

Appendix D

USGS Maps

U.S. Geological Survey Quaternary Faults



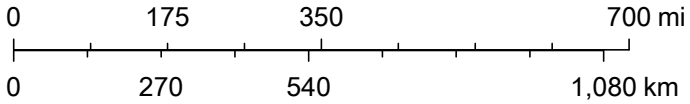
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Quaternary faults

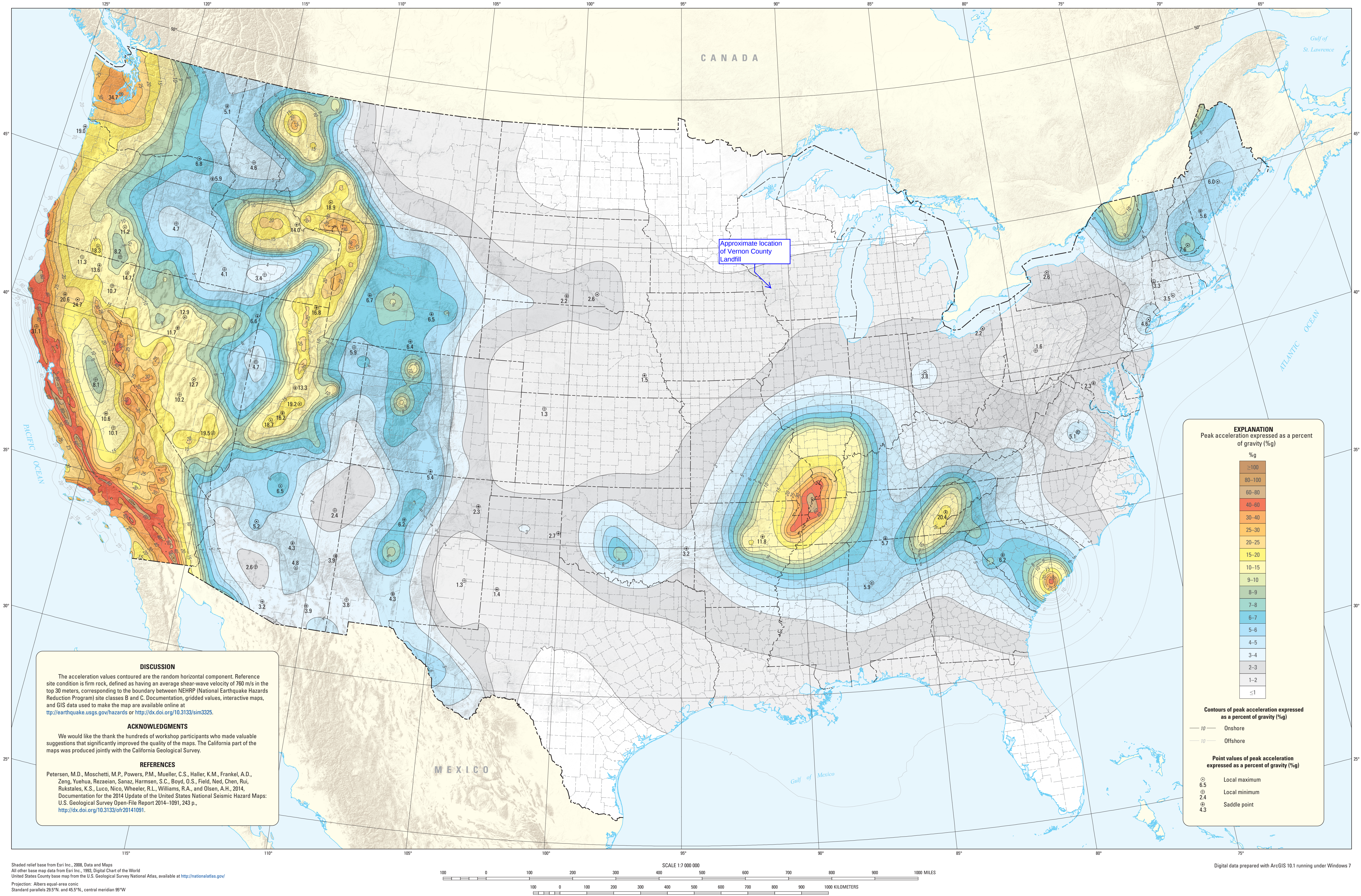
- unspecified age, well constrained location
- unspecified age, moderately constrained location
- unspecified age, inferred location
- undifferentiated Quaternary (< 130,000 years), well constrained location
- undifferentiated Quaternary (< 130,000 years), moderately constrained location

- undifferentiated Quaternary (< 130,000 years), inferred location
- middle and late Quaternary (< 1.6 million years), well constrained location
- middle and late Quaternary (< 1.6 million years), moderately constrained location
- middle and late Quaternary (< 1.6 million years), inferred location
- latest Quaternary (<15,000 years), well constrained location

1:18,489,298



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Shaded relief base from Esri Inc., 2008, Data and Maps
All other base map data from Esri Inc., 1993, Digital Chart of the World
United States County base map from the U.S. Geological Survey National Atlas, available at <http://nationalatlas.gov/>
Projection: Albers equal-area conic
Standard parallels 29.5°N, and 45.5°N, central meridian 96°W

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Seismic-Hazard Maps for the Conterminous United States, 2014 Peak Horizontal Acceleration with 10 Percent Probability of Exceedance in 50 Years

By

Mark D. Petersen,¹ Morgan P. Moschetti,¹ Peter M. Powers,¹ Charles S. Mueller,¹ Kathleen M. Haller,¹ Arthur D. Frankel,¹ Yuehua Zeng,¹ Sanaz Rezaeian,¹
Stephen C. Harmsen,¹ Oliver S. Boyd,¹ Edward H. Field,¹ Rui Chen,² Nicolas Luco,¹ Russell L. Wheeler,¹ Robert A. Williams,¹ Anna H. Olsen,¹ and Kenneth S. Rukstales¹
2015

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<http://dx.doi.org/10.3133/sim3325>.



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December 15, 2020

File Ref: FID 663038310
Vernon County
SW/CORR

Ms. Stacie Sanborn
Vernon County Landfill
Route 3, Box 247 B
Viroqua, WI 54665

Subject: Initial Site Inspection Response - Proposed Expansion to Vernon County Landfill,
License #3268

Dear Ms. Sanborn:

This letter documents the initial site inspection (ISI) performed by the Department of Natural Resources (department) on November 18, 2020, for the proposed expansion of the Vernon County Landfill. Waste Management Engineer Martin Herrick and Hydrogeologist Carolyn Cooper conducted the inspection. The purpose of the inspection was to identify any potential conflicts the proposed expansion might have with the location and performance standards in s. NR 504.04, Wis. Adm. Code.

As part of the inspection, the department evaluated the information in Short Elliot Hendrickson (SEH)'s November 4, 2020 ISI request letter submitted on behalf of Vernon County. The ISI request letter states that the proposed expansion is in the South ½ of Section 15, T13N, R4W. Please review this description for accuracy and provide future site location descriptions to the ¼-¼ Section level.

According to the ISI letter, the proposed expansion consists of a contiguous 10-acre horizontal expansion to the west and north of Phase 1 of the currently permitted active MSW landfill (License #3268) and a vertical expansion over the western portions of the active landfill. As observed during the ISI, the horizontal expansion area consists of open, grassy areas adjacent to the existing active landfill with wooded areas farther to the north and northeast. The area of the proposed horizontal expansion includes the current leachate loadout area, access roads to the active landfill and the closed construction and demolition waste (C&D) landfill, a wooden shed, and a soil stockpile area. Any impacts or changes to these existing features would be described in the Initial Site Report (ISR) and feasibility report.

Based on the review of the documents included with the November 4, 2020 ISI request and observations from the site inspection, the department's preliminary opinion regarding the suitability of site location is that the site location has potential. The only conflict with the locational criteria contained in s. NR 504.04 (3), Wis. Adm. Code, that was identified is a water supply well located within 1,200 feet of the proposed expansion boundary or the currently approved waste limits. Regarding the performance standards contained in s. NR 504.04 (4), Wis. Adm. Code, the department's review of the Surface Water Data Viewer (SWDV) shows a location within the proposed project area that has wetland indicators that would need to be checked by an assured wetland delineator. If there are conflicts that cannot be satisfactorily addressed in accordance with applicable requirements, then they would be constraints to site development.

Summary of Locational Criteria: As described in s. NR 504.04(3)(a) to (i), Wis. Adm. Code, there are several locational criteria that apply to the proposed landfill expansion. The proposed limits of filling may not be located within:

- (a) *1,000 feet of any navigable lake, pond or flowage.* The ISI request states that there is not a navigable lake, pond, or flowage within 1,000 feet of the proposed expansion; however, there is an existing manmade stormwater detention pond within 1,000 feet of the proposed expansion, southeast of the active landfill. As a sedimentation control structure, this pond would be excluded from this setback requirement.
- (b) *300 feet of any navigable river or stream.* According to the ISI request, the proposed expansion is not within 300 feet of a navigable river or stream. The department's SWDV also indicates the proposed expansion is not within 300 feet of a navigable river or stream.
- (c) *A floodplain.* According to the ISI request, the proposed expansion is not within a floodplain. The department's SWDV also indicates this area is not in a floodplain.
- (d) *1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area, unless the landfill is screened.* According to the ISI request there are no state trunk highways, interstate or federal aid primary highways within 1,000 feet of the proposed site. US Highway 14/61 and State Highway 27 are the closest features and will be over 12,500 feet from the proposed site. The ISI request states that there are no public parks or state natural areas within 1,000 feet of the limits of the current landfill or expansion footprint.
- (e) *An area where the design or operation of the landfill would pose a significant bird hazard to aircraft.* According to the ISI request, there are no airport runways within 10,000 feet of the proposed landfill expansion. The closest runway at the Viroqua Airport is located approximately 15,800 feet (2.7 miles) southwest of the proposed landfill expansion, and the landfill is not located in the approach or departure path for the airport. Because the proposed expansion is within 5 miles of this runway, notification to the Federal Aviation Administration (FAA) is required. The ISI request included a copy of the October 23, 2020 notification made by SEH to the FAA on behalf of Vernon County. Section NR 509.06 (3), Wis. Adm. Code requires inclusion of the initial response letter from the FAA in the ISR.
- (f) *1,200 feet of any public or private water supply well.* The ISI request states that no public or private wells are located within 1,200 feet of the proposed expansion boundary, except for the well serving the landfill office and recycling facility (WUWN FU046). The ISI request states that a ch. NR 812, Wis. Adm. Code variance for the setback requirement for this well was granted prior to constructing the initial landfill cell. If Vernon County pursues expansion of the landfill within the 1,200-foot setback zone, please request and justify an exemption to this locational criterion or provide an alternative water supply for this property. If the proposed limits of waste would extend closer to the well than currently approved or be located in a different gradient position with respect to groundwater flow from the water supply well, then a new NR 812 well variance application may be required. Further discussion regarding public and private wells in the area would be addressed in the feasibility report.
- (g) *200 feet of a fault that has had displacement in Holocene time.* The ISI request states that the proposed expansion is not within 200 feet of a fault that has had displacement since Holocene time. Further discussion regarding the geologic stability of the area would be addressed in the feasibility report.
- (h) *Seismic impact zone.* The ISI request concludes that the site is in an area of very low seismic hazard based on United States Geological Survey (USGS) information.
- (i) *Unstable areas.* The ISI request states there is no evidence of unstable conditions at the site based on known current or historical data. Further discussion regarding the geologic stability of the area would be addressed in the feasibility report.

It appears that the site meets or could be constructed and operated to meet the performance standards in s. NR 504.04 (4), Wis. Adm. Code.

- (a) Wetland Areas - Based on information provided in the ISI request, review of the SWDV and the site inspection, no regulated wetlands were identified within the proposed project area at this time. However, the SWDV identified a location within the proposed expansion area as a potential wetland indicator based on soil type and/or wet area. Please see the attached map. Vernon County should have this area checked by an assured wetland delineator and provide the findings in the ISR.
- (b) Critical Habitat Areas - Based on a review of the Natural Heritage Inventory (NHI), no element occurrences were identified as existing in the area. Therefore, it appears unlikely that there would be any significant adverse impact on critical habitat areas or endangered or threatened species due to the proposed expansion. As the proposed project progresses through the siting process, additional reviews by department staff may be done at different stages to update the NHI review.

Archaeological issues and historical structures for the proposed expansion area were cleared by Richard Kubicek, Departmental Archaeologist/Departmental Historic Preservation Officer, on November 10, 2020.

The performance criteria outlined in s. NR 504.04 (4) (c) through (f), Wis. Adm. Code include evaluation of surface water, groundwater, gas migration and air contaminant impacts. These performance criteria would be evaluated during the department's review of a feasibility report for the proposed expansion.

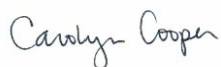
Please note that s. NR 504.04 (4) (d), Wis. Adm. Code, requires submittal of a 7.5 Minute USGS map or equivalent with a scale of 1 inch=500 feet. The ISI request included a 1 inch=2000 feet scale topographic map; however, a 1 inch=500 feet scale map will be required in the ISR submittal. Several maps at this scale may be needed to show all of the items listed in this code section, which include the depiction of contour intervals to sufficiently show relief, surface waters, floodplains, existing land use conditions including the location of public parks, and all water supply wells and residences located within one mile of the property boundaries of the proposed landfill.

Please remember that s. NR 504.09 (2) (f), Wis. Adm. Code, requires a minimum separation distance of 100 feet be maintained between the limits of filling and the adjacent property line. A minimum distance of 50 feet must be maintained between any permanent berms or excavations associated with the landfill, excluding stormwater diversion structures, and the adjacent property line.

The locational and performance criteria will be evaluated again as the department reviews the ISR and feasibility report. Please keep in mind that as the department continues its review of the proposed expansion and as new information is presented, additional questions or concerns may arise, or requests for further information may be made before a feasibility determination is made.

Please do not hesitate to contact me at 608-275-7779 or by email at carolyn.cooper@wisconsin.gov if you have any questions about this letter.

Sincerely,



Carolyn Cooper, P.G.
Hydrogeologist
South Central Region

cc: Martin Herrick - DNR - WCR
John Morris - DNR - WCR
Cynthia Moore - DNR - SCR
Joe Lourigan - DNR - Madison, WA/5
Valerie Joosten - DNR - WA
Brian Kent - SEH
Darryl Heaps - SEH



Initial Site Inspection Request

Vernon County Landfill

Viroqua, Wisconsin

WDNR License No. 3268

VERSW 157634 | November 4, 2020



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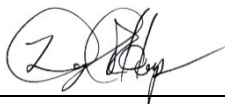
Initial Site Inspection Request

Vernon County Landfill
Viroqua, Wisconsin

Prepared for:
Vernon County Solid Waste
Viroqua, Wisconsin

Prepared by:
Short Elliott Hendrickson Inc.
329 Jay Street, Suite 301
La Crosse, WI 54601-4034
608.782.3161

I, Darryl R. Heaps, hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 500 to 538, Wis. Adm. Code.



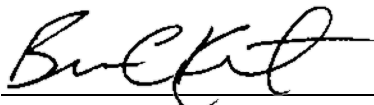
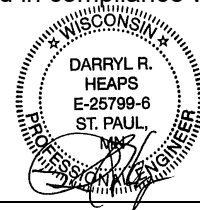
E-25799

11.4.2020

Darryl R. Heaps, PE, CHMM
Environmental Scientist

PE Number

Date



11.4.2020

Brian L. Kent CHMM
Project Manager

Date

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1	WDNR - Bureau of Waste Management 101 S. Webster Street PO Box 7921 Madison, WI 53707
1	Carolyn Cooper, PG Hydrogeologist Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711
1	Darryl Heaps, PE SEH 3535 Vadnais Center Drive St. Paul, MN 55110

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Initial Site Inspection Request

Vernon County Landfill

Prepared for Vernon County Solid Waste

1 Introduction

1.1 Purpose

The Vernon County Landfill (WDNR License No. 3268) proposes to expand the existing landfill for disposal of municipal solid waste, commercial and industrial waste. Short Elliott Hendrickson Inc. (SEH®), on behalf of Vernon County (County), is issuing this report to request an initial site inspection (ISI) for the purpose of evaluating compliance with the applicable locational criteria and performance standards specified under s. NR504.04 Wisconsin Administrative Code.

1.2 Landfill Initial Site Inspection Checklist

Appendix A, "ISI Request Checklist" includes a completed Landfill Initial Site Inspection Request Completeness Checklist (WA1184). The checklist was utilized by SEH to confirm correct and sufficient data is provided to the WDNR in accordance with s. NR509.04 Wisconsin Administrative Code, and as a quick reference guide to the WDNR reviewer for location of applicable information contained in this report.

2 General Information

The Vernon County Solid Waste Department owns and operates an integrated waste management system on approximately 250-acres located in the Town of Viroqua, Wisconsin. The integrated waste management system includes:

- An approximate 10-acre municipal solid waste landfill, with an approximate design capacity of 590,000 cubic yards (WDNR License No. 3268)
- A closed small sized (50,000 cubic yard) C&D Landfill (WDNR License No. 3712)
- A recyclable material processing and baling facility

2.1 Proposed Operation

The County is proposing to permit a horizontal and vertical expansion for the municipal waste landfill (WDNR License No. 3268). The approximate waste footprint for the proposed expansion is shown on the attached Figure 1 through Figure 5. Please note that the approximate footprint presented is not anticipated to cover the entire area shown, but bounds the areas currently being considered for the expansion. It is anticipated that the proposed expansion footprint will be less than 10-acres. The landfill will continue to accept waste from regional haulers and municipalities located in Vernon County. The proposed expansion is described as following:

- Horizontal expansion of approximately 10-acres west and north of Phase 1 of the existing active landfill

- Vertical expansion over the western portions of the existing active landfill (License No. 3268)

2.2 Location

The current landfill, and proposed expansion is located in the South half of Section 15, T13N, R4W, Town of Viroqua, Vernon County, Wisconsin. The physical address for the Solid Waste Department is S3705 County Road LF, Viroqua, Wisconsin.

2.3 Owner/Applicant

The Owner and Applicant are as follows:

Vernon County Solid Waste Department
C/O Stacie Sanborn, Solid Waste Director
S3705 County Road LF
Viroqua, WI 546665

2.4 Authorized Contacts

Authorized contacts are as follows:

OWNER

Stacie Sanborn, Solid Waste Director
Vernon County Solid Waste Department
S3705 County Road LF
Viroqua, WI 546665
608.634.2900

CONSULTANT

Brian L. Kent, CHMM
SEH
329 Jay Street, Suite 301
La Crosse, WI 54601
608.498.4844

2.5 Present Land Use

Presently the property is utilized for active solid waste disposal relating to the active landfill cell. The property also includes a closed small sized C&D landfill located northeast of the active MSW landfill. Several buildings are located near the entrance to the property which serve as the scale house, landfill office space, and accommodate the recycling processing operations.

The approximate 10-acres for the proposed horizontal expansion are currently vegetated, but vacant and undeveloped. Portions of the area currently contain soil stockpiles for use in day to day landfill operations.

3 Endangered and Archeological Resources {NR509.04(4)(b)}

3.1 Endangered Resources

The Wisconsin Department of Natural Resources (WDNR) has conducted a review of the area for occurrences of Endangered, Threatened, or Special Concern Species, natural communities, or State Natural Areas in accordance with Wis. Stat. §26.604(4). Per WDNR review and subsequent letter, there are no record of the above occurrences that would be impacted by the proposed project.

A copy of the recent endangered resource report from the WDNR is provide in Appendix B, "ER/NHI Report" for your review

3.2 Archeologic Resources

As required by Wis. Stat. §44.40, the WDNR performed a review of the area to determine if any known historic, scientific, or archeological areas exists within the vicinity of the proposed facility. As indicated in the attached letter from the WDNR, the review indicates no archeological or historical findings within the proposed landfill property and proposed development site.

A copy of the letter from the WDNR is provided in Appendix B for your review.

4 Base Maps {NR509.04(4)(d)}

Attached Figure 1 through Figure 5 are base maps generated from data provided by the Vernon County Land Information Department and the USGS Avalanche quadrangle maps. Following is a summary of the attached figures relating to the required information.

- Figure 1 - Site Location: Provides location, topography/relief, and surface waters other than man-made storm water basins on the landfill property.
- Figure 2 - Residential and Private Wells Within 1-Mile of Horizontal Expansion: Includes an aerial photograph depicting residences, private wells and landowners within 1-mile of the landfill property. The attached Table 1, "Adjacent Property Owners" provides a listing of each of the landowners and/or residences located within 1,200 feet of the landfill footprint or contiguous to the landfill property.
- Figure 3 - Floodplains and Water Features Within 1-Mile of Horizontal Expansion: Identifies flood hazard areas and surface water bodies within 1-mile of the landfill property.
- Figure 4 - Topography Within 1-Mile of Horizontal Expansion: Provides topography for vicinity within 1-mile of the landfill property. The topography data was provided by the Vernon County Land Information Department and is more current that the USGS map provided on Figure 1.
- Figure 5 - Existing Land Use Within 1-Mile of Horizontal Expansion: Identifies the current land use and category for areas within 1-mile of the landfill property.

5 Potential Conflicts

Following is a summary of the locational and performance standards specified in s. NR 504.04 Wisconsin Administrative Code, and the compliance status of the proposed expansion relative to the requirements. The attached Table 2, "Locational Criteria and Performance Standard Summary" provides a summary of status of compliance with the locational and performance standards.

5.1 Locational Criteria

As discussed, following, the preliminary review of the locational standard requirements for the proposed horizontal and vertical expansion do not indicate any potential conflicts.

5.1.1 Navigable Lake, Pond or Flowage {s. NR504.04(3)(a)}

The proposed expansion will not be located within 1,000 feet of a navigable lake, pond or flowage. One sedimentation basin is located within the 1000-foot setback requirement; however, the rule excludes landfill drainage or sedimentation control structures from the setback requirement. The closest water body to the existing landfill and proposed expansion is the Seas Branch Pond located greater than 4,000 feet to the northeast. According to the WDNR's Surface Water Data Viewer database, the Seas Branch pond is an approximate 11-acre flood control impoundment with poor water quality.

5.1.2 Navigable River or Stream {s. NR504.04(3)(b)}

The proposed expansion will not be located within 300 feet of a navigable river or stream. The closed navigable river or stream is the Seas Branch Stream located approximately 1,500 feet north of the current landfill footprint. Additionally, an unnamed intermittent stream is located approximately 1,000 feet to the east of the existing landfill footprint. The intermittent stream appears to originate on the landfill property and heads northeast towards the Seas Branch Pond.

5.1.3 Floodplain {s. NR504.04(3)(c)}

As shown on Figure 3, the current landfill and proposed expansion footprint are not located in a flood hazard area or floodplain. The closest flood plain to the landfill footprint is located approximately 2,000 feet to the north in the Seas Brand Valley, which is significantly lower in elevation than the proposed landfill footprint

5.1.4 State/Federal Highways, Public Park and Natural Areas {s. NR504.04(3)(d)}

The existing landfill and proposed horizontal expansion are located greater than 1,000 feet from any State/Federal Highway, public park or natural area. The existing landfill and proposed horizontal expansion are located greater than 12,500 feet east of the right-of-way for US Highway 14/61 and State Highway 27. As indicated on Figure 5, there are no public parks or State natural areas within 1,000 feet of the limits of current landfill or expansion footprint.

5.1.5 Airport Safety {s. NR504.04(3)(e)}

The proposed landfill expansion is located approximately 2.7 miles (>15,840 feet) northeast of the closest runway at the Viroqua Airport and is not located in the approach or departure path for

the airport. Since the expansion is located less than 5 miles from the airport, the County has issued a letter dated October 23, 2020 to the Federal Aviation Administration (FAA) notifying them of their intent to expand. A copy of the notification letter is attached in Appendix C, "FAA Correspondence."

Review of applicable regulations regarding landfill siting and expansions near airports indicate that the requirements of 49 USC Section 44718(d) apply only to new municipal solid waste landfills (MSWLF's), which are defined as a municipal waste landfill that was established or constructed after April 5, 2000. Furthermore, FAA Advisory Circular AC No. 150/5200-34A states that 49 USC Section 44718(d) does not apply to the expansion or modification of an existing MSWLF. The current active Vernon County Landfill was first constructed in 1993, therefore exempt from the limitations of 49 USC Section 44718(d).

As part of the last expansion process, Vernon County issued a letter to the FAA on May 29, 2002 notifying interested parties of their intention to expand. In a letter dated June 16, 2002 the FAA responded with a letter concurring with the proposal relative to compatibility standards contained in FAA Advisory Circular AC No. 150/5200-33, with the following conditions:

1. The landfill facility must be properly supervised to assure that the bird populations are not increasing and that appropriate control procedures are being followed.
2. Any increases in bird activity that might be hazardous to safe aircraft operations will result in prompt mitigation actions and/or closure of the landfill
3. The above conditions must be clearly defined via State/Local licensing procedures associated with establishment of the landfill.
4. The landfill owner/operator should develop and implement a Wildlife Hazard Management Plan for operation of the landfill.

A Wildlife Hazard Management Plan (Plan) was included in their Plan of Operation, which has been approved by the WDNR and part of the facility operating record. The Plan utilizes the following strategies:

- Minimization of standing water areas
- Minimization of uncovered waste areas
- Prompt revegetation of disturbed areas outside of the waste footprint
- Utilization of bird harassment techniques, perch deterrents, and avoidance structures, as needed

The FAA does not approve or disapprove of solid waste landfill locations but is primarily concerned about location relative to safety. With issuance of the attached notification letter, it is anticipated that the FAA may reply with additional conditional actions to address safety concerns.

5.1.6 Public & Private Wells {s. NR504.04(3)(f)}

As shown on Figure 2, there are no public or private wells located within 1,200 feet of the existing or proposed expansion landfill footprint except for the well serving the landfill office and recycling facility. A variance for the setback requirement for the recycling facility private well was issued to the County prior to constructing the initial landfill cell.

5.1.7 Halocene Era Faults {s. NR504.04(3)(g)}

According to the U.S Geographic Survey (USGS) Earthquake Hazards Program Interactive Fault Map, there are no faults within the vicinity of the active or proposed expansion footprint.

Appendix D, "USGS Maps" includes a map from the interactive mapping system showing known faults in the Midwest Region of the United States.

5.1.8 Seismic Impact Zones {s. NR504.04(3)(h)}

According to the USGS Earthquake Hazards Program U.S Seismic Hazards Map, the active or proposed expansion footprint, and most of Wisconsin in general, is located in an area of very low seismic hazard. Appendix D includes a copy of the USGS Seismic-Hazard Maps for the Conterminous United States, 2014.

5.1.9 Unstable Areas {s. NR504.04(3)(i)}

There is no known current or historic data for the site that would suggest that the current landfill or proposed expansion footprint is located in an unstable area. Further discussion relating to stability will be addressed in the Feasibility Report.

5.2 Performance Standards

As discussed, following, the preliminary review of the performance standard requirements for the proposed horizontal and vertical expansion do not indicate any potential conflicts.

5.2.1 Impacts to Wetlands {s. NR504.04(4)(a)}

The proposed expansion will not have a significant adverse impact on wetlands. There are no wetlands present in the expansion area and storm water run-off from the area during construction and operation will be managed in accordance with applicable storm water regulations.

5.2.2 Endangered and Threatened Species {s. NR504.04(4)(b)}

The proposed expansion will not include a "take" of an endangered or threatened species. Please refer to Section 3 and Appendix B for more detail

5.2.3 Detrimental Effects to Surface Water {s. NR504.04(4)(c)}

The proposed expansion will not have a detrimental effect on surface water quality assuming the landfill is designed, constructed and operated in accordance with State regulations and approvals. Surface water will be managed in accordance with applicable regulations and surface water management systems will be designed and maintained in accordance with industry best management practices. Details of the storm water management system design will be provided in the Feasibility Report.

5.2.4 Detrimental Effects to Groundwater Water {s. NR504.04(4)(d)}

The proposed expansion will not cause or exacerbate an attainment or exceedance of a groundwater quality standard assuming the landfill is designed, constructed and operated in accordance with State regulations and approvals. The expansion will include a "state of the art" landfill liner and leachate collection system to prevent the release of contamination to the subsurface and groundwater. Details of the landfill design will be provided in the Feasibility Report.

5.2.5 Migration of Explosive Gas {s. NR504.04(4)(e)}

The proposed expansion will not cause the migration of explosive gases in excess of 25 percent of the lower explosive limit (LEL) assuming the landfill is designed, constructed and operated in accordance with State regulations and approvals. The expansion will include a “state of the art” landfill liner and expansion of the landfill gas collection system to minimize the migration and fugitive emission of methane to the atmosphere and subsurface. Details of the landfill design will be provided in the Feasibility Report.

5.2.6 Hazardous Air Emissions {s. NR504.04(4)(f)}

The proposed expansion will not cause the emission of any hazardous air contaminant (HAP) exceeding the limitations contained in s. NR445.07 Wisconsin Administrative Code assuming the landfill is designed, constructed and operated in accordance with State regulations and approvals. Details of the landfill gas collection and monitoring system design will be provided in the Feasibility Report.

DRH/hbh

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Tables

Table 1 – Adjacent Property Owners

Table 2 – Locational Criteria and Performance Standards Summary

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Table 1

Adjacent Land Owners

MAP ID	PARCEL ID	OWNER	OWNER 2	POSTAL ADDRESS	SITE ADDRESS
1	036-00411-00	RANDY D & KAREN M CRUME		E8284 SEAS BRANCH RD, VIROQUA, WI, 54665	
2	036-00393-00	RANDY D & KAREN M CRUME		E8284 SEAS BRANCH RD, VIROQUA, WI, 54665	E8284 SEAS BRANCH RD
3	036-00410-00	ALVIN L WOODMANSEE	C/O SUSAN WOODMAN	201 N WALBRIDGE AVE 111, MADISON, WI, 53705	
4	036-00408-00	PAULINE A BUCKLAND		PO BOX 174, VIROQUA, WI, 54665	
5	036-00379-00	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 53811	
6	036-00381-00	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 53811	
7	036-00674-00	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 53811	
8	036-00638-00	MADELINE CLEMENTS	STEVEN & DEBRA CLARI	210 N WASHINGTON, VIROQUA, WI, 54665	E8454 N ASBURY RD
9	036-00637-00	WISCONSIN RSA #8	LIMITED PARTNERSHIP	8410 W BRYN MAWR AVE, CHICAGO, IL, 60656	
10	036-00635-00	ZION CHURCH			
11	036-00645-00	JEROME J & SHARON M BUTERA		E8449 N ASBURY RD, VIROQUA, WI, 54665	E8449 N ASBURY RD
12	036-00644-00	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 53811	
13	036-00642-00	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 53811	
14	036-00643-00	JOHN & LINDA KIELER REVOCABLE TRUST		748 COUNTY RD Z, HAZEL GREEN, WI, 53811	
15	036-00641-00	ROBERT J & TAMMY L MENNE		E8327 N ASBURY RD, VIROQUA, WI, 54665	E8327 N ASBURY RD
16	036-00652-00	JOHN & LINDA KIELER REVOCABLE TRUST		748 COUNTY RD Z, HAZEL GREEN, WI, 53811	
17	036-00647-00	CHAD B WILLIAMS		E7541 COUNTY RD SS, VIROQUA, WI, 54665	E8263 N ASBURY RD
18	036-00650-00	JOHN & LINDA KIELER REVOCABLE TRUST		748 COUNTY RD Z, HAZEL GREEN, WI, 53811	
19	036-00649-00	WAYNE K KRUIZENGA	JULIE KRUIZENGA	E8107 COUNTY RD LF, VIROQUA, WI, 54665	
20	036-00406-00	ALICE MAE NELSON		E8137 COUNTY RD Y, VIROQUA, WI, 54665	
21	036-00405-00	ALICE MAE NELSON		E8137 COUNTY RD Y, VIROQUA, WI, 54665	E8137 COUNTY ROAD Y
22	036-00404-00	GRACE ACRES LLC		E8219 COUNTY RD Y, VIROQUA, WI, 54665	
23	036-00402-00	GRACE ACRES LLC		E8219 COUNTY RD Y, VIROQUA, WI, 54665	E8219 COUNTY ROAD Y

Table 2
Locational Criteria and Performance Standard Summary

Locational/Performance Criteria	Wisconsin Administrative Code	Compliance (Y or N)	Remarks
Locational Criteria			
1,000 ft from any navigable lake, pond or flowage	NR 504.04(3)(a)	Y	Refer to Section 5.1.1
300 ft from any navigable river or stream	NR 504.04(3)(b)	Y	Refer to Section 5.1.2
Floodplain	NR 504.04(3)(c)	Y	Refer to Section 5.1.3
1,000 ft of the nearest R/O/W of any state trunk, interstate or federal aid highway or boundry of a public park unless the landfill is screened	NR 504.04(3)(d)	Y	Refer to Section 5.1.4
Airport Safety	NR 504.04(3)(e)	Y	Expansion of an existing landfill is exempt from the minumum setback requirements. (Refer to Section 5.1.5)
Within 1,200 ft of a private water supply well	NR 504.04(3)(f)	Y	Refer to Section 5.1.6
Within 200 ft. of a fault that has had displacement in Holocene time	NR 504.04(3)(g)	Y	Refer to Section 5.1.7
Within Seismic Impact Zones	NR 504.04(3)(h)	Y	Refer to Section 5.1.8
Within Unstable Areas	NR 504.04(3)(i)	Y	Refer to Section 5.1.5
Location Criteria Base Map	NR 504.04	Y	Refer to Figure 1 through Figure 5 and Section 4
Performance Standards			
A significant adverse impact on wetlands as provided for in NR 103	NR 504.04(4)(a)	Y	Refer to Section 5.2.1
A take of an endangered or threatened species	NR 504.04(4)(b)	Y	Refer to Sections 3 and 5.2.2
A detrimental effect on surface water	NR 504.04(4)(c)	ND	Pending design and maintenance of storm water management systems. (Refer to Section 5.2.3)
A detrimental effect on groundwater quality...	NR 504.04(4)(d)	ND	Pending landfill design and analysis of groundwater data in the feasibility report. (Refer to Section 5.2.4)
Migration and concentration of explosive gas...in excess of 25% of the LEL...	NR 504.04(4)(e)	ND	Pending landfill and landfill gas collection system design in the feasibility report. (Refer to Section 5.2.5)
Emissions of any hazardous air contaminants excess of 25% LEL.	NR 504.04(4)(f)	ND	Pending landfill and landfill gas collection system design in the feasibility report. (Refer to Section 5.2.6)

Notes:

Y= Yes

ND= Not Determined- Determination to be provided in future submittals

Note : Figures 1 through 5 not included. Please refer to Appendix E of the ISR.

Figures

Figure 1 – Site Location

Figure 2 – Residential and Private Wells Within 1-Mile of Horizontal Expansion

Figure 3 – Floodplains and Water Features Within 1-Mile of Horizontal Expansion

Figure 4 – Topography Within 1-Mile of Horizontal Expansion

Figure 5 – Existing Land Use Within 1-Mile of Horizontal Expansion

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Appendix A

ISI Request Checklist

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LANDFILL INITIAL SITE INSPECTION REQUEST COMPLETENESS CHECKLIST

SECTION NR 503.07, WISCONSIN ADMINISTRATIVE CODE – C&D AND ONE-TIME DISPOSAL LANDFILLS SECTION NR 509.04, WISCONSIN ADMINISTRATIVE CODE – ALL OTHER LANDFILLS

Refer to Applicable Codes for Exact Requirements

General Information

Applicant:

Applicant Name: Vernon County Landfill

Contact/Title: Stacie Sanborn

Address: S3705 County Road LF, Viroqua, WI

Phone #: 608-634-2900

FID #: 6630308310

Site Location: South ½ of Section 15, T13N, R4W

Town of Viroqua, Vernon County, WI

Date of Initial Site Inspection Request: 10/30/2020

Consultant:

Consultant Name: SEH

Contact/Title: Brian Kent

Address: 329 Jay Street Suite 301, La Crosse, WI

Phone #: 608-498.4844

Date Project Entered into FIST System: _____

Date ISI is Due (Max. 22 bus. Days after receipt of request):

Legal Note:

This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

GENERAL SUBMITTAL REQUIREMENTS - NR 503.07(2) or 509.04(2)		Y	N	NA	LOCATION	COMMENTS
1.	Report sent to region and central office	x				see distribution list
2.	Current standard technical procedures used and test methods specified – NR 500.05(5)			x		Not applicable
3.	Visuals - NR 500.05(6)					
a.	8.5x11 to 32x44 inches in size	x				
b.	Appropriate scale to show all required details with sufficient clarity	x				
c.	Be numbered; referenced in the narrative; have a title, legend, horizontal and vertical scales; and drafting or origination dates	x				
d.	Uniform scales	x				
e.	North arrow	x				
f.	Mean sea level as basis for all elevations	x				
g.	Survey grid based on field monuments and utilizing a coordinate system acceptable to the department	x				
h.	Original topography and grid system on plan sheets showing construction, operation or closure topography				x	
i.	Cross-sections include survey grid location, reference to major plan sheets and reduced diagram of cross-section location plan view map				x	
3.	Table of contents – NR 500.05(7)	x				
4.	Appendix listing all references, raw data, testing and sampling procedures and calculations – NR 500.05(8)	x				

Facility Name Vernon County Landfill

LANDFILL REQUEST MINIMUM REQUIREMENTS - NR 503.07(4) or 509.04(4)		Y	N	NA	LOCATION	COMMENTS
1.	Cover Letter					
a.	Applicant identified	x				Section 2.3
b.	Authorized contact identified	x				Section 2.4
c.	Current property owner identified	x				Section 2.3
d.	Type of landfill being proposed	x				Section 2.1
e.	Project location by ¼, ¼ section	x				Section 2.2
f.	Present land use	x				Section 2.5
2.	Known potential impacts to endangered and threatened species - NR 29	x				Section 3.1
3.	Known potential impacts to historic, scientific or archeological areas, including prior studies or surveys, identified - s. 44.40, Wis. Stats.	x				Section 3.2
4.	Enlarged 7.5 minute USGS map or equivalent (minimum 1"=500')					
a.	Ground surface relief within one mile of project	x				Figure 1 and Figure 4
b.	Surface water bodies within one mile of project	x				Figure 3
c.	Floodplains within one mile of project	x				Figure 3
d.	Existing land use within one mile of project	x				Figure 5
e.	All water supply wells and residences within one mile of project	x				Figure 2
5.	Preliminary identification of all potential conflicts with locational criteria and performance standards in: - for C&D and one-time disposal landfills, NR 503.04 - for all other landfills, NR 504.04 excluding NR 504.04(4)(d) to (f)	x				Sections 5.1 and 5.2

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Appendix B

ER/NHI Report

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October 2, 2020

Brian Kent
SEH
bkent@sehinc.com
608-498-4844

SUBJECT: RE: ER/NHI Review – Vernon County, Wisconsin
30-acre parcel in Vernon County, Town of Viroqua

Dear Brian Kent:

Per your request, I have reviewed a 30-acre parcel for potential endangered resources and archaeological sites in Vernon County located partially in the SE ¼ of the SW ¼ of Section 15, Township 13 North, Range 4 West.

There are no concerns for endangered resources for this 30-acre parcel. There are no elemental occurrences within the 2-mile buffer, so this can be covered under a Broad Incidental Take Permit/Authorization (BITPA), activity 2-A3. More information on this BITPA can be found here
<https://dnr.wisconsin.gov/topic/erreview/ITNoLowImpact.html>.

There are no concerns for archaeological or historical sites within this 30-acre parcel.

Please include this letter with future permit submittals to the WDNR.

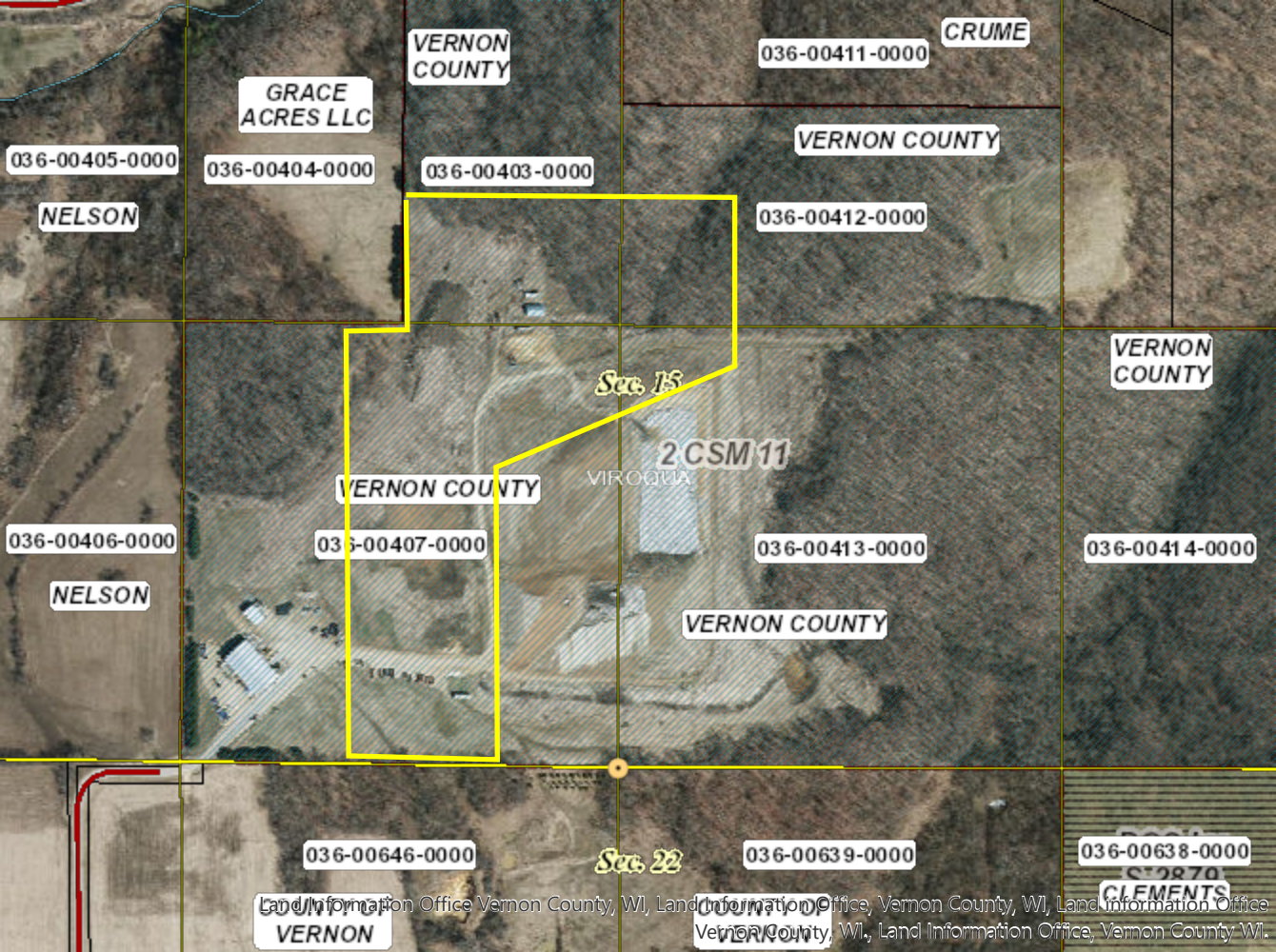
Sincerely,

Laura Spears

Laura Spears
Wastewater Specialist – Stormwater
Stormwater Runoff Section

Attached: Parcel location map

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VERNON
COUNTY

036-00411-0000 CRUME

GRACE
ACRES LLC

VERNON COUNTY

036-00405-0000

036-00404-0000

036-00403-0000

NELSON

036-00412-0000

VERNON
COUNTY

Sec. 15

2 CSM 11

VIROQUA

VERNON COUNTY

036-00407-0000

036-00413-0000

036-00414-0000

036-00406-0000

NELSON

VERNON COUNTY

036-00646-0000

Sec. 22

036-00639-0000

036-00638-0000

C. 2870
CLEMENTS

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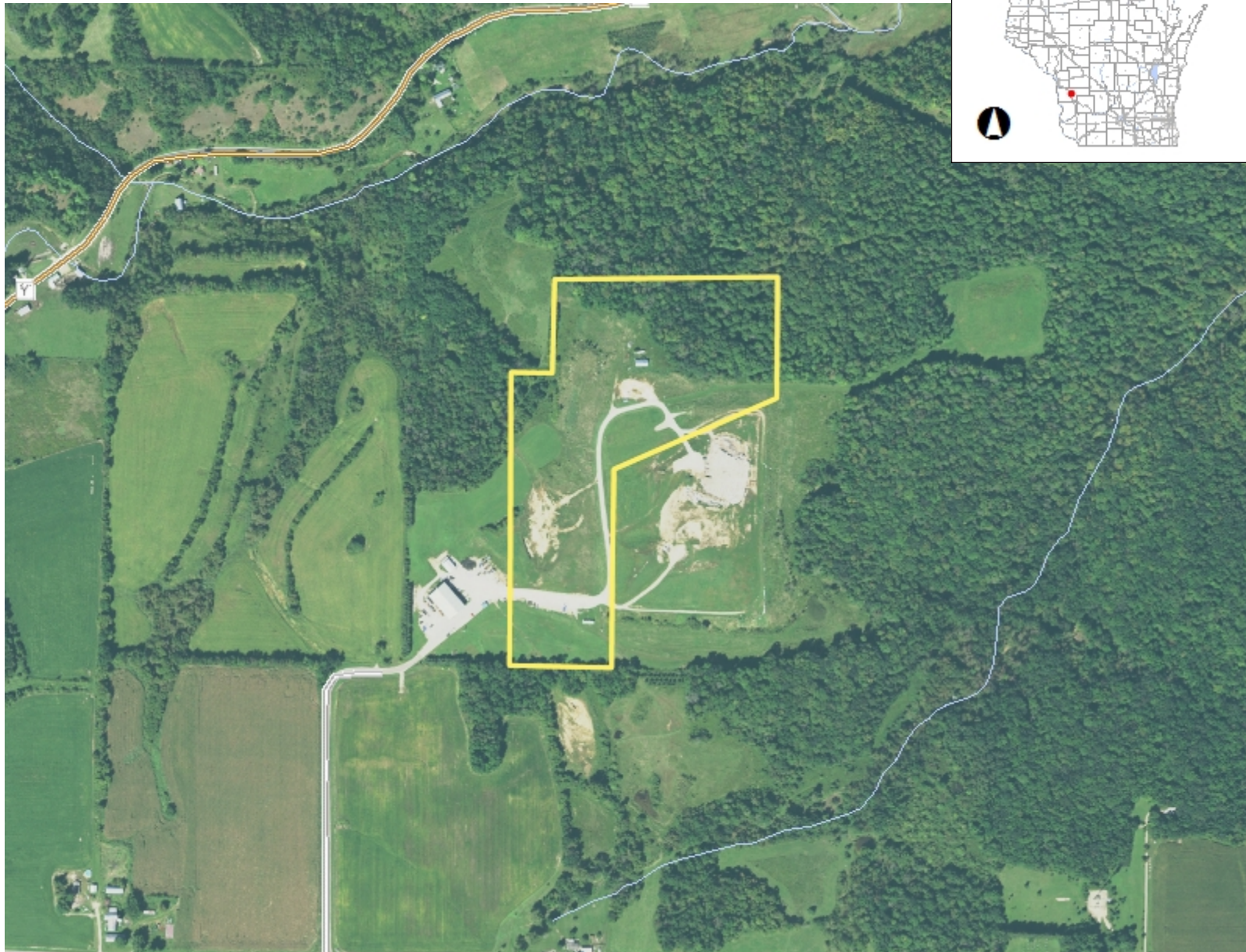


Surface Water Data Viewer Map



Legend

- Municipality
- State Boundaries
- County Boundaries
- Major Roads
 - Interstate Highway
 - State Highway
 - US Highway
- County and Local Roads
 - County HWY
 - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water



0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

Notes

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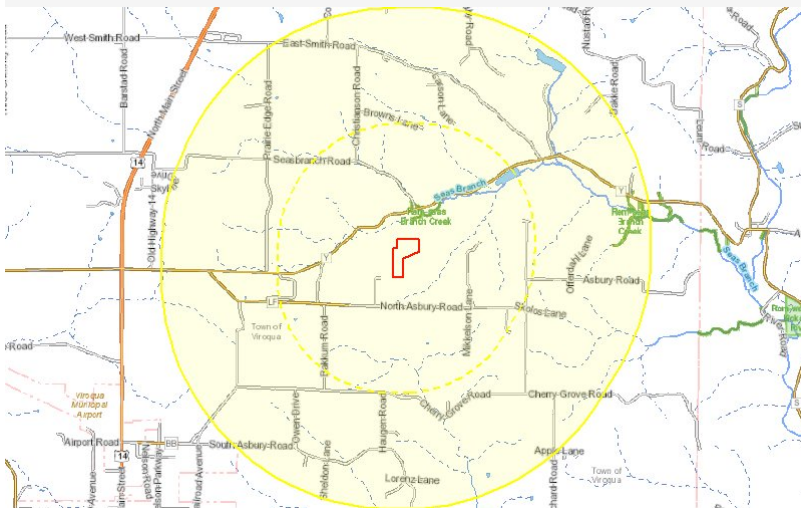
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SXEOLFO\ GLVVHPLQDWHG GRFXPHQWV

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Appendix C

FAA Correspondence

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Building a Better World
for All of Us®

October 23, 2020

RE: Vernon County Landfill
Proposed Landfill Expansion (WDNR
License No. 3268)
SEH No. VERSW 157634 14.00

FAA Airport Division
AGL - 600
2300 East Devon Avenue
Des Plaines, IL 60018

Dear Sir or Madam:

Short Elliott Hendrickson Inc. (SEH) is submitting this letter on behalf of Vernon County to notify the Federal Aviation Administration (FAA), and other concerned parties, of the County's proposed expansion of the Vernon County Landfill (WDNR License No. 3268). This notification is being provided to meet the provisions and requirements outlined in the following State and Federal Rules and guidance:

- s. NR504.04(3)(e) Wisconsin Administrative Code
- 40 CFR 258.10 –Airport Safety
- 49 USC Section 44718(d), as amended by Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, Pub. L No. 106-181 (April 5, 2000)
- FAA Advisory Circular AC No. 150/5200-34A (January 26, 2006) : Construction or Establishment of Landfills Near Public Airports
- FAA Advisory Circular AC No. 150/5200-33B (August 28, 2007) : Hazardous Wildlife Attractants On Or Near Airports

The proposed Vernon County Landfill Expansion (Landfill Expansion) is located in the Southern Half of Section 12, T13N, R4W, Town of Viroqua, Vernon County, Wisconsin. The proposed horizontal landfill expansion encompasses approximately 10-acres due west and north and contiguous to the current permitted landfill. As shown the Attached Figure 1, "Site Location" the landfill expansion is located approximately 2.8 miles northeast of the closest runway at the Viroqua Municipal Airport and the existing landfill and expansion are not located in the approach or departure path for the airport.

The limitations of 49 USC Section 44718(d) apply to new municipal solid waste landfills (MSWLF's), which are defined as a municipal waste landfill that was established or constructed after April 5, 2000. Additionally, FAA Advisory Circular AC No. 150/5200-34A states that 49 USC Section 44718(d) does not apply to the expansion or modification of an existing MSWLF. The current active Vernon County Landfill was first constructed in 1993, therefore exempt from the limitations of 49 USC Section 44718(d).

As part of the last expansion process, Vernon County issued a letter to the FAA on May 29, 2002 notifying interested parties of their intention to expand. In a letter dated June 16, 2002 the FAA responded with a letter concurring with the proposal relative to compatibility standards contained in FAA Advisory Circular AC No. 150/5200-33, with the following conditions:

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 329 Jay Street, Suite 301, La Crosse, WI 54601-4034
SEH is 100% employee-owned | sehinc.com | 608.782.3161 | 888.908.8166 fax

1. The landfill facility must be properly supervised to assure that the bird populations are not increasing and that appropriate control procedures are being followed.
2. Any increases in bird activity that might be hazardous to safe aircraft operations will result in prompt mitigation actions and/or closure of the landfill
3. The above conditions must be clearly defined via State/Local licensing procedures associated with establishment of the landfill.
4. The landfill owner/operator should develop and implement a Wildlife Hazard Management Plan for operation of the landfill.

A Wildlife Hazard Management Plan (Plan) was included in their Plan of Operation, which has been approved by the WDNR and part of the facility operating record. The Plan utilizes the following strategies:

- Minimization of standing water areas
- Minimization of uncovered waste areas
- Prompt revegetation of disturbed areas outside of the waste footprint
- Utilization of bird harassment techniques, perch deterrents, and avoidance structures, as needed

We understand that the FAA does not approve or disapprove of solid waste landfill locations but is primarily concerned about location relative to safety. We request that you review this letter and attachments and reply with your assessment of the proposed landfill expansion. Please contact me at 608.498.4844 with any questions or concerns.

Sincerely,

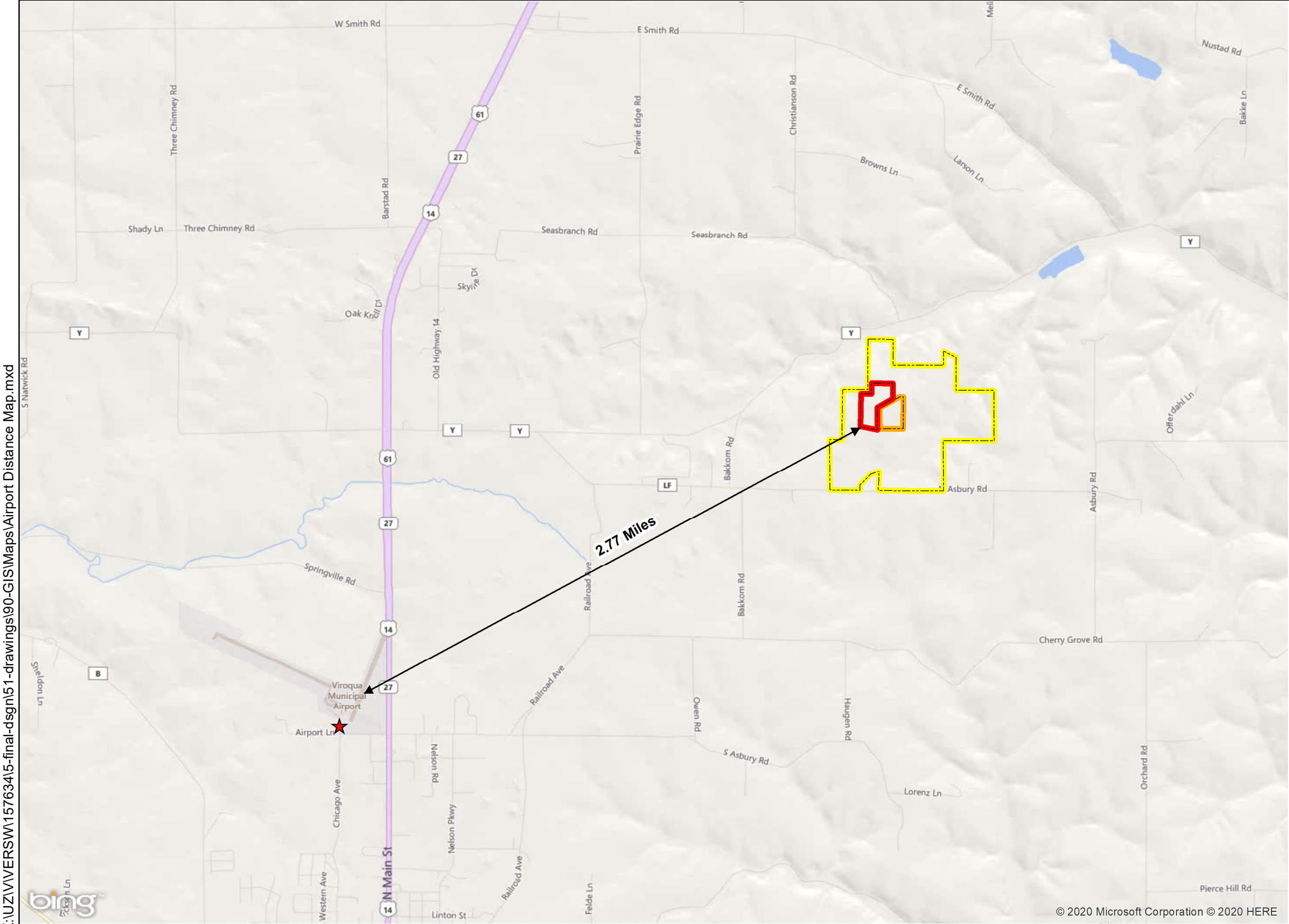
SHORT ELLIOTT HENDRICKSON INC.



Brian L. Kent, CHMM
Project Manager

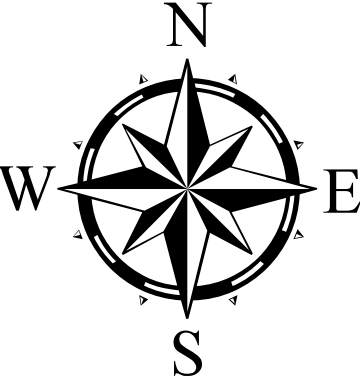
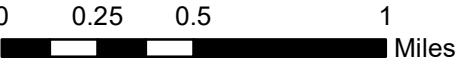
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Attachment

c: Stacie Sanborn, Vernon County Solid Waste (electronic)
Stacey Miller, Wisconsin DOT, Bureau of Aeronautics
Michael Skildum, Viroqua Municipal Airport Manager
Darryl R. Heaps, SEH (electronic)



Legend

-  Landfill Property Boundary
-  Active Landfill Limits
-  Approximate Limits of Proposed Horizontal Landfill Expansion

Source:
Vernon County, and WIDNR.
Projection:
Vernon County Coordinates, Feet
Map by:
rjh

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. If errors or discrepancies are found please contact SEH GIS Services. This user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.

Distance to Viroqua Municipal Airport	Figure 1



10 North Bridge Street
Chippewa Falls, WI 54729
PHONE: (715) 720-6200
FAX: (715) 720-6300
WATTS: 800-472-5881
www.sehinc.com

PROJECT:
VERSW157634

DATE:
10/20/2020

ISI REQUEST VERNON COUNTY LANDFILL (WIDNR LICENSE NO.3268)

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