

Appendix D

Tonnage Report

2020 Wisconsin Municipal and Industrial Waste Landfill Tonnages

Facility Name	WONR Lic. No.	Landfill type (MSW or Industrial)	County	Waste Category (tons) ¹																				Waste Imported to Wisconsin from Out of State (tons) ¹										Capacity and Site Life																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				Municipal waste - Cat. 1	Utility ash - Cat. 2	Papermill sludge - ash - Cat. 3	Foundry waste - Cat. 4	POTW sludge - Cat. 5	Other solid waste - Non-MSW/ Non-ADC/other - Cat. 6	Waste used for incinerator - ash - Cat. 7	Industrial waste used for ADC/other - Cat. 8	Shredder fluff used for ADC/other - Cat. 9	Unusable contaminated soil used for making materials - Cat. 10	Construction & Demolition Waste - Cat. 11	Sediment Contaminated w/PCBs - Cat. 12	Waste from a Non-profit - Cat. 13	Waste from a Natural Disaster - Cat. 14	Waste removed at DNR request - Cat. 15	QMR residue (Recyc.) - Cat. 16	QMR residue (C&D) - Cat. 17	Total (Cat 1-17)	IL ²	IN ³	IA ⁴	MN ⁵	MI ⁶	Other ⁷	Cap. As of Jan. 2020 in Cu Yds ⁸	Cap. as of Jan. 2021 in Cu Yds ⁹	Estimated Disposal Capacity consumed in 2020 (Cu Yds)	Estimated Remaining Site Life In Years ¹⁰																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Appendix E

Visuals

Table 1
Adjacent Land Owners

MAP ID	PARCEL ID	OWNER	OWNER 2	POSTAL ADDRESS	SITE ADDRESS
1	036-00411-0000	RANDY D & KAREN M CRUME		E8284 SEAS BRANCH RD, VIROQUA, WI, 54665	
2	036-00393-0000	RANDY D & KAREN M CRUME		E8284 SEAS BRANCH RD, VIROQUA, WI, 54665	E8284 SEAS BRANCH RD
3	036-00410-0000	ALVIN L WOODMANSEE	C/O SUSAN WOODMANSEE	201 N WALBRIDGE AVE 111, MADISON, WI, 53714	
4	036-00408-0000	PAULINE A BUCKLAND		PO BOX 174, VIROQUA, WI, 54665	
5	036-00379-0000	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 54623	
6	036-00381-0000	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 54623	
7	036-00674-0000	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 54623	
8	036-00638-0000	MADELINE CLEMENTS	STEVEN & DEBRA CLARK	210 N WASHINGTON, VIROQUA, WI, 54665	E8454 N ASBURY RD
9	036-00637-0000	WISCONSIN RSA #8	LIMITED PARTNERSHIP	8410 W BRYN MAWR AVE, CHICAGO, IL, 60631	
10	036-00635-0000	ZION CHURCH			
11	036-00645-0000	JEROME J & SHARON M BUTERA		E8449 N ASBURY RD, VIROQUA, WI, 54665	E8449 N ASBURY RD
12	036-00644-0000	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 54623	
13	036-00642-0000	K & M HERLITZKE FARMS LLC		W2818 EVANS DWYER RD, COON VALLEY, WI, 54623	
14	036-00643-0000	JOHN & LINDA KIELER REVOCABLE TRUST		748 COUNTY RD Z, HAZEL GREEN, WI, 53811	
15	036-00641-0000	ROBERT J & TAMMY L MENNE		E8327 N ASBURY RD, VIROQUA, WI, 54665	E8327 N ASBURY RD
16	036-00652-0000	JOHN & LINDA KIELER REVOCABLE TRUST		748 COUNTY RD Z, HAZEL GREEN, WI, 53811	
17	036-00647-0000	CHAD B WILLIAMS		E7541 COUNTY RD SS, VIROQUA, WI, 54665	E8263 N ASBURY RD
18	036-00650-0000	JOHN & LINDA KIELER REVOCABLE TRUST		748 COUNTY RD Z, HAZEL GREEN, WI, 53811	
19	036-00649-0001	WAYNE K KRUIZENGA	JULIE KRUIZENGA	E8107 COUNTY RD LF, VIROQUA, WI, 54665	
20	036-00406-0000	ALICE MAE NELSON		E8137 COUNTY RD Y, VIROQUA, WI, 54665	
21	036-00405-0000	ALICE MAE NELSON		E8137 COUNTY RD Y, VIROQUA, WI, 54665	E8137 COUNTY ROAD Y
22	036-00404-0000	GRACE ACRES LLC		E8219 COUNTY RD Y, VIROQUA, WI, 54665	
23	036-00402-0000	GRACE ACRES LLC		E8219 COUNTY RD Y, VIROQUA, WI, 54665	E8219 COUNTY ROAD Y

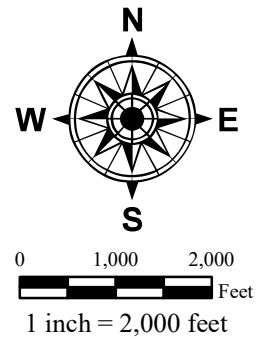
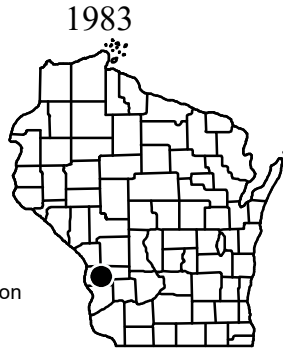
REPRODUCED FROM
USGS AVALANCHE QUADRANGLE

WISCONSIN - VERNON CO. 7.5 MINUTE SERIES

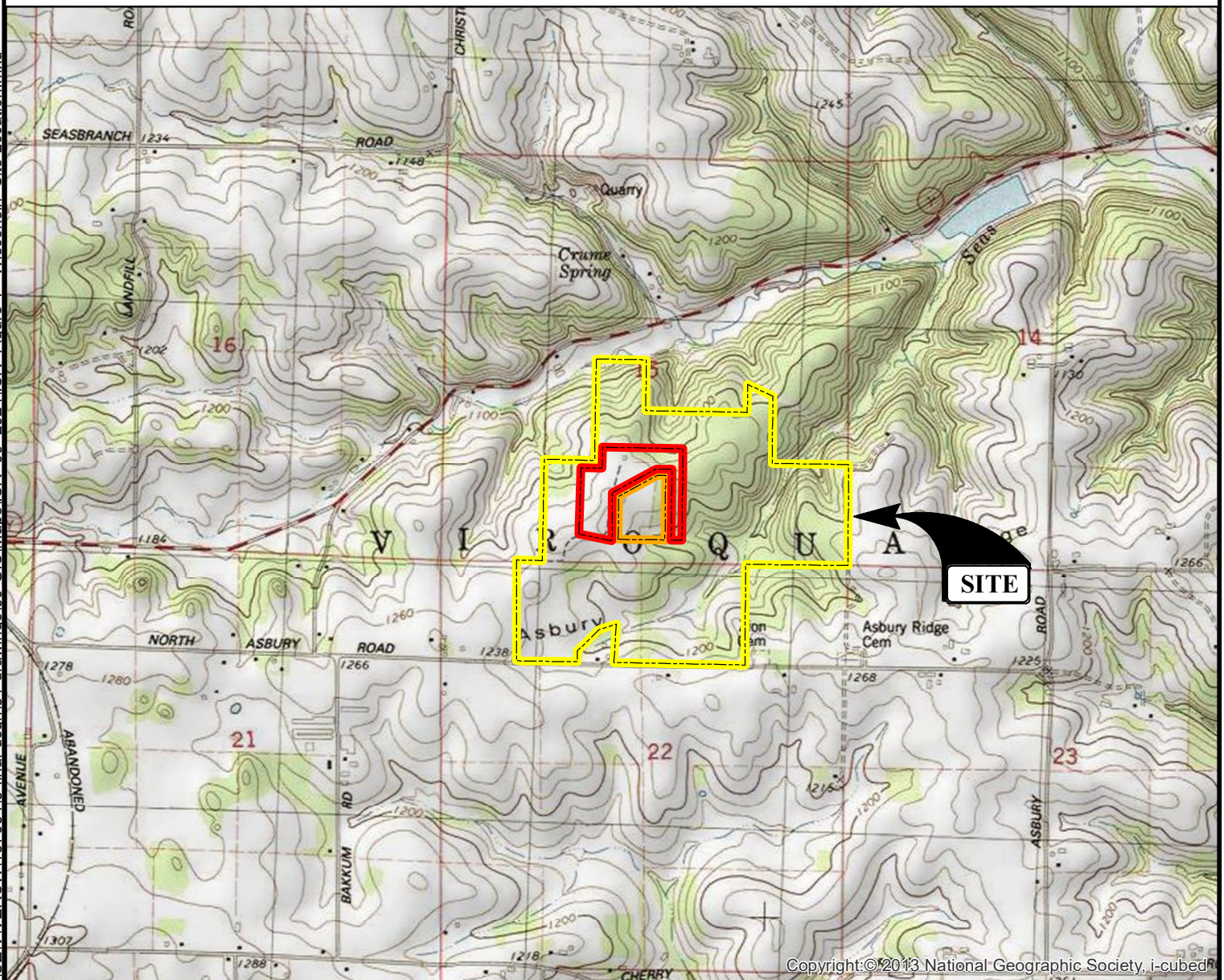
TOWNSHIP: 13
RANGE: 4
SECTION: 15 & 22

Legend

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



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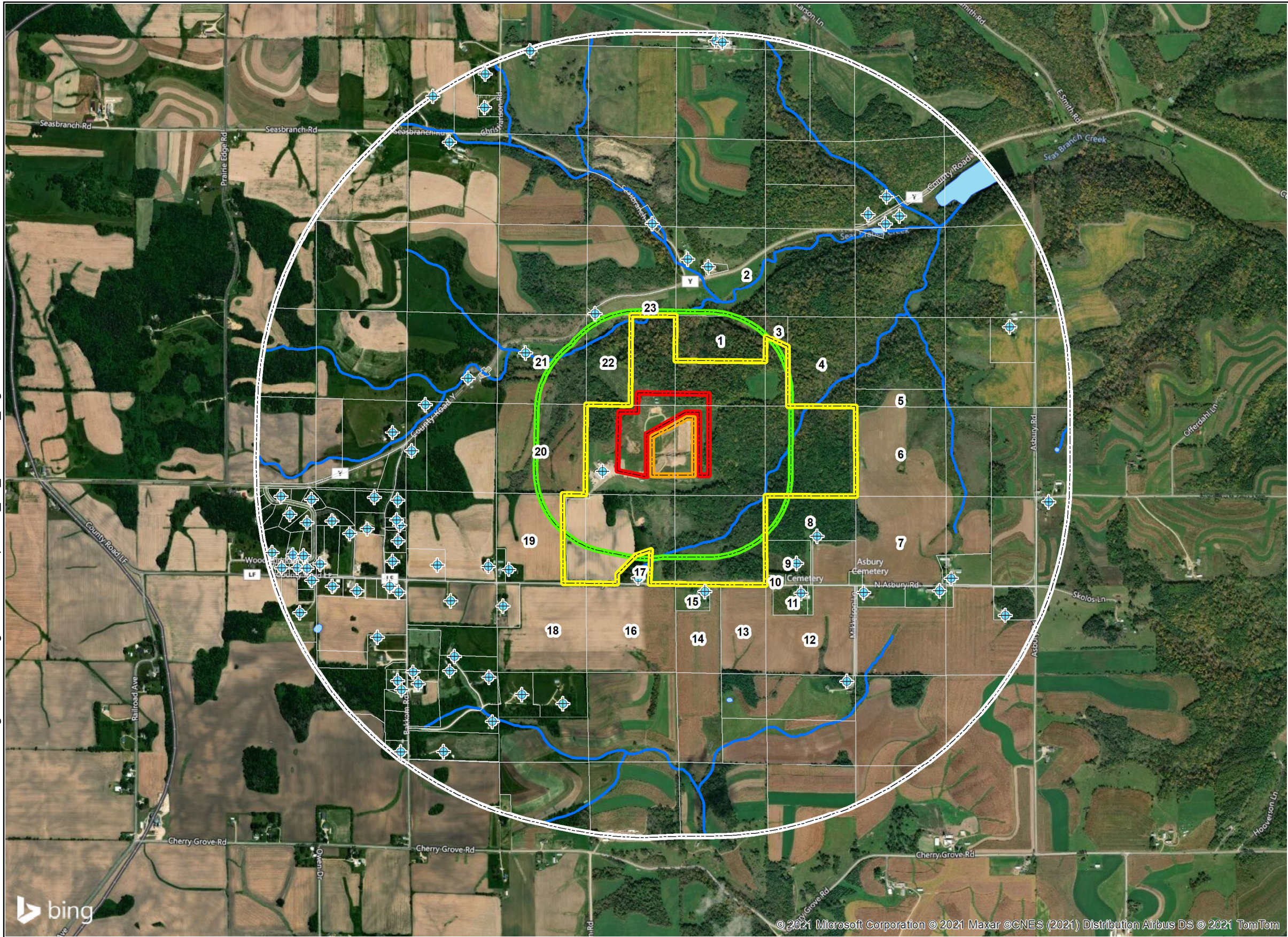


INITIAL SITE REPORT
VERNON COUNTY LANDFILL
(WIDNR LICENSE NO.3268)

FIGURE 1
SITE LOCATION

PROJ. NO.
VERSW157634
DATE
09/23/2021

Figure
1



Legend

- Landfill Property Boundary
- Active Landfill Limits
- Approximate Limits of Proposed Horizontal Landfill Expansion
- Parcels within 1 Mile
- Private Wells
- Streams
- 1 Mile Buffer
- 1200 Foot Buffer
- Waterbodies

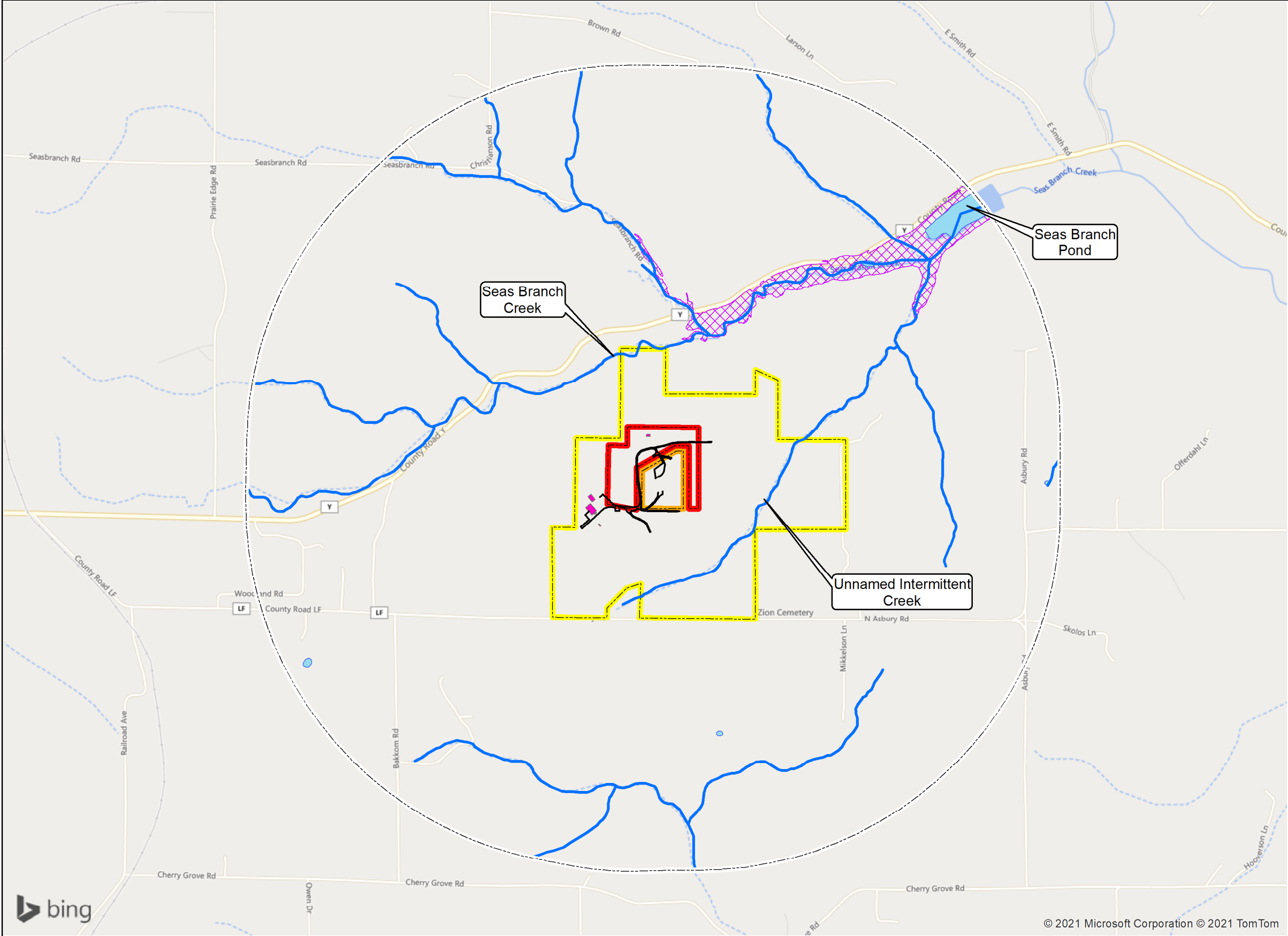
0 750 1,500 3,000 Feet

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.



Legend

- Landfill Property Boundary
- Active Landfill Limits
- Approximate Limits of Proposed Horizontal Landfill Expansion
- 1 Mile Buffer
- Landfill Roads
- Streams
- Waterbodies

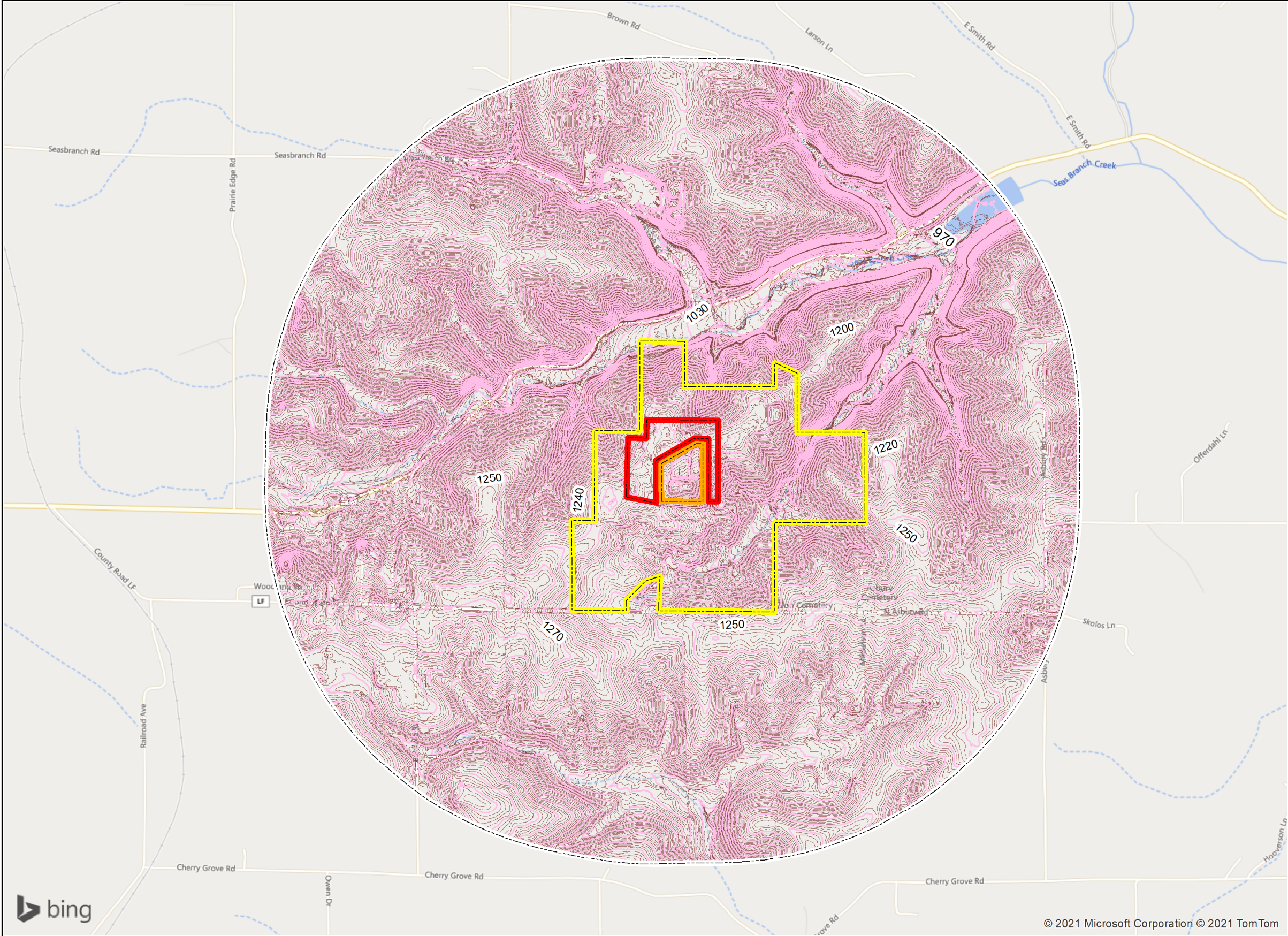
Flood Zone

- 1% Chance Annual Flood Hazard

0 750 1,500 3,000 Feet

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

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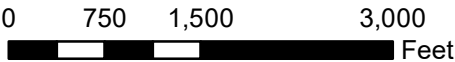
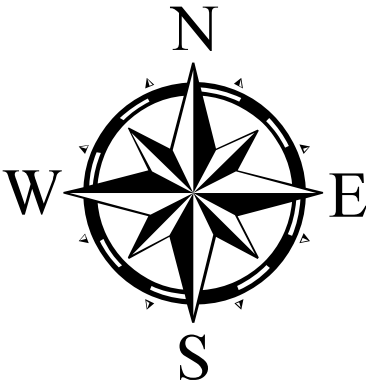


Legend

- 1 Mile Buffer
- Active Landfill Limits
- Approximate Limits of Proposed Horizontal Limits of Expansion
- Landfill Property Boundary

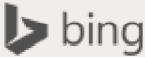
Topography

- Major Contours(10' Intervals)
- Minor Contours (2' Intervals)



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

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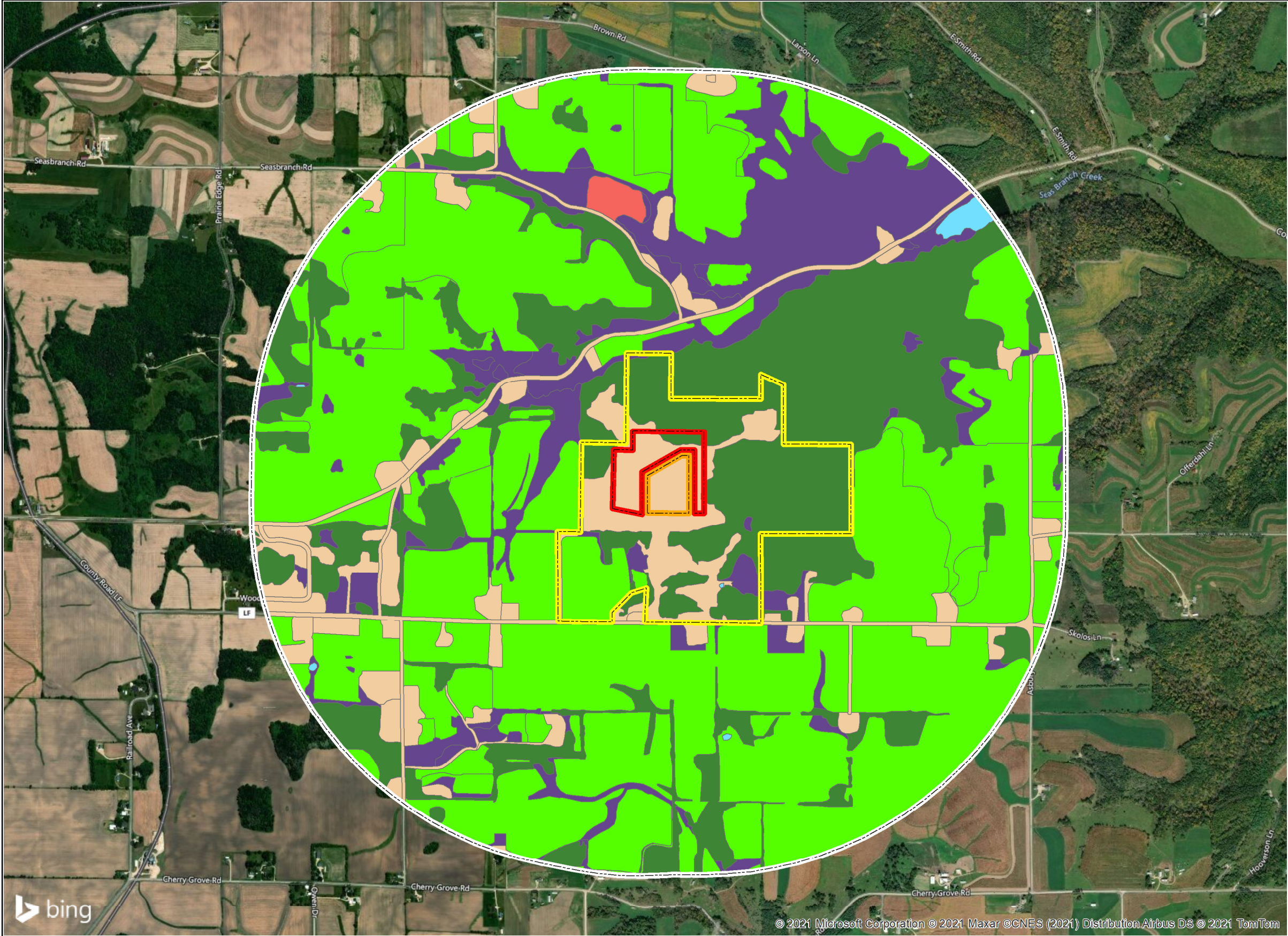
PROJECT:
VERSW157634

DATE:
09/24/21

**INITIAL SITE REPORT
VERNON COUNTY LANDFILL
(WIDNR LICENSE NO.3268)**

**TopographyWithin
1 Mile of Horizontal
Expansion**

**Figure
4**



Legend

- 1 Mile Buffer
- Landfill Property Boundary
- Active Landfill Limits
- Approximate Limits of Proposed Horizontal Landfill Expansion

Landuse

- Agriculture
- Barren
- Developed
- Forest
- Grassland
- Open Water

0 750 1,500 3,000 Feet

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

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Appendix F

FAA Correspondence

From: [Beauchamp, Bobb \(FAA\)](#)
To: [Brian Kent](#)
Subject: RE: Vernon County Landfill
Date: Friday, March 19, 2021 2:20:11 PM

Mr. Kent,

This email is responding to your October 23, 2020 notification of a proposed horizontal expansion at the Vernon County Landfill. Your notification was to meet provisions and requirements of:

- 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

This e-mail of course only responds on behalf of the FAA and the Federal provisions shown above.

We concur with your conclusion that the provisions of 49 USC 44718(d) do not apply to this proposed expansion of the Vernon County Landfill. These provisions specifically do not apply to landfills that were constructed or in operation prior to April 5, 2000. The Vernon County Landfill was first constructed in 1993. In addition, the Viroqua Airport does not have regularly scheduled service in addition to general aviation operations, so the provisions of FAA AC 150/5200-34A, Construction or Establishment of Landfills Near Public Airports do also not apply.

Regarding the provisions of FAA Advisory Circular No 150/5200-33B, Hazardous Wildlife Attractants On Or Near Airports: The Landfill is outside the 10,000' area of primary concern identified in the AC. While FAA encourages the Landfill to continue its efforts under their Wildlife Hazard Management Plan, we recognize that FAA does not have regulatory or approval authority over the Landfill in this regard.

Based on the above, FAA has no objection to the proposed expansion at the Vernon County Landfill. Please feel free to contact me if you have any questions or additional concerns.

From: Brian Kent <bkent@sehinc.com>
Sent: Thursday, March 18, 2021 4:02 PM
To: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Subject: RE: Vernon County Landfill

Thank you

Brian L. Kent, CHMM
Principal, Project Manager
Short Elliott Hendrickson Inc.
715.456.4621 mobile | 608.498.4844 direct
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From: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Sent: Thursday, March 18, 2021 1:46 PM
To: Brian Kent <bkent@sehinc.com>
Subject: RE: Vernon County Landfill

Brian, I apologize for not getting back to you. I'll do my best to get you a more formal response by end of day tomorrow.

From: Brian Kent <bkent@sehinc.com>
Sent: Thursday, March 18, 2021 1:38 PM
To: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Subject: FW: Vernon County Landfill

Hi Bobb-

I apologize for my persistence but I am following up to check on the status of your response. Your response is needed as part of our permitting process and we are needing to get this to the WDNR in the very near future. Please reply at your earliest convenience. Thank you.

Brian L. Kent, CHMM
Principal, Project Manager
Short Elliott Hendrickson Inc.
715.456.4621 mobile | 608.498.4844 direct
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From: Brian Kent
Sent: Tuesday, March 2, 2021 9:55 AM
To: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Subject: RE: Vernon County Landfill

Hi Bobb-

I hope all is well. Just following up with the below email correspondence. I have not received a formal response and wondering if it perhaps was misplaced? Thanks much.

Brian L. Kent, CHMM
Principal, Project Manager
Short Elliott Hendrickson Inc.
715.456.4621 mobile | 608.498.4844 direct
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From: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Sent: Tuesday, December 29, 2020 3:08 PM
To: Brian Kent <bkent@sehinc.com>
Subject: RE: Vernon County Landfill

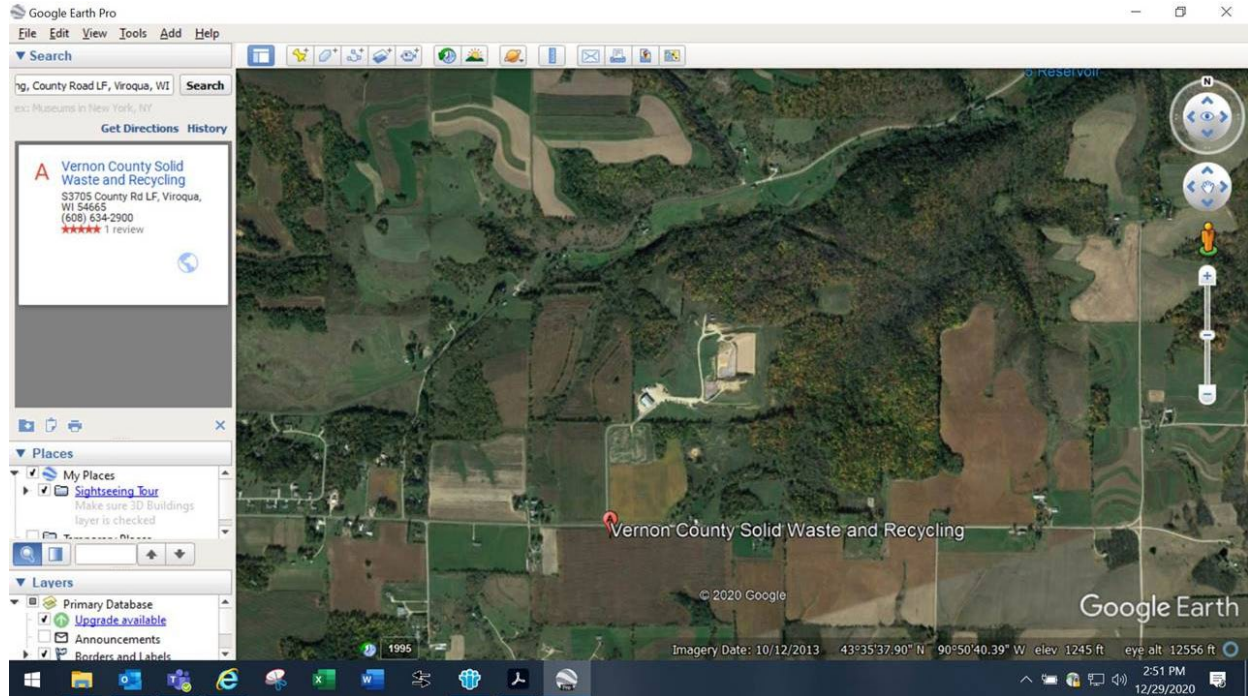
Great, that's the same facility I'm looking at.

Informally the expansion is exempt from 49 USC Section 44718(d) for 2 reasons: the expansion is of an existing landfill, and the Viroqua airport does not have regularly scheduled service in addition to general aviation. It's also outside the 10,000' area of primary concern put forth in FAA's Advisory Circular 150/5200-33B.

I'll work on a formal response email later this week.

From: Brian Kent <bkent@sehinc.com>
Sent: Tuesday, December 29, 2020 2:53 PM
To: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Subject: RE: Vernon County Landfill

Yes- below is a screen shot of what shows up for me.



Brian L. Kent, CHMM
Principal, Project Manager
Short Elliott Hendrickson Inc.
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From: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Sent: Tuesday, December 29, 2020 2:14 PM
To: Brian Kent <bkent@sehinc.com>
Subject: RE: Vernon County Landfill

Hi Brian,

I'm also working remotely, and it's been impacting my normal ability to evaluate landfill requests such as this. Can you confirm that the facility identifies as Vernon County Solid Waste and Recycling on Google Earth?

From: Brian Kent <bkent@sehinc.com>
Sent: Tuesday, December 29, 2020 1:52 PM
To: Beauchamp, Bobb (FAA) <Bobb.Beauchamp@faa.gov>
Subject: Vernon County Landfill

Bobb-
Attached is the letter SEH issued on October 23, 2020 providing notification of Vernon County's plan to expand their existing municipal waste landfill. I had not heard anything yet so I figured I better check on the status. Please feel free to contact me to discuss should you have any questions or issues. Please note I am working remotely due to COVID. If you prefer to call, please call my cell number at 715.456.4621. Also, if you already responded by mail it is possible that I have not received it yet since it takes a while to get my mail with our office being closed. Thanks in advance for your response.

Brian L. Kent, CHMM
Principal, Project Manager
Short Elliott Hendrickson Inc.
715.456.4621 mobile | 608.498.4844 direct
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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,

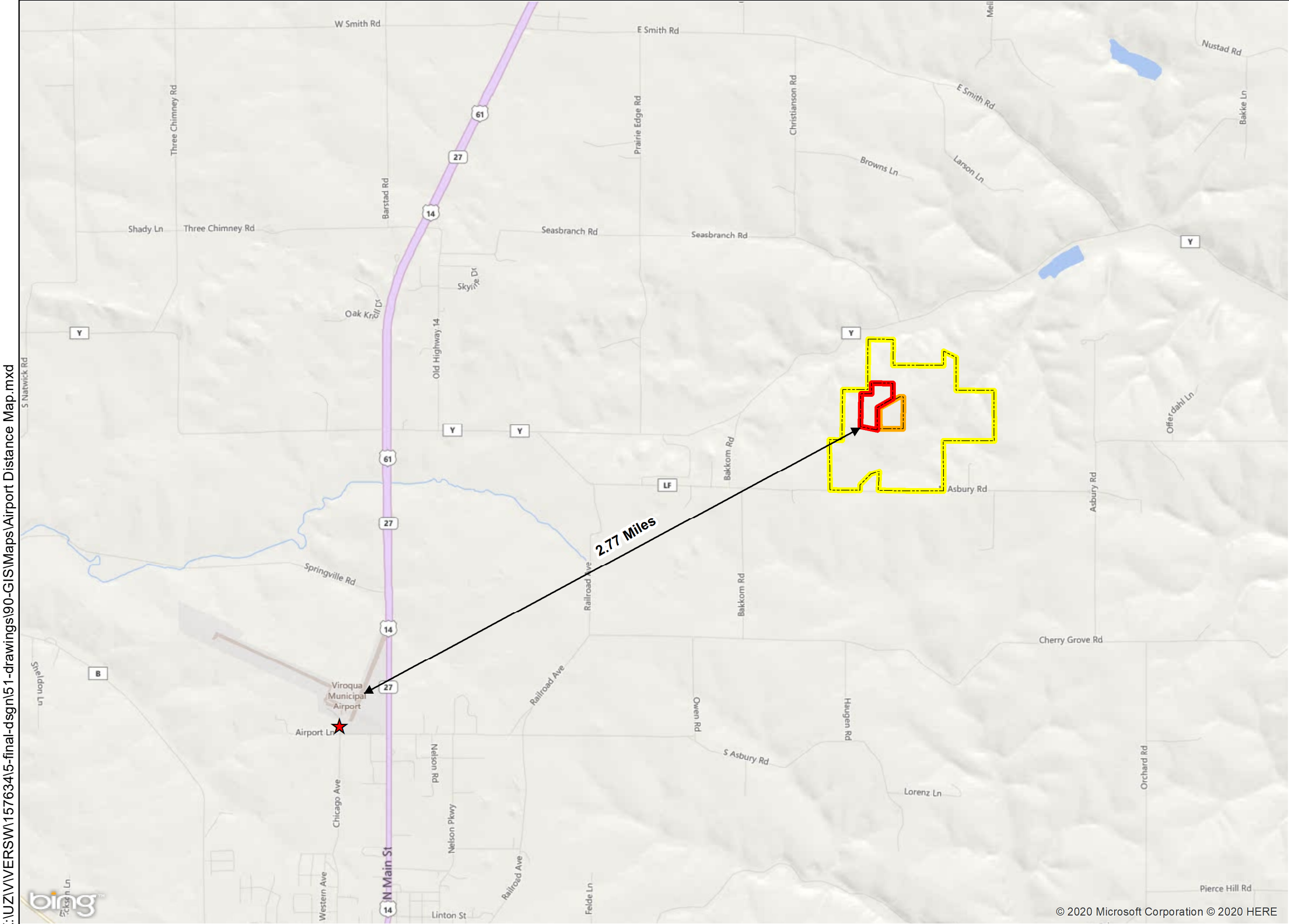
SHORT ELLIOTT HENDRICKSON INC.



Brian L. Kent, CHMM
Project Manager

BLK
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

0 0.25 0.5 1 Miles

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.

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	ISI REQUEST VERNON COUNTY LANDFILL (WIDNR LICENSE NO.3268)		Distance to Viroqua Municipal Airport	Figure 1
	DATE: 10/20/2020				



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B-5 – WDNR Vernon County ISR Completeness December 17, 2021



December 17, 2021

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 Report for the Proposed Vertical and Horizontal Expansion
Vernon County Landfill, Viroqua, Wisconsin – License #3268

Dear Ms. Sanborn:

The Wisconsin Department of Natural Resources (department) has reviewed the report titled “Initial Site Report, Proposed Vertical and Horizontal Expansion, Vernon County Landfill.” Based on this review, the department has determined that the Initial Site Report for the proposed expansion contains the minimum information required by ch. NR 509, Wis. Adm. Code, and is therefore complete.

This completeness determination is not a determination of site feasibility. It only indicates that sufficient information has been provided for the department to render an opinion and offer recommendations regarding the potential the proposed property has for development of a landfill expansion. The department expects to issue an opinion on the potential of the proposed expansion within 60 days.

If you have any questions about this completeness determination, please do not hesitate to contact Carolyn Cooper at 608-931-9387 or carolyn.cooper@wisconsin.gov.

Sincerely,


Natasha Gwidt, P.E.
Field Operations Director
Waste and Materials Management Program

cc: Brian Kent, SEH
Carolyn Cooper, DNR - SCR
Tess Brester, DNR - NER
John Morris, DNR - WCR
Joe Lourigan, DNR - WA
Valerie Joosten, DNR-WA
Facility File

B-6 – WDNR Vernon County ISR Opinion February 15, 2022



February 15, 2022

Ms. Stacie Sanborn
Vernon County Landfill
S3705 County Road LF
Viroqua, WI 54665

File Ref: FID 663038310
Vernon County
SW/CORR

Subject: Initial Site Report Opinion Letter for the Proposed Vertical and Horizontal Expansion
Vernon County Landfill, Vernon County, Wisconsin, License #3268

Dear Ms. Sanborn:

The Department of Natural Resources (department) has completed a review of the initial site report (ISR) for the proposed vertical and horizontal expansion of the Vernon County Landfill. The report, dated November 17, 2021, was prepared on behalf of the La Crosse County Solid Waste Department by Short Elliott Hendrickson, Inc. (SEH), and was received by the department on November 19, 2021. The department sent a letter to the Vernon County Landfill on December 17, 2021, indicating that the department determined the ISR to be complete.

It is the department's opinion, based on the information presented in the ISR, that the proposed expansion has limited potential for development as a solid waste disposal facility. A summary of the proposal, specific comments regarding the ISR and potential constraints to the site's feasibility are outlined below.

PROPOSAL DESCRIPTION

Site Location and Land Use

The proposed expansion would be in the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 15, T13N, R4W, Town of Viroqua, Vernon County, Wisconsin. The proposed expansion would include an approximate 9-acre (based on the proposed AGIP dated December 13, 2021) contiguous horizontal and vertical expansion east of the existing active municipal solid waste (MSW) landfill.

The horizontal component consists of an approximate 4-acre horizontal expansion due east and contiguous with the existing Phase III of the active landfill. The vertical expansion would extend the existing landfill vertically over an approximate 5-acre area of the existing landfill footprint.

The proposed expansion, plus the existing active MSW landfill, would occupy approximately 15 acres of the approximate 250 acres owned by Vernon County. The land use surrounding and adjacent to the landfill property consists of a mix of agricultural and wooded parcels. The closest residence is located to the south on County Road LF, approximately 1,500 feet from the landfill.

The landfill's existing stormwater sedimentation basin located east of the existing landfill may need to be moved and/or enlarged to accommodate a proposed expansion of the landfill. According to the ISR, current zoning would not require special applications or variances to facilitate the landfill expansion. Since the entire proposed expansion footprint is located on Vernon County property and does not require a purchase of agricultural property, an Agricultural Impact Statement would not be required.

Proposed Design Capacity, Service Area, and Anticipated Site Life

The proposed landfill expansion would have a design capacity of approximately 430,000 cubic yards. The landfill accepts solid waste from residential, commercial, industrial, and institutional sources. The anticipated service area includes municipalities, commercial businesses and industries located within Vernon County (21 townships, 9 villages, and 3 cities). Vernon County also serves as the Recycling Responsible Unit for the municipalities located within the county. The recycling program provides roll-off containers and curbside delivery and pick up. Recycled materials are delivered to the recycling building located on the landfill property, where they are processed and sorted. According to the ISR, the proposed expansion would extend the existing facility site life by 15 years.

Transportation and Access

The main roads leading to Viroqua and the landfill include US Highway (USH) 14/State Highway (STH) 27 from the north, STH 56 from the West, STH 56/82 from the east, USH 14 from the south, and STH 27/82 from the southwest. Access to the landfill is gained by turning east on County Road (CR) Y from US 14/STH 27. No changes are proposed to the existing landfill access routes.

Waste Types and Characteristics

Slight changes may occur as the result of improvement to national, regional and local recycling initiatives, such as food wastes or other high organic waste streams being diverted. During 2020, approximately 20,937 tons of waste were placed in the MSW landfill. Of this tonnage, approximately 95% was municipal solid wastes (MSW) and 5% was construction and demolition (C&D) material. A small volume of special waste is also accepted at the landfill.

Initial Site Inspection

An Initial Site Inspection (ISI) request letter was submitted by SEH, on behalf of Vernon County, on November 4, 2020, and a revised ISI request on September 3, 2021. The revised request proposed an area to the north and east of the existing landfill for a potential landfill expansion, in addition to the areas to the north and west of the landfill that were considered in the original ISI request. The revised request noted that soil borings advanced in May 2021 encountered shallow bedrock to the west of the active landfill. This finding, along with topographic and property boundary limitations to the west and northwest of the landfill, prompted Vernon County to consider the area north and east of the existing landfill for possible landfill development.

The department conducted site inspections in accordance with s. 509.04, Wis. Adm. Code, on November 18, 2020, and September 30, 2021. The department's ISI preliminary opinion letters, dated December 15, 2020, and November 1, 2021, determined that the site location has potential for development of a landfill expansion.

Regional Geotechnical Information

The proposed landfill expansion is located in an unglaciated portion of Wisconsin known as the "Driftless" region. Topography within this area is typified by systems of bedrock ridges cut by stream and river valleys. The ridge and valley system is present in the immediate vicinity of the site, with elevations ranging from approximately 1040 feet mean sea level (MSL) to 1260 feet MSL within the site boundaries. Generally, the lower elevations are present to the north along the Seas Branch drainage, and to the southeast along an unnamed

discontinuous drainage. A system of bluffs forms the higher elevations generally through the central portion of the site. The proposed horizontal expansion area is along the top of this bluff system.

The site is located within the West Fork Kickapoo River Watershed, part of the Lower Wisconsin River Drainage Basin. Surface water from the site generally flows north to the Seas Branch or to the southeast toward an unnamed discontinuous drainage way, both of which feed into the West Fork of the Kickapoo River. The West Fork of the Kickapoo River flows to the south, meeting the Kickapoo River, and eventually the Wisconsin River. Regional surface water eventually drains to the Mississippi River.

The Wisconsin Wetland Inventory Map does not identify any wetlands within the proposed landfill expansion area. A wetland area is identified on the shorelines of Seas Branch, approximately one-half mile northeast of the site. A review of the department's Surface Water Data Viewer (SWDV) indicated a location within the proposed project area with potential wetland indicators. The area of potential wetland indicators was inspected by an assured wetland delineator on May 4, 2021, on behalf of Vernon County. The field visit was conducted under temperatures that were normal and precipitation conditions that were drier than normal as compared to the historical average for the region. The inspection concluded that no areas meeting the technical criteria for wetland are present within the area investigated.

Unconsolidated deposits generally consist of loess and clay soils generated from weathering of dolomite bedrock ridges and alluvium and lacustrine deposits in the river and stream valleys. These soils are typically fine-grained and range from silts and clays above the dolomite ridges to sands on the valley floors. The thickness of unconsolidated deposits generally range from 0 to 50 feet throughout the area.

The uppermost bedrock unit at the site consists of Ordovician dolomites of the Prairie du Chien Group, likely the Oneota Formation, which occur as the uppermost bedrock unit on the ridges in this area. Thickness of the Prairie du Chien group deposits ranges from 0 to 250 feet. Cambrian sandstone bedrock underlies the Prairie du Chien group. The Cambrian sandstone is typically the uppermost bedrock unit in the weathered stream valleys in the proximity of the site. In southwestern Wisconsin, the Cambrian sandstone unit is generally up to 1,200 feet thick, and includes the Jordan Sandstone (uppermost unit), St. Lawrence Formation, Tunnel City Formation, Wonewoc Formation, Eau Claire Sandstone, and Mount Simon Sandstone (bottom unit). The Cambrian sandstone sequence is underlain by thousands of feet of Precambrian crystalline igneous and metamorphic rock.

Three major aquifers are used for potable water production in the Lower Wisconsin River basin: the sandstone aquifer, the sand and gravel aquifer, and the Galena-Platteville aquifer. The sandstone aquifer is present in saturated portions of Cambrian sandstone bedrock, with well yields of up to 1,850 gallons per minute. The sand and gravel aquifer utilizes groundwater in saturated unconsolidated sand and gravel deposits, mostly in river and stream valleys. The Platteville-Galena aquifer produces water from saturated portions of the Platteville Galena dolomite.

According to the ISR, neither the sand and gravel aquifer nor the Platteville-Galena aquifer are present in the proposed landfill expansion area. The sandstone aquifer would be the only aquifer available for use within the area. Based on groundwater monitoring at the landfill site, groundwater elevation in the proximity of the landfill expansion area is approximately 1,100 ft MSL.

Regionally, groundwater flows to the southeast, toward the Kickapoo River in the western portion of Vernon County. Locally, groundwater contours typically mirror surface topography, with groundwater flowing from areas of higher surface elevation towards the valleys, ultimately feeding into streams as groundwater discharge areas in lower elevations.

POSSIBLE CONSTRAINTS ON SITE FEASIBILITY

At this time, the department has identified the following locational and performance criteria that may limit the potential for site development.

1. Suitability of the Locational Bedrock

The uppermost bedrock unit at the site is fractured dolomite. Flow patterns through fractured bedrock generally are difficult to monitor and do not retard or facilitate attenuation of contaminants in groundwater. Fractured bedrock flow can act as a conduit to deeper aquifers that may be sources for water supply wells, in the event of groundwater impacts. The ISR states that it is anticipated that bedrock excavation may be necessary to achieve a 10-foot separation between the bottom of the liner and the top of bedrock. The feasibility report should discuss what type of soil backfill and method of placement that would be used to achieve the 10-foot minimum separation. The geotechnical analysis should also discuss the suitability of this geological setting with respect to demonstrating compliance to the groundwater protection standard of s. NR 504.04 (4)(d), Wis. Adm. Code. This may include an evaluation of the bedrock fractures including their size, frequency, distribution, connectivity, hydraulic conductivity, observations from boring and well drilling, existing facility design and performance, and other aspects. Alternative designs and additional measures to protect groundwater should be considered and discussed. Examples of additional measures may include an additional layer to the liner, additional leachate extraction, larger diameter leachate collection pipes or other designs to provide additional protection to groundwater. The feasibility report should include a discussion of the proposal and any alternatives considered, using the information from the site-specific geotechnical investigation.

In addition, the ISR states the Cambrian sandstone aquifer would be the only aquifer available for use within the proposed landfill expansion area. However, cross-sections and logs from previous investigation conducted at the site indicate the existence of perched groundwater and water table aquifer conditions within the Ordovician dolomites of the Prairie du Chien Group beneath the site. The feasibility report should provide a more complete description of the groundwater conditions, aquifers, and hydrogeology at the site, using existing and new information from the site-specific geotechnical investigation.

The department will evaluate the suitability of the site-specific geological setting, groundwater conditions and potential risks to groundwater quality upon review of the feasibility report.

2. Setback to Water Supply Well

The ISR indicates that the proposed expansion footprint is within 1,200 feet of one private water supply well - the well serving the landfill office and recycling center. Section NR 504.04(3)(f), Wis. Adm. Code, requires a minimum distance of 1,200 feet to be maintained between the limits of filling and public or private water supply wells. If the well remains in service, the feasibility report will need to request an exemption from s. NR 504.04(3)(f), Wis. Adm. Code, for this water supply well. An exemption request needs to explain why the exemption is warranted, including supporting information showing how the well would be adequately protected from potential groundwater contamination. The supporting information should consider the factors that affect the ability to meet the groundwater protection standard which include the groundwater flow properties displayed in this site-specific bedrock, the distance to bedrock and groundwater, soil backfill characteristics and the proposed

landfill design. Additional factors to consider include the groundwater flow directions, the construction of the water supply well and the ability to effectively monitor groundwater around the facility.

In addition, a variance from the locational setback requirement of s. NR 812.08 (4) (g) (1), Wis. Adm. Code, for each water supply well located within 1,200 feet of the proposed limits of waste, under the provisions of s. NR 812.43, Wis. Adm. Code would be needed; or may need to be updated if a variance was previously issued. The feasibility report should include a copy of any previously issued NR 812 well variances. If a previous variance exists, the department will determine if an updated variance is necessary and provide that information to Vernon County. A variance may need to be updated depending on circumstances such as changes in proximity of waste to the well, changes in waste location with respect to groundwater flow, changes to the well or other reasons.

Because the review times established in ch. NR 812, Wis. Adm. Code, are different than the review times established for the feasibility report, please coordinate submittal of any variance application needed with the department so that the department's decision on the variance is synchronized with the decision on landfill's feasibility determination. The department will inform Vernon County when to submit the NR 812 variance application. Typically, this is just before the public comment period.

Any NR 812 well variance applications should be submitted to Marty Nessman with the department's Drinking Water and Groundwater (DG) program. The NR 812 variance application form can be accessed at: <https://dnr.wi.gov/files/pdf/forms/3300/3300-209.pdf> The department must receive both the well construction information for each well and a completed NR 812 well variance application before the department may issue an NR 504 exemption.

ADDITIONAL COMMENTS REGARDING THE PROPOSED LANDFILL EXPANSION

As a reminder, in accordance with ss. 289.22 and 289.23, Wis. Stats., the applicant must notify all affected municipalities and apply for all specified local approvals at least 120 days before a feasibility report can be submitted to the department (the exact time period depends upon the municipal response). The Waste Facility Siting Board has specific requirements which apply to the municipal notification. For additional information on these requirements, please contact the Wisconsin Waste Facility Siting Board at (608) 267-7854. The feasibility report must contain documentation showing that all proper notifications and applications for all specified local approvals have been made, in accordance with s. NR 512.06, Wis. Adm. Code.

This opinion letter does not approve or deny the proposed expansion. If Vernon County wishes to pursue the proposed expansion, the feasibility report must address the concerns listed above and contain the information required in ch. NR 512, Wis. Adm. Code. This includes the requirement to include a request for an exemption for all locational and performance criteria or other code requirements that the proposed landfill cannot meet. Each exemption request needs to include an explanation demonstrating why the exemption is warranted. Please also remember that the department may request additional information as it reviews the feasibility report.

Please contact Carolyn Cooper at (608) 931-9387 or carolyn.cooper@wisconsin.gov with any questions or comments regarding this letter.

Sincerely,



Natasha Gwidt, P.E.
Field Operations Director
Waste and Materials Management Program

CC: Carolyn Cooper – DNR/WA
Tess Brester – DNR/WA (via email)
John Morris – DNR/WA (via email)
Joe Lourigan – DNR/WA (via email)
Valerie Joosten – DNR/WA (via email)
Brian Kent – SEH (bkent@sehinc.com)

B-7 – WDNR Vernon County AGIP Acceptance Letter March 30, 2022



March 30, 2022

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

File Ref: FID 663038310
Vernon County
SW/CORR

Subject: Acceptance of Proposed Alternative Geotechnical Investigation Program for Feasibility Study,
Vernon County Landfill, Vernon County, Wisconsin – License #3268

Dear Ms. Sanborn:

The Department of Natural Resources (department) has reviewed the proposed alternative geotechnical investigation program (AGIP) for the proposed vertical and horizontal expansion of the Vernon County Landfill. The AGIP was detailed in a Short Elliott Hendrickson Inc. (SEH) document titled *Alternative Geotechnical Program Request, Proposed Landfill Expansion, Vernon County Landfill, WDNR License No. 3268*, dated December 13, 2021. The AGIP will be carried out at the proposed area for the landfill expansion, located on land owned by Vernon County in the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 15, T13N, R4W, Town of Viroqua, Vernon County, Wisconsin.

The department has reviewed the document and accepts the proposed AGIP, with a few modifications. Please include a copy of the request and this letter in the feasibility report. Formal approval of the AGIP would be included in the department's feasibility determination for this project. The department's comments on the proposed AGIP, including the modifications and rationale for this acceptance, are provided below.

The AGIP was submitted to outline geotechnical investigation activities proposed as part of the characterization work required for the expansion of the Vernon County landfill. The landfill expansion includes a horizontal expansion on approximately four acres due east and contiguous with the existing municipal solid waste landfill and an approximate five-acre vertical expansion over the eastern portion of the existing landfill footprint. The proposed AGIP includes eight new borings, four within the horizontal expansion footprint and four within 150 feet of the horizontal expansion footprint. Some of the additional borings will be converted to monitoring wells. The proposed AGIP would also use information from four previously drilled borings to characterize the expansion area. Two of the previously drilled borings are located within the proposed horizontal expansion footprint and were completed as monitoring wells. The combination of the existing and new borings exceeds the number of borings required by s. NR 512.09(1), Wis. Adm. Code, for a four-acre horizontal landfill expansion.

The AGIP proposes to characterize the groundwater at the site with four new water table wells and one new piezometer. The proposed AGIP would also use information from three previously installed water table wells and four previously installed piezometers/piezometer nests, to characterize the groundwater in and near the expansion area. The combination of the existing and new wells meets the numerical requirement for wells in s. NR 512.09(2), Wis. Adm. Code, for a four-acre landfill.

The SEH submittal requested exemptions to portions of ss. NR 507 and NR 512, Wis. Adm. Code. The requested exemptions are considered part of the AGIP proposal which would be formally granted as part of the AGIP approval in the feasibility determination. The department's comments regarding the requested exemptions are provided below.

1. Because attempts to core bedrock have been unsuccessful due to weathering, existing fractures, and layered heterogeneity of dolomite, dolomitic sandstone, and siltstone, Vernon County is requesting an exemption to s. NR 507.05(2), Wis. Adm. Code, and is proposing that coring of bedrock not be attempted, and the rock be drilled and wash samples collected during drilling.

Department Response: The department finds that this exemption should be acceptable provided that the s. NR 507.05 (2), Wis. Adm. Code, bedrock core data from the wells listed in section 3.1.1 of the proposed AGIP are included in the geotechnical investigation section of the feasibility report and that the geotechnical investigation is able to address the department's concern regarding the suitability of the locational bedrock with respect to demonstrating compliance to the groundwater protection standard of s. NR 504.04 (4)(d), Wis. Adm. Code. In lieu of bedrock core sampling, downhole geophysical logging should be used to evaluate bedrock fractures including their size, frequency, distribution, connectivity and hydraulic conductivity. Prior to implementation, the department invites having a discussion with the county and its consultant on the types of downhole geophysical logging that may be useful for this situation.

2. Because past investigations at the site have shown that drilling below the water table in the bedrock with hollow stem auger cannot be accomplished, Vernon County is requesting an exemption from s. NR 507.06(1), Wis. Adm. Code, to use bentonite drilling mud to advance the drill holes to depth. To ensure that the majority of the drilling mud has been removed from each well, well development will include removal of a minimum of five well volumes (including filter pack) and measurements of field parameters between each well volume until measurements have stabilized and turbidity is negligible.

Department Response: The department does not object to the use of drilling fluids when specific geological conditions warrant the use of such fluids. Section NR 507.06(1), Wis. Adm. Code, does not prohibit the use of drillings fluids; rather, the code states that specific documentation be recorded and submitted to the department when drilling fluids are used. An exemption to this code is not needed and consequently will not be granted because existing code allows the use of drilling fluids when drilling through bedrock. The method described in the proposed AGIP to ensure removal of the drilling fluids appears to be a reasonable approach; however, note that additional well volumes may need to be removed if the turbidity and field parameters indicate additional purging is warranted.

3. Vernon County is requesting an alternative program be approved regarding the boring program required under s. NR 512.09, Wis. Adm. Code.

Department Response: As noted above, the combination of the existing and new borings meets the numerical requirement for wells in s. NR 512.09(2), Wis. Adm. Code, for a four-acre horizontal landfill expansion. The delineation of the vertical overlay component of the expansion is not depicted in the proposed AGIP. Section 2.2 discusses the number of previously installed borings to characterize the subsurface geology; however, it does not discuss which borings can be used to characterize the subsurface of the vertical overlay component. The previously installed borings used to characterize the subsurface of the area within 300 feet of the vertical overlay for past feasibility reports should also be used to draw the cross-sections.

4. Vernon County is requesting an alternative be approved regarding the wells and piezometers required under s. NR 512.09, Wis. Adm. Code.

Department Response: As noted above, the combination of the existing and new wells meets the numerical requirement for wells in s. NR 512.09(2), Wis. Adm. Code, for a four-acre horizontal landfill

expansion; however, the department requests that Vernon County consider installing a water table well northeast of the expansion area, east of the word “wooded” on Figure 7 of the AGIP. This well could help better define the groundwater divide to the north of the proposed expansion area and would be a northern point beyond the limits of waste on an east-west cross-section.

5. Section NR 512.09(4)(a), Wis. Adm. Code, requires that for each major soil unit, at least five representative samples be analyzed for grain size distribution and Atterberg limits; however, because weathered and competent dolomite are present at the site, Atterberg limits cannot be established for all site soils. Vernon County is requesting an exemption from s. NR 512.09(1) and (2), Wis. Adm. Code.

Department Response: Because s. NR 512.09(4)(a), Wis. Adm. Code, requires analyses for Atterberg Limits “as appropriate for the particular type of material,” an exemption to s. NR 512.09(4)(a), Wis. Adm. Code, is not necessary and consequently not granted. The department recognizes that liquid and plastic limits cannot be determined for certain soil types.

The department will allow the use of previously collected soil laboratory testing data toward meeting the requirements of s. NR 512.09(4), Wis. Adm. Code. This data, along with newly acquired data, must be submitted with the feasibility report. Grain size distribution and Atterberg limits are important geotechnical properties used to properly describe the soil and rock lithologies and to estimate respective strength and settlement characteristics.

6. Section NR 512.09(4)(b), Wis. Adm. Code, requires that hydraulic conductivity be conducted on two representative soil samples from each major fine-grained unit. The two fine-grained units identified at the site are loess and residuum. Two thin wall samples will be collected from each of the fine-grained units on-site to determine Coefficient of Permeability. Vernon County is requesting an exemption from this requirement for the weathered dolomite and competent dolomite, because relatively undisturbed samples cannot be obtained. If deemed feasible during field work, an alternate sampling method using the brass-lined split-spooned sampler (ASTM D 4700) will be attempted in weathered dolomite to collect undisturbed samples for laboratory testing.

Department Response: The department concurs with the proposal to attempt collection of undisturbed samples of weathered and competent bedrock.

The department will allow the use of previously collected hydraulic conductivity data toward meeting the requirements of s. NR 512.09(4), Wis. Adm. Code. This data, along with any newly acquired data, must be submitted with the feasibility report. Hydraulic conductivity information is necessary to determine groundwater and potential contaminant transport pathways and velocities.

7. Vernon County Landfill is requesting an exemption to use previously collected data to meet requirements of s. NR 512.09, Wis. Adm. Code. Use of this data would include, but not be limited to, the following:
 - Field hydraulic conductivity tests completed on the existing wells, including those wells which have been abandoned.
 - Grain size analysis, Atterberg limits, soil classification, and laboratory hydraulic conductivity from past investigations.
 - Soil boring logs from past investigations which are not totally compliant with the present s. NR 507.05, Wis. Adm. Code, but provide useful and accurate data.
 - Existing groundwater quality data as background data.

Department Response: The department will allow the use of previously collected field and laboratory data towards meeting the requirements of s. NR 512.09(4), Wis. Adm. Code. This data, along with newly acquired data, must be submitted with the feasibility report. Please note that the soil characteristics representative of the area of the horizontal component of the expansion would be necessary. The exemption appears to be justified based on the location of the existing borings and wells and the amount of available previous technical data for the site.

The department notes that Vernon County is not requesting exemptions from the required baseline groundwater monitoring or collection of water elevation data. The department notes that it is not expected that core samples would be available from borings installed as part of previous investigations; however, core samples obtained from newly drilled borings should be retained through the feasibility determination in accordance with the requirements of s. NR 507.05(1)(e), Wis. Adm. Code.

8. Vernon County is requesting an exemption to the requirement in s. NR 512.11(2), Wis. Adm. Code, which requires that geological cross-sections be constructed through all borings, because a considerable amount of boring and monitoring well data for the proposed expansion exists. Vernon County proposes to construct cross-sections only through the borings and wells that assist in defining the lateral and vertical extent of the major lithostratigraphic units.

Department Response: It is not clear what it means to only use borings and wells that assist in defining the lateral and vertical extent of the major lithostratigraphic units. All borings and wells assist in defining the lateral and vertical extent of the major lithostratigraphic units. The more data points used increases the confidence level in depicting the subsurface. All of the borings, wells and piezometers that are used to define the subsurface for the area of the vertical and horizontal expansion should be used to draw the cross-sections. This would include those borings, wells and piezometers within 300 feet of the limits of the vertical and horizontal expansion. The department does not agree with this request.

9. Sections NR 507.14 and NR 140.23, Wis. Adm. Code, require that soil boring information be presented on department forms and include the information listed in s. NR 507.14(2), (3) and (4), Wis. Adm. Code. Some historic data from the files for the year 1987 are not available; however, some historical soil boring descriptions are presented on geological figures in historical files. Although sufficient information is provided from available and proposed soil boring logs, Vernon County is requesting an exemption for the use of all historical logs during final presentation in the feasibility report, if appropriate, to assist in the overall site interpretation.

Department Response: The department concurs that if an historical soil boring log is not available then it cannot be used. In addition, the department understands some historic soil boring logs may be recorded on non-department forms and therefore may not capture all of the information recorded on current department forms. All available boring logs within 300 feet of the proposed limits of the vertical and horizontal expansion that were used for previous feasibility reports should be provided.

The department reserves the right to require additional geotechnical information if necessary to fully evaluate subsurface conditions at the site and to complete review of the feasibility study. If major changes are made to the proposed footprint during design development, Vernon County should work with the department to determine if additional geotechnical investigation will be needed. The department may also require the installation of additional monitoring wells and piezometers as part of the feasibility determination or plan of operation approval if the department determines additional monitoring points are needed to adequately monitor groundwater quality around the landfill.

Please contact Carolyn Cooper at (608) 931-9387 or carolyn.cooper@wisconsin.gov with any questions or comments regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Bridget Kelly". The signature is stylized with a large, looped initial "B" and a cursive "Kelly".

Bridget Kelly
Waste and Materials Management Program Supervisor
South Central Region

cc: Carolyn Cooper – DNR/WA
Tess Brester – DNR/WA (via email)
John Morris – DNR/WA (via email)
Joe Lourigan – DNR/WA (via email)
Valerie Joosten – DNR/WA (via email)
Brian Kent – SEH (bkent@sehinc.com)

B-8 – WDNR Renewed ER Review August 18, 2023

Vernon County Landfill v3 - Renewed 08/18/23

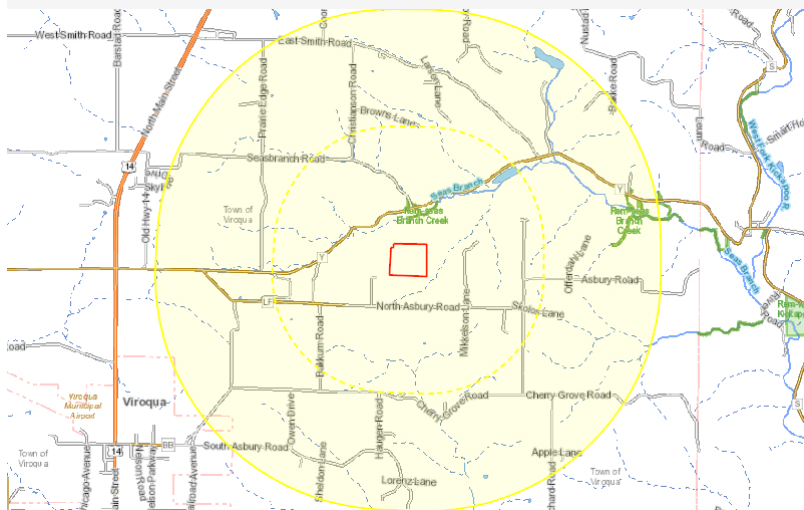
Reviewer Information

Reviewer Name	Laura Spears
Review Date	8/18/2023
Bureau / Org Name	Watershed Management
Work Station	Iowa

General Information

Project Title	Vernon County Landfill v3 - Renewed 08/18/23
Project No	
Federal Nexus	
Project Timing	
Property Type	

Map



Project Location

County	Vernon
PLSS Description	T13N R04W S15
Township Name	Viroqua
Ownership Type	
Landowner Name	

Project Information

Description	expanded area of the Vernon County Landfill
Habitat Description	expansion/improvements to existing landfill
Impacts to Wetlands and Waterbodies	
Additional DNR and Other Permits	

Element Occurrences

No element occurrences exist in this area

Actions that need to be taken to comply with state and/or federal endangered species laws: None

Actions recommended to help conserve Wisconsin's Endangered Resources: None

Additional Recommendations: **None**

No actions are required or recommended for the following endangered resources: None

Disclaimer

This ER Review may contain Natural Heritage Inventory data (<http://dnr.wi.gov/topic/NHI>), including specific locations of endangered resources, which are considered sensitive and are not subject to Wisconsin's Open Records Law. As a result, information contained in this ER Review may be shared only with individuals or agencies that require this information in order to carry out specific roles in the permitting, planning and implementation of the proposed project. Specific locations of endangered resources may not be released or reproduced in any publicly disseminated documents.

Details related to project location, design, and timing of disturbance are important for determining both the endangered resources that may be impacted by the project and any necessary follow-up actions. If the project plans change, new details become available, or more than a year passed, please renew this review.