0	0	0	0	18,599
2012	38,667		0	0	0	0	18,234
2013	39,004		0	0	0	0	17,865
2014	39,343		0	0	0	0	17,493
2015	39,686		0	0	0	0	17,118
2016	40,032		0	0	0	0	16,740
2017	40,382		0	0	0	0	16,359
2018	40,735		0	0	0	0	15,974
2019	41,092		0	0	0	0	15,586
2020	41,451		0	0	0	0	15,194

1 Processing capacity required for the reference and years prior to the baseline are reported values from the previous approved District Plan, District surveys, and/or the annual District report. Amounts to be processed in years beyond the referenced year have been estimated with consideration of historical trends and other pertinent information available to the District.

2 Totals in the Landfilling column for 1997-2006 estimated by adding projected landfill totals in Table VI-2 and Table VI-3.

3 The totals for landfilled tons for 1993, 1994, 1995 and 1996 are as reported by the facilities to the OEPA. From 1997 on, the totals represent what capacity would be needed if all waste were subject to collection and legal disposal.

Sample Calculation:

Assumptions:

B. Demonstration of Access to Capacity

The names of the facilities, the processing capacity (if known), and the amount of waste from the District to be accepted for each year of the planning period have been entered in Table VI-5f.

Appendix G has a copy of the agreement with the local landfill. The capacity agreement (in which the landfill has agreed to take all of Mercer County's waste) is effect. With two to three (2-3) years of capacity left, and active intention to pursue an immediate expansion, the local landfill should have more than enough capacity to take all of the District's waste throughout the planning period.

In the agreement, there are provisions that the Allied Landfill facility in Bellefontaine agrees to make the facility available for disposal of all solid waste generated in the Mercer County District should anything happen to cease operations at the local landfill. However, since the Bellefontaine Landfill is also in possession of permits that will allow less than 5 years of capacity, the operators are also pursuing an expansion permit, necessitating a second tier of contingency.

Also in the agreement, there are provisions that the Allied Landfill facility in Wyandot County agrees to make the facility available for disposal of all solid waste generated in the Mercer County District should anything happen to cease operations at the local landfill. Allied's Wyandot County facility has more capacity than the Mercer County District is concerned with at this time.

In the unlikely event that waste must be temporarily or permanently exported from the Mercer County Solid Waste District, Allied has agreed to make transfer arrangements at market rates for exporting waste.

Table VI-5a. Waste Management Method: Source Reduction and Recycling

Facilities Used by District:	Tons of SW Managed by Each Facility																									
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District-Contracted Recycling	1,006	1,308	1,661	2,009	2,364	2,400	2,458	2,511	2,570	2,624	2,685	2,708	2,735	2,762	2,790	2,818	2,846	2,875	2,903	2,932	2,962	2,991	3,021	3,051	3,082	3,113
Private Operations	3,467	4,188	4,874	5,565	6,243	6,312	6,421	6,535	6,646	6,763	6,776	7,040	7,110	7,182	7,253	7,326	7,399	7,473	7,548	7,623	7,700	7,777	7,854	7,933	8,012	8,092
Variable Rate Disposal (Reduction)	0	1,494	1,997	2,505	3,004	3,083	3,177	3,275	3,381	3,476	3,583	3,611	3,647	3,684	3,720	3,758	3,795	3,833	3,871	3,910	3,949	3,989	4,029	4,069	4,110	4,151
Tire Recycling	12	103	194	286	377	382	389	396	404	411	414	427	428	430	431	433	435	436	438	439	441	442	444	445	447	448
Batteries	27	62	95	131	168	170	173	176	179	183	184	190	191	191	192	193	193	194	195	195	196	197	197	198	199	200
Industrial Recycling	23,247	24,239	25,158	26,078	26,998	26,992	26,987	26,984	27,011	26,975	26,973	26,969	27,188	27,410	27,634	27,860	28,089	28,320	28,552	28,788	29,025	29,265	29,507	29,751	29,997	30,246
Totals	27,759	31,394	33,979	36,574	39,154	39,339	39,605	39,877	40,191	40,432	40,615	40,945	41,300	41,659	42,021	42,388	42,757	43,130	43,507	43,888	44,272	44,660	45,052	45,447	45,847	46,250

Double-counting has not been eliminated in Table VI-5a.

Table VI-5b. Waste Management Method: Transfer

Facilities Used by District: Name and Location	Tons of SW Managed by Each Facility																									
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Greenville TF	540.2	540.2	540.2	540.2	540.2	540.2	540.2	540.2	540.2	540.2	540.2	540.2	545.61	551.07	556.58	562.14	567.77	573.44	579.18	584.97	590.82	596.73	602.70	608.72	614.81	620.96
Van Wert Co. TF	16.44	16.44	16.44	16.44	16.44	16.44	16.44	16.44	16.44	16.44	16.44	16.44	16.60	16.77	16.94	17.11	17.28	17.45	17.63	17.80	17.98	18.16	18.34	18.53	18.71	18.90
WMI - Lima TF	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.91	2.94	2.97	3.00	3.03	3.06	3.09	3.12	3.15	3.18	3.21	3.25	3.28	3.31
Totals	559.5	559.5	559.5	559.5	559.5	559.5	559.5	559.5	559.5	559.5	559.5	559.5	565.13	570.78	576.48	582.25	588.07	593.95	599.89	605.89	611.95	618.07	624.25	630.49	636.80	643.17

Table VI-5c. Waste Management Method: Yard Waste Composting

Facilities Used by District:	Processing Capacity	TABLE 6-C																									
		Tons of SW Managed by Each Facility																									
Name and Location		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Backyard Composting*																											
Don't Bag It Program*																											
Private Service Providers*																											
Class IV Sites*																											
Totals																											

* No information is available of these programs.

Table VI-5d. Waste Management Method: Yard Waste Land Application

Facilities Used by District:	TABLE 6-D																										
Name and Location	Processing	Tons of SW Managed by Each Facility																									
	Capacity																										
	(TPD)																										
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Land Application		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table VI-5e. Waste Management Method: Incineration

Facilities Used by District:	TABLE 6-E																										
Name and Location	Processing	Tons of SW Managed by Each Facility																									
	Capacity																										
	(TPD)																										
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
None Reported																											

in which the average resident is disposing of less than 1 (~0.93) pound per person per day, a figure significantly below what would be predicted if using the national average.

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

The schedules for new facilities, expansions, and closures for all facilities to be used by the District are to be included in Table VI-6. The schedules for all programs to be implemented by the District, or on behalf of the District, are also listed.

D. Identification of Facilities

In accordance with ORC Section 3734.53(A)(12)(a), "...when applicable...", the district plan shall contain "...an identification of the solid waste disposal, transfer, and resource recovery facilities and recycling activities contained in the plan where solid wastes generated within or transported into the district will be taken for disposal, transfer, resource recovery, or recycling..." Identification is being incorporated into Table VI-6. This section is considered a part of the implementation schedule required in accordance with ORC Section 3734.53 (A)(12).

Table VI-6. Implementation Schedule for Facilities and Programs, and Identification of Facilities: Dates and Description

Facility Name or Program	Location (SWMD, County, City/Township)	Description of Program/Facility ¹	Approx. Date When the Following Will Take Place:		
			PTI Submittal	Construction Initiated	Operations Begin/Cease
FACILITIES: EXISTING					
Allied Waste Systems (Mercer County) Landfill	Celina, Ohio	Landfill expansion	11/30/04	2005	2006-2026
Mercer County Recycling	Celina, Ohio	Recycling Center	CLOSED	NA	NA
Ohio Recycling	Coldwater, Ohio	BuyBack Center	NA	NA	NA
City of St. Mary's Landfill	St. Mary's, Ohio	Landfill	CLOSED	NA	NA
LWS Logan County (Cherokee Run)	Bellefontaine, Ohio	Landfill	8/31/04	2007	2007-2032
AWS Mahoning Landfill	Mahoning County	Landfill	NA	NA	NA
WMI Stoney Hollow Landfill	Montgomery County	Landfill	NA	NA	NA
AWS American Tire Monofill	Stark County	Tire Monofill	NA	NA	NA
FACILITIES: NEW					

Materials Processing Facility (see Section 5)	Mercer County	Proposed Alternative Recycling Facility	NA	UNK	UNK
Drop-off Centers (see Section 5)	Mercer County	Proposed Alternative Recycling Stations	NA	NA	2006
PROGRAMS/ACTIVITIES: EXISTING					
Plan Amendment	District-wide	Plan Update, to reflect the success or failure of the programs in this plan, as well as to document the status of planned landfill capacity and funding.	NA	NA	"draft plan update submitted to Ohio EPA by the third year anniversary of plan approval; ratified plan update submitted to Ohio EPA within 4 years and 3 months of plan approval. "
City of Celina Curbside Program	City of Celina	Curbside PAYT	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	Coldwater Village	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	Rockford Village	NA	NA	
Encourage other curbside recycling programs	Villages	Montezuma Village	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	Ft. Recovery Village	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	Burkettsville Village	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	St. Henry Village	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	Chickasaw Village	NA	NA	
Encourage other curbside recycling programs	Villages	Ft. Recovery Village	NA	NA	Ongoing
Encourage other curbside recycling programs	Villages	Mendon Village (not franchised, but only one hauler – fixed rates and bag rates are available)	NA	NA	Private subscription
Health Department assistance	Mercer County	Monitoring and Enforcement Assistance Funds	NA	NA	Ongoing
Other Local Assistance	Mercer County	Funding for Road repair relating to waste facilities	NA	NA	Ongoing
Household Hazardous Waste	District Wide	The Board of Directors will only undertake HHW programs to the extent and in the manner which is consistent with industry practices, and complies with all regulatory and statutory requirements; and as funds are available.	N/A	N/A	Begins-1998 Ends – 2006 (transitions to revised program, described in New Programs, below)
Education and awareness programs	District Wide	Provide technical assistance, pamphlet information, targeted	N/A	N/A	Ongoing

		workshops, and a District wide mailing.			
Education and awareness programs	District Wide	Hire / contract PT educator	NA	NA	Ongoing
Education and awareness programs	District Wide	District mailing	NA	NA	Annually
Education and awareness programs	District Wide	School Programs	NA	NA	Ongoing
Education and awareness programs	District Wide	Workshops – civic groups, teachers, public officials	NA	NA	2007
Recycling	District Wide	Recycling is ongoing, a situation made possible by the “Bag System”, a self-sustaining method of recycling.	N/A	N/A	1993
Other Yard Waste Management, Minimization	District Wide	Promotion of “Don’t Bag It” programs and educational information on how to safely re-use grass clippings will be the main emphasis.	N/A	N/A	Ongoing
Other Yard Waste Management, Minimization	District Wide	Information development, distribution, workshops and training	N/A	N/A	As staff time permits and funds are available
Other Yard Waste Management, Minimization	District Wide	Cash awards	N/A	N/A	As funds are available
Composting	District Wide	The City of Celina has a composting facility available to Celina residents. Other programs, though intermittent, have been available. Yard waste composting facilities in the District have historically not lasted long, but as they come into being the District will promote their use.	N/A	N/A	Ongoing
Recycling and Reduction Programs, Residential	District Wide	District has in place a “bag system” that is supported by all local waste haulers operating in the District. This program will continue.	N/A	N/A	Ongoing
PROGRAMS/ACTIVITIES: NEW					
Special Grants Program	District Wide	A program to increase the viability of private and /or local programs but offering funding assistance for start-up costs with marginal economics	NA	NA	2005
Plan Monitoring, legal review and Assistance	District Wide	In addition to all normal functions, this new activity will provide specialized assistance available to local	NA	NA	2006

HHW collection: Seasonal High-volume/ Low-toxicity Periodic One-Day Low-volume/High Toxicity	Mercer County	governments A lower-cost program to increase the availability of service for products with constant management needs; and less frequent collection of less prevalent, but higher toxicity materials	NA	NA	Begins 2007, replacing single-type of collection event
Commercial and Institutional Recycling Program	Mercer County	Coordinate and organize businesses and institutions to pay user fees (approximately) equal to the costs of providing the recycling services. The District will organize willing customers and purchase services from private haulers.	NA	NA	2006
Industrial Recycling and Reduction Programs	District Wide	Continuation of industry specific recycling programs, using a voluntary approach to recycling. Including, but not be limited, mailings, informational workshops and seminars, and general promotional material; and waste exchanges.	N/A	N/A	1998
Recycling and Reduction Programs, Commercial	District Wide	Coupled with awareness and education, the ORWM will promote office paper recycling programs, help commercial businesses implement voluntary recycling programs, institute recycling programs in all county offices, and actively promote/assist in the implementation of similar programs at all other public offices in the District.	N/A	N/A	1998
Waste Tire Management Strategies	District Wide	Education and awareness efforts aimed at education the public about proper reuse and disposal, along with increasing opportunities for in-District tire recycling.	N/A	N/A	1998
Waste Tire Management	District-wide	User-fee contract	NA	NA	2005
Lead-acid battery/ Used Oil recycling	District-wide	Compile list of locations and advertise	NA	NA	2005
Informational networking	District Office	Providing a hub for informational exchange	NA	NA	Tentative 2006
Exchange program for HHW	Mercer County	Coordinating the exchange of HHW	NA	NA	Tentative 2007

		among civic groups			

1 Describe the type of program or facility to be implemented. For example, if a facility is to be constructed, indicate whether this is a landfill, incinerator, yard waste composting facility, etc. If it is a program to be implemented, indicate if it is an education, drop-off recycling, household hazardous waste program, etc. Include those strategies which are shown in Tables V-3 and V-4.

Note: This table is considered a part of the implementation schedule required in accordance with ORC Section 3734.53(A)(12).

Figure VI-2.	Plan Implémentation Time Line.
Household Hazardous Waste	1998
Residential Recycling and Reduction Programs	Ongoing
Industrial Recycling and Reduction Programs	1998
Commercial Recycling and Reduction Programs	1998
Waste Tire Management Strategies	1998

E. Authorization Statement to Designate

According to the *State Format*, the Plan must "...contain a clear statement as to whether the Board of County Commissioners or directors is authorized to or precluded from establishing facility designations under Section 343.014 of the Revised Code..." (Section 3734.53(E)(1) of the ORC).

In keeping with that Section of the Code, the Board of Directors of the Mercer County Solid Waste Management District is hereby precluded from establishing facility designations in accordance with Section 343.014 of the ORC.

F. Waiver Process for Undesignated Facilities

If the district includes a statement in the plan which authorizes designation of facilities, the district should also develop procedures for issuing a waiver to allow solid waste to flow to undesignated facilities. Since the District is precluded from establishing facility designations with the above statement, this part of Section VI is not applicable.

G. Siting Strategy for Facilities

The Mercer County Solid Waste Management Plan includes a detailed strategy for siting a yard waste composting facility. Strategies for siting a transfer station and a landfill are included for District reference to site these solid waste facilities. These strategies may be used by the District to site facilities or review the sites that other private entities are considering to develop. To facilitate the siting of these facilities the Ohio EPA recommends the creation of a Siting Evaluation Committee (SEC) by this Solid Waste Management District specifically for siting evaluations. The SEC will initiate, conduct, and evaluate preliminary surveys to aid in the selection of suitable sites for these solid waste facilities. Approval authority remains with the Board of County Commissioners. To encourage public involvement, the SEC should include members of the community. The SEC minimally should be composed of county officials and members of the general public from the county, representatives from appropriate regional planning commissions, representatives from appropriate political jurisdictions, a geologist, a qualified solid waste scientist and an ecologist.

Within the Mercer County Solid Waste Management District there are sufficient sites suitable for the siting of the required solid waste facilities as determined in this Plan. However, the District does contain certain areas that must be carefully considered when siting these facilities. Some of these areas of special concern are described below.

1. Background Information for Siting Solid Waste Facilities

Mercer County is located in the Indiana and Ohio Till Plain section of the Central Lowlands physiographic province. Terrain in the County ranges from nearly level and gently sloping with major changes in relief evident only along streams and glacial moraines. The terrain of the southern third of the county is characterized by stronger relief

with gently sloping to sloping topography. The St. John's and Mississinewa moraines dominate the relief in this portion of the county. In south central and southeastern Mercer county a sizable lacustrine area was formed in a large depression during glacial melting. Sediments washed from the surrounding uplands eventually filled this depression. The local geology of Mercer County was heavily influenced by glacial events. The entire county is covered with glacial drift in the form of moraines and eskers. Four large end moraines cross the county in a generally east-west pattern: Fort Wayne, Wabash, St. John's, and the Mississinewa. Glacial drift averages 35 feet in depth, although depths of over 140 feet may be found in former stream valleys. Bedrock under this drift is limestone, primarily of the Niagara Formation of the Silurian Age. The northeast corner of the county is underlain by limestone of the Monroe Formation.

Mercer County, like most of southwest and west central Ohio, falls within the moderate damage zone of the general seismic risk map published by the US Geological Survey. Moderate damage means toppled chimneys and cracking windows and masonry structures. Mercer experienced one earthquake in 1977, with an intensity of about 4 or 5 on the Richter scale. This intensity is enough to be felt and to disturb dishes, but not intense enough to inflict major damage. Eastern Mercer County is near a seismically active area in Auglaize and Shelby counties.

In 1988, the primary mineral resource being extracted in Mercer County was crushed limestone. These quarries are located in central Mercer County. Most of this stone is sold for use in building, road base, and resurfacing.

Groundwater in Mercer County is found primarily in limestone aquifers and unconsolidated aquifers in glacial till in buried valleys. Where glacial drift is thin or lacks substantial lenses of sand or gravel, yields of over 100 gallons per minute (gpm) are primarily obtained from consolidated aquifers in the underlying limestone. However, where the glacial drift is thick or contains thick lenses of sand or gravel, yields of over 100 gpm from these unconsolidated aquifers are possible. Of particular concern is the presence of a buried valley, an ancient valley of the former Teays River system, which was filled with glacial drift. Unconsolidated aquifers in these buried valleys are capable of yielding several hundred gallons per minute. Furthermore, this particular buried valley system is an extension of an aquifer which has been designated as a Sole Source Aquifer, a federal designation which provides certain protections to the quality of water in this aquifer.

Most of the population of Mercer County is concentrated in Celina, the County seat, at a population of 12,983 according to the 1990 Census. Coldwater, St. Henry, and Chickasaw are other population centers. The remainder of the County is rural agricultural land. The estimate population for Mercer County in 1990 was 39,400 (*Ohio Data Users Center Population Projections, Ohio and Counties by Age and Sex: 1990 to 2015*, January 1993).

The Lakefield Airport is located just south of the Grand Lake St. Mary's and southeast of Montezuma at 6177 St. Rt. 219 on the east side of Mercer County.

Mercer County has no State or US Wild or Scenic Rivers. However, the County does

contain the Grand Lake St. Mary's State Park and the associated Mercer Waterfowl Management Area. The St. Mary's River runs across the north side of the county, and the Wabash River cuts across the southwestern corner of the county.

There are many issues that must be considered when siting solid waste facilities. These issues include environmental constraints, regulatory agency requirements, public opinion, transportation access and financial costs. A siting strategy is presented in this Plan to aid officials and the SEC in selecting the most suitable landfill, composting, and transfer stations sites in their jurisdiction.

2. Data Collection, Analysis, and Management

The selection of the most suitable sites begins with data collection, either from existing information sources or by actual sampling. After the data is collected it must be evaluated. Evaluation of the data can be simplified by using graphics, maps, and computerized data management systems collectively known as Geographical Information Systems (GIS) programs. Areas in the District that are unsuitable for siting solid waste facilities may be color coded and graphically depicted in overlays on a base map of the jurisdictional District. The resultant map reveals a composite of environmental constraints for the Mercer County Solid Waste Management District. Recording the data on this base map will help visualize the most suitable sites available in the District.

Computerized mapping systems (GIS) will provide an effective analytical tool to evaluate geographic data. Spatial and ranking criteria can be easily updated and manipulated to reflect additional environmental data, evolving concerns and considerations, and the subsequent changes in the weighing and ranking of environmental constraints and criteria.

Much of the information required to evaluate the suitability of a site is available through local governments and state agencies, such as regional planning commissions, city/county governments, ODNR, OEPA, and the Ohio Historic Preservation Office.

Information regarding local historic resources and natural landmarks may be obtained from the Ohio Historical Society in Columbus, Ohio (614) 297-2470.

Information regarding ground water resources/flood plains may be obtained from the Ohio Department of Natural Resources Division of Water in Columbus, Ohio (614-265-6739) and (614-265-6752, respectively). Maps delineating the extent of regulatory flood plains may be obtained from the Federal Emergency Management Agency in Baltimore, Maryland (1-800-336-1363).

Information regarding areas of State Interest may be obtained from the Ohio Department of Natural Resources in Columbus, Ohio. The ODNR Division of Natural Areas and Preserves administers the Natural Heritage Data Services (614-265-6453) and the State Scenic Rivers Program (614-265-6453). Whereas, the ODNR Division of Outdoor Recreation Services (614-265-6395) and the Division of Parks and Recreation (614-265-6561) should be contacted for information regarding local/State parks and

reserves.

The Regional Office of the National Park Service in Omaha, Nebraska (404-221-3448) should be contacted for information regarding areas of National Interest located within the District.

Demographic information for the District may be obtained from the Mercer County Commission in Celina, Ohio.

3. **Siting Constraints.**

Areas unsuitable for solid waste facility sites are the areas where a facility "MUST NOT" be sited due to environmental constraints. AN ABSOLUTE CRITERIA (ACL) list is provided for each of the solid waste facilities discussed in Sections 8(a-c). The ACL includes a list of areas which must be strictly avoided while siting a solid waste facility. The ACL is descriptive of the siting regulations established by the OEPA and is subject to revision from time to time as OEPA revises the regulations. The SEC will evaluate potential sites for District facilities or review potential sites proposed by a private entity against the constraints listed in the ACL. If the SEC determines that the proposed site may not be suitable because it is not consistent with the ACL or that the proposed mitigations may not be adequate, the SEC may adjourn or postpone the evaluation, pending OEPA guidance on waivers. Further, the SEC may deem that the proposed site's unsuitability or the inadequacy of mitigation plans are only minor. In this case, the SEC may decide to continue the review process and proceed to evaluate the site against the RCL. This approach may result in the District issuing a conditional approval pending OEPA PTI approval. Selecting a solid waste facility site in any of the areas in the ACL list may result in a denied PTI application. If a facility must be sited in areas included in the ACL list, a waiver *must* be obtained from the OEPA prior to submitting the PTI application or an appropriate mitigation plan must be prepared and included in the PTI application. Waivers are usually issued when adequate remediation or mitigation plans according to the PTI.

The ACL list eliminates certain areas in the Mercer County Solid Waste Management District. Other criteria should be applied to sites from the remaining areas. These factors are compiled as another list which is designated as the Relative Criteria List. This list is generated to assist ranking, weighing, evaluation and the ultimate selection for the most suitable sites for solid waste facilities in the Mercer County Solid Waste District.

When the SEC is satisfied that the ACL criteria are adequately satisfied, the SEC will review the site according to the criteria established in the RCL. Each potential site considered in the siting analysis must be evaluated against the RCL as to its suitability for siting a facility. Each criteria will be given a numerical designation, or weight. The assignment of the weight will reflect the relative importance of any one issue in decision making. The sum of all weights should equal one.

In addition, each criteria in the RCL is assigned a range of values or a scale. Each scale will

reflect the level of acceptability (with respect to this issue) which characterized specific sites. The details of this ranking scheme are described in detail below.

After each candidate site is evaluated against the RCL and assigned an appropriately weighted rank for each item in the RCL, the sum of all of the weighted ranks for the candidate site is determined. Those sites with the highest sum are the most suitable sites for the proposed facility. General areas of consideration addressed in the Ranking Criteria List entail issues of geology, areas of special value, local water resources, appropriateness, local demographics and land uses, and accessibility.

4. Ranking Scheme.

A ranking scheme that assigns a numerical designation to the suitability of a candidate site provides a quantitative method of evaluation and a decision making tool. Such a tool will aid the SEC in recommending to the Board of Commissioners the most suitable site available in the District or in evaluating a proposed site by another independent entity. This quantitative method provides for an objective and reproducible evaluation of subjective values that play an integral part in the site selection process. Since any evaluation of subjective criteria is necessarily time, location and participant dependent, a primary responsibility of the SEC will be to meet within six months of Plan ratification to develop the ranking scheme. Thereafter, the SEC will meet not less once a year to review, revise and amend the ranking scheme as appropriate. The SEC may want to engage the services of solid waste experts to advise in the development of specific ranking and weighing values for the siting study. When relevant criteria and rankings are established from time-to-time, a "trial run" will determine a minimum acceptable site score for any siting effort which, as revised from time-to-time to reflect periodic revisions and amendment to the ranking scheme, is to be used by the Board of County Commissioners in the siting of any District facility and the review of the general plans and specifications for construction, enlargement or modification of any type of solid waste transfer, disposal, recycling or resource recovery facility by any other person or entity for which a site ranking scheme is provided in this Plan as a consideration in determining whether those general plans and specifications comply with the Plan.

The quantitative evaluation method used by the SEC should be easily understood and replicable so that persons other than the SEC and technical experts can perform the method and arrive at the same conclusions. The method also should be performed in a reasonable amount of time.

There are two steps in developing the RCL ranking scheme. The first step is to weight each criteria according to its relative importance to decision makers in the decision process. The second step is to develop a range of values that each criteria may be assigned for any feature of concern. The combined values and weights for all criteria will be used to compare sites of interest.

One possible technique for assigning weights and value ranges to each criteria is the Delphi method. The Delphi method is a simulation or gaming approach which is effective for eliciting quantitative values from participant's subjective values, goals and interpretations.

The method is also effective for quantifying many types of qualitative data. A Delphi session can be conducted at the first SEC meeting and can be completed in a few hours time. A moderator conducts the session with the help of a secretary and an administrative aid.

During a Delphi session, the moderator at first may outline some of the technical or other critical aspects of each criteria or issue. Thereafter, participants may initiate questions or discussions within a specified time limit. Each participant must assign a value within the approved range to each issue in question before time is called. In brief, the session is conducted through a series of the above "rounds" where each participant is required to assign a value to each criteria or issue in question during each round.

A ranking scheme that assigns a numerical designation to the suitability of a candidate site provides a quantitative method of evaluation and a decision making tool. Such a tool will aid the SEC in selecting the most suitable site available in the District or in evaluating a proposed site by another independent entity. This quantitative method provides for an objective and reproducible evaluation of subjective values that play an integral part in the site selection process.

As discussed, the first step in developing the quantitative method requires that the items on the RCL be weighted according to their relative importance in the decision making process. Each item on the RCL will be assigned a decimal value that reflects its proportional value in the decision making process. For example, a decimal value of 0.50 may be assigned to the central location criteria if the District feels strongly that a sanitary landfill should centrally located within 10 miles of a major population center and that *fifty* percent of their final decision will be predicated upon this item. If the second most important criteria for siting is its location within 500 feet of a major thoroughfare, then a decimal value of 0.30 should be assigned to this criteria if *thirty* percent of the Committee's final decision will be predicated upon this issue. The sum of the decimal values assigned to the individual criteria on the RCL must be equal unity or one.

The second step in developing the quantitative method requires that the items on the Ranking Criteria List be assigned a range of values (scale). This scale will be used to assign a numerical designation to the site's suitability with regard to any criteria. The ranges assigned for each item on the RCL must be the same for each item and, when totaled, should equal to 100. For example, if there are 10 items on the RCL then each item will be assigned a scale of one to ten (one hundred divided by 10 equals 10). However, if the RCL includes 5 criteria, then 100 divided by 5 equals a scale of one to 20 for each item on the list.

Each candidate solid waste facility site then must be evaluated with respect to each item on the RCL. Each candidate site will be assigned a rank which reflects its suitability with respect to a single criteria. The numerical value of the rank is derived from the scale assigned to the criteria. For example, let's assume a scale of one to ten is assigned to the criteria, distance from a highway, and the maximum desired distance is 500 feet, a candidate site that is located 750 feet from the highway is given a rank of 8, indicating that its distance is 80% of the optimum distance.

A candidate site is ranked in this manner for each item on the RCL. Each ranking is then multiplied by the item's weighted value and the sum of all of weighted values is determined. The candidate site selected as the preferred site will have the greatest cumulative value.

Only the criteria represented in the RCL are evaluated with this ranking scheme. The environmental constraints represented in the ACL list are not ranked or weighted. Failing to meet a single criteria on the ACL list disqualifies that site from further consideration.

5. Resolving Siting Impasses Through Mediation

The siting of waste disposal and related facilities involves some controversy. Early public awareness and involvement will mitigate some of these controversies. Consequently, public involvement should be encouraged from the beginning of the site selection process as described in (8). Soliciting public concerns regarding the siting of a solid waste facility provides an opportunity to include these concerns as items in the RCL. Thus public concerns are then incorporated into the decision making process.

A well implemented siting analysis may still evoke conflicts between the public and vested interest groups. These conflicts will need to be resolved. However, weighted rankings of these concerns/conflicts provide the SEC an objective and quantitative rationale to assuage the controversy. Failing this, these conflicts may need to be resolved through mediation.

Mediation is a formal process which brings together representatives from opposing positions to work through a mediator (or a team of mediators) to resolve the conflicts. The mediator clearly defines the areas of agreement and disagreement and presents possible alternatives. The mediator facilitates discussion of the negative and positive aspects of these alternatives with the intent to direct the opposing factions to a negotiated solution. Since the mediator does not hold decision making powers the final agreement must be ratified by the appropriate decision making bodies.

6. Yard Waste Composting Facility

The process of siting a yard waste composting facility will ideally take approximately 2.5 years from the site evaluation and selection process to the facility's permit approval. Numerous variables could potentially affect this time frame. Successful composting facility sittings may take as long as 4 - 5 years. Approximately one year will be required to complete the site selection, to acquire the properties or their options, to collect the required geotechnical data, to design and to submit the required documentation for a "Permit to Install" (PTI) application. Another 1 - 1.5 years will be required to complete the entire permitting process.

a. Preliminary Site Survey

The first step in siting a yard waste composting facility is to obtain a current copy of the Solid Waste Disposal Licenses and Regulations (OAC 3745-27) and other available siting criteria guidance from the Office of the Ohio EPA.

The siting entity also will need to submit to the Division of Air Pollution Control and the Division of Water Pollution Control of the Ohio EPA written notification of intent to site a facility, along with a written request for information pertaining to any regulatory requirements under Chapter 3704. or Chapter 6111. of the Ohio Revised Code.

Since the PTI application must show that the proposed yard waste composting facility site is not located in areas having constraints, it is necessary to identify the requirements (constraints) that must be met when siting a sanitary landfill. The following list of constraints is derived from the current copy of Solid Waste Disposal Licenses and Regulations (OAC 3745-45) and is the ACL list described above. The environmental constraints that must be avoided when siting a yard waste composting facility entail areas that present concerns with respect to local geology, areas of national special interest, areas of state special interest, areas with ground water and surface water resources, and areas with demographic concerns.

Yard Waste Composting Facility Environmental Constraints List

The ABSOLUTE CRITERIA List

- must not be located in a 100 Year Floodplain;
- must not be located 300 feet from any surface water body or natural wetland;
- must not be located within 1000 feet of a potable water supply well; and
- must not be located where less than 5 feet exist between the upper most aquifer and the depth of the composting surface;
- must not be located on soils whose permeability is less than six inches to the subsoil and substratum to a depth of 60 inches;
- must not be located where the bedrock is located less than forty inches from the surface;
- must not be located in areas where the surface soils or textures are composed of silt, silt loam, loam, sandy loams, or loamy sands;
- must not be located in a National Park or recreation area;
- must not be located in a candidate area for potential inclusion in the National Park System;
- must not be located within 500 feet of an area designated by the United States Department of the Interior as a National Scenic River;
- must not be located within 500 feet of an area designated by the United States Forest Service as either a Special Interest Area or a Research Natural Area in the Wayne National Forest;
- must not be located within 500 feet of an ODNR designated natural resource, such as a State Nature Preserve, a scenic wildlife preserve or state wildlife area or a scenic river;
- must not be located within 500 feet of stream segments designated by the OEPA as either outstanding resource waters or exceptional cold water or warm water habitats;
- must not be located within 500 feet of an Ohio Historical Society designated, owned or managed Nature Preserve;
- must not be located within 250 feet from a domicile.

The ACL list eliminates certain areas in the Mercer County Solid Waste Management District, subject to waiver by Ohio EPA. Other criteria should be applied to sites from the remaining areas. These factors are compiled as another list which is designated as the RCL list. This list is generated to assist ranking, weighing, evaluation and the ultimate selection for the most suitable yard waste composting facility sites in the Mercer County District.

Other criteria that must be considered when siting a yard waste composting facility are presented below in the Relative Criteria List (RCL). This RCL list is used when weighing, ranking, evaluating, and selecting the most suitable yard waste composting facility site in the District. The Ranking Scheme described earlier is applied to the considerations presented in this RCL. General areas of consideration addressed in the Ranking Criteria List entail issues of geology, areas of special value, local water resources, appropriateness, local demographics and land uses.

Other Considerations in Siting Yard Waste Composting Facilities

The RELATIVE CRITERIA List

Local Geology

- minimum potential seepage to ground water resources;
- maximum natural site stability;
- optimal soil associations;
- appropriate slopes and drainage;
- optimum bedrock depth;

Areas of Special Value

- minimum acreage of natural habitat affected;
- absence of endangered and threatened species habitat;
- minimum affect on known archaeological, prehistoric, and historic resources;

Local Water Resources

- minimum number of wells in close proximity to the site;
- minimum of acreage of upstream watershed;
- maximal distance to rivers, streams, wetland areas, and floodplains;
- appropriate drainage patterns;

Local Demographic and Land Uses

- minimum amount of nearby commercial and/or institutional development;
- maximum agreement with future land use plans;
- maximum compatible land use in vicinity;
- communities in vicinity;
- appropriateness of general land uses near the site;
- zoning restrictions;
- degree of expressed public concern;

Accessibility

- access to all weather roads;
- available utility systems;
- central location(s) as defined by areas of service or volume generated;
- average daily traffic for sections of roadway;
- minimum number of miles to the site.

As with most waste facilities, a yard waste composting facility is perceived as a nuisance land use. For this reason early public involvement should be included in the siting process. This should be accomplished by using the District SEC which includes members of the public. Site engineering as outlined in Chapter 3745-27-44 can also reduce public concern.

7. Sanitary Landfill

The District has not proposed to construct a sanitary landfill. However, some entity may come forward with a proposal to construct a facility. The mechanism to evaluate any site is presented in the subsequent paragraphs.

The process of siting a landfill will ideally take approximately 2.5 years from the site evaluation and selection process to the facility's permit approval. Numerous variables can affect this time frame. Successful landfill sittings often take 4 - 5 years. Approximately one year will be required to complete the site selection, to acquire the properties or their options, to collect the required geotechnical data, to draft a conceptual plan, to solicit OEPA feedback on the feasibility of the conceptual plan, to draft the detailed engineering design and submit the detailed engineering design plan with the required documentation for a "Permit To Install" (PTI) application. Another 1.5 years will be required to complete the entire permitting process.

The site selection process will require a minimum of 60 days to select the most suitable sanitary landfill sites available in the District. Another 60 days minimum will be required to obtain the properties or the options for the properties needed to site the landfill. Once the properties or their options are obtained, approximately 60 days will be required to collect the preliminary geotechnical data needed to develop the conceptual design plan. Some of this geotechnical data also will be included in the PTI application. The conceptual plan may be drafted in approximately 30 days.

The OEPA should be consulted at this stage to discuss the suitability of the site and solicit feedback regarding feasibility of the conceptual design. Depending on the concerns raised by the OEPA, additional geotechnical data collection may be required. The detailed engineering design plans should incorporate the additional geotechnical data and address the concerns raised by the OEPA.

This detailed engineering design plan may be completed in two months for a fast track project, however the normal time required developing the detailed engineering design plan is 4 - 6 months. This plan should be filed with adequate closure alternatives to assuage any public concerns associated with its use after closure. Other relevant documentation should also be filed with the PTI application. Approximately 18 months will be involved in the application review process before the application for the PTI is approved.

a. Preliminary Site Survey

The first step in siting a sanitary landfill is to obtain a current copy of the Solid Waste Disposal Licenses and Regulations (OAC 3745-27) and other available siting criteria guidance from the Office of the Ohio EPA.

The siting entity also will need to submit to the Division of Air Pollution Control and the

Division of Water Pollution Control of the Ohio EPA written notification of intent to site a facility, along with a written request for information pertaining to any regulatory requirements under Chapter 3704. or Chapter 6111. of the Ohio Revised Code.

Since the PTI application must show that the proposed sanitary landfill site is not located in areas having constraints, it is necessary to identify the requirements (constraints) that must be met when siting a sanitary landfill. The following list of constraints is derived from the current copy of Solid Waste Disposal Licenses and Regulations (OAC 3745-07) and is the ACL list described above. The environmental constraints that must be avoided when siting a sanitary landfill entails areas that present concerns with respect to local geology, areas of national special interest, areas of state special interest, areas with ground water and surface water resources, and areas with demographic concerns.

Sanitary Landfill Environmental Constraints List
The ABSOLUTE CRITERIA List

Local Geology

- must not be located in a 100 Year Floodplain;
- must not be located in a sand or gravel pit where the sand or gravel has not been completely removed;
- must not be located in a limestone or sandstone quarry;
- must not be located within a 200 feet of a fault line that has had displacement in Holocene time;
- must not be located in an area that is geologically unstable and may undergo subsidence due to an underground mine, differential settling, slump/slip or subsidence;

Areas of National Special Interest

- must not be located in a National Park or recreation area;
- must not be located in a candidate area for potential inclusion in the National Park System;
- must not be located within 1,000 feet of an area designated by the U.S. Department of the Interior as a wildlife refuge or scenic river;
- must not be located within 1,000 feet of an area designated by the U.S. Forest Service as either a special interest area or a research area in the Wayne National Forest;
- must not be located on any property that lies within the boundaries of a national park or recreation area;

Areas of State Special Interest

- must not be located in a state park or established state park purchase area;
- must not be located within 1,000 feet of an ODNR designated natural resource, such as a State Nature Preserve, a scenic wildlife preserve or state wildlife area or a scenic river;
- must not be located within 1,000 feet of stream segments designated by the OEPA as either outstanding resource waters or exceptional cold water or warm water habitats;
- must not be located within 1,000 feet of an Ohio Historical Society designated, owned or managed Nature Preserve;

Groundwater and Surface Water Resources

- must not be located within surface and subsurface areas surrounding a wellhead of a public water supply through which contaminants may move toward and may reach the public water supply within five years;
- must not be located above a designated sole source aquifer;
- must not be located above an unconsolidated aquifer capable of yielding 100

- gallons per minute to a water supply well;
- must not be located within 1,000 feet of an existing water supply well;
- must not be located where less than 15 feet exist between the upper most aquifer and the compacted soil liner;
- must not be located down gradient of an existing source of groundwater pollution or contamination;
- must not be located within 200 feet of surface waters or wetland areas;

Areas with Demographic Concerns

- must not be located in an intensively developed area;
- must not be located within 10,000 feet of a commercial airfield (jet engine plane);
- must not be located within 1,000 feet of a residence;
- must not be located where the solid waste placement is within 300 feet of the landfill's property line.

The ACL list eliminates certain areas in the Mercer County Solid Waste Management District, subject to waiver by Ohio EPA. Other criteria should be applied to sites from the remaining areas. These factors are compiled as another list which is designated as the RCL list. This list is generated to assist ranking, weighing, evaluation and the ultimate selection for the most suitable sanitary landfill sites in the Mercer County District.

Other criteria that must be considered when siting a sanitary landfill are presented below in the Relative Criteria List (RCL). This RCL list is used when weighing, ranking evaluating and selecting the most suitable landfill site in the District. The Ranking Scheme described earlier is applied to the considerations presented in this RCL. General areas of consideration addressed in the Ranking Criteria List entail issues of geology, areas of special value, local water resources, appropriateness, local demographics and land uses, and accessibility.

Other Considerations in Siting Sanitary Landfills
The RELATIVE CRITERIA List

Local Geology

- minimum potential seepage to ground water resources;
- maximum natural site stability;
- optimal soil associations;

Areas of Special Value

- minimum acreage of natural habitat affected;
- absence of endangered and threatened species habitat;
- minimum affect on known archaeological, prehistoric, and historic resources;

Local Water Resources

- minimum number of wells in close proximity to the site;
- minimum of acreage of upstream watershed;
- maximal distance to rivers, streams, wetland areas, and floodplains;
- appropriate drainage patterns;

Appropriateness

- maximum availability of suitable clay for liner and cover;
- maximum disposal capacity;

Local Demographic and Land Uses

- minimum amount of nearby commercial and/or institutional development;
- maximum agreement with future land use plans;
- compatible land use along roadway;
- communities along roadway;
- appropriateness of general land uses near the site;
- zoning restrictions;
- degree of expressed public concern;

Accessibility

- access to all weather roads;
- minimum difficulty in transporting sludge and wastes to the site;
- available utility systems;
- central location(s) as defined by areas of service or volume generated;
- average daily traffic for sections of roadway;
- minimum number of miles to the site.

As with most waste facilities, a sanitary landfill is perceived as a nuisance land use. For this reason early public involvement should be included in the siting process. This should be accomplished by using the District SEC which includes members of the public. Site engineering as outlined in Chapter 3745-27-06 can also reduce public concern.

8. Solid Waste Transfer Facility

The District has not proposed to construct a transfer station. However, some entity may come forward with a proposal to construct a facility, or for some unforeseeable reason, the District may be required to initiate a contingency plan to export waste. The mechanism to evaluate any site is presented in the subsequent paragraphs.

The process of siting a solid waste transfer facility will ideally take approximately 2.5 to 3 years from the site evaluation and selection process to the facility's permit approval. Numerous variables can affect this time frame.

a. Preliminary Site Survey

The first step in siting a solid waste transfer station is to obtain a current copy of the Solid Waste Disposal Licenses and Regulations (OAC 3745-27) and other available siting criteria guidance from the Office of the Ohio EPA.

The siting entity also will need to submit to the Division of Air Pollution Control and the Division of Water Pollution Control of the Ohio EPA written notification of intent to site a facility, along with a written request for information pertaining to any regulatory requirements under Chapter 3704. or Chapter 6111. of the Ohio Revised Code.

Since the PTI application must show that the proposed transfer station site is not located in areas having constraints, it is necessary to identify the requirements (constraints) that must be met when siting a transfer station. The list of constraints presented below is derived from the current copy of Solid Waste Disposal Licenses and Regulations (OAC 3745-22) and is the ACL list described above. The environmental constraints that must be avoided when siting a solid waste transfer station entails areas that present concerns with respect to local geology, areas of national special interest, areas of state special interest, areas with surface water resources, and areas with demographic concerns.

Solid Waste Transfer Station Environmental Constraints List
The ABSOLUTE CRITERIA List

- must not be located in a 100 Year Floodplain
- must not be located in a National Park or recreation area;
- must not be located in a candidate area for potential inclusion in the National Park System;
- must not be located within 500 feet of an area designated by the U.S. Department of the Interior as a wildlife refuge or scenic river;
- must not be located within 500 feet of an area designated by the U.S. Forest Service as either a special interest area or a research area in the Wayne National Forest;
- must not be located on any property that lies within the boundaries of a national park or recreation area;
- must not be located in a state park or established state park purchase area;
- must not be located within 500 feet of an ODNR designated natural resource, such as a State Nature Preserve, a scenic wildlife preserve or state wildlife area or a scenic river;
- must not be located within 500 feet of stream segments designated by the OEPA as either outstanding resource waters or exceptional cold water or warm water habitats;
- must not be located within 500 feet of an Ohio Historical Society designated, owned or managed Nature Preserve;
- must not be located within 250 feet of a residence;

The ACL list eliminates certain areas in the Mercer County Solid Waste Management District, subject to waiver by Ohio EPA. Other criteria should be applied to sites from the remaining areas. These factors are compiled as another list which is designated as the RCL list. This list is generated to assist ranking, weighing, evaluation and the ultimate selection for the most suitable transfer station site in the Mercer County District.

Other criteria that must be considered when siting a solid waste transfer station are presented below in the Relative Criteria List (RCL). This RCL list is used when weighing, ranking evaluating and selecting the most suitable transfer station site in the District. The Ranking Scheme described earlier is applied to the considerations presented in this RCL. General areas of consideration addressed in the Ranking Criteria List entail issues of geology, areas of special value, local water resources, appropriateness, local demographics and land uses, and accessibility.

Other Considerations for Solid Waste Transfer Stations
The RELATIVE CRITERIA List

- maximum natural site stability;
- optimal soil suitability;
- minimum acreage of natural habitat affected;
- absence of endangered and threatened species habitat;
- minimum affect on known archaeological, prehistoric, and historic resources;
- minimum number of wells in close proximity to the site;
- minimum of acreage of upstream watershed;
- maximal distance to rivers, streams, wetland areas, and flood plains;
- appropriate drainage patterns;
- minimum amount of nearby residential, commercial and/or institutional development;
- maximum agreement with future land use plans;
- compatible land use along roadway;
- communities along roadway;
- appropriateness of general land uses near the site;
- zoning restrictions;
- degree of expressed public concern;
- seasonal waste generation rates;
- access to all weather roads;
- minimum difficulty in and associated costs of transporting wastes to the site;
- available utility systems;
- central location(s) as defined by areas of service or volume generated;
- average daily traffic for sections of roadway; and
- minimum number of miles to the site;

After each candidate site is evaluated against the RCL and assigned an appropriately weighted rank for each item in the RCL, the sum of all of the weighted ranks for the candidate site is determined. Those sites with the highest sum are the most suitable sites for the transfer station. General areas of consideration addressed in the Ranking Criteria List entail issues of geology, areas of special value, local water resources, appropriateness, local demographics and land uses, and accessibility.

As with most waste facilities, a transfer station is perceived as a nuisance land use. For this reason early public involvement should be included in the siting process. This should be accomplished by using the District SEC which includes members of the public. Site engineering as outlined in Chapter 3745-27-21 can also reduce public concern.

H. Contingencies for Capacity Assurance and District Program Implementation

The Mercer County Solid Waste Management District has a contingency for landfill capacity. In the agreement in Appendix G, the Allied landfill in Bellefontaine, Ohio has agreed to make their facility available for disposal of all solid waste generated in the Mercer County District “upon cessation of operation of the Celina landfill, should such cessation of operation occur prior to the expiration of the 23-year planning period prescribed by the recently-adopted solid waste management plan,...”.

Appendix G has a copy of the agreement with the local landfill. The capacity agreement (in which the landfill has agreed to take all of Mercer County’s waste) is effect. With two to three (2-3) years of capacity left, and active intention to pursue an immediate expansion, the local landfill should have more than enough capacity to take all of the District’s waste throughout the planning period.

In the agreement, there are provisions that the Allied Landfill facility in Bellefontaine agrees to make the facility available for disposal of all solid waste generated in the Mercer County District should anything happen to cease operations at the local landfill. However, since the Bellefontaine Landfill is also in possession of permits that will allow less than 5 years of capacity, the operators are also pursuing an expansion permit, necessitating a second tier of contingency.

Also in the agreement, there are provisions that the Allied Landfill facility in Wyandot County agrees to make the facility available for disposal of all solid waste generated in the Mercer County District should anything happen to cease operations at the local landfill. Allied’s Wyandot County facility has more capacity than the Mercer County District is concerned with at this time.

In the unlikely event that waste must be temporarily or permanently exported from the Mercer County Solid Waste District, Allied has agreed to make transfer arrangements at market rates for exporting waste.

This section is considered a part of the implementation schedule required in accordance with ORC Section 3734.53(A)(12).