

ILLINOIS POLLUTION CONTROL BOARD

October 6, 2016

ENVIRONMENTAL RECYCLING AND)	
DISPOSAL SERVICES, INC.,)	
)	
Petitioner,)	
)	
v.)	PCB 16-76
)	(Pollution Control Facility Siting Appeal)
WILL COUNTY, WILL COUNTY BOARD,)	
AND WASTE MANAGEMENT OF)	
ILLINOIS, INC.,)	
)	
Respondents.)	

GEORGE MUELLER, MUELLER ANDERSON & ASSOCIATES, APPEARED ON BEHALF OF ENVIRONMENTAL RECYCLING AND DISPOSAL SERVICES, INC.;

CHARLES F. HELSTEN and PEGGY L. CRANE, HINSHAW & CULBERTSON LLP, and MARY M. TATROE and MATTHEW L. GUZMAN, WILL COUNTY STATE’S ATTORNEY’S OFFICE, APPEARED ON BEHALF OF WILL COUNTY; and

DONALD J. MORAN, PEDERSEN & HOUPT, APPEARED ON BEHALF OF WASTE MANAGEMENT OF ILLINOIS, INC.

OPINION AND ORDER OF THE BOARD (by J. D. O’Leary):

Waste Management of Illinois, Inc. (WMI) filed an application requesting that the Will County Board approve siting to expand the Laraway Recycling and Disposal Facility (RDF), a landfill. The Will County Board granted siting approval with conditions. Environmental Recycling and Disposal Services, Inc. (ERDS) seeks review of the County Board’s decision. ERDS alleges that the decision is contrary to the manifest weight of the evidence on each of three statutory criteria and that the County Board’s conditional approval is not authorized by the Environmental Protection Act (Act) (415 ILCS 5 (2014)).

The Board affirms the Will County Board. The County Board’s record supports its determination that the proposed landfill satisfies the three contested siting criteria of Section 39.2 of the Act, criteria (i), (ii), and (vi). First, the County Board’s decision on criterion (i)—that the expansion is necessary to accommodate the waste needs of its proposed service area—is not against the manifest weight of the evidence. Second, the County Board’s determination on criterion (ii)—that the expansion is designed, located, and proposed to be operated so as to protect the public health, safety and welfare—is not against the manifest weight of the evidence. Third, the County Board’s determination on criterion (vi)—that traffic patterns to and from the expansion are designed to minimize the impacts on the existing traffic flow—is not against the manifest weight of the evidence. Finally, the Board also finds that ERDS has waived its

allegation that the County Board's conditional approval of WMI's application is not authorized by Section 39.2.

In this opinion, the Board first summarizes the procedural and legal backgrounds and the facts. The Board then discusses the Will County Board's record on the issues before the Board reaches its conclusions and issues its order.

PROCEDURAL BACKGROUND

On January 19, 2016, ERDS filed its petition for review (Pet.). On March 9, 2016, Will County filed the record of its decision (C.). On June 17, 2016, ERDS filed an amended petition for review (Am. Pet.). The amended petition struck allegations that the County Board's proceedings were fundamentally unfair. On July 7, 2016, the Board accepted the amended petition for hearing. The Board held a hearing on July 27, 2016. No new evidence was presented by the parties, and no member of the public offered testimony or comment.

On August 19, 2016, the Board received post-hearing briefs from ERDS (ERDS Brief), WMI (WMI Brief), and Will County and the Will County Board (County Brief). On August 31, 2016, the Board received response briefs from ERDS (ERDS Resp.), Will County and the Will County Board (County Resp.), and WMI (WMI Resp.).

LEGAL BACKGROUND

In the following three subsections, the Board briefly summarizes statutory authorities, the standard of the Board's review, and the burden of proof in third-party appeals of siting approval.

Statutory Authorities

Before the Illinois Environmental Protection Agency (IEPA) can issue a permit to develop or construct a new or expanded pollution control facility, the permit applicant must obtain approval of the site of the facility from the county board if the facility is located in an unincorporated area.¹ The county board must hold at least one public hearing and allow any person to file written public comment.² The applicant must provide evidence demonstrating that it has met nine statutory criteria. ERDS disputes three of the nine statutory criteria:

- (i) the facility is necessary to accommodate the waste needs of the area it is intended to serve;
- (ii) the facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected;
* * *
- (vi) the traffic patterns to and from the facility are so designed to minimize the impacts on existing traffic flow.³

¹ 415 ILCS 5/39.2 (2014).

² See 415 ILCS 5/39.2(c), (d) (2014).

³ 415 ILCS 5/39.2(a) (2014).

“In granting approval for a site the county board . . . may impose such conditions as may be reasonable and necessary to accomplish the purposes of this Section and as are not inconsistent with regulations promulgated by the Board.”⁴

Standard of Review

In reviewing a local government’s decision on siting a landfill or transfer station, the Board must apply the “manifest weight of the evidence” standard to each of the contested siting criteria.⁵ A decision is against the manifest weight of the evidence if the opposite result is clearly evident, plain, or indisputable from reviewing the evidence.⁶ That a different conclusion may be reasonable is an insufficient basis to reverse the local government.⁷

The local siting authority weighs the evidence, assesses witness credibility, and resolves conflicts in the evidence.⁸ The Board applies its technical expertise “in examining the record to determine whether the record supported the local siting authority’s conclusions.”⁹ In reaching its determination, the Board must consider the County Board’s written decision, supporting reasons, and hearing transcript.¹⁰

Where there is conflicting evidence, the Board is not free to reverse merely because the local siting authority credits one group of witnesses and does not credit the other.¹¹ The Board may not reweigh the evidence on the siting criteria to substitute its judgment for that of the local siting authority.¹² “[M]erely because the [local siting authority] could have drawn different inferences and conclusions from conflicting testimony is not a basis for this Board to reverse the [local siting authority’s] finding.”¹³ Merely because the Board could reach a different conclusion is not sufficient to warrant reversal.¹⁴

⁴ 415 ILCS 5/39.2(e) (2014).

⁵ Town & Country Utils. v. PCB, 225 Ill. 2d 103 (2007); Land and Lakes Co. v. PCB, 319 Ill. App. 3d 41, 48 (3rd Dist. 2000); *see* Concerned Adjoining Landowners v. PCB, 288 Ill. App. 3d 565, 576 (5th Dist. 1997).

⁶ Land and Lakes, 319 Ill. App. 3d at 53; Harris v. Day, 115 Ill. App. 3d 762 (4th Dist. 1983).

⁷ Concerned Adjoining Owners, 288 Ill. App. 3d at 576, quoting Turlek v. PCB, 274 Ill. App. 3d 244, 249 (1st Dist. 1995).

⁸ Land and Lakes, 319 Ill. App. 3d at 53; *see* Tate v. PCB, 188 Ill. App. 3d 994, 1022 (4th Dist. 1989).

⁹ Town & Country, 225 Ill. 2d at 122.

¹⁰ 415 ILCS 5/40.1(a) (2014); *see* Fox Moraine, 2011 IL App (2d) 10001 (¶15).

¹¹ *See* Waste Mgmt. of Ill. v. PCB, 187 Ill. App. 3d 79, 82 (2nd Dist. 1989).

¹² Waste Mgmt. of Ill. v. PCB, 187 Ill. App. 3d 79, 81-82 (2nd Dist. 1989); Tate, 188 Ill. App. 3d at 1022.

¹³ File v. D & L Landfill, Inc., 219 Ill. App. 3d 897, 905-906 (5th Dist. 1991).

¹⁴ City of Rockford v. PCB, 125 Ill. App. 3d 384 (2nd Dist. 1994); Waste Mgmt. of Ill. v. PCB, 122 Ill. App. 3d 639 (3rd Dist. 1984).

Burden of Proof

Where a third-party petitioner appeals siting approval, “[t]he burden of proof shall be on the petitioner.”¹⁵

FACTS

In the following five subsections, the Board sets forth facts relating to the location of the Laraway RDF, the existing operation at the site, the operation WMI proposes, WMI’s application to the Will County Board for site approval, and WMI’s operating history.

Location

The Laraway RDF is situated west and southwest of the intersection of Laraway and Patterson Roads, approximately two miles west of Illinois Highway 53 in Will County. The area surrounding the site has primarily industrial and manufacturing uses with a mix of agricultural land.¹⁶

Existing Operation

In 2006, WMI sought approval to expand the Laraway RDF “to accept contaminated soils, non-hazardous special and industrial waste, and construction and demolition debris.”¹⁷ The Will County Board approved siting for the expansion, and IEPA issued development and operating permits.¹⁸ The existing facility has received waste since 2010.¹⁹ The site is approximately 810 acres in size, excluding a closed Resource Conservation and Recovery Act (RCRA) unit consisting of a wastewater treatment plant and wastewater holding ponds owned by Olin Corporation (Olin).²⁰ Within the site, 196 acres are permitted for waste disposal.²¹

Proposed Operation

WMI’s application requested siting approval to expand on property owned by WMI and Olin.²² The proposed expansion includes two areas: (1) a North Area consisting of a 70.4-acre horizontal and 40.6-acre vertical expansion; and (2) a South Area consisting of a 23.5-acre horizontal and 69.1-acre vertical expansion.²³

¹⁵ 415 ILCS 5/40.1(b) (2014).

¹⁶ C4299 (Means testimony); *see* C4575.

¹⁷ C8; *see* C52.

¹⁸ C8.

¹⁹ C8.

²⁰ C142.

²¹ C142; *see* C145 (Figure 1-2: Existing Site).

²² C11, 142; *see* C144 (Figure 1-1: Subject Site Location Map).

²³ C52; *see* C85 (Figure 1: Subject Site Location); C142; C146 (Figure 1-3: Subject Site); C4330 (Nickodem testimony).

WMI will develop both the North Area and South Area in phases.²⁴ WMI intends to begin operating the proposed expansion in 2018 and accept 3 million tons per year of waste.²⁵ The expanded facility would accept contaminated soils, industrial waste, and construction and demolition debris.²⁶ The expanded facility will not accept municipal waste or municipal solid waste (other than construction and demolition debris), “regulated quantities of hazardous wastes, radioactive materials, potentially infectious medical wastes, polychlorinated biphenyls, non-contaminated liquids or bulk liquids.”²⁷ The expanded facility also will not accept wastes banned by the Act, including white goods, landscape waste, and whole tires.²⁸ WMI projects that the proposed expansion would reach its capacity of approximately 30,364,000 tons in 2021.²⁹

Application for Siting Approval

On July 10, 2015, WMI filed an application with the Will County Board for siting approval to expand the Laraway RDF.³⁰ Public hearing on the application began on October 14, 2015,³¹ and continued on October 19, 2015, and October 21, 2015.³²

Operating History

The record, including WMI’s application, addresses the record of WMI’s previous operating experience, including actions by regulatory agencies.³³

DISCUSSION

As described below, the Board finds at pages 6-18 that the County Board correctly determined that the proposed expansion is necessary to accommodate the waste needs of the proposed service area (criterion (i)). The record includes detailed analysis of waste generation and disposal capacity showing a shortfall of more than 33 million tons of disposal capacity during operation of the proposed expansion. At pages 18-42, the Board also finds that the County Board correctly determined that the proposed expansion poses no unacceptable risk to

²⁴ C3 (Table 4-1: Estimated Subject Site Development Schedule); C217; C220 (Figure 4-1: Subject Site Phasing); C353 (Drawing 4: Facility Plan).

²⁵ C52.

²⁶ C52; *see* C143, C326; C4364 (Hoekstra testimony).

²⁷ C52; C143; C327; *see* C4364 (Hoekstra testimony).

²⁸ C52; C143; C327.

²⁹ C52.

³⁰ C5, C16; *see* C749 (Notice of Application); *see also* 415 ILCS 5/39.2(a) (2014).

³¹ C4253-96 (transcript); *see* C4102-05, 4122-25, 4458-61 (Notice of Public Hearing); *see also* C4126-27, 4463-64 (certificate of publication of notice).

³² C4296, 4328 (transcripts); *see* C4102-05, 4122-25, 4458-61.

³³ C1071-73 (Regulatory Agency Actions); *see* C1251-52; C4370-71, 4377 (Hoekstra testimony); C5033 (Well G188); C5034-40 (IEPA v. WMI and Michael Wiersma, AC 05-69); C5041-61 (IEPA v. WMI, Mark Batherson and Dale Hoekstra, AC 06-45); C5062-69 (IEPA v. County of Whiteside and WMI, AC14-33); C5070-92 (People v. WMI, PCB 06-42); *see also* 415 ILCS 5/39.2 (2014).

public health, safety, or welfare (criterion (ii)). The record includes an extensive geologic and hydrogeologic investigation of the site, a detailed description of the landfill design for containing waste and leachate, and a plan of operation addressing issues such as load checking, waste placement, and waste cover. In addition, at pages 42-56, the Board finds that the County Board correctly determined that the proposed expansion is designed to minimize impacts on existing traffic flow (criterion (vi)). The record includes detailed analysis of traffic impacts from the proposed expansion. Finally, because its conditional approval claim is not mentioned in its post-hearing briefs, the Board finds at page 56 that ERDS has waived this claim.

Criterion (i): Need for Facility

In the following subsections, the Board discusses the record before the Will County Board, including WMI's application and the transcript of the county hearing. The Board reviews the record on issues including the proposed service area, wastes to be received at the proposed expansion, waste generation projections for the service area, disposal capacity of the service area, and the projected shortfall of disposal capacity. The Board then concludes that the Will County Board's decision is not contrary to the manifest weight of the evidence.

Witness Credibility

WMI retained AECOM Technical Services, Inc. (AECOM) to determine whether the facility is necessary to accommodate the waste needs of the area it is intended to serve. AECOM is an engineering services company that designs facilities including landfills and transfer stations.³⁴

Ms. Sheryl R. Smith of AECOM performed the need analysis, issued a written report, and testified at the county hearing on this criterion.³⁵ Ms. Smith has bachelor's and master's degrees in civil engineering and has worked in the field of solid waste management for various entities for 33 years.³⁶ She has "prepared or reviewed 35 need reports for solid waste facilities" and "testified as an expert witness on Criterion 1 need analysis for proposed pollution control facilities" on 30 occasions.³⁷ Ms. Smith was involved with the 2006 siting approval.³⁸

ERDS discounts Ms. Smith's analysis because she is not a professional engineer and has offered the "same tired and repetitive testimony on behalf of WMI dozens of times."³⁹ ERDS asserts that "she simply didn't have the knowledge or information to accurately compute either future generation of waste, or future disposal capacity available to the service area."⁴⁰ WMI responds by stressing her education, experience, and preparation of the 2006 need analysis.⁴¹

³⁴ C4272 (Smith testimony).

³⁵ C4272-73; *see* C49-128 (Need Report for the Laraway Recycling and Disposal Facility Expansion).

³⁶ C4272; *see* C4222-26, 4501-05 (resume).

³⁷ C4272; *see* C4223, 4502.

³⁸ C4292.

³⁹ ERDS Brief at 3-4.

⁴⁰ ERDS Brief at 4.

⁴¹ WMI Resp. at 5, citing C4272, 4273, 4295, 4501-05.

Illinois courts have stated that “it is for the local siting authority to determine the credibility of witnesses.”⁴² In his findings and recommendation, the Will County hearing officer stated that Ms. Smith was “competent to provide her expert opinion that a need exists for this proposed expansion” and was “credible and has a solid understanding of the complexities of the necessary analysis needed to reach her conclusions.”⁴³ The Will County Board considered his findings and recommendations when it approved WMI’s application.⁴⁴ The Board is not persuaded by ERDS’s opinion of Ms. Smith’s analysis and reviews the County’s record of that analysis.

Framework of Analysis

Ms. Smith performed the need analysis in four steps. She first identified “what the service area is or the geographic region from which waste would be received at the facility.”⁴⁵ Second, the study “identified the types of waste to be received at the facility.”⁴⁶ Next, she projected “how much waste will be generated from the service area over the proposed operating life of the facility and the net amount of that waste that will require disposal.”⁴⁷ “[T]he fourth step is to identify what solid waste facilities are available to receive that waste that requires disposal and then evaluate the remaining disposal capacity from those facilities to receive the waste.”⁴⁸

The report includes information from numerous sources. First, “WMI provided data on the types and quantities of waste received at the site from 2010 to 2014.”⁴⁹ Second, IEPA was the source of information on permitted solid waste management facilities in the state and available landfill capacity in the state.⁵⁰ Next, Ms. Smith obtained similar information on currently licensed solid waste facilities from the Wisconsin Department of Natural Resources (WDNR), the Michigan Department of Environmental Quality (MDEQ), and the Indiana Department of Environmental Management (IDEM).⁵¹ The report also includes information obtained “from planning agencies, regional planners and recycling coordinators for Will County and other counties in the service area including annual recycling reports and county solid waste management plans and plan updates.”⁵² Finally, the report includes population and demographic information from “on-line state and regional planning sources in Illinois and Indiana.”⁵³

Definition of Service Area

⁴² Land and Lakes, 319 Ill. App. 3d at 53; *see Tate v. PCB*, 188 Ill. App. 3d at 1022.

⁴³ C5299; *see County Brief* at 6.

⁴⁴ C5324 (Resolution of the County Board).

⁴⁵ C4273; *see C52*.

⁴⁶ C4273-74.

⁴⁷ C4273; *see C61-64*.

⁴⁸ C4273; *see C65-77*.

⁴⁹ C52.

⁵⁰ C52-53.

⁵¹ C53.

⁵² C53.

⁵³ C53.

The Illinois Appellate Court has stated that “it is the applicant who defines the intended service area, not the local decision making body.”⁵⁴ The service area of the proposed expansion consists of Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, LaSalle, McHenry, and Will Counties in Illinois and Lake County in Indiana.⁵⁵ The total population of the 12-county service area is projected to increase from 10,130,151 in 2016 to 10,631,733 in 2021 and to 11,157,307 in 2030.⁵⁶

Wastes Received

WMI expects to accept three types of waste in its proposed expansion. First, the facility would accept industrial waste, “which consists of waste generated by industrial manufacturing processes including off spec products or sandblasting grit or paint sludges.”⁵⁷ Second, the facility would accept construction and demolition debris (CDD), “waste that’s generally generated through the development of new structures, renovations, repairs, or demolition.”⁵⁸ These wastes may include materials such as shingles, brick, concrete, asphalt, wood, and similar items.⁵⁹ Third, the facility would accept contaminated soils, which “are generated through the excavation of industrial property such as manufactured gas plant waste.”⁶⁰ This category may also include “soils that are excavated during removal of underground storage tanks or soils that may be generated through the cleanup of a rail spill or some tanker truck. . . .”⁶¹

Waste Generation Projections

Under the Illinois Solid Waste Management Act, each county or planning region must develop a 20-year plan and five-year updates projecting the generation of municipal waste, which is defined to mean “garbage, general household, institutional and commercial waste, industrial lunchroom or office waste, landscape waste, and construction and demolition debris.”⁶² These plans must also include goals for recycling and waste reduction and methods to implement those goals.⁶³ Ms. Smith reviewed the solid waste management plans for Illinois counties in the service area in making her projections for industrial waste and CDD. In the case of contaminated soils, she relied on annual landfill reports and information from Laraway RDF.

⁵⁴ Metropolitan Waste Systems v. PCB, 201 Ill. App. 3d 51, 55 (3rd Dist. 1990).

⁵⁵ C54; C79; C86 (Figure 2: Laraway RDF Expansion Service Area); C4150; C4273; C4520 (public hearing slides).

⁵⁶ C91-92 (Table 1: Population Projections for the Service Area); *see* C4273.

⁵⁷ C4273; *see* C52; C4343.

⁵⁸ C4273; *see* C52.

⁵⁹ C4273; *see* C52.

⁶⁰ C4273-74; *see* C52.

⁶¹ C4273-74; *see* C52; C4344.

⁶² 415 ILCS 15/3, 4(c), 5(e) (2014); *see* C54.

⁶³ C54; *see* 415 ILCS 15/6 (2014).

Industrial Waste. The solid waste management plans include projected generation of industrial waste, which may be based on either population or employment.⁶⁴ DeKalb, Kane, Kankakee, Lake, and McHenry Counties in Illinois and Lake County in Indiana base their projections on population.⁶⁵ For those counties, Ms. Smith obtained population estimates from the Illinois Department of Commerce and Economic Opportunity and the Indiana Stats database. She then applied the per capita waste generation rate found in the plans or updates and adjusted the results to reflect the recycling goal in the county's plan.⁶⁶ WMI indicates that this approach is consistent with Ms. Smith's 2006 analysis.⁶⁷

Cook, DuPage, Grundy, LaSalle, and Will Counties base their industrial waste projections on employment.⁶⁸ Ms. Smith applied per employee generation rates to projected manufacturing employment and applied recycling goals.⁶⁹ "The industrial waste generation rates for Cook and Grundy Counties are net disposal per employee, so no recycling goal is applied."⁷⁰

The application projects that the service area will generate 17,001,640 tons of industrial waste from 2021 to 2030.⁷¹ Recycling goals from the county solid waste management plans or updates range from 24% to 51%.⁷² After applying these goals, "the net disposal requirement from 2021 - 2030 is 13,318,573 tons."⁷³

CDD. To project generation of CDD in the service area, the application used per capita waste generation projections in the county plans and updates and then applied projected population and recycling goals.⁷⁴ The application projects that the service area will generate 32,528,141 tons of CDD from 2021 to 2030.⁷⁵ Recycling goals in the solid waste management plans "range from 35% to 65% over the planning period."⁷⁶ The application projects that net disposal of CDD during that period will be 14,222,870 tons.⁷⁷

⁶⁴ C54; C4151; C4274; C4521.

⁶⁵ C63; *see* C91-92 (Table 1: Population Projections for the Service Area).

⁶⁶ C63; C4274; C4521; *see* C95-102 (Table 3: Waste Generation Projections for the Service Area).

⁶⁷ WMI Resp. at 7, citing C4295.

⁶⁸ C63; *see* C93-94 (Table 2: Total Manufacturing Employment Projections for the Service Area).

⁶⁹ C61-62; C63; C4274; *see* C95-102 (Table 3: Waste Generation Projections for the Service Area).

⁷⁰ C63; *see* C95-102 (Table 3: Waste Generation Projections for the Service Area).

⁷¹ C64.

⁷² C64; *see* C95-102 (Table 3: Waste Generation Projections for the Service Area).

⁷³ C64; C79; C4151, C4274; C4521.

⁷⁴ C62; C63; C4151; C4274; C4521; *see* C91-92 (Table 1: Population Projections for the Service Area).

⁷⁵ C64; C98 (Table 3: Waste Generation Projections for the Service Area).

⁷⁶ C64.

⁷⁷ C64; C79; C98 (Table 3: Waste Generation Projections for the Service Area); C4151; C4521.

ERDS indicates that, under Section 22.38 of the Act, CDD facilities must recycle 75% of the material they receive.⁷⁸ WMI disputes the suggestion that Ms. Smith’s projection over-estimates CDD waste requiring disposal.⁷⁹ The Board agrees that ERDS misapplies Section 22.38. Counties’ solid waste plans include recycling goals ranging from 35 to 65% of CDD waste generated. Ms. Smith relied on those goals to determine that 44% of CDD waste generated would require disposal.⁸⁰ To implement recycling goals, CDD waste from a county may go to a facility “accepting exclusively general construction or demolition debris for transfer, storage, or treatment.” Section 22.38 requires the owner or operator of that facility to “[l]imit the percentage of incoming non-recyclable general construction or demolition debris to 25% or less of the total incoming general construction or demolition debris accepted. . . .”⁸¹ Section 22.38 does not, as ERDS appears to suggest require that 75 percent of all CDD waste generated be recycled.

Contaminated Soils. To make this projection for counties in the Illinois portion of the service area, Ms. Smith relied on the Special Waste Annual Reports submitted by landfill operators. From these reports, Ms. Smith compiled contaminated soil information for 2010 to 2014 using applicable waste codes.⁸² Because Indiana landfill reports do not include comparably specific waste codes or categories, Ms. Smith relied “on the reported quantities of contaminated soils generated in Lake County, Indiana that were sent to the Laraway RDF from 2011 to 2014 as an estimate of the soils generated. . . .”⁸³ Based on this information, the application projects that the service area will generate 28,638,350 tons of contaminated soils from 2021 to 2030.⁸⁴

ERDS argues that Ms. Smith “simply made projections based on past waste generation data without any knowledge as to whether future generation” would continue at these rates.⁸⁵ WMI counters that she relied upon five years of disposal data and reports by landfill operators to IEPA.⁸⁶ The County also dismisses ERDS’s position: “[a]bsent a crystal ball to tell the future, projections based on past waste generation data are an entirely reasonable way to predict future generation rates.”⁸⁷ The County adds that ERDS has not indicated that there is another way to make this projection.⁸⁸ The Board agrees with respondents that ERDS has not persuasively disputed Ms. Smith’s method or the projected generation of contaminated soils.

Summary. The application projects that net waste generation in the service area from 2021 to 2030 will be 13,318,573 tons of industrial waste, 14,222,870 tons of CDD, and

⁷⁸ ERDS Brief at 6, citing C4282; *see* 415 ILCS 5/22.38 (2014).

⁷⁹ WMI Resp. at 7-8, citing ERDS Brief at 6.

⁸⁰ C4281.

⁸¹ 415 ILCS 5/22.38(b) (2014).

⁸² C61, citing C103-104 (Table 4: Special Waste and Soils Generation in the Service Area); C62; *see* C4151; C4274; C4279; C4521.

⁸³ C62; C4274.

⁸⁴ C64; C79; C105 (Table 4: Special Waste and Soils Generation in the Service Area); C4151; C4274; C4521.

⁸⁵ ERDS Brief. at 5, citing C4279.

⁸⁶ WMI Resp. at 6, citing C4279.

⁸⁷ County Resp. at 2.

⁸⁸ County Resp. at 2.

28,638,350 tons of contaminated soils for a total of 56,179,793 tons.⁸⁹ Ms. Smith stressed that this net projection reflects recycling goals of 24 to 51 percent for industrial waste and 35 to 65 percent for CDD.⁹⁰ “[I]f no recycling took place in these counties over the ten-year period, the amount of waste requiring disposal will increase to over 78 million tons.”⁹¹

Service Area Disposal Capacity.

The Will County siting ordinance requires that the application provide information regarding facilities in the proposed service area and within 25 miles of its boundary and the remaining disposal capacity.⁹² Ms. Smith evaluated 26 facilities in Illinois, Indiana, Wisconsin, and Michigan.⁹³ The area also includes 63 transfer stations, 48 in Illinois, eight in Indiana, and five in Wisconsin.⁹⁴ The application reports that “[m]ost of these transfer stations are privately owned but may have restrictions in their permits on the types of waste accepted or their total processing capacity.”⁹⁵

Industrial Waste Capacity. To estimate industrial waste received by each landfill from 2011 to 2014, the application first used special waste receipts from IEPA capacity forms.⁹⁶ This estimate included landfills in and within 25 miles of the service area and “landfills estimated to receive waste from the service area.”⁹⁷ Next, the application determined “the percentage of the total waste received at the landfill that was industrial waste generated in the service area.”⁹⁸ The percentage of disposal capacity available for industrial waste is the percentage of industrial waste received at the landfill as reported in the IEPA capacity forms compared against total waste receipts.⁹⁹

Ms. Smith relied on IDEM quarterly reports for landfills and transfer stations to classify various Indiana waste categories including foundry sand, coal ash, flue-gas desulfurization waste, and other non-municipal solid waste as industrial waste.¹⁰⁰ Next, the application identified landfills receiving industrial waste from the service area from 2011 to 2014.¹⁰¹ For those landfills, the application determined the percentage of total waste that was industrial waste

⁸⁹ C64; C79; C4151; C4274; C4521.

⁹⁰ C4274.

⁹¹ C4274.

⁹² C22 (ordinance checklist); *see* C4275.

⁹³ C4275 (Smith testimony); *see* C65-66 (Section 4.1 Background: Evaluation of Service Area Disposal Capacity); C87 (Figure 3: Solid Waste Landfills In/Near the Service Area); C4152; C4522 (public hearing slides).

⁹⁴ C4275; *see* C88 (Figure 4: Transfer Stations In/Near the Service Area); C125-27 (Table 6: Transfer Stations In/Near the Service Area); C4152; C4522.

⁹⁵ C77.

⁹⁶ C66.

⁹⁷ C66.

⁹⁸ C66.

⁹⁹ C66, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹⁰⁰ C67.

¹⁰¹ C67.

generated in the service area.¹⁰² The percentage of disposal capacity available for industrial waste is “the average percent of industrial waste receipts generated in the service area that was accepted at each landfill.”¹⁰³

Michigan landfills annually report to MDEQ types of waste received, including CDD and industrial waste.¹⁰⁴ Landfills also report quantities received and the source of wastes by state or county.¹⁰⁵ In reports from 2011 to 2014, two Berrien County landfills reported receiving waste from Illinois and Indiana but did not specify the county from which it originated.¹⁰⁶ The application “assumes that the Illinois and Indiana waste received at these landfills was generated in the service area.”¹⁰⁷

Wisconsin landfills annually report to WDNR the quantities and types of industrial waste received and the county in which it was generated.¹⁰⁸ Ms. Smith reviewed WDNR forms from 2011 to 2014 for landfills reporting that they had received industrial waste from the service area.¹⁰⁹ The application then determined the percentage of total waste received at a landfill that was industrial waste generated within the service area. The percentage of disposal capacity available for receipt of industrial waste at a landfill is “the average percent of industrial waste receipts generated in the service area that was accepted at each landfill.”¹¹⁰

ERDS argues that Ms. Smith’s analysis “is based on how much special waste other landfills in the service area have taken in the past, not on how much they are legally capable of taking in the future.”¹¹¹ ERDS argues that “[w]hat Ms. Smith and the County fail to acknowledge is that ALL the landfill capacity at other landfills in the service area or taking waste from the service area . . . is legally available for the wastes currently projected to continue to go to Laraway.”¹¹² ERDS states that Ms. Smith’s opinion “is totally unsupported and arbitrary” and “the only way Ms. Smith can make her need equation work.”¹¹³ The County dismisses ERDS’s position that Ms. Smith should have projected disposal by projecting the capacity of other facilities to receive special waste. The County argues that projections based on past receipt of waste “are commonly used in needs analyses under Section 39.2.”¹¹⁴ The Board has reviewed the record and arguments on this point. Ms. Smith relied on recent documented disposal to project generation. This experience indicates that disposal of special waste will not require the entire capacity of landfills in the service area. The Board does not agree that Ms. Smith’s

¹⁰² C67.

¹⁰³ C67, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹⁰⁴ C67.

¹⁰⁵ C67.

¹⁰⁶ C67.

¹⁰⁷ C67, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹⁰⁸ C67-68.

¹⁰⁹ C68.

¹¹⁰ C68.

¹¹¹ ERDS Resp. at 1.

¹¹² ERDS Brief at 7 (emphasis in original).

¹¹³ ERDS Brief at 7.

¹¹⁴ County Resp. at 2-3, citing E&E Hauling v. PCB, 116 Ill. App. 3d 586, 604-05 (1983).

projection lacks support and concludes that ERDS has not persuasively disproved her method or projection of disposal capacity for industrial waste.

CDD Capacity. Illinois landfill operators “are not required to report the quantity of CDD received at their facilities each year.”¹¹⁵ The application relies on *Illinois Commodity/Waste Generation and Characterization Study*, a 2009 report prepared for the Illinois Department of Commerce and Economic Opportunity “to estimate the percentage of CDD received at Illinois landfills, unless site-specific information as available.”¹¹⁶ Based on samples collected and sorted in this study, the application estimates that the percentage of disposal capacity available to receive CDD at Illinois landfills is 20 percent.¹¹⁷ The application maintains that percentage from 2011 to 2014.¹¹⁸

“Landfill operators in the states of Indiana, Michigan, and Wisconsin are required to report the quantities of CDD, industrial waste, materials used for reuse, ADC [alternative daily cover], road building and MSW they receive each calendar year.”¹¹⁹ Ms. Smith reviewed IDEM quarterly reports “to determine which northwest Indiana landfills received MSW, industrial, CDD and ADC/reuse waste from the service area.”¹²⁰ She then determined the percentage of total waste receipts that was CDD generated in the service area from 2011 to 2014. “The percentage of disposal capacity available for CDD waste at each Indiana landfill is estimated by the average percentage of the CDD waste receipts received from the service area, compared to the total waste receipts. . . .”¹²¹

Ms. Smith also reviewed MDEQ reports for the years 2011 to 2014.¹²² The Berrien County landfills received waste from Indiana and Illinois, but reports did not identify the counties that were the source of that waste. The application “assumes that the Illinois and Indiana waste received at these landfills was generated in the service area.”¹²³ For the Michigan landfills, the application estimates the percentage of disposal capacity available for CDD as the “average percentage of the CDD waste receipts received from the service area, when compared to total waste receipts” from 2011 to 2014.¹²⁴

Ms. Smith also reviewed WDNR reports for Wisconsin landfills reporting that they had received CDD from the service area.¹²⁵ The application then determined “the percent of the total waste received at the landfill that was CDD waste generated in the service area.”¹²⁶ The

¹¹⁵ C68.

¹¹⁶ C68, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹¹⁷ C68, n.22, citing C106-24 (Table 5: Landfills In/Near the Service Area); *see* C4288 (Smith testimony).

¹¹⁸ C68.

¹¹⁹ C68.

¹²⁰ C69.

¹²¹ C69, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹²² C69.

¹²³ C69.

¹²⁴ C69, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹²⁵ C69.

¹²⁶ C69.

application estimates the percentage of disposal capacity available for CDD waste as the “average percentage of the CDD waste receipts received from the service area, when compared to total waste receipts” from 2011 to 2014.¹²⁷

Disposal Facilities. The application reviews available disposal capacity at 16 Illinois landfills.¹²⁸ However, the application notes that, “[b]y 2021, there will be five operating Illinois landfills in the service area, including Laraway RDF.”¹²⁹ Further, the application states that “[t]he entire capacity from these landfills is not available to the service area because of guaranteed disposal commitments, restrictions on the source or type of waste received, differing service areas . . . or limited, historic acceptance of industrial waste.”¹³⁰

The report includes “waste receipts at each landfill for the years 2011 to 2014 and their projected remaining capacity as of January 2015 and January 2021, which is the first year of the 10-year planning period.”¹³¹ Ms. Smith then reviewed reports, host agreements, and other sources to estimate the percentage of the landfill’s disposal capacity that would be available to receive waste from the service area in 2015 and 2021.¹³² The report then used county-level data to determine how the population of the service area overlaps with the population of each evaluated landfill’s service area. This “overlap ratio represents the percentage of each Illinois landfill’s disposal capacity that is available to the service area.”¹³³

Ms. Smith used IDEM reports from 2011 to 2014 to determine the facilities receiving industrial waste and CDD from the service area.¹³⁴ The application does not analyze eight Indiana facilities that receive “insignificant quantities of industrial waste or CDD from the service area” but evaluates disposal capacity at five Indiana landfills currently receiving waste from the service area.¹³⁵ In 2021, these facilities “are projected to be operating and providing disposal capacity to the service area.”¹³⁶ The application stresses that “[t]he entire capacity from these landfills is not available to the service area because of differing service areas . . . , or limited historic acceptance of industrial waste and/or CDD.”¹³⁷

Regarding Michigan, the MDEQ data include quantities of industrial waste and CDD received each year and the county or state where it was generated.¹³⁸ Based on 2011 to 2014 data, only two Michigan landfills—both located in Berrien County—received waste generated in

¹²⁷ C69, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹²⁸ C70-74 (Section 4.4.1: Remaining Disposal Capacity at Illinois Landfills).

¹²⁹ C73; *see* C106-24 (Table 5: Landfills In/Near the Service Area).

¹³⁰ C73-74.

¹³¹ C70, citing C106-24 (Table 5: Landfills In/Near the Service Area).

¹³² C70.

¹³³ C70.

¹³⁴ C75; *see* C106-24 (Table 5: Landfills In/Near the Service Area).

¹³⁵ C74-75.

¹³⁶ C75; *see* C106-24 (Table 5: Landfills In/Near the Service Area).

¹³⁷ C75.

¹³⁸ C75.

Illinois.¹³⁹ The application reviews in detail the available disposal capacity at these two landfills.¹⁴⁰

Finally, based on review of WDNR reports, “there is one Wisconsin landfill currently receiving industrial and CDD waste from the service area that represents more than 2% of the total waste received.”¹⁴¹ Seven other Wisconsin landfills received less than 2% of total waste from the service area.¹⁴² WDNR forms report data including quantities of industrial waste in addition to the quantity and type of waste received from out of state and the county where it was generated.¹⁴³ The application reviews in detail the available waste disposal capacity at the one Wisconsin landfill, the Pheasant Run RDF in Kenosha County.¹⁴⁴

ERDS characterizes Ms. Smith’s analysis of available disposal capacity as “even worse” than her projection of waste generation.¹⁴⁵ The County disputes ERDS’s position that Ms. Smith’s projection of disposal capacity “should have considered future, but not yet permitted, waste disposal facilities.” The County argues that the Board “does not require the inclusion of unpermitted future facilities in a needs analysis.”¹⁴⁶ WMI further states that Ms. Smith correctly excluded these facilities because she “cannot tell what the final capacity will be. I cannot tell when that capacity is going to be available and if there might be any kind of restrictions in the amount of that capacity.”¹⁴⁷ WMI also disputes ERDS’s position that Ms. Smith should have evaluated generation and capacity for disposal of other waste streams including municipal solid waste. WMI emphasizes that the proposed expansion “is not a municipal solid waste landfill.”¹⁴⁸ The Board has reviewed the record and arguments on this point and concludes that ERDS has not persuasively disputed Ms. Smith’s method or projection of disposal capacity. The Board concludes that Ms. Smith consulted appropriate data and considered appropriate facilities.

Laraway RDF. Ms. Smith cited the amount of waste received at the Laraway RDF as information relevant to waste disposal capacity. She noted that disposal of industrial waste, CDD, and contaminated soil at the facility increased from one million tons in 2011 to 1.7 million tons in 2012 to 2.2 million tons in 2013 to 2.9 million tons in 2014.¹⁴⁹ “[T]he rate of waste being received at the landfill is three times what the original estimates were.”¹⁵⁰ Ms. Smith noted that

¹³⁹ C75.

¹⁴⁰ C76; *see* C106-24 (Table 5: Landfills In/Near the Service Area).

¹⁴¹ C76.

¹⁴² C77.

¹⁴³ C76.

¹⁴⁴ C76; *see* C106-24 (Table 5: Landfills In/Near the Service Area).

¹⁴⁵ ERDS Brief at 6.

¹⁴⁶ County Resp. at 3, citing Waste Mgmt. of Ill. v. Kankakee County, PCB 04-186, slip op. at 49-50 (Jan. 24, 2008); Am. Bottom Conservancy v. Vill. of Fairmont City, PCB 01-159, slip op. at 20-22 (Oct. 18, 2001).

¹⁴⁷ C4287; *see* WMI Resp. at 9.

¹⁴⁸ WMI Repls. at 9, citing ERDS Brief at 7.

¹⁴⁹ C4275; *see* C4295-96.

¹⁵⁰ C4291.

three or four landfills that had been operating in 2005 or 2006 had since closed, resulting in “increased quantities of that material coming to the facility based on market conditions.”¹⁵¹

ERDS dismisses the increase in waste volume received at Laraway by arguing that pricing and market factors do not constitute need.¹⁵² The County disputes ERDS’s position, arguing that “market demand is obviously an essential, driving component of need.” The County states that this demand indicates the capacity that is “reasonably convenient” for the service area.”¹⁵³ In his findings and recommendations, the Will County hearing officer stated that, on the issue of need, “[t]he best available data appears to be the current intake of the Laraway facility. It is clear that the intake is far in excess of what was originally anticipated, thereby adding additional justification for finding that a need exists.”¹⁵⁴ The Will County Board considered the hearing officer’s findings and recommendations when it approved WMI’s application.¹⁵⁵ Ms. Smith testified that closure of other landfills has resulted in greater disposal than projected in 2006. ERDS has not disputed the reported waste volumes or argued that they will decline. The Board agrees that the reported waste volumes lend support to Ms. Smith’s projections.

Summary of Disposal Capacity. Based on applicable waste acceptance limitations, the application estimates that total remaining disposal capacity on January 1, 2021, at landfills providing disposal capacity to the service area will be 23,094,432 tons.¹⁵⁶

Projected Capacity Shortfall

The difference between projected waste disposal requirements for the service area from 2021 to 2030 and remaining permitted disposal capacity in the service area is 33,085,358 tons.¹⁵⁷ Ms. Smith testified that the proposed expansion “is necessary to accommodate the waste needs of the service area it’s intended to serve.”¹⁵⁸

Board Conclusion on Criterion (i)

Under this criterion, the proposed facility must be “necessary to accommodate the waste needs of the area it is intended to serve.”¹⁵⁹ “The applicant is not required to show absolute necessity in order to satisfy criterion (i).”¹⁶⁰ “The use of ‘necessary’ in the statute does not require applicants to show that a proposed facility is necessary in absolute terms, but only that the proposed facility is ‘expedient’ or ‘reasonably convenient’ vis-a-vis the area’s waste

¹⁵¹ C4275; C4291.

¹⁵² ERDS Brief at 8.

¹⁵³ County Resp. at 3, citing *E&E Hauling v. PCB*, 116 Ill. App. 3d at 605 (1983).

¹⁵⁴ C5299.

¹⁵⁵ C5324 (Resolution of the County Board).

¹⁵⁶ C77; C79; C4153; C4275; C4523.

¹⁵⁷ C78; C79; C4153; C4275; C4523; *see* C128 (Table 7: Capacity Shortfall Calculation).

¹⁵⁸ C4273; C4295.

¹⁵⁹ 415 ILCS 5/39.2(a)(i) (2014).

¹⁶⁰ *Landfill 33 v. Effingham County Bd.*, PCB 03-43, 03-52 (consol.), slip op. at 26 (Feb. 20, 2003).

needs.”¹⁶¹ “The applicant must show that the landfill is reasonably required by the waste needs of the area, including consideration of its waste production and disposal capabilities.”¹⁶² The Board finds that the Will County Board’s record on criterion (i) detailed above demonstrates that the proposed expansion is necessary to meet the waste needs of the area intended to be served.

By a vote of 25-0 with one abstention, the County Board found that “[t]he Applicant has demonstrated compliance with Criterion 1.”¹⁶³ WMI argues that it presented a credible expert’s evidence and opinion that the proposed facility is necessary to meet the needs of the intended service area.¹⁶⁴ The County states that no other witness directly contradicted Ms. Smith’s projections or calculations.¹⁶⁵ ERDS questions Ms. Smith’s credibility and aspects of her analysis, but as described above, ERDS is unpersuasive on those issues.

The Board has closely examined Ms. Smith’s projections of waste generation and disposal capacity to determine whether they support the County Board’s vote. Ms. Smith identified data she relied upon to project waste generation and considered appropriate factors and facilities to project disposal capacity. WMI’s application includes her written analysis and conclusions and is supported by her testimony. The local record shows that the service area will experience a 33 million ton shortfall in disposal capacity over the ten years of the proposed expansion’s operation. Neither ERDS nor anyone else submitted testimony or other evidence contradicting Ms. Smith’s projections of waste generation or disposal capacity.

Applying its technical expertise, the Board finds that the local record supports the County Board’s decision that WMI satisfied criterion (i). As the Board is unable to conclude that “the opposite result is clearly evident, plain, or indisputable,”¹⁶⁶ the Board finds that the County Board’s decision on criterion (i) is not contrary to the manifest weight of the evidence.

Criterion (ii): Designed and Located to Protect Public Health, Safety, and Welfare

In the following subsections, the Board discusses the record before the County Board, including WMI’s application and the county transcript. The Board reviews issues including geologic and hydrogeologic investigations of the site, design of the proposed expansion, and the plan of operations. The Board then concludes that the Will County Board’s decision on this criterion was not contrary to the manifest weight of the evidence.

Landfill Site

¹⁶¹ E&E Hauling v. PCB, 16 Ill. App. 3d 586, 605 (1983); see Clutts v. Beasley, 185 Ill. App. 3d 543, 546 (5th Dist. 1989) (citations omitted).

¹⁶² Fox Moraine v. United City of Yorkville, 2011 IL App (2d) 10001 (¶110) (2nd Dist. 2011), citing Waste Management v PCB, 175 Ill.App.3d 1023, 1031 (2nd Dist. 1988).

¹⁶³ C5325.

¹⁶⁴ WMI Brief at 23.

¹⁶⁵ County Resp. at 4, citing Fairview Area Citizens Task Force v. PCB, 198 Ill. App. 3d 541, 553 (3rd Dist. 1990).

¹⁶⁶ Land and Lakes, 319 Ill. App. 3d at 53; see Tate v. PCB, 188 Ill. App. 3d 994, 1022 (4th Dist. 1989).

WMI Witness. Ms. Joan Underwood testified about the geology, hydrogeology, and proposed groundwater monitoring system at the site.¹⁶⁷ A Senior Associate with Quantum Management Group, Inc., Ms. Underwood has a bachelor's degree in geology and a master's degree in hydrology.¹⁶⁸ She holds professional geology licenses from the States of Illinois, Wisconsin, and Indiana and a professional hydrology license from the State of Wisconsin.¹⁶⁹

Ms. Underwood has prepared more than 40 hydrogeologic site investigations and evaluations and has testified as an expert regarding criterion (ii) in more than 10 site location proceedings.¹⁷⁰ These evaluations provide information for the design engineers and also for the development of a groundwater monitoring network to monitor performance of the landfill design.¹⁷¹ Ms. Underwood performed the investigation and evaluation for the proposed 2006 expansion of the facility.¹⁷² The groundwater monitoring system at the site is based upon her evaluation. It has operated since 2009 and has not detected a release of contaminants to groundwater.¹⁷³

Regional Physiography, Topography, and Drainage. These factors provide background information for assessing the site of the proposed expansion.¹⁷⁴ The site is situated within the Kankakee Plain Subsection of the Till Plains Section of the Central Lowland Province. The subsection consists primarily of sediments overlaying bedrock.¹⁷⁵ The site "is located on a low-relief, gently undulating upland of glacial ground moraine and adjacent slopes that border the Des Plaines River Valley and its tributaries."¹⁷⁶ To the west and northwest of the site, elevations decrease steeply to the river and its tributaries.¹⁷⁷ To the south and southwest, elevations decrease gradually to Cedar Creek, a tributary flowing into the river approximately three miles southwest of the site.¹⁷⁸

Regional Geology. Ms. Underwood relied chiefly on publications of the Illinois State Geological Survey (ISGS) to characterize regional geology.¹⁷⁹ More than 90% of Illinois' surface area is covered by glacial and related deposits.¹⁸⁰ Ms. Underwood reviewed a map showing "how the glaciers advanced and deposited different materials."¹⁸¹ During the Wisconsin glacial episode, ice occupied Illinois from about 25,000 to 10,000 years ago. In the

¹⁶⁷ C4354-61 (Underwood testimony).

¹⁶⁸ C4354; *see* C4241 (resume); C4591 (same).

¹⁶⁹ C4354; *see* C4241; C4591.

¹⁷⁰ C4354-55.

¹⁷¹ C4354.

¹⁷² C4354.

¹⁷³ C4354-55.

¹⁷⁴ C148.

¹⁷⁵ C148; *see* C172 (Figure 2-1: Physiographic Divisions of Illinois); C4173; C4543.

¹⁷⁶ C149.

¹⁷⁷ C149.

¹⁷⁸ C149.

¹⁷⁹ C149; *see* C4174 (Generalized Geologic Column).

¹⁸⁰ C149.

¹⁸¹ C4355; *see* C173 (Figure 2-2: Glacial Features and Quaternary Deposits of Northeastern Illinois).

Will County area, glacial deposits are primarily from the Michigan Subepisode, which included eight phases of glacial activity.¹⁸² These phases followed a sequence of glacial deposits comprising the Wedron Group diamicton units intertongued with lesser amount of units comprising the Mason Group.¹⁸³ Within the Wedron Group, “[t]he predominant surficial formation across Will County is the Lemont Formation.”¹⁸⁴ In the area of the proposed expansion, “[t]he glacial deposits generally range between 25 and 50 feet thick.”¹⁸⁵

The proposed facility is situated over a bedrock upland along the Des Plaines River.¹⁸⁶ Bedrock elevations decrease toward the west where the river has eroded into the bedrock.¹⁸⁷ In the vicinity of the proposed expansion, the uppermost bedrock consists primarily of Silurian and Ordovician dolomites and shales deposited approximately 490 to 419 million years ago.¹⁸⁸ Beneath those are “a succession of Paleozoic sedimentary rocks” deposited more than 490 million years ago.¹⁸⁹ These “overlie Precambrian granite and related rocks that formed 1,420 to 1,500 million years ago.”¹⁹⁰ Major tectonic movements warped bedrock in northeastern Illinois, forming the Kankakee Ridge, a gently sloping, low-relief bedrock ridge.¹⁹¹ The ridge causes rock units near the proposed expansion generally to tilt 15 feet per mile toward the east.¹⁹² Although other tectonic movements produced the Sandwich Fault Zone running northwest to southeast, “[q]uaternary-age strata overlying the fault zone show no evidence of offsets or disturbed zones corresponding with faults in the bedrock.”¹⁹³

Regional Hydrogeology. Quaternary-age deposits and upper bedrock units have consistent characteristics allowing them to be mapped on a regional basis.¹⁹⁴ They influence the hydrogeologic character of those units and determine whether they are aquifers or aquitards.¹⁹⁵ The hydrostratigraphic units in northeastern Illinois include the Prairie, Upper Bedrock, Midwest Bedrock, and Basal Bedrock aquigroups. The Prairie Aquigroup, with a thickness of up to 600 feet includes “the entire sequence of Quaternary-age deposits.”¹⁹⁶ Although it is largely made up of elements considered to be aquitards, it also includes localized sand-and-gravel aquifers.¹⁹⁷ These aquifers are most commonly situated “just above or resting on bedrock.”¹⁹⁸

¹⁸² C149-50; *see* C173.

¹⁸³ C150, citing C175 (Figure 2-4: Regional Soil Stratigraphic Column).

¹⁸⁴ C150.

¹⁸⁵ C150, citing C176 (Figure 2-5: Thickness of Quaternary Deposits Map).

¹⁸⁶ C151.

¹⁸⁷ C151, citing C179 (Figure 2-8: Bedrock Topography of Northeastern Illinois).

¹⁸⁸ C150, citing C177 (Figure 2-6: Bedrock Geology of Northeastern Illinois).

¹⁸⁹ C150, citing C178 (Figure 2-7: Bedrock Stratigraphic Column for Northeastern Illinois).

¹⁹⁰ C150.

¹⁹¹ C151.

¹⁹² C151 (citations omitted).

¹⁹³ C151.

¹⁹⁴ C152.

¹⁹⁵ C152, citing C180 (Figure 2-9: Water-Yielding and Groundwater Quality Characteristics in Northern Illinois).

¹⁹⁶ C152.

¹⁹⁷ C152.

¹⁹⁸ C152.

The Upper Bedrock Aquigroup, with a thickness of up to 465 feet, consists of a single unit, the Silurian dolomite aquifer.¹⁹⁹ Near the proposed expansion the aquifer is just over 100 feet thick, but yields vary widely and generally decrease with depth.²⁰⁰ Next, the Midwest Bedrock Aquigroup consists of five units, including the Maquoketa Confining Unit nearest to the surface and having a depth of up to 250 feet.²⁰¹ Beneath that, the Basal Bedrock Aquigroup consists of a confining layer over an aquifer.²⁰²

Site-Specific Investigations. With regional background information, Ms. Underwood prepared a site investigation program.²⁰³ The South Area of the site had been characterized by previous investigations, which involved 39 borings at 24 locations and installation of 27 wells.²⁰⁴ Investigation of the North Area took place from August 2014 through March 2015 and characterized geologic, hydrogeologic, and geotechnical conditions.²⁰⁵ Ms. Underwood performed the investigative tasks generally according to ASTM Standard D420, Guide to Site Characterization for Engineering, Design, and Construction Purposes.²⁰⁶

The investigation performed drilling and soil sampling of 37 borings at 30 locations.²⁰⁷ “Soil samples were logged, classified and geologically interpreted in the field by a geologist” and described according to a number of characteristics.²⁰⁸ Soil samples were analyzed through tests including ASTM methods.²⁰⁹ “Rock samples were logged in the field” and also described according to characteristics.²¹⁰ Borings that were not converted to wells were sealed according to requirements of the Agency and the Illinois Department of Public Health.²¹¹

The investigation installed and developed 12 wells at different depths according to ASTM D5092, Standard Practice for Design and Installation of Groundwater Monitoring Wells

¹⁹⁹ C152; *see* C180 (Figure 2-9: Water-Yielding and Groundwater Quality Characteristics in Northern Illinois).

²⁰⁰ C152, citing Sasman, *et al*, Verification of the Potential Yield and Chemical Quality of the Shallow Dolomite Aquifer in DuPage County, Illinois: Illinois State Water Survey Circular 149 (1981).

²⁰¹ C152-53; *see* C180 (Figure 2-9).

²⁰² C153; *see* C180 (Figure 2-9).

²⁰³ C4355 (Underwood testimony).

²⁰⁴ C153-54; C4355; *see* C1553-1903 (Appendix B-3: Boring Logs from Previous Investigations); C1925-2044 (Appendix B-6: Well Completion Reports from Previous Investigations).

²⁰⁵ C153.

²⁰⁶ C153.

²⁰⁷ C153, C154; *see* C1281-84 (Appendix B-1: Borehole and Survey Summary); C1288-1465 (Appendix B-2: soil boring logs).

²⁰⁸ C154; *see* C4174, C4355-56.

²⁰⁹ C154; *see* C2045-2306 (Appendix C: Geotechnical Information).

²¹⁰ C154; *see* C4175-76; C4356; C4545 (public hearing slides).

²¹¹ C154; C155.

in Aquifers.²¹² The investigation performed in-situ conductivity tests “to determine the horizontal hydraulic conductivity of the formation in the vicinity of each well-screen interval.”²¹³ The investigation also performed borehole geophysical logging “to assist in lithologic correlation, geologic interpretation and hydrogeologic characterization of the unconsolidated deposits and bedrock.”²¹⁴

Additionally, Ms. Underwood performed a well inventory within a 1.5 mile radius around the proposed expansion.²¹⁵ The survey relied on water well data from the ISGS and Illinois State Water Survey (ISWS) and reviewed 599 well records.²¹⁶ The survey located 213 water wells, 51 of which “are assumed to be abandoned due to construction of the Center Point Intermodal Center.”²¹⁷

Site-Specific Geology. Ms. Underwood used soil borings and rock corings to develop a site-specific geologic column and “construct a series of geologic cross sections.”²¹⁸

Soil units “are primarily glacial deposits with some very young windblown deposits at the top and then the uppermost bedrock here is the Silurian dolomite,” which “is just a slightly altered form of limestone.”²¹⁹ This is consistent with regional stratigraphic patterns developed by ISGS.²²⁰

Quaternary-age sediments at the site range from approximately four to 60 feet in depth.²²¹ The succession of these sediments includes Peoria Silt, “a fine-grained eolian (wind-blown) deposit that discontinuously mantles the uplands” at the site at depths varying from 0 to 7.25 feet.²²² “Underlying the Peoria Silt, and at the ground surface where the Peoria Silt is absent, is the Yorkville Member of the Lemont Formation,” which “was deposited by the last glacial

²¹² C153; C155, citing C1904-10 (Appendix B-4: Well Survey Summary); C1911-24 (Appendix B-5: Well Completion Reports).

²¹³ C156; *see* C2399-2401 (Appendix D-1: summary); C2403-2589 (Appendix D-2: results).

²¹⁴ C157; *see* C153; C1288-1465 (Appendix B-2-1: Soil Boring, Rock Core, and Geophysical Logs).

²¹⁵ C153.

²¹⁶ C153.

²¹⁷ C153; *see* C350 (Drawing 1); C1273-78 (Appendix A: Private and Municipal Well Information).

²¹⁸ C4356; *see* C157; C158-60 (Table 2-1: Summary of Geotechnical Test Data by Stratigraphic Unit); C181 (Figure 2-10: Site-Specific Stratigraphic Column); C182 (Figure 2-11: Cross-Section Locations); C183 (Figure 2-12: Geologic Cross-Section Legend); C184-200 (Figures 2-13 – 2-29: Geologic Cross-Sections A-A’ – O-O’); C1288-1465 (Appendix B-2-1: Soil Boring, Rock Core, and Geophysical Logs); C1553-1903 (Appendix B-3: Boring Logs from Previous Investigations); C2045-2396 (Appendix C: Geotechnical Information); C4176; C4546.

²¹⁹ C4356; *see* C181 (Figure 2-10: Site-Specific Stratigraphic Column); C4176; C4546.

²²⁰ C157.

²²¹ C157.

²²² C157, C161; C2051-69 (Appendix C-2: Peoria Silt, Wmp).

advance across the area.”²²³ Its depth at the site ranges from 0 to 18.8 feet and averages eight feet where present.²²⁴

Underlying the Yorkville Member is the Equality Formation 1, “a typically thick sequence” of fine-grained deposits.²²⁵ It ranges from 0 to approximately 35 feet thick and has an average depth of 18 feet where present.²²⁶ The landfill is located primarily in the Equality Formation.²²⁷ Below that formation is the Henry Formation, which ranges from zero to more than 21 feet deep and has an average depth of six feet where present.²²⁸ The Henry Formation rests either on bedrock where the bedrock surface is high or on the thin fine-grained deposits of the Equality Formation 2 or on the undifferentiated Lemont Formation.²²⁹ The Equality Formation 2 is generally absent and has an average thickness of about five feet where present.²³⁰ The Lemont Formation, Undifferentiated varies in thickness from 0 to 18 feet and has an average thickness of 5 feet where present.²³¹ Thick undifferentiated Silurian-age dolomite underlies the site with a depth of approximately 30 to 65 feet.²³²

Site-Specific Hydrogeology. Ms. Underwood developed a conceptual model of the hydrogeology of the site by reviewing regional information and site-specific data including data from previous investigations.²³³ The groundwater model reflects factors including the influence of the topography and surface drainage.²³⁴ Ms. Underwood stated that “[t]he hydrogeology was well defined back in 2006” and that “[w]e didn’t find anything that was different during this investigation so the hydrogeology is well understood.”²³⁵

At the site, the combined Peoria Silt and underlying Yorkville Member and Equality Formation 1 deposits of low-permeability clays and silty clays form the aquitard.²³⁶ “They restrict surface infiltration as well as vertical and horizontal groundwater flow.”²³⁷ These formations “are generally unsaturated near the surface” and have slower groundwater flow rates.²³⁸ Beneath the aquitard is the uppermost aquifer.²³⁹ The average distance separating the

²²³ C157; C161-62; C2070-95 (Appendix C-3: Lemont Formation, Yorkville Member, Wwly).

²²⁴ C161.

²²⁵ C157.

²²⁶ C162; C2096-2222 (Appendix C-4: Equality Formation 1, Wme₁).

²²⁷ C4356.

²²⁸ C163; C2224-47 (Appendix C-5: Henry Formation, Wmh).

²²⁹ C161.

²³⁰ C163; C2249-52 (Appendix C-6: Equality Formation 2, Wme₂).

²³¹ C163; C2254-81 (Appendix C-7: Lemont Formation, Undifferentiated, Wwlu).

²³² C165; *see* C198-99 (Geologic Cross- Section N-N’); C4176 (Cross-Section N-N’); C4536 (public hearing slides).

²³³ C165.

²³⁴ C166; *see* C201 (Figure 2-30: Conceptual Hydrogeologic Model); C4177; C4547.

²³⁵ C4358.

²³⁶ C166, citing C201 (Figure 2-30: Conceptual Hydrogeologic Model).

²³⁷ C166.

²³⁸ C166.

²³⁹ C166.

bottom of the landfill from the uppermost aquifer is ten feet.²⁴⁰ The uppermost aquifer consists of the hydraulically connected Henry Formation sands and undifferentiated Silurian-age bedrock.²⁴¹ “The relationship between the two units varies” across the site.²⁴² Because the uppermost aquifer has higher permeability than the underlying and overlying units, it “is the preferred flow path and carries the majority of the shallow groundwater low beneath the site.”²⁴³ “The calculated average linear groundwater flow velocity for the uppermost aquifer is 0.07 ft/day.”²⁴⁴

Ms. Underwood determined groundwater elevations based on groundwater levels measured at the site.²⁴⁵ “These groundwater elevations demonstrate that the water table mimics topography and that groundwater follow is predominantly to the west and northwest toward the Des Plaines River.”²⁴⁶

ERDS states that the bottom of the proposed landfill is approximately ten feet above the Silurian Dolomite that forms the uppermost aquifer.²⁴⁷ ERDS argues that the site provides little natural barrier, “and the inevitable leakage will quickly migrate into the ground water.”²⁴⁸ ERDS describes Mr. Hoekstra as “a Low-level operative for WMII” and cites his testimony that the maximum waste volume accepted at the existing facility in 19,000 tons.²⁴⁹ ERDS questions whether host fees associated with that volume “may not have become more important than protecting a precious aquifer?”²⁵⁰

WMI states that ERDS mischaracterizes the evidence. WMI argues that engineered systems collect and remove leachate and protect the proposed expansion from leakage.²⁵¹ WMI asserts that its proposed groundwater monitoring system will supplement the existing system.²⁵² WMI adds that groundwater flows to the northwest and discharges along the bluff line before reaching the Des Plaines River.²⁵³ WMI states that this contradicts ERDS’s claim that the site is over a “major regional groundwater aquifer.”²⁵⁴

The Board has reviewed the Will County Board’s record on the geology and hydrogeology of the site, including the application and Ms. Underwood’s testimony. The local

²⁴⁰ C4360; *see* C4341-42 (Nickodem testimony).

²⁴¹ C166; *see* C4356-57.

²⁴² C166.

²⁴³ C166; C4357.

²⁴⁴ C2600 (Appendix D-4-2: Horizontal Hydrogeologic Calculations); *see* C171.

²⁴⁵ C170; C202 (Figure 2-31: Potentiometric Surface Contour Map, Fourth Quarter 2014); C203 (Figure 2-32: Potentiometric Surface Contour Map, First Quarter 2015).

²⁴⁶ C170; C4177; C4357; C4547.

²⁴⁷ ERDS Brief at 9.

²⁴⁸ ERDS Brief at 9.

²⁴⁹ ERDS Brief at 8, citing C4368.

²⁵⁰ ERDS Brief at 8.

²⁵¹ WMI Resp. at 11.

²⁵² WMI Resp. at 12, citing C4357-58, 4361.

²⁵³ WMI Resp. at 12, citing C4359.

²⁵⁴ WMI Resp. at 12, citing ERDS Brief at 9.

record includes a detailed analysis of the site. The record includes unrebutted evidence of low-permeability deposits forming an aquitard at the site. Ms. Underwood testified that the proposed expansion is chiefly situated in the Equality Formation, a thick sequence of these deposits. She further testified that there is an average separation of ten feet between the bottom of the composite liner and the aquifer. The County Board's hearing officer concluded that "[t]he location of the landfill and the monitoring program appears to meet or exceed any requirements."²⁵⁵ The Will County Board considered his findings and recommendations when it approved WMI's application.²⁵⁶ Considering these elements of the local record, the Board is not persuaded that the site "provides little natural barrier."

In addition, ERDS argues that the proposed expansion surrounds three sides of the closed ESL landfill, which WMI had owned and operated.²⁵⁷ ERDS argues that the site is "known to be polluting groundwater" and notes that the Will County Board denied WMI's application to expand the closed landfill.²⁵⁸ WMI discounts the 1983 Will County Board decision as "irrelevant." WMI argues that "the relevant inquiry is whether the proposed expansion, not the existing site, satisfies the statutory criteria."²⁵⁹ Even if the closed landfill happened to be relevant, WMI states that the application does not show that the proposed expansion is based on the same conditions or design of the facility that the Will County Board did not approve.²⁶⁰ WMI stresses that the Board reversed the County Board's finding that the ESL expansion did not meet Criterion (ii).²⁶¹ In addition, while objections to an existing facility "may be relevant to an enforcement action, the weight of this information is diminished in the context of evaluating the design and operational aspects of the proposed facility."²⁶² The Board agrees that, on this record, the closed landfill is not relevant to whether WMI's proposed expansion satisfied criterion (ii).

Groundwater Impact Assessment. The application includes a groundwater impact assessment, which evaluates the potential for groundwater impact resulting from the proposed expansion.²⁶³ The assessment relies upon a groundwater flow and contaminant transport model to predict the movement of leachate constituents.²⁶⁴ A one-dimensional model, POLLUTE, "was selected because it is widely used, validated and verifiable."²⁶⁵ A one-dimensional model "was accepted for the previous application and it provides a conservative calculation" that

²⁵⁵ C5301.

²⁵⁶ C5324 (Resolution of the County Board).

²⁵⁷ ERDS Brief at 8; *see* C4339.

²⁵⁸ ERDS Brief at 8, citing Waste Mgmt. of Ill. v. County Board of Will County, PCB 82-141, slip op. at 7 (Apr. 7, 1983).

²⁵⁹ WMI Resp. at 10, citing Am. Bottom Conservancy v. Vill. of Fairmont City, PCB 01-159, slip op. at 25, 27 (Oct. 18, 2001), Citizens Opposed to Additional Landfills v. Greater Egypt Reg. Envt'l. Complex, PCB 97-29, slip op. at 2 (Dec. 5, 1996).

²⁶⁰ WMI Resp. at 10, n.1.

²⁶¹ WMI Resp. at 10, citing Waste Mgmt. of Ill. v. County Bd. of Will County, PCB 82-141, slip op. at 9, 17 (Apr. 7, 1983).

²⁶² Hediger, et al. v. D&L Landfill, PCB 90-163, slip op. at 12 (Dec. 20, 1990).

²⁶³ C29, citing 35 Ill. Adm. Code 811.317; C293.

²⁶⁴ C293.

²⁶⁵ C293.

overstates the impact of the landfill.²⁶⁶ The assessment projects that all leachate constituents are below applicable groundwater quality standards at the top of the uppermost aquifer.²⁶⁷ Ms. Underwood performed a sensitivity analysis “to evaluate model uncertainty by assessing the change in model output when transport model input parameters are varied.”²⁶⁸ Each of ten sensitivity runs projected that leachate concentration at the top of the uppermost aquifer would be below applicable standards.²⁶⁹

ERDS discounts Ms. Underwood’s groundwater impact assessment because she used a one-dimensional model.²⁷⁰ WMI states that the model was run for the existing landfill, approved by IEPA, and uses “site-specific information and conservative assumptions.” These conservative assumptions “will overestimate the impact of conditions of the landfill.”²⁷¹ The Board agrees with WMI and declines to discount Ms. Underwood’s assessment or testimony.

Groundwater Monitoring System. Ms. Underwood designed the groundwater monitoring system for the existing facility.²⁷² She proposed a supplemental monitoring system adding wells to monitor the north expansion.²⁷³ The proposed monitoring network consists of 44 wells, 25 of which are new and 19 of which currently exist.²⁷⁴ Eleven wells are upgradient, and 33 downgradient.²⁷⁵ The wells will monitor the uppermost aquifer.²⁷⁶ Ms. Underwood characterized this as an “appropriate monitoring system” for the proposed expansion.²⁷⁷

The groundwater monitoring program, which includes routine sampling and analysis of the groundwater quality, is described below under “Monitoring at Site.”²⁷⁸ Analysis of initial monitoring results may result in adjusting a groundwater quality standard based on background concentrations found and confirmed.²⁷⁹ WMI will sample wells on a quarterly and semi-annual basis depending on the parameter, and the existing wells will continue to be monitored according to the applicable RCRA permit.²⁸⁰ After an initial five-year period, sampling frequency may be reduced with IEPA approval.²⁸¹ Final groundwater monitoring parameters, sampling frequency,

²⁶⁶ C4360; *see* C316.

²⁶⁷ C316.

²⁶⁸ C316.

²⁶⁹ C316; C4361.

²⁷⁰ ERDS Brief at 9.

²⁷¹ WMI Resp. at 13, citing C 4360-61.

²⁷² C4357; *see* C4178 (public hearing slides); County Brief at 9.

²⁷³ C4178; C4357; *see* County Brief at 9.

²⁷⁴ C318; C4332.

²⁷⁵ C318; C319 (Table 11-1: Proposed Groundwater Monitoring Well Network); C359 (Drawing 10: Monitoring Plan); C4161; C4361.

²⁷⁶ C4356.

²⁷⁷ C4358.

²⁷⁸ *Infra* at 32; *see* C318.

²⁷⁹ C4358.

²⁸⁰ C318; C3671-76 (Appendix L-2: Groundwater Monitoring Parameters).

²⁸¹ C318.

and number and location of monitoring wells may be modified based on IEPA review and approval.²⁸² Monitoring wells will be inspected at each sampling event.²⁸³

ERDS states that monitoring wells at the site indicate that groundwater quality standards have been exceeded.²⁸⁴ ERDS argues that Ms. Underwood “purports to explain these away as coming from ‘alternate sources.’”²⁸⁵ WMI explains that monitoring well G-188 has reported an exceedance. WMI states that, after receiving that result, it followed a confirmation process. For G-188, “the exceedance was caused by naturally occurring groundwater conditions,” a conclusion confirmed and approved by IEPA.²⁸⁶ The Board accepts WMI’s account of the monitoring result obtained at well G-188.

Location Standards.

Water Supply Wells. Section 14.2 of the Act requires that a new disposal unit must be set back a minimum of 200 feet from a community water supply well or other potable water supply well.²⁸⁷ Based on ISGS and ISWS data, the application identifies water supply wells within a 1.5 mile radius of the site.²⁸⁸

Floodplains. The site “is not located in any 100-year floodplain.”²⁸⁹

Regulated Recharge Areas. The site “is not located within a regulated recharge zone.”²⁹⁰

Airports. The site is not within 10,000 feet of an airport serving turbojet aircraft or within 5,000 feet of an airport serving piston-type aircraft.²⁹¹ The airport nearest the site is the Joliet Regional Airport, is approximately 3 miles to the northwest.²⁹² The application states that federal location standards exclude this expansion of an existing landfill.²⁹³

Fault Areas. New landfill units cannot be located within 200 feet of a fault that has had displacement between 7,000 and 10,000 years ago in Holocene time. “There are no Holocene faults located in Will County.”²⁹⁴

²⁸² C318.

²⁸³ C337.

²⁸⁴ ERDS Brief at 9.

²⁸⁵ ERDS Brief at 9.

²⁸⁶ WMI Resp. at 12-13, citing C4358-59.

²⁸⁷ C207, citing 415 ILCS 5/14.2(a) (2014).

²⁸⁸ C207; C350 (Drawing 1: Subject Site Location); C1274-78 (Appendix A: Private and Municipal Well Information); *see* C23 (Will County ordinance checklist).

²⁸⁹ C417 (Criterion 4); C418 (Figure 1: 100-year Floodplain Areas).

²⁹⁰ C741 (Criterion 9), *see* 35 Ill. Adm. Code 617 (establishing single regulated recharge area in Peoria County).

²⁹¹ C207; C208 (Figure 3-1: Airport Location Map).

²⁹² C208; *see* C208 (Figure 3-1: Airport Location Map).

²⁹³ C208, citing 49 U.S.C. §44718(d).

²⁹⁴ C209.

Seismic Impact Zones and Unstable Areas. The application cites ISGS seismic hazard data indicating that the site is not within a seismic impact zone.²⁹⁵ ISGS maps show that the site “is not located within any of the five karst regions within Illinois.”²⁹⁶ The application adds that neither the topography nor human activity at the site has caused any unstable area “susceptible to natural or human induced events or forces which may affect the integrity of the landfill.”²⁹⁷

Wild and Scenic Rivers. Because the only Wild and Scenic River designated in Illinois by the United States Fish and Wildlife Service is the Middle Fork Vermillion River approximately 125 from the site, the proposed expansion will not affect a national scenic river.²⁹⁸

Historic and Archaeological Sites. An archaeological survey in 2005-2006 identified one site deemed to be significant.²⁹⁹ Because it would not be impacted by the proposed facility, it was left undisturbed.³⁰⁰ WMI filed a preservation covenant with the Will County Recorder of Deeds as directed by the Illinois Historic Preservation Agency.³⁰¹

Endangered Species. The Illinois Department of Natural Resources Ecological Compliance Assessment Tool identified only one protected resource, which will not be affected by the proposed expansion.³⁰² United States Fish and Wildlife Service data show nine endangered, threatened, or candidate species for Will County, but habitat for these species does not exist at the site of the proposed expansion.³⁰³

Wetlands. A delineation of wetlands in 2014 identified eight low to medium functional value wetland areas at the site with a total area of 6.97 acres.³⁰⁴ None of these wetlands will be affected by the proposed expansion.³⁰⁵

Witness Conclusions on Landfill Site. Based on her experience and review of the relevant geologic and Hydrogeologic information, Ms. Underwood concluded that the proposed expansion is “located to protect the public health, safety, and welfare.”³⁰⁶ Her opinion stresses that “[t]he hydrogeology was well defined back in 2006. We didn’t find anything that was different during this investigation so the hydrogeology is well understood.”³⁰⁷ She also stressed that this information is the basis for a sound groundwater monitoring system.³⁰⁸

²⁹⁵ C209; C210 (Figure 3-2: Peak Horizontal Bedrock Acceleration).

²⁹⁶ C209; C211 (Figure 3-3: Karst Regions in Illinois).

²⁹⁷ C209.

²⁹⁸ C209.

²⁹⁹ C209; C212 (Figure 3-4: Phase I Archaeological Surveys).

³⁰⁰ C209.

³⁰¹ C209; C2791-95 (Illinois Historic Preservation Agency correspondence).

³⁰² C213, C2797-98 (Ecological Compliance Assessment Tool results).

³⁰³ C213; C2796-2804 (Appendix F-2: Endangered Species).

³⁰⁴ C213.

³⁰⁵ C213; C214 (Figure 3-5: Wetland Locations).

³⁰⁶ C4357-58.

³⁰⁷ C4358.

³⁰⁸ C4358.

Landfill Design

WMI Witness. Mr. Andrew Nickodem testified about the design of the proposed expansion. He has a bachelor's degree in civil engineering and is licensed in the States of Illinois, Indiana, Wisconsin, Kansas, and Tennessee.³⁰⁹ He has 28 years of experience, specializes in solid waste management and landfill design, and has worked on more than 100 sites.³¹⁰ Mr. Nickodem designed the Laraway RDF proposed in 2006, which the Will County Board approved in 2007 and the Agency permitted in 2009.³¹¹ The facility has performed as designed since it began operating in 2009.³¹² The proposed landfill design extends the design and includes all of the same components.³¹³

Liner System. The composite liner system for the proposed expansion will extend across the entire base and side slopes of the landfill.³¹⁴ The system prevents leachate from entering groundwater and consists of three layers.³¹⁵

The top layer of the liner system will be a 16 ounce per square yard nonwoven geotextile cushion layer.³¹⁶ This layer protects the geomembrane layer below it from the granular drainage layer placed above it to facilitate leachate collection.³¹⁷

Beneath the geotextile layer will be a 60-mil high density polyethylene (HDPE) geomembrane.³¹⁸ As manufactured, the HDPE should not be affected by temperature variations encountered at the facility and should resist ultraviolet degradation.³¹⁹ During construction, the layer will be secured to prevent wind-induced movement.³²⁰ Manufacturer's testing "shows that HDPE is unaffected by typical landfill leachate and is resistant to most compounds. . . ."³²¹

Beneath the geomembrane will be a layer of compacted low permeability soil with a minimum thickness of three feet.³²² Material for this layer will be obtained on-site and have a maximum conductivity of 1×10^{-7} cm/sec.³²³

³⁰⁹ C4233 (resume); C4329 (Nickodem testimony); C4583 (resume).

³¹⁰ C4233; C4329; C4583.

³¹¹ C4329.

³¹² C4329; C4347.

³¹³ C4329-30.

³¹⁴ C246; C4330-31.

³¹⁵ C341; C4159; C4329; C4529 (public hearing slides).

³¹⁶ C216; C227; C246; C362 (Drawing 13: General Details); C4331.

³¹⁷ C241; C246; C247; C4337.

³¹⁸ C216; C227; C246; C362 (Drawing 13: General Details); C4164; C4331.

³¹⁹ C248.

³²⁰ C248.

³²¹ C250.

³²² C216; C227; C246; C362 (Drawing 13: General Details); C4331.

³²³ C246; C4341.

Leachate Management System. The leachate management system removes leachate so that it does not accumulate on the composite liner system.³²⁴ The leachate head level in the landfill will be maintained so that less than one foot of head is on all areas of the liner.³²⁵ The system at the proposed expansion consists first of a four ounce per square yard non-woven geotextile filter layer.³²⁶ The filter prevents fine material from the waste from intruding into the drainage layer below it.³²⁷

Below the filter layer will be a 12 inch granular drainage layer with a minimum conductivity of 1×10^{-1} cm/sec.³²⁸ Base grade slopes will help move leachate through this layer.³²⁹ The geotextile and drainage layers will rest atop the composite liner system, which allows leachate to flow across the liner into collection pipes.³³⁰

Six-inch HDPE perforated pipes will be placed in the drainage layer.³³¹ Analysis indicates that the pipes “have sufficient capacity to transmit the maximum anticipated leachate flows.”³³² Slope of the pipes will aid flow into leachate collection sumps located at the toe.³³³

Leachate in each collection sump is removed by a pump installed in a riser pipe.³³⁴ Leachate is pumped from the collection sumps either into a forcemain or directly to a tanker truck.³³⁵ The forcemain conveys leachate to holding tanks prior to disposal.³³⁶ Tanks will provide a minimum of one day of capacity and will be double walled or provide other secondary containment.³³⁷ From tanks, leachate is transported off-site to the Kankakee River Metropolitan Agency for disposal.³³⁸ CID Biological Treatment Center provides backup treatment capacity.³³⁹

Maintenance of the leachate management system will focus on pumping systems and cleanout risers at the end of the leachate collection pipes.³⁴⁰

Final Cover. “A final cover will be placed over the waste after filling is complete to promote surface water run-off and limit precipitation infiltration into the waste mass to minimize

³²⁴ C253; C341; C4329; C4331; *see* C4529.

³²⁵ C337.

³²⁶ C216; C253.

³²⁷ C255; C265.

³²⁸ C216; C253; C255.

³²⁹ C255.

³³⁰ C255; C356 (Drawing 7: Leachate Management System); C4159.

³³¹ C216; C253; C255.

³³² C265; C4349.

³³³ C216; C253; C255; C266; C364 (Drawing 15: General Details); C4334.

³³⁴ C253; C255.

³³⁵ C253; C255; C266.

³³⁶ C255; C272.

³³⁷ C272.

³³⁸ C216; C253; C255; C273.

³³⁹ C337; C4366.

³⁴⁰ C336; C4337-38.

leachate generation.”³⁴¹ The final cover will be sloped to promote surface water run-off.³⁴² The top layer will consist of six inches of vegetative cover soil. This layer will not be compacted to allow for adequate root penetration.³⁴³ Various prairie grasses will be planted, and their roots will help stabilize the soil and reduce surface water penetration.³⁴⁴ Below the vegetative cover will be a 2.5 foot layer of protective cover soil, a geocomposite drainage layer, a 40-mil double-side textured polyethylene geomembrane and a one-foot layer of compacted soil.³⁴⁵

Surface Water Management System The surface water management system will control and manage run-off from the facility and also manage run-on from adjacent properties.³⁴⁶ Controlling surface water helps to maintain access to the facility, reduce soil erosion, and reduce sediment discharges.³⁴⁷ Projected post-development flows do not exceed the pre-development flows.³⁴⁸

The surface water management system will have seven components.³⁴⁹ First, diversion berms “collect and route surface water run-off from landfill sideslopes.”³⁵⁰ From diversion berms, surface water will flow into downslope channels.³⁵¹ Water will then enter energy dissipaters, which employ baffles or similar devices to reduce the velocity of the water.³⁵² Water then flows into perimeter run-off channels, which convey water to sedimentation basins.³⁵³ In addition, run-on from an existing culvert flowing east to west beneath Centerpoint Way will be managed with a run-on channel ultimately following the pre-development flow path to a culvert under Schweitzer Road.³⁵⁴ Culverts will also convey surface water run-off from beneath access roads at the facility to sedimentation basins.³⁵⁵ In four sedimentation basins, collected surface water is retained and allowed to settle before final discharge.³⁵⁶ The existing facility has an NPDES permit.³⁵⁷ Surface water that contacts waste will be directed to the leachate collection system.³⁵⁸

³⁴¹ C275; C342; C4329; C4331; C4530 (public hearing slides).

³⁴² C275.

³⁴³ C278.

³⁴⁴ C278; C4335.

³⁴⁵ C216; C275; C4160; C4166; C4332; C4334; *see* C4530 (public hearing slides).

³⁴⁶ C216; C358 (Drawing 9: Surface Water Management System); C365 (Drawing 16: General Details); C4329.

³⁴⁷ C337; C342; C4331.

³⁴⁸ C288; *see* C4056-85 (Appendix P-11: Pre-Development and Post-Development Flow Comparison).

³⁴⁹ C286; C4160; *see* C4530 (public hearing slides).

³⁵⁰ C286; C4332.

³⁵¹ C286; C4332.

³⁵² C286.

³⁵³ C287; C4332.

³⁵⁴ C287.

³⁵⁵ C287.

³⁵⁶ C286-287; C358 (Drawing 9: Surface Water Management System).

³⁵⁷ C288, C4086-4100 (Appendix P-12: NPDES Permit No. IL0063479); C4332.

³⁵⁸ C337.

WMI will inspect surface water maintenance structures and perform maintenance activities such as repairing scoured areas, removing debris and sediment buildup, and restoring or revegetating to prevent erosion.³⁵⁹ WMI will also inspect and clear basins and inlet and outlet structures.³⁶⁰

Monitoring at Site. WMI will monitor performance of systems designed for the proposed expansion through groundwater, landfill gas, ambient air, leachate, and surface water.³⁶¹

Groundwater. The groundwater monitoring program includes routine sampling and analysis of the groundwater quality.³⁶² WMI will sample wells on a quarterly and semi-annual basis depending on the parameter, and the existing wells will continue to be monitored according to the applicable RCRA permit.³⁶³ After an initial five-year period, sampling frequency may be reduced with IEPA approval.³⁶⁴ Final groundwater monitoring parameters, sampling frequency, and number and location of monitoring wells may be modified based on IEPA review and approval.³⁶⁵ Monitoring wells will be inspected at each sampling event.³⁶⁶

Landfill Gas. Because the proposed expansion will accept non-hazardous special and industrial wastes and CDD, it is not considered likely to generate appreciable quantities of landfill gas.³⁶⁷ However, WMI will implement a program to monitor for the presence of landfill gas.³⁶⁸ WMI will install 25 monitoring probes around the perimeter of the landfill and 16 within the waste mass.³⁶⁹ WMI will also monitor air in occupied buildings at the facility.³⁷⁰ Monitoring will be performed monthly and continue for a minimum of 15 years following closure.³⁷¹ Gas monitoring probes will be inspected at each sampling event.³⁷² Based on monitoring results, WMI will install a landfill gas management system in specified circumstances.³⁷³

³⁵⁹ C327; C337.

³⁶⁰ C327; C337.

³⁶¹ C342; C4331.

³⁶² *Supra* at 26-27 (Groundwater Monitoring System); *see* C318.

³⁶³ C318; C3671-76 (Appendix L-2: Groundwater Monitoring Parameters).

³⁶⁴ C318.

³⁶⁵ C318.

³⁶⁶ C337.

³⁶⁷ C290; C4333.

³⁶⁸ C290.

³⁶⁹ C290; C291 (Figure 9-1: Typical Perimeter Gas Monitoring Probe); C321; C322-23; C4161; C4333.

³⁷⁰ C321; C323.

³⁷¹ C322 (Table 11-4: Landfill Gas Monitoring Frequency and Parameters).

³⁷² C337.

³⁷³ C290.

Ambient Air. WMI will perform ambient air monitoring with a portable combustible gas indicator at one upwind location and four downwind locations.³⁷⁴ Monitoring locations will follow both wind direction and landfill development phasing.³⁷⁵

Leachate. WMI will implement a system of 24 leachate monitoring points.³⁷⁶ Testing at each location will occur when the monitoring location accumulates a measurable quantity of leachate for the first time and thereafter at least every two years.³⁷⁷ Each year, a composite sample representative of all monitoring locations will be compiled and tested.³⁷⁸ Leachate monitoring must continue for at least 30 years after closure.³⁷⁹

Surface Water. WMI will monitor discharges from sedimentation basins as required by the NPDES permit.³⁸⁰

Stability Analysis. Results of geotechnical analysis of the foundation, composite liner, waste mass, geomembrane, and geotextile layer demonstrate that the design of the proposed expansion “will be stable” during construction through closure and post-closure care.³⁸¹ Evaluation of the foundation soil underlying the proposed expansion shows that it is “not susceptible to liquefaction.”³⁸²

“Port of Will County, LLC has obtained authority to construct and operate an underground mine” at a site that extends south beneath the area of the proposed North Area.³⁸³ Although no mining activity is underway or anticipated, an evaluation “considered the potential effect of mine blasting and mine operation on the North Area.”³⁸⁴ The evaluation concluded that these activities will not cause damage to the North Area.³⁸⁵

Closure and Post-Closure Care. WMI prepared a closure plan including cost estimates for activities at the end of the operating life of the landfill, including final cover and monitoring. WMI also prepared a plan and estimated costs for post-closure care including inspections, maintenance, monitoring, and recordkeeping and reporting.³⁸⁶

Witness Conclusions on Landfill Design. Based on his experience and review of the expansion’s proposed design, Mr. Nickodem concluded that it is “designed to protect the public

³⁷⁴ C290; C323; C4332.

³⁷⁵ C323; C4332.

³⁷⁶ C321 (Table 11-3: Leachate Monitoring Points); C4162; C4333.

³⁷⁷ C321.

³⁷⁸ C321; C3705-11 (Appendix L-5: Leachate Monitoring Parameters).

³⁷⁹ C321.

³⁸⁰ C324; C3712-13 (Appendix L-6: Surface Water Monitoring Parameters); *see* C4086-4100 (Appendix P-12: NPDES Permit No. IL0063479).

³⁸¹ C228; C4169; C4333.

³⁸² C241.

³⁸³ C251.

³⁸⁴ C251; C4352.

³⁸⁵ C251; C3181-3200 (Appendix H-8: Evaluation of Proposed Underground Mine).

³⁸⁶ C341; C3748-56 (Appendix O: Closure/Post-Closure Plan); C4336.

health, safety, and welfare.”³⁸⁷ He elaborated that systems including the liner, leachate collection, final cover, surface water management, and monitoring “ensure that the waste and the leachate is contained and that there are no releases to the environment.”³⁸⁸

Plan of Landfill Operations

WMI Witness. Mr. Hoekstra testified regarding the operation of the proposed expansion.³⁸⁹ Mr. Hoekstra has been employed by WMI for 39 years and since 1997 has been director of operations for Illinois and the Missouri Valley. In that role, he oversees 16 disposal facilities, 13 transfer stations, and two compost sites in that region, including their development and construction.³⁹⁰ He is an Agency-certified landfill operator.³⁹¹

Operations and Personnel. The proposed expansion will generally accept waste from 6:00 AM to 6:00 PM Monday through Saturday.³⁹² When extended hours are necessary or appropriate, the facility will notify the Will County Solid Waste Director 24 hours in advance for in-county needs and 72 hours in advance for out-of-county needs.³⁹³ In extreme weather, the facility may close at the operator’s discretion.³⁹⁴ An Agency-certified landfill operator will supervise overall operation of the facility.³⁹⁵ Additional personnel such as ticket clerks and equipment operators will be employed at the facility based on the level of activities at a given time.³⁹⁶

Access and Transportation. WMI will inform haulers of designated truck routes, and local law enforcement will enforce routing requirements on surrounding roads.³⁹⁷ Entrance to the facility will be limited to one location from Laraway Road.³⁹⁸ The entrance will be lighted at night and have a locking gate and video surveillance.³⁹⁹ From the entrance, the primary access road will extend approximately 7,000 feet to the office and scales.⁴⁰⁰ Secondary access roads will lead to active construction areas and the landfill.⁴⁰¹ A perimeter access road will provide access to monitoring features.⁴⁰² WMI will install a security fence or screening berm around all operational areas.⁴⁰³

³⁸⁷ C4329; C4336.

³⁸⁸ C4170; C4336.

³⁸⁹ C4188-92, 4558-62 (public hearing slides).

³⁹⁰ C4213-15 (resume); C4363-64 (Hoekstra testimony); C4603-05 (resume).

³⁹¹ C4213; C4364; C4603.

³⁹² C326; C4374.

³⁹³ C326; C4374.

³⁹⁴ C326.

³⁹⁵ C327.

³⁹⁶ C327; *see* C4365.

³⁹⁷ C336.

³⁹⁸ C326; C353 (Drawing 4: Facility Plan); C4366.

³⁹⁹ C326; C4192; C4365; C4367; C4562 (public hearing slides).

⁴⁰⁰ C336; C4183.

⁴⁰¹ C336.

⁴⁰² C336.

⁴⁰³ C327; C4192; C4367; C4562.

Survey Control. To mark the boundaries of the site, WMI will maintain five permanent horizontal and vertical survey monuments, inspect them annually, and resurvey them at least every 5 years.⁴⁰⁴ During construction, permanent monuments may be relocated or augmented with temporary monuments.⁴⁰⁵

Facilities and Utilities. Operations will be supported by an existing ticket/administrative office and by existing and planned maintenance and operations buildings. Each of these will have utility and communications service.⁴⁰⁶

Soil Material Requirements. WMI will obtain soil material for construction at the site from both off-site and on-site sources.⁴⁰⁷ On-site sources include materials obtained from landfill excavation, construction of surface water control features, and site grading activities.⁴⁰⁸ WMI will use soil obtained on-site to develop the landfill and the surface water management system.⁴⁰⁹ WMI will acquire aggregate material off-site for the leachate collection system.⁴¹⁰

Construction Quality Assurance Plan. WMI will construct the proposed expansion according to the requirements of a construction quality assurance program.⁴¹¹ The program will confirm that the facility is constructed according to design “through random testing of materials, verification that materials meet design specifications, and documenting that specified construction procedures are followed.”⁴¹²

Phase Development. WMI will develop the proposed expansion in phases “as development of the existing landfill progresses.”⁴¹³ WMI will construct temporary phase separation berms “to protect the underlying constructed composite liner system prior to development of the adjacent phases, and to control surface water run-on to the active disposal area, thereby minimizing leachate generation.”⁴¹⁴ New phases will be tied into the previously-constructed liner system.⁴¹⁵

Waste Placement, Compaction, and Working Area Stability. The first five feet of waste placed over the liner and leachate collection system will be selected and “pushed out” over the drainage layer. This avoids operation of heavy equipment directly on the drainage layer and

⁴⁰⁴ C328; C353 (Drawing 4: Facility Plan).

⁴⁰⁵ C328.

⁴⁰⁶ C328; C352 (Drawing 3: Existing Conditions); C353 (Drawing 4: Facility Plan).

⁴⁰⁷ C328; C330-31 (Table 12-1: Soil Material Requirements); C3714-26 (Appendix M: Estimated Soil Material Requirements).

⁴⁰⁸ C328.

⁴⁰⁹ C3715.

⁴¹⁰ C3715.

⁴¹¹ C329.

⁴¹² C329; C3728-47 (Appendix N: Construction Quality Assurance Program).

⁴¹³ C329; *see* C3 (schedule); C353 (Drawing 4: Facility Plan).

⁴¹⁴ C329; C363 (Drawing 14: General Details).

⁴¹⁵ C329.

leachate piping.⁴¹⁶ WMI will use the area fill method and limit the size of the active area based on weather and other factors “to an area necessary to accommodate disposal vehicles and heavy equipment so as to conduct waste disposal operations in a safe and efficient manner.”⁴¹⁷ WMI will place waste at a 3H:1V slope to provide stability during interim conditions. Over the top of completed active areas WMI will maintain a minimum slope to promote surface water drainage.⁴¹⁸

Landfill Cover. By the end of each working day, WMI will place a uniform layer of at least six inches of soil or alternative daily cover (ADC) on all exposed waste.⁴¹⁹ A number of ADC materials are permitted, and WMI will keep a record of their use.⁴²⁰ If waste is not covered by additional waste or final cover within 60 days, WMI will place an intermediate cover consisting of at least one foot of compacted soil material or its equivalent. WMI will maintain the intermediate cover until either placement of additional waste or application of final cover.⁴²¹

Adverse Weather Conditions. Primary and secondary access roads will have all-weather surfaces to provide access to the proposed expansion.⁴²² During wet weather, truck turnaround areas in active working areas will have surfaces allowing vehicle access.⁴²³ Measures such as temporary berms will be used to direct precipitation and runoff from active areas.⁴²⁴ If adverse weather makes normal operation too difficult, operations will be moved to an onsite wet weather disposal area near an access road.⁴²⁵

Cold weather difficulties include road access and availability of cover soils. WMI will use a snowplow of similar equipment to clear access roads.⁴²⁶ “Frozen soil materials will be removed prior to excavation of cover material.”⁴²⁷

Temporary Suspension of Waste Acceptance. If WMI temporarily suspends waste acceptance, it will implement measures including replacement of ADC with soil and vegetation and periodic inspections.⁴²⁸ For temporary closures longer than 30 days, WMI will notify the Agency.⁴²⁹

⁴¹⁶ C329.

⁴¹⁷ C329.

⁴¹⁸ C332.

⁴¹⁹ C332.

⁴²⁰ C332, C4331.

⁴²¹ C332.

⁴²² C332.

⁴²³ C332.

⁴²⁴ C332.

⁴²⁵ C332.

⁴²⁶ C333.

⁴²⁷ C333.

⁴²⁸ C333.

⁴²⁹ C333.

Sheriff and Fire Protection. The proposed expansion will have two-way communication with police and fire protection and emergency response services.⁴³⁰ The facility will have fire protection equipment and implement fire protection measures.⁴³¹ In addition, WMI will develop a fire prevention plan and review it with all employees.⁴³² WMI will also develop a Spill Prevention, Control, and Countermeasure Plan and will train employees on cleaning up spills, “including notification of proper authorities.”⁴³³

Equipment and Equipment Maintenance Plan. The application lists heavy equipment that will be used at the proposed expansion for functions including landfill construction, waste disposal operations, and support functions.⁴³⁴ WMI will implement an equipment maintenance program including manufacturers’ maintenance schedules and completion of daily checklists by equipment operators.⁴³⁵

Dust, Litter, Odor, and Vector Control. Because soil handled during excavation and construction is naturally moist, WMI does not expect dust to result from these activities.⁴³⁶ During operation, a tank truck will be available at all times to water access roads and limit dust generated from vehicular movement.⁴³⁷ WMI will cover dusty waste loads with daily cover to minimize dust.⁴³⁸ If necessary, WMI will rely on vegetation or similar materials to address dust from intermediate and final cover areas.⁴³⁹

Because the proposed expansion would accept only CDD and non-hazardous special waste, WMI does not expect blown litter.⁴⁴⁰ However, WMI will orient landfill operations to minimize the effect of wind.⁴⁴¹ In addition, WMI will check incoming vehicles for covers and tarpaulins, maintain as small a working area as possible, and cover active areas promptly as filled.⁴⁴² WMI will rely on litter control fences as necessary and patrol daily for windblown litter.⁴⁴³

Application of daily, intermediate, and final cover materials will control odors.⁴⁴⁴ WMI will also operate a 24-hour message service to field odor complaints and maintain a log of litter and odor complaints and responses.⁴⁴⁵

⁴³⁰ C333.

⁴³¹ C333-34.

⁴³² C334; C4373.

⁴³³ C334.

⁴³⁴ C334.

⁴³⁵ C334.

⁴³⁶ C335.

⁴³⁷ C335; C4188; C4366.

⁴³⁸ C335.

⁴³⁹ C335.

⁴⁴⁰ C333; C334; C4366.

⁴⁴¹ C333.

⁴⁴² C334-35.

⁴⁴³ C333.

⁴⁴⁴ C335; C4366.

⁴⁴⁵ C328.

Municipal solid waste provides vectors with a source of food, but the proposed expansion will not accept municipal solid waste. WMI does not expect vectors to be a problem.⁴⁴⁶ Limiting the size of the active area and providing daily and final cover also control vectors.⁴⁴⁷ If a vector problem develops, WMI will retain a professional exterminator.⁴⁴⁸

Mud Tracking. Because of the 7,000-foot length of the paved primary access road, WMI does not expect that tracking mud from the facility onto public roads will be a problem.⁴⁴⁹ WMI will sweep the primary access road as necessary to remove accumulated mud.⁴⁵⁰ The application lists measures intended to prevent creation of muddy areas and to minimize contact with mud during facility operations.⁴⁵¹ In the event that tracking mud off-site becomes a problem, WMI will sweep off-site roads as necessary and consider other measures including installation of a vehicle tire wash.⁴⁵²

Noise Control. WMI intends to control equipment noise by following the equipment maintenance plan, particularly for vehicle mufflers.⁴⁵³ The distance from adjacent properties will buffer sound generated by daily operations.⁴⁵⁴

Salvaging. WMI will prohibit salvaging at the proposed expansion.⁴⁵⁵

Load Checking. WMI will screen waste loads for acceptable wastes.⁴⁵⁶ First, vehicles entering the facility will be weighed, recorded by personnel, and filmed by the video surveillance camera.⁴⁵⁷ If personnel suspect the presence of unauthorized waste on a vehicle, the driver will not be allowed to dispose of it.⁴⁵⁸

After being weighed, vehicles proceed to an active disposal area for unloading.⁴⁵⁹ During unloading, equipment operators inspect the waste. Operators will segregate any suspicious or questionable material and return it to the vehicle.⁴⁶⁰ If the vehicle has left the facility, it will be identified through records and video.⁴⁶¹

⁴⁴⁶ C336; C4366.

⁴⁴⁷ C336.

⁴⁴⁸ C336.

⁴⁴⁹ C335.

⁴⁵⁰ C335.

⁴⁵¹ C335.

⁴⁵² C335.

⁴⁵³ C335.

⁴⁵⁴ C335.

⁴⁵⁵ C336.

⁴⁵⁶ C4182.

⁴⁵⁷ C338; C4365.

⁴⁵⁸ C338; C4373.

⁴⁵⁹ C338; C4365.

⁴⁶⁰ C338.

⁴⁶¹ C338.

On one random day each week, WMI will inspect a minimum of three random loads of waste.⁴⁶² The number of inspections increases as waste received increases above 1,000 tons per day.⁴⁶³ These inspections will be conducted in a separate designated area to avoid commingling.⁴⁶⁴ WMI must retain specified written records of random load inspections for a minimum of 3 years.⁴⁶⁵ Personnel involved in identifying unacceptable wastes must receive training.⁴⁶⁶ If random load checking identifies hazardous wastes, WMI must provide notification and also reject identical waste loads that have not yet been disposed of.⁴⁶⁷ The transporter will be responsible for cleanup, transportation, and disposal costs.⁴⁶⁸ Subsequent waste loads from the same person or source will be subject to precautions.⁴⁶⁹

Special Waste. WMI will manage special wastes according to Agency requirements.⁴⁷⁰ WMI will post at the entrance of the facility a prominent sign showing required special waste disposal information.⁴⁷¹ The special waste generator must supply a special waste profile identification sheet certifying information about the shipment.⁴⁷² A WMI technical manager reviews the profile to determine whether the material can be accepted.⁴⁷³ If it can be, the technical manager notifies receipt control clerks, who can then cross-check the profile when future shipments arrive.⁴⁷⁴ WMI will also train employees in waste identification.⁴⁷⁵

Special waste accepted for disposal must be accompanied by a manifest containing specified information.⁴⁷⁶ After delivery of the special waste, WMI will distribute copies of the manifest to specified entities including the Agency.⁴⁷⁷ Records of special waste management must be retained at the facility until the end of the post-closure care period.⁴⁷⁸

The Act excludes some wastes from the definition of “special waste” if a generator certifies that the waste meets specified requirements and provides other information.⁴⁷⁹ Certification allows these wastes to be transported as non-special waste to proper facilities without manifests.⁴⁸⁰

⁴⁶² C338; C4365.

⁴⁶³ C338.

⁴⁶⁴ C338.

⁴⁶⁵ C338.

⁴⁶⁶ C338.

⁴⁶⁷ C339.

⁴⁶⁸ C339.

⁴⁶⁹ C339.

⁴⁷⁰ C339.

⁴⁷¹ C339.

⁴⁷² C340; C4364.

⁴⁷³ C4364.

⁴⁷⁴ C4364.

⁴⁷⁵ C4366.

⁴⁷⁶ C339.

⁴⁷⁷ C340.

⁴⁷⁸ C341.

⁴⁷⁹ C341, citing 415 ILCS 5/22.48 (2014).

⁴⁸⁰ C341.

Witness Conclusion on Landfill Plan of Operations. Based on his experience and review of the application, Mr. Hoekstra concluded that the expansion is “proposed to be operated to protect the public health, safety, and welfare.”⁴⁸¹ He based his conclusion on factors including load checking and waste acceptance procedures, waste placement, daily and final cover of waste, and controlled access to the facility.⁴⁸²

Board Conclusion on Criterion (ii).

This criterion “requires a demonstration that the proposed facility does not pose an unacceptable risk to the public health and safety.”⁴⁸³ However, the application is not required to guarantee against any risk or problem.⁴⁸⁴ The Board finds that the Will County Board’s record on criterion (ii) detailed above demonstrates that the proposed expansion is designed, located, and proposed to be operated so as to protect public health, safety, and welfare.

By a vote of 25-0 with one abstention, the County Board found that “[t]he Applicant has demonstrated compliance with Criterion 2.”⁴⁸⁵ The County Board also found that it should impose four conditions reasonable and necessary to accomplish the purposes of the Act.⁴⁸⁶

The first condition provides that “[t]he stormwater control systems will comply with the Water Resources Ordinance for Unincorporated Will County.”⁴⁸⁷ Under the second condition, “[i]n the event that mining activity is proposed to take place beneath the North Area of the Facility, WMI will prepare a ground subsidence monitoring program to determine if any settlement is occurring due to mining activity. Any and all data from such program will be submitted to the County.”⁴⁸⁸ The third condition requires that WMI notify “the Will County Resource Recovery and Energy Division of the need to temporarily extend the hours of operation, and that a 24-hour notification is required for waste resulting from any public benefit purpose within Will County.”⁴⁸⁹ The fourth condition provides that

WMI shall observe what type of waste material is within each open top vehicle prior to being unloaded at the landfill site that

- i. is not accompanied with proper paperwork; or

⁴⁸¹ C4366.

⁴⁸² C4366.

⁴⁸³ Industrial Fuels and Resources v. PCB, 227 Ill. App. 3d 533, 544-45 (1st Dist. 1992).

⁴⁸⁴ Clutts v. Beasley, 185 Ill. App. 3d 543, 541 N.E.2d 844, 846 (5th Dist. 1989).

⁴⁸⁵ C5325.

⁴⁸⁶ C5325; C5330-31; *see* C5187-89, 5244-46, 5300-02, 5312-14 (hearing officer findings and recommendations); *see also* C4787, 4803-04 (Will County staff report); C5321 (Will County Pollution Control Facility Committee).

⁴⁸⁷ C5330.

⁴⁸⁸ C5330.

⁴⁸⁹ C5330.

- ii. is a new waste stream to the landfill, including waste coming from a new site or delivered from a new hauler.⁴⁹⁰

WMI states that it provided the testimony and evidence of three expert witnesses to meet criterion (ii). The Board agrees that Ms. Underwood provided persuasive evidence that low-permeability deposits form an aquitard at the site. She further testified that there is an average separation of ten feet between the bottom of the composite liner and the aquifer. The Board also credits her testimony that results of the hydrogeologic investigation provide a sound basis for a groundwater monitoring program. Mr. Nickodem provided persuasive evidence that the landfill design will contain waste and leachate. He described in detail a composite liner and systems including those for managing leachate and surface water. In addition, Mr. Hoekstra testified on an extensive plan of operations, including elements that address facility access, load checking, waste placement, and landfill cover.

According to WMI, ERDS did not “present or offer any evidence to demonstrate that the design of the Expansion is flawed from a public safety standpoint or that its proposed operation poses an unacceptable risk to public health or safety.”⁴⁹¹ The County argues that ERDS “relies solely on ‘testimony’ by its counsel and unsupported factual allegations. . . .”⁴⁹² WMI states that, absent evidence contradicting or refuting WMI’s witnesses, “the County Board decision on criterion (ii) must be affirmed.”⁴⁹³ ERDS questions aspects of these witnesses’ analyses, particularly Ms. Underwood’s. However, as described above, ERDS has not persuaded the Board to accept those positions.

The record contains no evidence undercutting the conclusions of WMI’s witnesses. The County Board’s hearing officer found that Ms. Underwood responded credibly to questions and that the monitoring system was designed so as to detect contaminants that may move off-site from the landfill. He further found that the location of the landfill and monitoring program appears to meet or exceed requirements.⁴⁹⁴ The Will County Board considered his findings and recommendations when it approved WMI’s application.⁴⁹⁵ The County Board’s hearing officer also found that Mr. Nickodem “credibly testified on behalf of WMI with respect to the design of the landfill.”⁴⁹⁶ Mr. Nickodem offered evidence and testimony regarding the proposed liner and leachate collection systems, final cover, surface water management, and monitoring at the site. In addition, the County Board imposed two conditions relating to mining activities and stormwater controls.⁴⁹⁷ Mr. Hoekstra offered evidence and testimony on numerous matters relating to operation of the proposed expansion. The County Board included two conditions

⁴⁹⁰ C5331.

⁴⁹¹ WMI Brief at 24.

⁴⁹² County Resp. at 4.

⁴⁹³ WMI Brief at 24, citing Industrial Fuels and Resources v. PCB, 227 Ill. App. 3d 533, 547 (1st Dist. 1992), Fox Moraine v. United City of Yorkville, PCB 07-46, slip op. at 82 (Oct. 1, 2009).

⁴⁹⁴ C5301.

⁴⁹⁵ C5324 (Resolution of the County Board).

⁴⁹⁶ C5299.

⁴⁹⁷ C5300-01; C5330.

addressing operations.⁴⁹⁸ The Board finds that the four conditions help to ensure protection of public health, safety, and welfare from the proposed expansion.⁴⁹⁹

Applying its technical expertise to the local record, the Board finds that the manifest weight of the evidence before the County Board shows that the proposed expansion does not pose an unacceptable risk to the public health, safety, or welfare. On that record, it is not “clearly evident, plain, or indisputable” that WMI failed to satisfy criterion (ii).⁵⁰⁰ Accordingly, the Board finds that the County Board’s decision on criterion (ii) is not contrary to the manifest weight of the evidence.

Criterion (vi): Minimize Impact on Existing Traffic

In the following subsections, the Board discusses the record before the Will County Board, including WMI’s application and the county transcript. The Board reviews issues including the identified route of facility traffic, existing traffic conditions in the vicinity of the existing facility and the proposed expansion, and the traffic impact analysis. The Board then concludes that the Will County Board’s decision is not contrary to the manifest weight of the evidence.

WMI Witness

WMI retained Gewalt Hamilton Associates, Inc. (GHA) to perform a traffic impact analysis of the proposed expansion.⁵⁰¹ Ms. Lynn Means performed the analysis and issued a written report evaluating this criterion.⁵⁰² Ms. Means earned a B.S. in civil engineering and has 17 years of engineering experience.⁵⁰³ She holds licenses from the States of Illinois and New Hampshire and certification as a professional transportation operations engineer.⁵⁰⁴ Her work consists primarily of traffic impact analysis in urban, suburban, and rural areas for residential, retail and medical projects in addition to landfills.⁵⁰⁵

ERDS challenges Ms. Means’ analysis and argues that she is “incompetent.”⁵⁰⁶ WMI disputes this characterization,⁵⁰⁷ and the County stresses that the County Board found her

⁴⁹⁸ C5301-02; C5331-32.

⁴⁹⁹ See File, 219 Ill. App. 3d at 908 (“[T]he conditions placed upon the site approval by the Bond County Board of Supervisors go a long way toward minimizing the effect of the expanded landfill on the value of surrounding property.”).

⁵⁰⁰ Land and Lakes, 319 Ill. App. 3d at 53; see Tate v. PCB, 188 Ill. App. 3d 994, 1022 (4th Dist. 1989).

⁵⁰¹ C431.

⁵⁰² C4297 (Means testimony); see C429-50 (Traffic Impact Analysis Proposed Expansion Laraway Recycling and Disposal Facility (July 2015)).

⁵⁰³ C4297; see C4227, 4506 (resume).

⁵⁰⁴ C4227, 4297, 4506.

⁵⁰⁵ C4297; see C4227, 4506.

⁵⁰⁶ ERDS Brief at 11.

⁵⁰⁷ WMI Resp. at 14.

“unrebutted evidence to be credible.”⁵⁰⁸ “[I]t is for the local siting authority to determine the credibility of witnesses.”⁵⁰⁹ The Board is not persuaded by ERDS’s characterization of Ms. Means and proceeds to review the County’s record on her analysis.

To perform the analysis, Ms. Means first evaluated traffic patterns by observing existing conditions including roadway characteristics and traffic control.⁵¹⁰ Ms. Means conducted traffic counts on roadways and at intersections in the vicinity of the proposed expansion.⁵¹¹ The study “determined the facility traffic characteristics, identified travel patterns to and from the site, as well as performed capacity level of service [LOS] analysis on roadways and intersections.”⁵¹²

Identified Route of Facility Traffic.

Ms. Means’ analysis considered traffic patterns to the existing site, including roadway characteristics and the service area located primarily to the north.⁵¹³ Based on this analysis, she “identified one traffic pattern to minimize its impact on existing traffic loads, and that would be Illinois Route 53 to Laraway Road to enter the site.”⁵¹⁴ The 2006 expansion approval also identified this as the approved traffic pattern.⁵¹⁵

ERDS states that, although Ms. Means identified the existing route to and from the facility, there is “no evidence that she considered other possible routes.”⁵¹⁶ Ms. Means’ testimony describes factors she considered to identify a traffic pattern.⁵¹⁷ The County emphasizes that the County Board in 2006 approved this route for the facility.⁵¹⁸ The Appellate Court has stated that a siting applicant is not “required to provide evidence of exact routes.”⁵¹⁹ Based on this record, the Board is not persuaded that Ms. Means was required to consider other routes or that she failed to do so.

Existing Conditions: Roadway Network

Illinois Route 53 runs north-south approximately two miles east of the proposed expansion.⁵²⁰ From Interstate 80 south to Laraway Road, it is a four-lane divided highway. This

⁵⁰⁸ County Resp. at 5.

⁵⁰⁹ Land and Lakes, 319 Ill. App. 3d at 53; *see Tate v. PCB*, 188 Ill. App. 3d at 1022.

⁵¹⁰ C4297-98; *see* C432, C4203.

⁵¹¹ C4298; *see* C432, C4203 (public hearing slides).

⁵¹² C4298; *see* C432, C4203.

⁵¹³ C4300; C4325.

⁵¹⁴ C4300; *see* C455 (Exhibit 1: Facility Location Map); C4209 (public hearing slide entitled “Subject Site Traffic Pattern”).

⁵¹⁵ C4300, C4326.

⁵¹⁶ ERDS Resp. at 2.

⁵¹⁷ C4300; C4325.

⁵¹⁸ County Brief at 12.

⁵¹⁹ Fox Moraine v. United City of Yorkville, 2011 IL App (2d) 10001 (2011) (¶116), citing Tate, 188 Ill. App. 3d at 1024.

⁵²⁰ C4298; *see* C455 (Exhibit 1: Facility Location Map); C4205 (IL 53).

segment of Illinois Route 53 is designated as a Strategic Regional Artery [SRA].⁵²¹ “SRA routes are designed to travel at higher speeds as well as to carry higher traffic volumes, and this is accomplished typically through traffic signal spacing as well as access control limitations.”⁵²² “It is a class II truck route, which has an 80,000 pound weight limit, and it’s under the jurisdiction of the Illinois Department of Transportation.”⁵²³ At its intersection with Laraway Road, there is a traffic signal and left-turn lanes for both northbound and southbound traffic.⁵²⁴ Near its intersection with Laraway Road, Illinois Route 53 has a posted speed limit of 50 miles per hour.

Laraway Road runs east from the facility entrance at the intersection of Centerpoint Way and Patterson Road.⁵²⁵ “It has a three-lane cross section which has one travel lane in each direction and a center lane which provides left turns at intersection as well as access points.”⁵²⁶ Approximately one-half mile west of Illinois Route 53, a single rail line protected with gates and flashing lights crosses Laraway Road.⁵²⁷ While Amtrak trains generally cross at scheduled times, Union Pacific Railroad freight trains do not follow a schedule and use the line as needed.⁵²⁸

The intersection of Centerpoint Way, Patterson Road and the facility entrance has all-way stop control.⁵²⁹ For westbound traffic, Laraway Road provides a right-turn lane and a shared left-turn/through lane.⁵³⁰ Because of the alignment of the existing site entrance, westbound traffic enters the facility by using the left-turn lane and making “a slight jog.”⁵³¹ However, “[t]he Facility entrance will be relocated to the north of the existing site entrance to align with Laraway Road.”⁵³² In addition, “[p]ursuant to the City of Joliet annexation agreement for the CenterPoint Intermodal Center, a traffic control signal is to be installed at this location, prior to July 1, 2016. . . .”⁵³³

At the intersection with Brandon Road, eastbound traffic has a left-turn lane and a through lane. Westbound traffic has a right-turn lane and through lane.⁵³⁴ Improvements including installation of a traffic control signal and geometric improvements were completed in December 2014.⁵³⁵ At the intersection with Illinois Route 53, there is a traffic signal control.⁵³⁶

⁵²¹ C4298, *see* C433.

⁵²² C4298; *see* C433.

⁵²³ C4298; *see* C433, C4205; C4575.

⁵²⁴ C433, C4298.

⁵²⁵ C433; *see* C455 (Exhibit 1: Facility Location Map); C4206 (Laraway Road), C4298.

⁵²⁶ C4298.

⁵²⁷ C433.

⁵²⁸ C433.

⁵²⁹ C433, C4298.

⁵³⁰ C433.

⁵³¹ C4298.

⁵³² C442; *see* C4301.

⁵³³ C433.

⁵³⁴ C433; C4298.

⁵³⁵ C433.

⁵³⁶ C4298; *see* C433.

Westbound traffic has right-turn and through lane, and eastbound traffic has a left-turn and a through lane.⁵³⁷ The left-turn signal is actuated so that the signal length varies with the amount of traffic.⁵³⁸ Between the facility and Illinois Route 53, Laraway Road is under the jurisdiction of the City of Joliet and has a speed limit of 45 miles per hour.⁵³⁹ From Illinois Route 53 to Brandon Road, it has a Class I truck designation with an 80,000 pound weight limit. West of Brandon Road to the facility, it has a 90,000 pound design.⁵⁴⁰

Brandon Road is a two-lane road that extends north from its terminus at Laraway Road between the facility and Illinois Route 53.⁵⁴¹ The intersection with Laraway Road is controlled by a traffic signal, and southbound traffic has both a left-turn and a right-turn lane.⁵⁴² In the vicinity of Laraway Road, Brandon Road has a posted speed limit of 45 miles per hour. It is classified as a minor arterial roadway, has a weight limit of 73,280 pounds, and is under the jurisdiction of Will County.⁵⁴³

Centerpoint Way runs from southwest to northeast, abuts the facility's east side, and ends at its intersection with Laraway Road.⁵⁴⁴ At the all-way stop controlled intersection with Laraway Road near the facility entrance, northbound Centerpoint Way provides a left-turn lane and a shared right-turn and through lane.⁵⁴⁵ North of Laraway Road it becomes Patterson Road.⁵⁴⁶ In the vicinity of Laraway Road, Centerpoint Way is under the jurisdiction of the City of Joliet, has a posted speed limit of 40 miles per hour, and has a 90,000 pound design.⁵⁴⁷

Existing Condition: Traffic Volumes

To determine current traffic volumes, Ms. Means conducted manual traffic counts at three intersections: Illinois Route 53 and Laraway Road, Brandon and Laraway Roads, and Laraway Road and Centerpoint Way and Patterson Road at the existing entrance to the site.⁵⁴⁸ Ms. Means counted intersection turning movements during a 24-hour period in October 2014.⁵⁴⁹ Ms. Means also “performed supplemental counts over three days in March of 2015.”⁵⁵⁰ These counts indicate that “the weekday morning street peak hour generally occurs between 6:30 and 7:30 [a.m.] and the weekday afternoon street peak hour generally occurs between 3:00 and 4:00 [p.m.]”⁵⁵¹

⁵³⁷ C433; C4298.

⁵³⁸ C4306.

⁵³⁹ C433; C4298.

⁵⁴⁰ C4298.

⁵⁴¹ C434; C4298; *see* C455 (Exhibit 1: Facility Location Map).

⁵⁴² C434; *see* C4298.

⁵⁴³ C434; C4298; *see* C4206 (Brandon Road); C4576.

⁵⁴⁴ C434; C4299; *see* C455 (Exhibit 1: Facility Location Map); C4207.

⁵⁴⁵ C434; C4299.

⁵⁴⁶ C434.

⁵⁴⁷ C4299; *see* C4577.

⁵⁴⁸ C434; C4299.

⁵⁴⁹ C434; *see* C469-74 (Turning Movement Data); C4299.

⁵⁵⁰ C4299; *see* C523-28 (Turning Movement Data).

⁵⁵¹ C434; *see* C456 (Exhibit 2: Existing Traffic); C4299; C4577.

Ms. Means also performed mechanical traffic counts in October and November 2014 to determine average daily traffic (ADT) volume along Illinois Route 53, Laraway Road, and Brandon Road.⁵⁵²

“[T]he current traffic volumes include traffic associated with the existing site.”⁵⁵³ However, “the traffic impact analysis considered the expansion as a new facility. Accordingly, the existing site traffic was removed from the existing peak hour and daily traffic volumes based on the existing traffic counts at the existing site, the service area of the Facility, and the specific routing of waste vehicles.”⁵⁵⁴ The application includes the resulting weekday morning and afternoon street peak hour existing traffic volumes.⁵⁵⁵ It also includes ADT and percent truck traffic for Illinois Route 53 and Laraway and Brandon Road.⁵⁵⁶

Because traffic volume varies, Ms. Means considered whether to adjust traffic volume. Citing data from the Illinois Department of Transportation, Ms. Means determined that traffic volumes in the months of October and November are above average monthly conditions. “Therefore, the observed traffic volumes were used with no adjustments to provide a conservative scenario.”⁵⁵⁷

ERDS cites Ms. Means’ report, which states that “the existing site traffic was *removed* from the existing peak hour and daily traffic volumes based on the existing traffic counts at the existing site, the service area of the facility and the specific routing of waste vehicles.”⁵⁵⁸ ERDS states that Ms. Means “intentionally backed existing site traffic out of her analysis”⁵⁵⁹ and indicates that she did so “because real current traffic at one or more of the relevant intersections are already unacceptable.”⁵⁶⁰

WMI responds that ERDS selectively presents the record on this issue and that its argument is “false.”⁵⁶¹ Ms. Means’ report states that “the current traffic volumes include traffic associated with the existing site.”⁵⁶² Ms. Means removed existing traffic to consider the proposed expansion as a new facility and to perform a conservative analysis.⁵⁶³ Her analysis continued by presenting “existing traffic, *plus traffic associated with a 10,000 tpd* [tons per day] *volume*, which is the average volume for the existing Laraway RDF.”⁵⁶⁴ This is the projected

⁵⁵² C434; C4299; *see* C435 (Table 1: Summary of ADT Volumes); C477-522; C4577.

⁵⁵³ C435.

⁵⁵⁴ C435.

⁵⁵⁵ C435, citing C456 (Exhibit 2: Existing Traffic).

⁵⁵⁶ C435 (Table 1: Summary of ADT Volumes).

⁵⁵⁷ C434, citing C475-76 (2014 Illinois Travel Statistics: Northeastern Illinois Non-Interstate (Urban) Traffic patterns).

⁵⁵⁸ ERDS Brief at 10 (emphasis added by ERDS), citing C435.

⁵⁵⁹ ERDS Resp. at 2.

⁵⁶⁰ ERDS Brief at 11.

⁵⁶¹ WMI Resp. at 14.

⁵⁶² WMI Resp. at 14, citing C435.

⁵⁶³ WMI Brief at 14-15.

⁵⁶⁴ WMI Brief at 15 (emphasis added by WMI), citing C444.

waste volume for the expansion and reflects existing traffic conditions.⁵⁶⁵ The County also dismisses ERDS's claim and states that it "is patently contradicted by the testimony in the record."⁵⁶⁶

Ms. Means testified that she conducted counts of existing traffic on roadways and at intersections near the proposed expansion. She performed these counts over a 24-hour period during October, a month with above-average traffic volumes. She supplemented these counts during three days of the following March. She testified that facility reflects average waste acceptance of 10,000 tons per day, the waste volume proposed for the expansion. Her analysis addressed existing traffic plus traffic associated with different waste volumes. The Board is not persuaded by ERDS's arguments on this issue and concludes that the record describes current traffic volumes.

Existing Conditions: Roadway Capacity

Ms. Means determined the daily capacity of Laraway Road using methods provided by the 2010 Highway Capacity Manual (HCM) of the Transportation Research Board, National Research Council.⁵⁶⁷ This determination evaluates the ability of Laraway Road "to accommodate the existing traffic demand."⁵⁶⁸ "The HCM method establishes a base hourly capacity for the roadway" adjusted for factors including lane width and truck volumes.⁵⁶⁹ For Laraway Road from Illinois Route 53 to Brandon Road, the existing volume to capacity ratio is 22%. From Brandon Road to the existing site entrance, the ratio is 21%.⁵⁷⁰

The analysis measured effectiveness of operation in terms of Level of Service (LOS) on a range from "A" as the best level to "F" as the worst.⁵⁷¹ "[T]ypical minimum industry standard acceptable levels of service are level of service D."⁵⁷² Both segments of Laraway Road now operate at LOS C.⁵⁷³ The analysis indicates that "both segments of Laraway Road are currently operating at acceptable levels of service and below their respective capacities."⁵⁷⁴

Intersection effectiveness is also measured in terms of LOS.⁵⁷⁵ Using HCM methodologies, Ms. Means performed an intersection capacity analysis for weekday morning and afternoon street peak hours at three intersections: Illinois Route 53 and Laraway Road, Laraway and Brandon Roads, and Laraway Road and Centerpoint Way and Patterson Road at the existing entrance to the site.⁵⁷⁶ "The analysis included the recently completed signal and geometric

⁵⁶⁵ WMI Resp. at 15, citing C4299-4300; *see* County Resp. at 5, citing C4299-4300.

⁵⁶⁶ County Resp. at 5, citing C4297-4302.

⁵⁶⁷ C435.

⁵⁶⁸ C435.

⁵⁶⁹ C435.

⁵⁷⁰ C435 (Table 2: Existing Weekday Peak Hour Traffic Volume to Capacity Comparison).

⁵⁷¹ C435, citing C530 (Appendix C: LOS Criteria for Two-Lane Highways in Class II).

⁵⁷² C4300.

⁵⁷³ C435, citing C534-35 (Directional Two-Lane Highway Segment Worksheet); *see* C4300-01.

⁵⁷⁴ C435.

⁵⁷⁵ C436, citing C531-32 (LOS for signalized and unsignalized intersections).

⁵⁷⁶ C436.

improvements at the Laraway Road and Brandon Road intersection.”⁵⁷⁷ Results of the analysis indicate that each intersection and approach operates at a level of service ranging from A to D.⁵⁷⁸

Facility Traffic

Ms. Means reviewed current site operations and determined traffic generated by the facility on a daily basis and during peak hours.⁵⁷⁹ The analysis also reviewed “the directional distribution of the traffic arriving and departing the Facility and assignment of these volumes to the adjacent roadways.”⁵⁸⁰ Truck traffic at the proposed expansion will typically include roll-off trucks with an approximate total length of 30 feet and an approximate average load of four tons and semi-tractor trailer dump trucks with an approximate total length of 55–65 feet and an approximate average load of 22 tons.⁵⁸¹

Based on average waste acceptance of 10,000 tons per day, the proposed expansion would generate 1,080 vehicle trips per day, 540 entering and 540 leaving.⁵⁸² At that level of waste acceptance, there would also be an average of 100 trips per day by employees and vendors, 50 entering and 50 leaving.⁵⁸³ Facility traffic accounts for approximately 15 percent of existing Laraway Road traffic.⁵⁸⁴ The analysis provides an hourly distribution of these trips for an average day.⁵⁸⁵ The facility’s peak hour is 9:00 to 10:00 a.m., which is neither the morning nor the afternoon street peak.⁵⁸⁶ During the facility peak hour, the analysis projects 149 total trips into and out of the proposed expansion.⁵⁸⁷ Traffic to the existing Laraway RDF is based on this average of 10,000 tons per day.⁵⁸⁸

The analysis also considered average waste acceptance of 15,000 tons per day.⁵⁸⁹ During the facility peak hour, the analysis projects 224 total trips into and out of the proposed expansion.⁵⁹⁰ Finally, the analysis also considered average waste acceptance of 20,000 tons per

⁵⁷⁷ C436, citing C536-49 (Signalized Intersection Input Data and All-Way Stop Control Analysis).

⁵⁷⁸ C436 (Table 3: Existing Intersection Level of Service); C4301, 4323.

⁵⁷⁹ C438.

⁵⁸⁰ C438.

⁵⁸¹ C438 (Table 4: Typical Waste Vehicle Data); *see* C4300.

⁵⁸² C438; C4208; C4299.

⁵⁸³ C438; C4208; C4299; C4578.

⁵⁸⁴ C4300.

⁵⁸⁵ C438, citing C439 (Table 5: Facility Trip Generation – Average Day (10,000 TPD)); C4208.

⁵⁸⁶ C439; *see* C4208; C4300; C4578.

⁵⁸⁷ C439; C4208; C4300; C4578.

⁵⁸⁸ C4299.

⁵⁸⁹ C438, citing C440 (Table 6: Facility Trip Generation – 50 Percent Increase Average Day (15,000 TPD)).

⁵⁹⁰ C440.

day.⁵⁹¹ During the facility peak hour, the analysis projects 298 total trips into and out of the proposed expansion.⁵⁹²

Ms. Means also determined the directional distribution of the facility traffic “based on the existing traffic counts at the existing site, the service area of the Facility, and the specific routing of waste vehicles.”⁵⁹³ The analysis projects that 95% of waste vehicles will arrive from the north, 90% on Illinois Route 53 and 5% on Brandon Road.⁵⁹⁴ Based on this distribution and the trip generation estimates,⁵⁹⁵ the analysis assigned facility traffic for the weekday morning and weekday evening street peak hours for waste acceptance of 10,000, 15,000, and 20,000 tons per day.⁵⁹⁶ To develop total peak hour traffic volume networks, the analysis combined existing traffic volumes with the facility traffic volumes⁵⁹⁷

Vehicle Stacking

Vehicle stacking refers to on-site storage or queuing to avoid affecting off-site operations.⁵⁹⁸ The existing operation has the capability of stacking vehicles 2,750 feet from the scale house to the intersection of Laraway Road and Centerpoint Way and “an additional 550 feet in the expanded paved area where there is the four lines for the scales.”⁵⁹⁹ With the proposed expansion, on-site stacking capacity will increase to include 4,800 linear feet from the scales to Laraway Road and 1,825 feet in the four lanes at an expanded area at the scales.⁶⁰⁰ With an average vehicle length of 50 feet, this on-site stacking capacity would accommodate approximately 132 vehicles.⁶⁰¹

Traffic Impact Analysis

Roadway Capacity. Ms. Means evaluated “weekday morning and afternoon street peak hours to determine the impact of the Facility traffic on the existing traffic flows. . . .”⁶⁰² Ms. Means first compared total weekday peak hour traffic volume to capacity. From Illinois Route 53 west to Brandon Road, Laraway Road operates with a volume to capacity ratio of 24% with waste acceptance of either 10,000 or 15,000 tons per day. At 20,000 tons per day, the ratio is 25%. From Brandon Road west to the facility entrance, Laraway Road operates with a volume

⁵⁹¹ C438, citing C441 (Table 7: Facility Trip Generation – 100 Percent Increase Average Day (20,000 TPD)).

⁵⁹² C441.

⁵⁹³ C442.

⁵⁹⁴ C442 (Table 8: Facility Directional Distribution); C457 (Exhibit 3: Facility Direction Distribution); *see* C4300.

⁵⁹⁵ C439-41 (Tables 5-7: Facility Trip Generation).

⁵⁹⁶ C458-60 (Exhibits 4-6: Facility Street Peak Hour Traffic).

⁵⁹⁷ C442; C456 (Exhibit 2: Existing Traffic); C458-60 (Exhibits 4-6: Facility Street Peak Hour Traffic); C461-62 (Exhibits 7-9: Total Traffic).

⁵⁹⁸ C4301.

⁵⁹⁹ C4302.

⁶⁰⁰ C4302.

⁶⁰¹ C4302.

⁶⁰² C433.

to capacity ratio of 23% with waste acceptance of 10,000 tons per day and 25% with waste acceptance of 15,000 or 20,000 tons per day. Both segments of Laraway Road operate at LOS C at each of the three levels of waste acceptance.⁶⁰³

Intersection Capacity. Ms. Means also used HCM methodologies to evaluate the capacity of three intersections for “total traffic conditions of the weekday morning and afternoon street peak hours. . . .”⁶⁰⁴ At the intersection of Illinois Route 53 and Laraway Road, all four approaches at both peak hours operate at LOS C or D with waste acceptance of 10,000, 15,000, or 20,000 tons per day.⁶⁰⁵ At the intersection of Laraway and Brandon Roads, the two Laraway Road approaches operate at LOS A at both peak hours and all three levels of waste acceptance. While the southbound Brandon Road approach operates at LOS D at both peak hours and all three levels of waste acceptance, the overall intersection rates LOS B for both peak hours and all three levels of waste acceptance.⁶⁰⁶ At the intersection of Laraway Road and the facility entrance at Centerpoint Way and Patterson Road, all four approaches at both peak hours operate at LOS A, B, or C at all three levels of waste acceptance.⁶⁰⁷ At 10,000 and 15,000 tons per day, the overall intersection rates LOS B at both peak hours.⁶⁰⁸ At 20,000 tons per day, the overall intersection during the morning peak hour rates LOS B and during the afternoon peak hour rates LOS C.⁶⁰⁹ WMI argues that these results contradict ERDS’s claim that traffic near the proposed expansion is “already unacceptable” and “a traffic nightmare.”⁶¹⁰

Ms. Means also evaluated the capacity of these intersections during the proposed expansion’s peak hour.⁶¹¹ “[L]evels of service B, B, and C will still be maintained at Laraway Road’s intersections of Centerpoint Way, Brandon Road, and Illinois Route 53 respectively with 10,000 tons per day and 15,000 tons per day waste acceptance.”⁶¹²

ERDS cites Ms. Means’ testimony regarding traffic delays during the morning street peak hour at the intersection of Laraway Road and Illinois Route 53. For existing traffic, the delay is 39.2 seconds, and with waste volume of 10,000 per day, the delay is 37.1 seconds.⁶¹³ ERDS characterized this computation as “nonsensical.”⁶¹⁴ Ms. Means addressed these calculations during her cross-examination. She attributed this 2.1 second difference to actuated traffic signals

⁶⁰³ C443 (Table 9: Total Traffic – Weekday Peak Hour Traffic Volume to Capacity Comparison), citing C590-91, C607-08, C624-25 (Directional Two-Lane Highway Segment Worksheets for 10,000, 15,000, and 20,000 tons per day); *see* C4300-01.

⁶⁰⁴ C443.

⁶⁰⁵ C444; *see* C592-97, C609-14, 626-31 (HCS Signalized Intersection Input Data, Intermediate Values, and Results Summary); C4301.

⁶⁰⁶ C444; *see* C598-603, C615-20, C632-37; C4301.

⁶⁰⁷ C444; *see* C604-05, C621-22, C638-39 (All-Way Stop Control Analysis).

⁶⁰⁸ C444; C4301.

⁶⁰⁹ C444.

⁶¹⁰ WMI Resp. at 16, citing ERDS Brief at 11.

⁶¹¹ C4301.

⁶¹² C4301.

⁶¹³ C4308.

⁶¹⁴ ERDS Brief at 13.

and “a different distribution of traffic.”⁶¹⁵ Ms. Means stated that an actuated signal is not pre-timed and instead accounts for the actual distribution and movement of traffic.⁶¹⁶ Her report shows that traffic at the intersection would continue at the same acceptable LOS.⁶¹⁷ The Board finds her testimony persuasive and cannot agree with ERDS’s characterization.

2018 Traffic Projections. Ms. Means projected existing traffic volumes to 2018, when the proposed expansion is expected to begin operating. Background or No-Build volumes “include all existing traffic and any new traffic due to general background growth in the study area, other than the Facility.”⁶¹⁸ To project traffic growth, Ms. Means first assumed “an annual, compounded growth rate of four percent along Brandon Road and two percent along the remaining study roadways.”⁶¹⁹ The analysis then added this growth to existing traffic.⁶²⁰

The study also added traffic volumes associated with three planned or approved developments: the Laraway Crossing Business Park northeast of the intersection of Laraway Road and Illinois Route 53; a fuel facility with a convenience store and restaurant proposed on the west side of Illinois Route 53 north of Laraway Road; and a fuel facility and convenience store proposed at the southeast corner of Laraway Road and Illinois Route 53.⁶²¹ To project traffic volumes generated by this development, the analysis relied on trip generation estimates from traffic studies.⁶²²

The analysis also assumes completion of planned roadway improvements including roadway and traffic signal improvements at the intersection of Laraway Road and Illinois Route 53 expected to be completed by 2018 and a traffic control signal installed at the intersection of Laraway Road at Centerpoint Way and Patterson Road before July 1, 2016.⁶²³ The analysis did not include a proposed new bridge over the Des Plaines River because it had not secured funding and did not have a projected completion date.⁶²⁴

ERDS states that, with these factors, “[t]he traffic study gets worse.”⁶²⁵ ERDS questions the consideration of these roadway improvements because they are made by third parties and will generate additional traffic.⁶²⁶ WMI stresses that consideration of these improvements is not required by Criterion (vi). WMI adds that Ms. Means did not analyze one of the improvements, which has no secure funding or completion date.⁶²⁷ WMI emphasizes that existing traffic flows

⁶¹⁵ C4308.

⁶¹⁶ C4308.

⁶¹⁷ C439-41; C443-44.

⁶¹⁸ C445.

⁶¹⁹ C445, citing C641 (Chicago Metropolitan Agency for Planning projections of ADT).

⁶²⁰ C446, citing C466 (Exhibit 2: Existing Traffic).

⁶²¹ C445-46; *see* C4299.

⁶²² C445-46; *see* C4299.

⁶²³ C446.

⁶²⁴ C446.

⁶²⁵ ERDS Brief at 13.

⁶²⁶ ERDS Brief at 3, 13.

⁶²⁷ WMI Resp. at 17-18, citing C446.

show acceptable LOS, and WMI disputes ERDS's suggestion that Ms. Means considered 2018 improvements to "make the analysis work."⁶²⁸

The analysis also addresses truck traffic associated with Walter Strawn Drive. Approximately six miles south of the proposed expansion, Walter Strawn Drive was closed on January 28, 2015, at the Union Pacific Railroad tracks just west of Illinois Route 53.⁶²⁹ Because there is no longer access on Walter Strawn Drive to Illinois Route 53, the analysis sought to measure traffic that may be attributable to this closure by performing supplemental intersection turning movement counts at the intersection of Laraway Road and Centerpoint Way and Patterson Road in March 2015.⁶³⁰ "The incremental increase (March 2015 less October 2014 traffic volumes) in truck traffic was then assigned to the roadway network."⁶³¹

Based on this information, Ms. Means prepared a No-Build traffic flow network projection for 2018.⁶³² In addition, "[t]he 2018 Build total traffic assessments present the overall projected traffic volumes when the Facility is expected to become operational. . . ."⁶³³ These projections combine facility traffic volumes with the No-Build traffic volumes.⁶³⁴ Ms. Means projected 2018 peak hour traffic volumes based on waste acceptance rates of 10,000, 15,000, and 20,000 tons per day.⁶³⁵

2018 Traffic Analysis. Ms. Means first compared total weekday peak hour traffic volume to capacity ratio for Laraway Road. Under the 2018 No-Build conditions, Laraway Road operates with a volume to capacity ratio of 29% along both segments from Illinois Route 53 west to the facility entrance. Under the 2018 Build conditions, both segments operate at a volume to capacity ratio of 31% with waste acceptance of 10,000 tons per day, 32% with 15,000 tons per day, and 33% with 20,000 tons per day. From Brandon Road east to Illinois Route 53, Laraway Road operates at LOS D under each of the four conditions. From Brandon Road west to the facility entrance, Laraway Road operates at LOS C under each of the four conditions.⁶³⁶

Ms. Means also used HCM methodologies to analyze intersections during morning and evening street peak hours. The analysis concluded that, "under 2018 No-Build conditions, with the anticipated traffic growth and background developments, and 2018 Build conditions with the Facility traffic, all study area intersections are expected to continue to operate at overall

⁶²⁸ WMI Resp. at 18.

⁶²⁹ C447.

⁶³⁰ C447; *see* C523-28 (Turning Movement Data).

⁶³¹ C447; *see* C4323-24.

⁶³² C464 (Exhibit 10: 2018 No Build).

⁶³³ C447.

⁶³⁴ C458-60 (Exhibits 4-6: Facility Street Peak Hour Traffic); C464 (Exhibit 10: 2018 No Build).

⁶³⁵ C465-67 (Exhibits 11-13: 2018 Build at 10,000, 15,000, and 20,000 tons per day).

⁶³⁶ C448 (Table 11: 2018 Weekday Peak Hour Traffic Volume to Capacity Comparison), citing C643-44, C664-65, C685-86, C707 (Appendices J-M: Directional Two-Lane Highway Segment Worksheets).

acceptable levels of service.”⁶³⁷ The intersection of Illinois Route 53 and Laraway Road rates an overall LOS C under 2018 No-Build conditions and under 2018 Build Conditions with waste acceptance of 10,000, 15,000, and 20,000 tons per day.⁶³⁸ The intersection of Laraway and Brandon Roads rates an overall LOS B under all four conditions.⁶³⁹ During the morning street peak hour, the intersection of Laraway Road and the facility entrance at Centerpoint Way rates an overall LOS B under all four conditions.⁶⁴⁰ During the afternoon street peak hour, the intersection rates an overall LOS C under all four conditions.⁶⁴¹

Future Traffic Impacts

ERDS addresses cross examination of Ms. Means.⁶⁴² The hearing officer sustained WMI’s objection to a question asking whether Ms. Means anticipates “continued growth in background traffic between 2018 and 2031.”⁶⁴³ The hearing officer also sustained WMI’s objection to a question asking Ms. Means whether she has an opinion whether the proposed expansion will adversely impact future traffic.”⁶⁴⁴

ERDS argues that minimizing the impact on existing traffic flows “would seem to be a fluid concept that relates to the entire life of the proposed expansion.” ERDS states that WMI “should be required to consider and discuss minimization of impact during the entire projected life of the facility.”⁶⁴⁵ ERDS asserts that “the absence of an impact in 2018 when there could in fact be a significant impact shortly thereafter, is misleading and prejudicial.”⁶⁴⁶ ERDS concludes that “the hearing officer’s refusal to allow questioning beyond 2018, is a reversible error, in that it is fundamentally unfair.”⁶⁴⁷

The County counters that WMI “is not required to provide evidence regarding traffic flows throughout the life of the facility but simply that the impact to *existing* flow will be minimized.”⁶⁴⁸ The County argues that ERDS does not support its contrary position, which is not consistent with the Act or the caselaw.⁶⁴⁹ The County further argues that ERDS “did not properly preserve this error by making a relevant offer of proof.”⁶⁵⁰

⁶³⁷ C448, citing C449 (Table 12: 2018 Intersection level of Service), C645-62, 666-83, 687-704, 708-25 (HCS Signalized Intersection Input Data, Intermediate Values, and Results Summary).

⁶³⁸ C449.

⁶³⁹ C449.

⁶⁴⁰ C449.

⁶⁴¹ C449.

⁶⁴² ERDS Brief at 14-15.

⁶⁴³ C4302.

⁶⁴⁴ C4303.

⁶⁴⁵ ERDS Brief at 15.

⁶⁴⁶ ERDS Brief at 15.

⁶⁴⁷ ERDS Brief at 15.

⁶⁴⁸ County Resp. at 6 (emphasis in original).

⁶⁴⁹ County Resp. at 6, citing File v. D&L Landfill, 219 Ill. App. 3d 897, 908 (1991).

⁶⁵⁰ County Resp. at 6, citing C4202-03.

The Board is not persuaded by ERDS's unsupported position that minimizing traffic impact "would seem to be a fluid concept that relates to the entire life of the proposed expansion."⁶⁵¹ Criterion (vi) requires a proposed facility to demonstrate that its traffic patterns "are so designed to minimize the impact on existing traffic flows."⁶⁵² The Board does not consider this demonstration to be "fluid" and sees no authority to extend the demonstration to "the entire projected life of the facility" as argued by ERDS. Regardless of whether ERDS properly preserved this objection to the Will County hearing officer's ruling, the Board addresses the objection to clarify that the Board does not discount Ms. Means' testimony on this criterion.

Witness Conclusion

Based on her experience and review of the application, Ms. Means concluded that "traffic patterns to and from the facility have been so designed to minimize its impact on existing traffic flows."⁶⁵³ As support for her conclusion, she stated that "the facility traffic does not adversely impact the operations of levels of service at the said area intersections as well as roadway segments, the facility peak hours do not coincide with the street peak hours of adjacent street traffic, and the on-site stacking capacity will nearly double within the expansion."⁶⁵⁴

Board Conclusion on Criterion (vi).

Under criterion (vi), "the question is not whether there will be no adverse impact, but whether the impact on traffic flow has been minimized."⁶⁵⁵ "The Act does not require elimination of all traffic problems, nor is the applicant required to provide evidence of exact routes, types of traffic, noise, dust, or projections of volume and hours of traffic, because the Act does not require a traffic plan but rather a showing that the traffic patterns to and from the facility are designed to minimize impact on existing traffic flows."⁶⁵⁶ "The operative word is 'minimize,' and it is recognized that it is impossible to eliminate all problems."⁶⁵⁷ The Board finds that the Will County Board's record on criterion (vi) detailed above demonstrates that traffic patterns to and from the facility are designed to minimize impacts on existing traffic flow.

By a vote of 25-0 with one abstention, the County Board found that "[t]he Applicant has demonstrated compliance with Criterion 6."⁶⁵⁸ The County Board also found that it should impose three conditions reasonable and necessary to accomplish the purposes of the Act.⁶⁵⁹ The

⁶⁵¹ ERDS Brief at 15.

⁶⁵² 415 ILCS 5/39.2(a)(vi) (2014).

⁶⁵³ C4302.

⁶⁵⁴ C4302.

⁶⁵⁵ Fairview Area Citizens Task Force, 198 Ill. App. 3d 541, 554-55 (3rd Dist. 1990).

⁶⁵⁶ Fox Moraine v. United City of Yorkville, 2011 IL App (2d) 10001 (2011) (¶116), citing Tate, 188 Ill. App. 3d at 1024.

⁶⁵⁷ File v. D&L Landfill, 291 Ill. App. 3d 897, 908 (5th Dist. 1991), citing Tate v. PCB, 188 Ill. App. 3d 994, 1024 (1989).

⁶⁵⁸ C5327.

⁶⁵⁹ C5327; C5330-31; *see* C5193, C5250, C5307, C5318 (hearing officer findings and recommendations); *see also* C4799, C4804-05 (Will County staff report); C5320 (Will County Pollution Control Facility Committee).

first condition provides that “WMI shall inform all haulers to and from the facility of the designated truck routes in writing.” The second condition establishes that, “[i]f a hauler is identified that it has not complied with the designated route requirement, with three violations within a 12 month period, WMI must inform the hauler that it will be banned from disposing at the landfill for at least four weeks.” The third condition requires that “WMI shall inform haulers not to use Brandon Road under any conditions, except as authorized by the County in writing.”⁶⁶⁰

WMI states that its evidence and testimony satisfied criterion (vi). “No evidence was presented establishing that impact on traffic flows was not minimized.”⁶⁶¹ WMI argues that the record supports the County Board’s finding on this criterion and that the “finding should be affirmed.”⁶⁶² The County argues that the County Board’s conclusion was not contrary to the manifest weight of the evidence and should be affirmed.⁶⁶³ ERDS questions Ms. Means’ credibility and aspects of her analysis, but ERDS has not persuaded the Board for the reasons described above.

The Board has closely examined Ms. Means’ analysis to determine whether it supports the County Board’s vote. Ms. Means identified the route of facility traffic and presented data on existing traffic and roadway capacity. Her traffic impact analysis shows that roadways and intersection in the vicinity of the proposed expansion will operate at acceptable levels of service at various levels of waste acceptance. She also described improvements to the facility entrance to align with Laraway Road and increasing the facility’s vehicle stacking capacity to improve the flow of traffic. WMI’s application includes her written analysis and conclusions and is supported by her testimony. The record contains no evidence conflicting with Ms. Means’ traffic analysis. The Board also agrees that the conditions effectively require that landfill traffic uses the designated route and help ensure minimization of the proposed expansion’s impact on existing traffic flow.⁶⁶⁴

Applying its technical expertise, the Board finds that the local record supports the County Board’s decision that WMI satisfied criterion (vi). As the Board is unable to conclude that “the opposite result is clearly evident, plain, or indisputable,”⁶⁶⁵ the Board finds that the County Board’s decision on criterion (vi) is not contrary to the manifest weight of the evidence.

⁶⁶⁰ C5331.

⁶⁶¹ WMI Brief at 25.

⁶⁶² WMI Brief at 25.

⁶⁶³ County Resp. at 6.

⁶⁶⁴ See C5306; see also File v. D&L Landfill, 219 Ill. App. 3d at 908 (“[T]he conditions placed upon the site approval by the Bond County Board of Supervisors go a long way toward minimizing incompatibility with the surrounding area and minimizing the effect of the expanded landfill on the value of surrounding property.”).

⁶⁶⁵ Land and Lakes, 319 Ill. App. 3d at 53; see Tate v. PCB, 188 Ill. App. 3d 994, 1022 (4th Dist. 1989).

Conditional Approval by County Board

In its amended petition, ERDS argues that conditional approval in the manner employed by the County Board is not authorized by Section 39.2 of the Act.⁶⁶⁶ However, ERDS did not address this issue anywhere in its post-hearing briefs. The County states that ERDS has therefore waived this claim.⁶⁶⁷ The Board agrees and finds that ERDS has waived the issue by not arguing it.⁶⁶⁸

CONCLUSION

The Board affirms the Will County Board's grant of siting approval for WMI to expand the Laraway RDF. Specifically, the Board finds that the Will County Board's determinations that WMI met criteria (i), (ii), and (vi) of Section 39.2(a) of the Act are not against the manifest weight of the evidence. In addition, ERDS waived its allegation that the Will County Board's conditional approval of WMI's application is not authorized by Section 39.2.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

The Board affirms the Will County Board's decision to approve siting for WMI's proposed expansion of the Laraway RDF.

IT IS SO ORDERED.

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2014); *see also* 35 Ill. Adm. Code 101.300(d)(2), 101.906, 102.706. Illinois Supreme Court Rule 335 establishes filing requirements that apply when the Illinois Appellate Court, by statute, directly reviews administrative orders. 172 Ill. 2d R. 335. The Board's procedural rules provide that motions for the Board to reconsider or modify its final orders may be filed with the Board within 35 days after the order is received. 35 Ill. Adm. Code 101.520; *see also* 35 Ill. Adm. Code 101.902, 102.700, 102.702.

⁶⁶⁶ Am. Pet. at 2 (¶6).

⁶⁶⁷ *See* County Resp. at 6-7.

⁶⁶⁸ Am. Bottom Conservancy and Sierra Club v. City of Madison, Ill. and Waste Mgmt. of Ill., PCB 07-84, slip op. at 4 (Feb. 21, 2008) (denying motion to reconsider), citing Shaw v. Vill. of Dolton and Land & Lakes Co., PCB 97-68, slip op. at 12 (Jan. 23, 1997); Citizens United for a Responsible Env't. v. Browning-Ferris Indus. of Ill. and Vill. of Davis Junction, PCB 96-238, slip op. at 3 (Sept. 19, 1996).

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on October 6, 2016, by a vote of 5-0.

A handwritten signature in black ink that reads "John T. Therriault". The signature is written in a cursive style with a long horizontal stroke at the end.

John T. Therriault, Clerk
Illinois Pollution Control Board