

STAFF REPORT

DATE: 11/14/22

REGULAR

ITEM#: 4a – PUBLIC HEARING

MOTION

TO: Planning Commission

FROM: Ben Hetzel, Lake Elmo City Planner AGENDA ITEM: 8265 Hidden Bay Trail N Variance

REVIEWED BY: Ben Hetzel, City Planner

INTRODUCTION:

David Kranz (Applicant) on behalf of Vonda Brown (Owner) recently submitted a variance application to install a replacement sewage treatment system within 75 feet of a delineated wetland boundary located at 8265 Hidden Bay Trail N, parcel 09.029.21.31.0025 (Subject Property). The replacement sewage treatment system is required to complete a sale of the property.

The proposal is to construct a mound septic system to replace the existing failing septic system that was installed in 1963. To do this, the applicant is proposing to install a 10 foot by 45 foot rock bed mound system, corresponding absorption area, and three tanks. The three tanks would be located outside of the required 75 foot wetland setback. A wetland delineation was completed on September 10, 2022 to identify the appropriate wetland boundary. These components would be installed within 75 feet of the wetland:

• Rock Bed: 60 feet

• Absorption Area: 48.3 feet

ISSUE BEFORE PLANNING COMMISSION:

The Planning Commission is being asked to hold a public hearing, review, and make a recommendation on the request to install a sewage treatment system within 75 feet of a wetland.

VARIANCE REQUEST DETAILS/ANALYSIS:

Address: 8265 Hidden Bay Trail N

PID: 09.029.21.31.0025

Lot Area: 1.1 acres

Existing Zoning: Rural Single Family, Valley Branch Watershed District,

Shoreland Management Overlay District

Surrounding Zoning: Rural Single Family

Deadline for Action: Application Complete – 10/6/2022

60 Day Deadline – 12/6/2022 Extension Letter Mailed – N/A

120 Day Deadline – N/A

Applicable Regulations: Article V - Zoning Administration and Enforcement

Article XI- Wetland Protection and Preservation Overlay

District

Article XIX Shoreland Management Overlay District

Reason for Request

The applicant and septic system designer have indicated that the proposed component locations are the only viable options for this property. The land further north, closer to the home consists of steep slopes, which cannot accommodate a mound system. The area along the east property line is also not suitable because of an existing drainage way. Staff have visited the site and verified these conditions. Suitable system area is limited to the proposed location.

<u>Section 105.04.520(5)b.</u> states that no part of any septic tank system or of another sewage disposal requiring on-land or in-the-ground disposal of waste shall be located closer than 75 feet from the edge of a wetland.

Shoreland

The subject property is located within a Shoreland Management Overlay District because it is within 1,000 feet of Lake Olson. The City code also requires a 75 foot setback from public waters governed by the Shoreland code. The proposed septic location is approximately 320 feet from the closest point of Lake Olson. The proposed system is located within 48 feet of the wetland of Deer Pond. Deer Pond is not a water body governed by the City's Shoreland regulations according to Table 17-1 of Section 105.12.1260.

CITY AGENCY REVIEW:

This request was distributed to several city departments for review on October 17, 2022. The following departments provided comments on the variance request.

Valley Branch Watershed District (Email)

The proposed system location is above the 100-year flood level of Deer Pond. No Valley Branch Watershed permit is required.

City Engineer (Email)

The system must be at least 10 feet from the nearest property line.

REVIEW AND ANALYSIS/DRAFT FINDINGS:

An applicant must establish and demonstrate compliance with the variance criteria set forth in Lake Elmo City Code Section 105.12.320 set forth by the MN Stat. 462.357 subd.6 before the City may grant an exception or modification to city code requirements. These criteria are listed below, along with comments from Staff about the applicability of these criteria to the applicant's request.

1) Practical Difficulties. A variance to the provision of this chapter may be granted by the Board of Adjustment upon the application by the owner of the affected property where the strict enforcement of this chapter would cause practical difficulties because of circumstances unique to the individual property under consideration and then only when it is demonstrated that such actions will be in keeping with the spirit and intent of this chapter. Definition of practical difficulties - "Practical difficulties" as used in connection with the granting of a

variance, means that the property owner proposes to use the property in a reasonable manner not permitted by an official control.

FINDINGS:

Strict enforcement of the code would create an inability to properly dispose of domestic wastewater. The existing topography and well location leave a limited amount of area for a replacement sewage treatment system. The proposed system area is the only practical location. Granting a variance would allow the applicant to use the property in a reasonable manner as there is no public sewer service available at this location.

2) Unique Circumstances. The plight of the landowner is due to circumstances unique to the property not created by the landowner.

FINDINGS:

The property owners are not responsible for the challenging topography and existing well location. The system cannot be shifted further north due to 30 percent slopes or further east due to an existing drainage way. Areas north of the home have limited space and are within the required setback from the existing private well. The system designer has indicated there are no other yiable locations.

3) Character of Locality. The proposed variance will not alter the essential character of the locality in which the property in question is located.

FINDINGS:

The proposed sewage treatment system would not alter the essential character of the neighborhood. The proposed mound system would be located in the rear yard in an area with mature trees providing screening. Upon installation, the applicant will be required to establish vegetative cover prevent erosion and make the mound system more inconspicuous. Surrounding residential properties also have private sewage treatment systems due to public sewer service not being available to the area.

4) Adjacent Properties and Traffic. The proposed variance will not impair an adequate supply of light and air to properties adjacent to the property in question or substantially increase the congestion of the public streets or substantially diminish or impair property values within the neighborhood.

FINDINGS:

The proposed request will have no effect on the supply of light and air to adjacent properties or increase congestion in the public streets. Property values should not be diminished from the request. Adjacent residential properties in the area are to be served by similar private or community wastewater treatment systems. It is in the best interest of the adjacent properties for the subject property to have a replacement sewage treatment system installed to avoid sewage smells in the event of a full failure of the existing sewage treatment system.

PUBLIC COMMENT:

A hearing notice was sent to surrounding properties on November 2, 2022. A hearing notice was published in the local newspaper on November 4, 2022. Staff have received two public

comments via email. One public comment was in support of the request and one was against the request.

FISCAL IMPACT:

None

OPTIONS:

The Planning Commission may:

- Recommend approval of the variance.
- Recommend approval of the variance with conditions.
- Recommend denial of the variance, citing recommended findings of fact for denial.

RECOMMENDATION:

Staff recommends that the Planning Commission recommend approval of the request from David Kranz for a variance to install a sewage treatment system and septic tanks within 75 feet of a delineated wetland boundary.

"Move to recommend approval of a variance to install a sewage treatment system within 75 feet of a delineated wetland boundary at 8265 Hidden Bay Trail N."

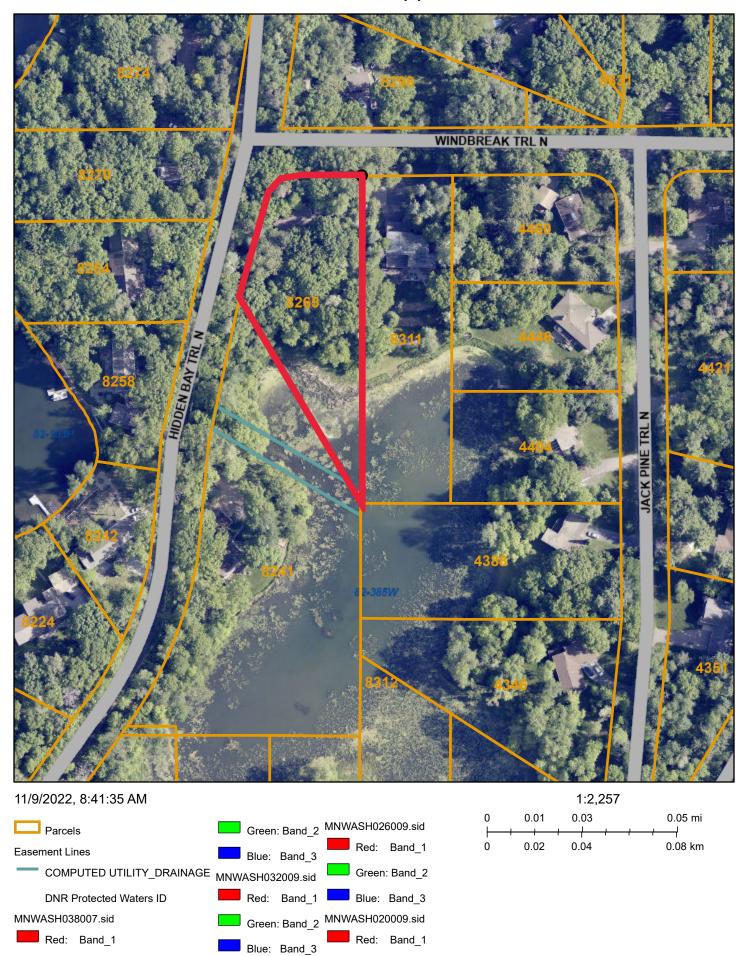
RECOMMENDED CONDITIONS OF APPROVAL

- 1. The wetland must be fully protected by dual silt fence prior to the installation of the sewage treatment system.
- 2. The mound system and all disturbed areas must be seeded and mulched immediately following sewage treatment system installation.
- 3. The existing sewage treatment system and tanks must be properly abandoned.
- 4. The applicant must obtain all other necessary City, State, County, and other governing body permits and approvals before the commencement of any construction activity onsite. These include, but not limited to, a Washington County Subsurface Sewage Treatment System permit.
- 5. This variance approval is for a reduced wetland setback in the proposed component locations as per the revised site survey dated October 18, 2022. Any deviation in system component locations would require approval from the City of Lake Elmo.
- 6. This variance approval shall become void if the sewage treatment system and tanks have not been installed within 12 months of the City's approval.

ATTACHMENTS:

- 1) Land Use Application
- 2) Written Statements
- 3) Alex Pepin Emails
- 4) Location Map
- 5) Certified Survey
- 6) Site Photos
- 7) Wetland Delineation Report
- 8) Valley Branch Watershed District email
- 9) City Engineer Email
- 10) Public Comment

ArcGIS Web AppBuilder



Date Received	d:
Received By:	
Permit #:	



651-747-3900 3800 Laverne Avenue North Lake Elmo, MN 55042

VARIANCE APPLICATION	RECEIVED
Applicant: David Kranz	007 1 8 2022
Address: 2401 34th Ave S, Minneapolis, MN 55406 Phone # 612-239-3712	CITY OF LAKE ELMO
Email Address: davekranz@msn.com	THE CHARLES AND A STORE CONTRACTOR OF PERSONS AND ARCHIVE AND ARCHIVES SEVERAL STREET, AND ARCHIVES AND ARCHI
Fee Owner: Thomas and Vonda Brown	
Address: 192 Jade Trail North, Apartment 306, Lake Elmo, MN 55	042
Phone # 651-283-5952	042
Email Address: vloisbrown@gmail.com	
Engineer: Alex Pepin, Ten Thirty Environmental Solutions	
Address: 1684 132nd Ave NE, Blaine, MN 55449	
Phone # 612-248-4281	
Email Address: alex.pepin@tenthirtvenvironm	
Property Location (Address): 8265 Hidden Bay Trl N, Lake Elmo MN 550	142
Complete Legal Description:	() () () () () () () () () ()
OACES ACRES 3RD ADDITION, LOT 24, BLOCK 0	
PID#: <u>09.029.21.31.0025</u>	
Detailed Reason for Request: A new septic system is require to sell hor	ne Location of one
corner of the septic soil treatment area is located approximately	50 ft from wetland.
Washington County requires a 75ft setback to the wetland.	
*Variance Requests: As outlined in LEC Section 103.00.110 (c), the applicant must demonstr	ate practical difficulties before a
variance can be granted. The practical difficulties related to this application are as	
follows: The reason for the variance is this is the only location on the accept the soil treatment area. All other areas on the property was	ne property that can
inadequate area for a septic system and/or disturbed soils being	a encountered
	3
In signing this application. I hereby asknowledge that I have read and fully understand the	Park I was to be a set of the set
In signing this application, I hereby acknowledge that I have read and fully understand the apportinance and current administrative procedures. I further acknowledge the fee explanation a	Discable provisions of the Zoning
procedures and hereby agree to pay all statements received from the City pertaining to addition	onal application expense.
MATHER 15	/2026
Signature of applicant: Navil Date: Date:	16062
Signature of fee owner: Conda L Breezen Date: //	6/22

To: The City of Lake Elmo

The letter states that my son-in-law, David Kranz, on my behalf may apply for the permit variance to build a new septic system on our property at 8265 Hidden Bay Trail N, Lake Elmo.

Sincerely,

Owner: Vonda Brown

Signature of owner: Vanda L Arees Date: Oct 6, 2022

Variance Application Written Statement for 8265 Hidden Bay Trail N, Lake Elmo

Prepared by: David Kranz Updated: 10/17/2022

2 Written Statement

a. Current property owners

Thomas G & Vonda L Brown 192 Jade Trail N, Lake Elmo, MN 55042

Carmela S Kranz, Daughter has Power of Attorney 2401 34th Ave S, Minneapolis, MN 55406

b. Site data

Property Address: 8265 HIDDEN BAY TRL N LAKE ELMO MN 55042

Property Description: OACE ACRES 3RD ADD Lot 24

Property ID: 09.029.21.31.0025

Parcel Size: 1.1 acre

Zoning: Rural Single Family

c. Lake Elmo City Code

Wetland Code, 75 foot setback

d. Proposal

New septic system with mound corner located $\sim \frac{50'}{100}$ from start of wetland. See Septic Design and Property Survey

e. Narrative

A new septic system is required to sell the home owned by Tom and Vonda Brown. Present septic system is original, dating from 1963 home build.

A new septic was designed and located by engineer Alex Pepin, Ten Thirty Environmental Solutions (TTES on 7/21/22) at the best location on the property after evaluating alternatives for topographical gradient, setback from property boundaries, the home and water well. The design location is considered the only viable location.

Washington County rejected the Septic application (on 9/1/22) noting the designed mound measured 52' from the start of the wetland identified in the National Wetland Inventory. Washington County proposed we (1) identify the wetland using a trained professional and (2) get a variance from the City of Lake Elmo.

Andy Kranz performed a wetland delineation (on 9/10/22), identifying the actual wetland boundary which substantially agrees with the National Wetland Inventory. See attached Wetland Delineation report.

Valley Branch Watershed District engineer, John P Hanson, reviewed the design on 9/12/22 and determined the septic mound is located at above the 100 year flood plain. No VBWD permit is required. See copy of John P Hanson's email

A property land survey was completed on 9/28/22 by EG Rud surveyor. Survey locates the home, wetland markers, septic mount markers, and the property boundary.

f. Why the strict enforcement of this chapter would cause practical difficulties because of circumstances unique to the individual property

Design engineer Alex Pepin states (see Reason for Variance Alex Pipin email 2022-09-06.pdf)

Reviewing the design, Alex Pepin, stated in the email "this is the only location on the property that can accept the soil treatment area, which then also forces the tanks to be in their location to achieve drainback to the pump tank. The reason the soil treatment area needs to be where it is is that there is a slope with over 30% slope just upslope from the area and a drainageway to the east. Both of these constraints will impact the functionality of the septic system. The septic tanks are then placed as far away from the wetland while also being able to get drainback to the pump tank to prevent freezing; which again is a functionality of the system constraint. The setback variance is preferred as the septic is designed to properly treat the wastewater prior to contact with a restriction, in this case the periodically saturated zone in the soil profile. Putting the mound further east would put it in the stormwater flow path and while berming can be constructed to divert the stormwater around the mound their is significant infiltration of the stormwater into the soil which will continue along the path shown in the design causing hydraulic loading issues into the soil (overloading the soil with water during rain events). The slope similarly will cause hydraulic concerns with the functionality of the system. On slopes over 20% there is concern the wastewater will flow horizontally along the native grade rather than infiltrating into the soil causing a hydraulic failure along the toe of the mound where the not fully treated wastewater would pool. For these reasons a variance to the wetland setback is proposed. All other areas on the property were explored with inadequate area for a septic system and/or disturbed soils being encountered"

g. Unique circumstances not created by the landowner

Modern septic systems in Washington County have strict requirements. As described in statement 2f, there is no other practical location that satisfies the slope and hydrological requirements.

h. Why this would not alter essential character of the neighborhood

While the mound location is less than the required setback, at 50' from the wetland it will not be overly prominent. The new mound will be located where the majority of the vegetation removed is buckthorn. An effort will be made to preserve all adjacent mature oak and maple trees.

Re: 8265 HIDDEN BAY TRL N, CITY OF LAKE ELMO

Alex Pepin <alex.pepin@tenthirtyenvironmental.com>

Tue 9/6/2022 8:19 AM

To: David Kranz <davekranz@msn.com>

Cc: Michael Capra < Mike@capras.com>

Good morning Dave,

That is great Andy can do that for you. You will need to apply for a variance with the City here (https://cms8.revize.com/revize/lakeelmomn/Document%20center/Applications/Variance.pdf) with zoning contacts here (https://www.lakeelmo.org/departments/planning_zoning/index.php). I know we had originally discussed the need for a variance and with the design I was hoping the County would be ok with the 75' to cattails, but as the County indicated in reality the wetland probably starts 20 or so feet prior to the cattails.

You will want to fill out the variance once the wetland delineation is completed. When the wetland delineation is completed if you could get Andy or even do it yourself you will need to measure the distances to the stakes I have onsite for B5, B4, B1 and pump tank outlet those will then be the required setback distances to the soil treatment area (B1, B4 and B5) and the setback distance to the tanks (Pump tank outlet).

The reason for the variance is this is the only location on the property that can accept the soil treatment area, which then also forces the tanks to be in their location to achieve drainback to the pump tank. The reason the soil treatment area needs to be where it is is that there is a slope with over 30% slope just upslope from the area and a drainageway to the east. Both of these constraints will impact the functionality of the septic system. The septic tanks are then placed as far away from the wetland while also being able to get drainback to the pump tank to prevent freezing; which again is a functionality of the system constraint. The setback variance is preferred as the septic is designed to properly treat the wastewater prior to contact with a restriction, in this case the periodically saturated zone in the soil profile. Putting the mound further east would put it in the stormwater flow path and while berming can be constructed to divert the stormwater around the mound their is significant infiltration of the stormwater into the soil which will continue along the path shown in the design causing hydraulic loading issues into the soil (overloading the soil with water during rain events). The slope similarly will cause hydraulic concerns with the functionality of the system. On slopes over 20% there is concern the wastewater will flow horizontally along the native grade rather than infiltrating into the soil causing a hydraulic failure along the toe of the mound where the not fully treated wastewater would pool. For these reasons a variance to the wetland setback is proposed. All other areas on the property were explored with inadequate area for a septic system and/or disturbed soils being encountered.

Let me know if you have any additional questions.

Alex Pepin 612-248-4281 Ten Thirty Environmental Solutions www.tenthirtyenvironmental.com

On Mon, Sep 5, 2022 at 10:47 AM David Kranz < davekranz@msn.com > wrote:

Mike and Alex,

I have made an appointment with Andy Kranz (he is my son who does this for a living) and he will do a detailed wetland delineation survey later this week. Knowing that every foot matters, he will take the

necessary soil samples.

Alex - We would like to get this underway immediately, so I would really like your help with understanding the process of completing the variance. Please respond to this email and feel free to call me on my mobile.

Thanks, Dave Kranz

mobile: 612-239-3712

From: Michael Capra < Mike@capras.com>
Sent: Saturday, September 3, 2022 12:51 PM
To: David Kranz < davekranz@msn.com>

Cc: Alex Pepin <alex.pepin@tenthirtyenvironmental.com>
Subject: Fwd: 8265 HIDDEN BAY TRL N, CITY OF LAKE ELMO

Hello David-

I wanted to let you know that the County is going to require you to get a wetland delineation and variance to install the new system as designed. You may want to reach out to Alex Pepin and the City of Lake Elmo to figure out what is needed to complete the variance request. Unfortunately, the property owner is the one responsible for getting the necessary delineation and variance. Alex Pepin may be able to refer you to someone for the wetland delineation.

Thank you, Mike Capra

Get Outlook for iOS

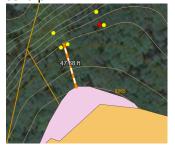
From: Tyler Dale < Tyler.Dale@co.washington.mn.us > Sent: Thursday, September 1, 2022 10:30 AM

To: Michael Capra < Mike@capras.com>

Subject: 8265 HIDDEN BAY TRL N, CITY OF LAKE ELMO

Hi Mike,

I am contacting you as you are listed as the application contact. I conducted a site and soil review for the system at the address above, report attached. On the site map the designer states that B1 and B5 are 75 feet from Wetland/Start of cattails. I believe that the wetland begins before the start of cattails. There is a change in vegetation from broad leaf plants to grasses approximately 54' from borings B5 and B1. This corresponded to the location of the start of the Freshwater Emergent Wetland as identified by the Nation Wetland Inventory. The map below shows the designers boring locations, yellow dots, and the wetland boundary, solid pink.



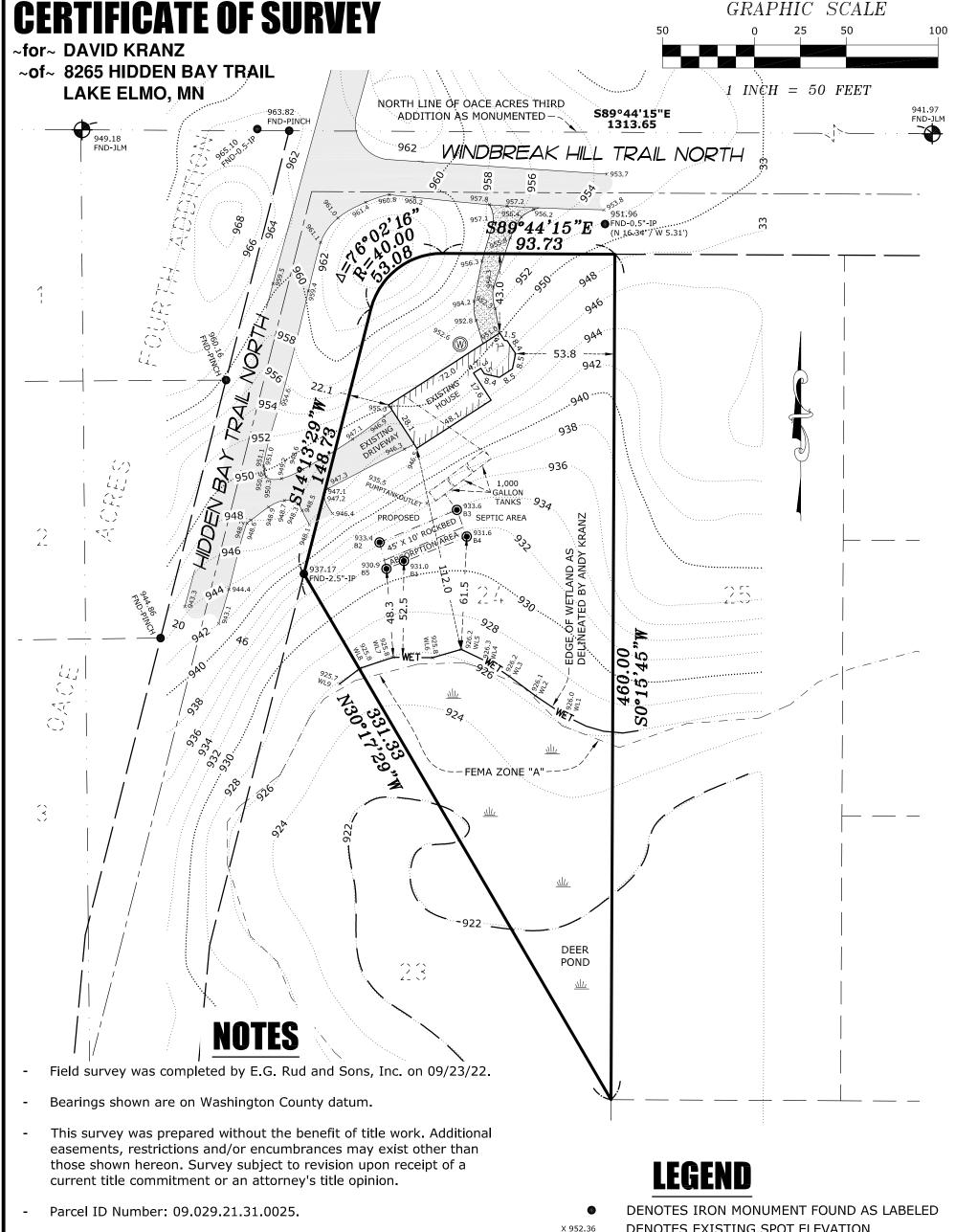
To address this discrepancy I would propose that the wetland boundary is identified and located on the ground by a trained professional. This would allow for an accurate place to measure the setback from. If the

proposed system is closer than 75' a variance from the City will be required

Please let me know if you have any questions.

Tyler Dale | Senior Environmental Specialist Washington County Department of Public Health and Environment 14949 62nd Street North, Stillwater, MN 55082 651-430-6741

A great place to live, work and play...today and tomorrow



- Total parcel area = 49,467 S.F. (1.14 Acres).
- Surveyed premises shown on this survey map is in Flood Zone X (Areas determined to be outside the 0.2% annual chance floodplain.) and Flood Zone A (Areas without a base flood elevation.), according to Flood Insurance Rate Map Community No. 270505 Panel No. 0240 Suffix E by the Federal Emergency Management Agency, effective date 02/03/2010.

DENOTES EXISTING SPOT ELEVATION DENOTES SOIL BORING. (BY OTHERS) DENOTES FOUND JUDICIAL LANDMARK **DENOTES WELL**

•

(W)

<u> 1117</u>

DENOTES WET LAND DENOTES BITUMINOUS SURFACE

DENOTES GRAVEL SURFACE

Lot 24, OACE ACRES THIRD ADDITION, Washington County, Minnesota.

41578

I hereby certify that this plan, survey or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

October

Dated 18th day of

Minnesota License No.

2022.

	DATUM: <u>Washing</u> ton			JOB NO. <u>221036LS</u>			
d			REVISIONS		SCALE: 1" = <u>50</u> '	-	
	1	10/18/22	ADDED SEPTIC DESIGN	BCD	DATE: <u>09-27-22</u>		
	2				DRAWN BY: BCD		
	3 NO.	DATE	DESCRIPTION	BY	CREW: DT/CT		



















Washington County, MN

25 0 25 50 75 100 ft

Andy Kranz

- Deep Marsh and Shallow Open Water
 Fresh (Wet) Meadow
- Wetland Data Points

Wetland Delineation

Memo

Date: September 22, 2022

To: Thomas and Vonda Brown c/o David Kranz

From: Andy Kranz

Subject: Wetland Delineation: Septic Update for 8265 Hidden Bay Trail N, Washington

County, MN

On September 10, 2022, I performed a delineation of wetlands and waterbodies on the property located at 8265 Hidden Bay Trail North, Lake Elmo, Minnesota 55042 in Washington County. This memo describes the findings of the wetland delineation and will be used to support a project to update the septic system that is currently located on the Property.

Wetland delineation was conducted on the 1.11-acre Property on September 10, 2022. The northern 0.76 acre is upland. It includes a house with driveways to the west and northeast and a septic system to the south. A woodland separates the residence from wetland in the southern 0.35 acre of the Property. The woodland is situated on a south-facing slope and is dominated by white oak (*Quercus* alba) with abundant common buckthorn (*Rhamnus cathartica*)

Upland-wetland boundary spatial data were collected and vertices (w1-w9) were flagged on the ground. USACE determination data (dp1, dp2) were collected at representative upland and wetland positions (enclosed map). Spatial data was captured with a GNSS receiver capable of submeter accuracy. Representative photographs of the Property are enclosed.

Data point dp1 was collected in a fresh, wet meadow dominated by reed canary grass (*Phalaris arundinacea*). Soil indicators observed include Loamy Mucky Mineral (F1). Hydrologic indicators observed include Geomorphic Position (D2) and Fac-Neutral Test (D5). Conditions were drier than normal (sum = 9) at the time of survey according to a WETS analysis of a 30-year dataset (1992-2022) from a nearby weather station (St. Paul Downtown Airport, MN).

Hybrid cat-tail (*Typha* × *glauca*) becomes dominant to the south of the wet meadow, and the wetland transitions to deep marsh and shallow open water communities. A boundary between the wet meadow and adjacent communities was delineated using desktop resources including multi-year aerial photograph interpretation. See the enclosed Wetland Delineation Map and Determination Data Sheets.

At the time of delineation numbered/labeled stakes were present that demarcated the limits of the proposed septic project. Distances between these and the nearest wetland vertices were measured on the ground:

w4 to pump tank outlet:	82.5 ft
w4 to B4:	69.5 ft
w5 to B4:	62.0 ft
w6 to B1:	52.0 ft
w7 to B5:	49 ft

Please contact me with any questions regarding the wetland delineation at the Property.

Respectfully submitted,

Andy Kranz

Botanist and Wetland Delineator

 $2220~30^{th}~Ave~S$

Minneapolis, MN 55406

andrew.r.kranz@gmail.com

507-459-3150

Enclosed: Wetland Delineation Map

USACE Wetland Determination Data Sheets

Site Photographs

Wetland Delineation Photographs



View north from the upland-wetland boundary.



View east from the upland-wetland boundary.



View south from the upland-wetland boundary.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hidden Bay Trail North Septic Update		City/Cou	nty: Lake El	mo / Washington County	Sampling Da	te: <u>9/10</u>	/2022
Applicant/Owner: David Kranz				State: MN	Sampling Po	int:	dp1
Investigator(s): Andy Kranz		Section, T	Γownship, Ra	ange: S9 T29N R21W			
Landform (hillside, terrace, etc.): Toe slope			Local relief (concave, convex, none): c	oncave		
Slope (%): 0-3 Lat: 45.013133		Long: -	92.938476		Datum: UTM 1	 5	
Soil Map Unit Name: Poskin silt loam					cation: PEM1A		
Are climatic / hydrologic conditions on the site typical 1	for this time o	f year?	Yes	No X (If no, expl	ain in Remark	s.)	
Are Vegetation N , Soil N , or Hydrology N		-		Circumstances" present?			
Are Vegetation N , Soil N , or Hydrology N				rplain any answers in Ren			_
SUMMARY OF FINDINGS – Attach site m						features	s, etc.
Hydrophytic Vegetation Present? Yes X N	0	lo the	Sampled A	roo			
	<u> </u>	l l	n a Wetland		No		
lui	o —	"""		. 166 <u>-x</u>			
Remarks:							
Fresh (wet) meadow in a residential neighborhood; so shaded by trees rooted near or beyond the upland bo							
VEGETATION – Use scientific names of pla	ante						
VEGETATION 030 301011tille flames of pie	Absolute	Dominant	Indicator	Ī			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test work	sheet:		
1. Acer negundo	5	Yes	FAC	Number of Dominant S	species That		
2. Fraxinus pennsylvanica	5	Yes	FACW	Are OBL, FACW, or FA	/ С:	3	(A)
3				Total Number of Domi	nant Species		
4				Across All Strata:	_	3	_(B)
5				Percent of Dominant S	•		
O and the or (O bounds O treatment of O treatment of O	10	=Total Cover		Are OBL, FACW, or FA	√C: _	100.0%	_ (A/B)
Sapling/Shrub Stratum (Plot size:)			Dunivalan as Inday			
1. 2.				Prevalence Index wo Total % Cover of:		Itiply by:	
				OBL species 10		Itiply by: 10	-
				FACW species 85		170	-
5.				FAC species 5	x3=	15	_
·		=Total Cover		FACU species 0	x 4 =	0	-
Herb Stratum (Plot size: 5')				UPL species 0	x 5 =	0	_
1. Phalaris arundinacea	80	Yes	FACW	Column Totals: 100		195	– (B)
2. Typha X glauca	5	No	OBL	Prevalence Index =	B/A =	1.95	- ` ′
3. Persicaria amphibia	5	No	OBL				
4.				Hydrophytic Vegetati	on Indicators	:	
5				1 - Rapid Test for	Hydrophytic Vo	egetation	
6				X 2 - Dominance Te	₃t is >50%		
7				X 3 - Prevalence Ind			
8				4 - Morphological			
9				data in Remarks		•	
10				Problematic Hydro	phytic Vegetat	tion' (Expl	ain)
Woody Vine Stratum (Plot size:) 90	=Total Cover		¹ Indicators of hydric so be present, unless dist			must
1				Hydrophytic			
2				Vegetation			
		=Total Cover		Present? Yes_	X No_		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)						
L.,							

ENG FORM 6116-7, JUL 2018

Midwest – Version 2.0

SOIL Sampling Point: dp1

Donth	aopin nocaca to acc	ument tr	ie indica	tor or c	confirm the absence of	of indicators.)
Depth Matrix	Redo	x Feature	es			
(inches) Color (moist) %	Color (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-510YR 2/210	0				Mucky Loam/Clay	
5-15 10YR 2/2 90	10YR 4/1	10	D	М	Loamy/Clayey	
15-24 10YR 2/1 85	7.5YR 2.5/3	15			Loamy/Clayey	Distinct redox concentrations
					<u></u>	
	_					
	_					
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, I	MS=Mask	ked Sand	Grains		PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:						s for Problematic Hydric Soils ³ :
— Histosol (A1)	Sandy Gle		rix (S4)			t Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Re					Manganese Masses (F12)
Black Histic (A3)	Stripped N	,	5)			Parent Material (F21)
Hydrogen Sulfide (A4)	Dark Surfa	` '				Shallow Dark Surface (F22)
Stratified Layers (A5)	X Loamy Mu	-			Other	(Explain in Remarks)
2 cm Muck (A10) Depleted Relew Park Surface (A11	Loamy Glo	-				
Depleted Below Dark Surface (A11)	· — ·	,	'		3Indiact-	s of hydrophytic vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Da Depleted I		, ,			s of nydropnytic vegetation and nydrology must be present,
5 cm Mucky Peat or Peat (S3)	Redox De		٠,			s disturbed or problematic.
		pressions	3 (1 0)		unics	s disturbed of problematic.
Restrictive Layer (if observed):						
Type: Depth (inches):					Hydric Soil Present	? Yes X No
Remarks:					Tryunc Con i resent	
HYDROLOGY Wetland Hydrology Indicators:						
Wetland Hydrology Indicators:	required: check all that	apply)			Secondar	v Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is			ves (B9)			y Indicators (minimum of two required) ce Soil Cracks (B6)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1)	Water-Sta	ined Lea			Surfa	ce Soil Cracks (B6)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is		ined Lea auna (B1	3)		Surfa Drain	ce Soil Cracks (B6) age Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2)	Water-Sta	nined Lea auna (B1 atic Plants	3) s (B14)		Surfa Drain Dry-S	ce Soil Cracks (B6)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Sta Aquatic Fa True Aqua	nined Lea auna (B1: atic Plants Sulfide C	3) s (B14) Odor (C1)		Surfa Drain Dry-S Crayf	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Sta Aquatic Fa True Aqua Hydrogen	ained Lea auna (B1 atic Plants Sulfide C Rhizospho	3) s (B14) Odor (C1) eres on L	iving R	Surfa Drain Dry-S Crayf pots (C3)Satur	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ained Lea auna (B1 atic Plants Sulfide C Rhizospho of Reduc	3) s (B14) Odor (C1) eres on L ced Iron (iving Ro	Surfa Drain Dry-S Crayf pots (C3)Satur Stunt	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ained Lea auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ained Lea auna (B1) atic Plants Sulfide C Rhizospho of Reducton Reducton & Surface	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7)	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck ry (B7) Gauge or	ained Lear auna (B1) atic Plants Sulfide C Rhizospho of Reduct on Reduct C Surface Well Data	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9)	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck ry (B7) Gauge or	ained Lear auna (B1) atic Plants Sulfide C Rhizospho of Reduct on Reduct C Surface Well Data	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9)	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagel Sparsely Vegetated Concave Surface	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck ry (B7) Gauge or	ained Lear auna (B1) atic Plants Sulfide C Rhizospho of Reduct on Reduct C Surface Well Data	3) s (B14) Odor (C1) eres on L eed Iron (tion in Til (C7) a (D9) emarks)	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfater	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Ty (B7) Gauge or Acce (B8) Other (Exp	ained Lear auna (B1) atic Plants Sulfide C Rhizospho of Reduct on Reduct c Surface Well Data plain in R Depth (in	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfater Field Observations: Surface Water Present? Yes	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck ry (B7) Gauge or ace (B8) Other (Exp	ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct Surface Well Data plain in R	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _	iving Ro	SurfaDrainDry-SCrayf coots (C3)SaturStunt s (C6)X Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfate Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck y (B7) Gauge or loce (B8) Other (Exp	ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct c Surface Well Data plain in R Depth (in Depth (in	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _ nches): _	.iving Ro	Surfa Drain Dry-S Crayf Satur Stunt S (C6) X Geom X FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagel Sparsely Vegetated Concave Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck y (B7) Gauge or loce (B8) Other (Exp	ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct c Surface Well Data plain in R Depth (in Depth (in	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _ nches): _	.iving Ro	Surfa Drain Dry-S Crayf Satur Stunt S (C6) X Geom X FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfate Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck y (B7) Gauge or loce (B8) Other (Exp	ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct c Surface Well Data plain in R Depth (in Depth (in	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _ nches): _	.iving Ro	Surfa Drain Dry-S Crayf Satur Stunt S (C6) X Geom X FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck y (B7) Gauge or loce (B8) Other (Exp	ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct c Surface Well Data plain in R Depth (in Depth (in	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _ nches): _	.iving Ro	Surfa Drain Dry-S Crayf Satur Stunt S (C6) X Geom X FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Sparsely Vegetated Concave Surfate Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck y (B7) Gauge or loce (B8) Other (Exp	ained Lear auna (B1: atic Plants Sulfide C Rhizospho of Reduct on Reduct c Surface Well Data plain in R Depth (in Depth (in	3) s (B14) Odor (C1) eres on L ed Iron (tion in Til (C7) a (D9) emarks) nches): _ nches): _ nches): _	.iving Ro	Surfa Drain Dry-S Crayf Satur Stunt S (C6) X Geom X FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hidden Bay Trail North Septic Update		City/Cour	nty: Lake El	mo / Washington County Sampling Date: 9/10/2022
Applicant/Owner: David Kranz				State: MN Sampling Point: dp2
Investigator(s): Andy Kranz		Section, T	ownship, Ra	ange: S9 T29N R21W
Landform (hillside, terrace, etc.): Back slope		l	_ocal relief (concave, convex, none): none
Slope (%):5-10		Long: <u>-</u> 9	92.938425	Datum: UTM 15
Soil Map Unit Name: Poskin silt loam				NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical	for this time o	of year?	Yes	No X (If no, explain in Remarks.)
Are Vegetation N , Soil N , or Hydrology N	significantly	disturbed? A	re "Normal (Circumstances" present? Yes X No
Are Vegetation N , Soil N , or Hydrology N	naturally pro	blematic? (I	If needed, ex	xplain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showir	ng samplin	g point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	lo X	Is the	Sampled A	rea
	lo X	l l	n a Wetland	
	lo X			
Remarks:				
Upland hardwood forest on a slope that separates a delineation according to WETS analysis.	residence and	d septic draina	age from a w	et meadow. Site condition drier than normal at time of
VEGETATION – Use scientific names of pla	ants.			
	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
Quercus alba Acer negundo		Yes Yes	FACU FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
3. Fraxinus pennsylvanica	5	No	FACW	``
			TACV	Total Number of Dominant Species Across All Strata: 4 (B)
5.				Percent of Dominant Species That
	40	=Total Cover		Are OBL, FACW, or FAC: 25.0% (A/B)
Sapling/Shrub Stratum (Plot size:				
1.				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3				OBL species0 x 1 =0
4				FACW species 5 x 2 = 10
5	. <u> </u>			FAC species25 x 3 =75
(5)		=Total Cover		FACU species 80 x 4 = 320
Herb Stratum (Plot size: 5')	20		E4011	UPL species 0 x 5 = 0
1. Glechoma hederacea	30	Yes Yes	FACU FACU	Column Totals: 110 (A) 405 (B) Prevalence Index = B/A = 3.68
Ageratina altissima Rhamnus cathartica	10	No	FAC	Frevalence index - B/A - 3.00
4.				Hydrophytic Vegetation Indicators:
5.				1 - Rapid Test for Hydrophytic Vegetation
6.				2 - Dominance Test is >50%
7.				3 - Prevalence Index is ≤3.0 ¹
8.				4 - Morphological Adaptations ¹ (Provide supporting
9.				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:		=Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	· 			Hydrophytic
2.				Vegetation
		=Total Cover		Present?
Remarks: (Include photo numbers here or on a sepa	arate sheet.)			
ENG FORM 6116-7. JUL 2018				Midwest – Version 2.

SOIL Sampling Point: dp2

Depth							confirm the absence	or maroatoror,
Берш	Matrix		Redox	x Featur				
(inches)	Color (moist)	%	Color (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 2/1	100					Loamy/Clayey	
18-24	10YR 2/1	95	10YR 3/1	5	D	_M_	Loamy/Clayey	
								-
¹ Type: C=C	oncentration, D=Depl	letion, RM	=Reduced Matrix, M	/IS=Mas	ked Sand	d Grains		n: PL=Pore Lining, M=Matrix.
Hydric Soil								rs for Problematic Hydric Soils ³ :
— Histosol			Sandy Gle		rix (S4)			st Prairie Redox (A16)
	pipedon (A2)		Sandy Red					Manganese Masses (F12)
	istic (A3)		Stripped M	•	6)			Parent Material (F21)
	en Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F22)
	d Layers (A5)		Loamy Mu				Othe	er (Explain in Remarks)
	uck (A10)	(* 4 4)	Loamy Gle	-				
I — ·	d Below Dark Surface	e (A11)	Depleted N	`	,		3, ,,	
	ark Surface (A12)		Redox Dar		. ,			rs of hydrophytic vegetation and
I —	Mucky Mineral (S1)		Depleted D					and hydrology must be present, ss disturbed or problematic.
	ucky Peat or Peat (S3	<u>')</u>	Redox Dep	ression	S (FO)	1	unie	ss disturbed of problematic.
	Layer (if observed):							
Type:			<u>—</u>				Undels Oall Description	10 V N- V
Depth (ir	ncnes):						Hydric Soil Presen	t? Yes No X
Remarks:								
LIVEROLG)OV							
HYDROLC								
Wetland Hy	drology Indicators:							
Wetland Hy	drology Indicators:	ne is requi						ry Indicators (minimum of two required)
Wetland Hy Primary India Surface	rdrology Indicators: cators (minimum of o Water (A1)	ne is requ	Water-Stai	ned Lea			Surfa	ace Soil Cracks (B6)
Wetland Hy Primary India Surface High Wa	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2)	ne is requi	Water-Stai	ned Lea una (B1	3)		SurfaDrail	ace Soil Cracks (B6) nage Patterns (B10)
Wetland Hy Primary India Surface High Wa Saturatio	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3)	ne is requ	Water-Stai Aquatic Fa True Aqua	ned Lea una (B1 tic Plant	3) s (B14)		Surfa Draiı Dry-:	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Wetland Hy Primary India Surface High Wa Saturatic Water M	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1)	ne is requi	Water-Stai Aquatic Fa True Aqua Hydrogen	ned Lea una (B1 tic Plant Sulfide (3) s (B14) Odor (C1)	SurfaSurfaDrainDryCray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8)
Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) farks (B1) on Deposits (B2)	ne is requi	Water-Stai Aquatic Fa True Aqua Hydrogen S Oxidized R	ned Lea luna (B1 tic Plant Sulfide (3) s (B14) Odor (C1 eres on I) ₋iving R	Surfa Drain Cray poots (C3) Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	cators (minimum of o Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)	ne is requi	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Lea una (B1 tic Plant Sulfide (thizosph	3) s (B14) Odor (C1 eres on l ced Iron () _iving R (C4)	Surfa Drain Dry-i Cray poots (C3) Satu Stun	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
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Midwest Version 2.0

ENG FORM 6116-7, JUL 2018

RE: 8265 Hidden Bay Trail N, Lake Elmo Septic Design

John P. Hanson < JHanson@barr.com>

Mon 9/12/2022 1:06 PM

To: 'David Kranz' <davekranz@msn.com>

Hi David,

The proposed location appears to be approximately 932 and higher, which is above the 100-year flood level of Deer Pond. No Valley Branch Watershed District permit is required.

Thanks, John

John P. Hanson, PE

Valley Branch Watershed District Engineer

Barr Engineering Co. | 4300 MarketPointe Drive | Bloomington, MN 55435

office: 952.832.2622 | cell: 612.590.1785

JHanson@barr.com | www.barr.com | www.vbwd.org



From: David Kranz <davekranz@msn.com>
Sent: Monday, September 12, 2022 12:59 PM
To: John P. Hanson <JHanson@barr.com>

Subject: 8265 Hidden Bay Trail N, Lake Elmo Septic Design

CAUTION: This email originated from outside of your organization.

Hi John.

Per our conversation, attached is the Septic Design at 8265 Hidden Bay Trail N, in Lake Elmo. Please let me know if you see that the design is in the 100 year flood level.

Thanks, David Kranz 612-239-3712 From: Jack Griffin
To: Ben Hetzel

Cc: Molly Just; Chad Isakson

Subject: Septic System Variance 8265 Hidden Bay Trail **Date:** Friday, October 21, 2022 10:46:51 AM

Caution: This email originated outside our organization; please use caution.

Ben,

The proposed septic system must be installed a minimum of 10 feet from the property lines. This setback requirement should be shown on the site plan. Engineering has no other comments.

Thanks ~Jack

John (Jack) W. Griffin, P.E. Principal / Sr. Municipal Engineer

FOCUS ENGINEERING, INC.

651.300.4264

jack.griffin@focusengineeringinc.com

Ben Hetzel

From: Gordy Grundeen <gordyg@blueskysciences.com>

Sent: Friday, November 4, 2022 7:54 PM

To: Ben Hetzel

Subject: 11-04-22 Variance for Brown's sewage system

Caution: This email originated outside our organization; please use caution.

November 4, 2022

To:

Ben Hetzel, City Planner City of Lake Elmo

Subject: Variance request for Brown's property = 8265 Hidden Bay Trail

Good morning:

We live across the street from Brown's property - we have known them as neighbors for 52 years! I am **opposed** to allowing any variance for the 75 foot setback from a wetland. There has been complete opposition to these kind of variances on Hidden Bay Trail going back to the 1960s. My neighbor 3 houses down on the Lake Olson side a few years ago installed a mound system that was acceptable to the City - it was less than 20 feet from Lake Olson. That was/is acceptable. There is no need to allow any new sewage treatment system to be sub-standard.

Tom & Vonda had 1-2 years ago assumed they needed a mound system. I am guessing here, but ~2 weeks ago, a contractor cleared and leveled the spot where the system was intended to be installed. The problem the contractor overlooked was: There is no way to get fill/dirt down a wooded & steep grade to the spot with a truck. I am guessing the sub-contractor backed out of the deal.

Here is my suggestion - it solves two issues at once: Remove the asphalt-surfaced driveway and put the drain field under the driveway; replace the driveway surface with those "environmentally green" bricks with "holes" in them. Grass grows in those holes. No runoff to pollute our lakes.

I believe the well on the North side of the house is about 50 feet from the driveway (which is on the West side of the house).

I think the driveway solution would be a cost reduction - no need to haul in fill. The current septic tank is next to the driveway now, so putting the drain field under the driveway would be less than 5 feet away.

Hope this helps!

Sincerely,

Gordy Grundeen 8270 Hidden Bay Trail Lake Elmo MN 55042 651-770-1056 text only = 651-347-4779 email = gordy.grundeen@gmail.com

Ben Hetzel

From: Fox, Hilary < Hilary.Fox@allstate.com> **Sent:** Wednesday, November 9, 2022 1:17 PM

To: Ben Hetzel
Cc: Justin A Fox

Subject: 8265 Hidden Bay Trail Variance request

Caution: This email originated outside our organization; please use caution.

Dear Mr. Hetzel,

On behalf of myself and my husband, owners of the lot directly to the east of the Browns', please note we have no objections to their variance request and hope the Planning Commission will allow their septic replacement to move forward.

Sincerely, Hilary and Justin Fox 8311 Windbreak Trail N Lake Elmo

Hilary B. Fox

Lead Counsel Minnesota and Wisconsin Allstate Staff Counsel 952.232.9585 cell

^{*}Please note our teams are working remotely on a permanent basis and we do not have physical locations at which to receive mail or deliveries. Please email us at MinneapolisLegal@allstate.com or WisconsinSCO@allstate.com with a CC to the appropriate attorney or staff member, or contact us for a secure link to upload large or PHI-containing documents. Thank you.