

APPENDIX E.4

**REMAINING CAPACITY AT LANDFILLS
INCLUDED IN NEEDS ANALYSIS**



Client: Veolia ES Zion Landfill, Inc.

Project: Site 2 East Expansion

Proj. #: 122150

Calculated By: CMS

Date: 1/2010

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Date: 1/2010

TITLE: METHOD USED TO IDENTIFY DISPOSAL FACILITIES SERVING THE CHICAGO METROPOLITAN AREA

Methodology

The following steps were utilized to identify landfills that serve the Chicago metropolitan area (metro area):

1. Illinois landfills located within the metro area were identified from the IEPA report, *Nonhazardous Solid Waste Management and Landfill Capacity in Illinois: 2007 Annual Report*. The 2007 report is the 21st annual report published by the IEPA on available landfill capacity in Illinois. These annual reports contain information on the capacity of Illinois landfills, as well as the amount of waste disposed in Illinois landfills. In addition, data was obtained by consulting the landfill capacity certification forms which all Illinois landfills are required to submit to the IEPA on an annual basis.
2. Landfills in Indiana that may serve the metro area were identified by consulting quarterly reports filed with the Indiana Department of Environmental Management (IDEM). In particular, this data was used to identify Indiana landfills that accepted waste from counties within the metro area. Indiana landfills that indicated they did not receive waste from Illinois, but were generally located in the same area as Indiana landfills that did receive waste from the metro area, were also included in the analysis. The capacities of the Indiana landfills identified were also obtained from IDEM.
3. Landfills in Wisconsin that are potentially available to the metro area were identified by consulting a comparable landfill capacity report published by the Wisconsin Department of Natural Resources, the *2008 Wisconsin Solid Waste Landfill Tonnage/Capacity Report*. In particular, this report was used to identify Wisconsin landfills that accepted waste from Illinois¹. Wisconsin landfills that indicated they did not receive waste from Illinois, but were generally located in the same area as Wisconsin landfills that did receive waste from Illinois, were also included in the analysis.
4. Landfills in Michigan that are potentially available to the metro area were identified by consulting a report published by the Michigan Department of Environmental Quality, the *Report of Solid Waste Landfilled in Michigan, October 1, 2007 - September 30, 2008*. The permitted capacities of the Michigan landfills were also obtained from this report.
5. Finally, Illinois landfills located outside the metro area which are currently utilized to dispose of waste from the metro area were identified through a survey of transfer stations within the metro area. The survey was conducted by reviewing IEPA inspection reports for the transfer stations,

¹ Wisconsin landfills are required to report the state of origin for wastes received from out-of-state. Note that Wisconsin does not require the county of origin to be reported. Hence, it is possible that some of the landfills which reported receiving waste from Illinois did not in fact receive waste from the proposed service area. For the purposes of this report, it was conservatively assumed that Wisconsin landfills which reported receiving Illinois waste did so from the proposed service area.



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or by contacting the operators of the transfer stations directly. The survey methodology and results of the survey are described in Appendix E.3.

Again, Illinois landfills that were generally located in the same area as Illinois landfills identified as receiving waste from the metro area were included in the analysis.

Results

Utilizing this methodology, a total of 37 landfills in Illinois, Indiana, Michigan and Wisconsin were identified and included in the capacity analysis. (Note that the Congress-Hillside Landfill ceased accepting waste in February, 2008.)



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TABLE E-4-1. REMAINING CAPACITY AT LANDFILLS INCLUDED IN NEEDS ANALYSIS

Facility	County	State	Capacity as of 01/01/09		Waste Disposed in 2008		Size (acres) (Disposal / Total)	Owner / Operator	Types of Waste Received
			gate cu yds	tons	gate cu yds	tons			
CID #4 RDF*	Cook	Illinois	12,092	3,664	12,000	3,636	29 / 115	WMI / WMI	M / S / H
Congress - Hillside*	Cook	Illinois	0	0	30,046	9,105	55 / 72	Allied / Allied	M
River Bend Prairie*	Cook	Illinois	4,332,263	1,312,807	1,226,000	371,515	55 / 68	Land & Lakes Co. / Land & Lakes Co.	M / S
Countryside*	Lake	Illinois	16,708,960	5,063,321	1,761,647	533,832	153 / 201	WMI / WMI	M / S
Veolia ES Zion*	Lake	Illinois	11,038,203	3,344,910	2,167,940	656,952	131 / 192	Veolia E.S. / Veolia E.S.	M / S
Pheasant Run RDF*	Kenosha	Wisconsin	3,839,458	1,163,472	2,620,976	794,235	NA / NA	WMI / WMI	M / S
DeKalb Co. RDF	DeKalb	Illinois	2,583,881	782,994	364,537	110,466	88 / 245	WMI / WMI	M / S
EnvironTech	Grundy	Illinois	1,453,891	440,573	844,543	255,922	80 / 169	Allied / Allied	M / S
Atkinson	Henry	Illinois	23,200,000	7,030,303	0	0	126 / 250	Atkinson LF Co. / Atkinson LF Co.	M / S
LandComp	LaSalle	Illinois	18,234,268	5,525,536	623,681	188,994	102 / 188	Allied / Allied	M / S
Lee County Landfill	Lee	Illinois	61,004,324	18,486,159	3,695,096	1,119,726	267 / 435	Allied / Allied	M / S
Livingston Landfill	Livingston	Illinois	103,071,741	31,233,861	3,255,723	986,583	254 / 550	Allied / Allied	M / S
Streator Area	Livingston	Illinois	293,884	89,056	0	0	20 / 42	Allied / Allied	M / S
Veolia ES Orchard Hills	Ogle	Illinois	92,908,404	28,154,062	6,878,667	2,084,445	251 / 446	Veolia E.S. / Veolia E.S.	M / S



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Rochelle Municipal #2	Ogle	Illinois	1,362,000	412,727	364,000	110,303	61 / 81	Rochelle City / Rochelle Waste Disp LLC	M / S
Winnebago Landfill	Winnebago	Illinois	55,457,262	16,805,231	2,654,046	804,256	235 / 434	Winn Recl Serv Inc. / Winn Recl Serv. Inc.	M / S
Prairie Hill RDF	Whiteside	Illinois	43,051,581	13,045,934	1,405,844	426,013	227 / 423	Whiteside County / WMI	M / S
Laraway RDF	Will	Illinois	303,200	91,879	76,730	23,252	32 / 193	WMI / WMI	S
Prairie View RDF	Will	Illinois	55,622,033	16,855,162	2,984,678	904,448	223 / 408	Will County / WMI	M / S
County Line	Fulton	Indiana	59,855,608	18,138,063	590,321	178,885	NA / NA	Allied / Allied	M / S
Lake County C&D	Lake	Indiana	3,631,505	1,100,456	88,394	26,786	NA / NA	Allied / Allied	M
Newton County Landfill	Newton	Indiana	127,802,459	38,728,018	8,885,214	2,692,489	424 / 588	Allied / Allied	M / S
Prairie View RDF	St. Joseph	Indiana	24,030,626	7,282,008	827,858	250,866	NA / NA	WMI / WMI	M / S
Liberty Landfill	White	Indiana	9,847,012	2,983,943	2,125,127	643,978	NA / NA	WMI / WMI	M / S
Forest Lawn	Berrien	Michigan	3,952,727	1,197,796	2,191,731	664,161	NA / NA	Republic / Republic	M / S
Orchard Hill	Berrien	Michigan	39,315,900	11,913,909	575,152	174,288	NA / NA	Landfill Mgt. Co. / Hennessey Land Co.	M
Southeast Berrien County	Berrien	Michigan	3,769,389	1,142,239	921,821	279,340	NA / NA	SE Ber Co LF Auth / SE Ber Co LF Auth	M
Dane County #2	Dane	Wisconsin	1,440,476	436,508	570,999	173,030	NA / NA	Dane County / Dane County	M



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Madison Prairie RDF	Dane	Wisconsin	3,402,703	1,031,122	269,108	81,548	NA / NA	WMI / WMI	S
Glacier Ridge	Dodge	Wisconsin	16,932,831	5,131,161	1,228,712	372,337	NA / NA	Veolia E.S. / Veolia E.S.	M / S
Deer Track Park	Jefferson	Wisconsin	11,787,676	3,572,023	939,777	284,781	NA / NA	WMI / WMI	M / S
Metro RDF	Milwaukee	Wisconsin	2,001,559	606,533	1,625,653	492,622	NA / NA	WMI / WMI	M / S
Kestrel Hawk Park	Racine	Wisconsin	4,040,543	1,224,407	564,746	171,135	NA / NA	Republic / Republic	M / S
City of Janesville	Rock	Wisconsin	7,265,587	2,201,693	1,028,336	311,617	NA / NA	Janesville City / Janesville City	M / S
Mallard Ridge RDF	Walworth	Wisconsin	12,950,302	3,924,334	2,111,914	639,974	NA / NA	Republic / Republic	M / S
Veolia ES Emerald Park	Waukesha	Wisconsin	8,079,638	2,448,375	2,125,675	644,144	NA / NA	Veolia E.S. / Veolia E.S.	M / S
Orchard Ridge RDF	Waukesha	Wisconsin	13,377,332	4,053,737	3,458,991	1,048,179	NA / NA	WMI / WMI	M / S
Total - Service Area Landfills			35,930,976	10,888,174	7,818,609	2,369,275			
Total (All Landfills)			847,961,317	256,957,975	61,095,682	18,513,843			
Total - Non-Restricted (See Notes 2 and 5)			789,755,403	239,319,819	57,746,467	17,498,929			



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Sources:

1. Illinois landfill capacity and throughput data: Illinois Environmental Protection Agency, 2009 Landfill Capacity Certification Reports.
2. Indiana landfill capacity and throughput data: Indiana Department of Environmental Management, 2008 Indiana MSW Landfill Capacity, undated. Capacity for Lake County C&D from permit application approved August, 2007, as IDEM does not report capacity for construction/demolition waste landfills.
3. Michigan landfill capacity and throughput data: Michigan Department of Environmental Quality, Report of Solid Waste Landfilled in Michigan, October 1, 2007 - September 30, 2008, January 2009.
4. Wisconsin landfill capacity and throughput data: Wisconsin Department of Natural Resources, 2008 Landfill Tonnage/Capacity Report, June 2009.

Notes:

1. Abbreviations: LF - landfill; M - Municipal Waste; S - Special Waste; H - Hazardous Waste; Allied - Allied Waste Industries, Inc.; Republic - Republic Services, Inc.; WMI - Waste Management, Inc. Owner/operator is shown by parent company, not local subsidiary.
2. Total for non-restricted landfills excludes capacity and waste disposed at DeKalb County Landfill and Prairie View RDF.
3. Illinois capacity data and disposal quantities are reported in "gate" cubic yards, as opposed to "airspace" cubic yards. A gate cubic yard represents a cubic yard of refuse that is brought to a landfill in a packer truck. An airspace cubic yard, on the other hand, represents a cubic yard of refuse that has been placed and compacted in the landfill. A cubic yard of waste that has been placed and compacted in a landfill has a greater density (i.e., it weighs more) than a gate cubic yard. The IEPA utilizes a conversion factor of 3.3 gate cubic yards per ton of refuse. Capacity for Veolia ES Zion Landfill based on utilization rate of 1.0 tons per airspace cubic yard (refer to Appendix E.1).
4. The latest capacity data for Indiana landfills (2008 Indiana MSW Landfill Capacity), Michigan landfills (Report of Solid Waste Landfilled in Michigan, October 1, 2007 - September 30, 2008) and Wisconsin landfills (2008 Landfill Tonnage/Capacity Report) is reported in airspace cubic yards. This was converted to tons using an in-place density of 1,400 pounds per airspace cubic yard and assuming a cover factor of 10 percent (except for Indiana, which reports airspace net of cover). Capacity in tons was then converted to gate cubic yards using the conversion factor of 3.3 gate cubic yards per ton of incoming refuse.
5. Waste disposal at non-restricted landfills in 2007 = 19,437,651 tons; waste disposal at non-restricted landfills in 2006 = 20,760,000 tons; waste disposal at non-restricted landfills in 2005 = 20,638,251 tons; waste disposal at non-restricted landfills in 2004 = 20,095,644 tons; 5-year average disposal at non-restricted landfills = 19,686,095 tons.
6. Newton County Landfill received an expansion of 18,341,000 tons in October, 2009. Pheasant Run RDF received an expansion of 5,710,000 tons in December, 2009.