Date Received:
Received By:
Permit #:

THE CITY OF
LAKE ELMO

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

RECEIVED
OCT 10 2022
CITY OF LAKE ELMO

VARIANCE APPLICATION

Applicant: David Kranz
Address: 2401 34th Ave S, Minneapolis, MN 55406
Phone # 612-239-3712
Email Address: davekranz@msn.com

Fee Owner: Thomas and Vonda Brown
Address: 192 Jade Trail North, Apartment 306, Lake Elmo, MN 55042
Phone # 651-283-5952
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@tenthirtyenvironm

Property Location (Address): 8265 Hidden Bay Trl N, Lake Elmo MN 55042
Complete Legal Description:
OACES ACRES 3RD ADDITION, LOT 24, BLOCK 0
PID#: 09.029.21.31.0025

Detailed Reason for Request: A new septic system is require to sell home. 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 demonstrate 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 property that can accept the soil treatment area. All other areas on the property were explored with inadequate area for a septic system and/or disturbed soils being encountered.

In signing this application, I hereby acknowledge that I have read and fully understand the applicable provisions of the Zoning ordinance and current administrative procedures. I further acknowledge the fee explanation as outlined in the application procedures and hereby agree to pay all statements received from the City pertaining to additional application expense.

Signature of applicant: _____ Date: 10/6/2022

Signature of fee owner: Vonda L Brown Date: 10/6/22

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: Vonda L Brown 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 ~50' 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.

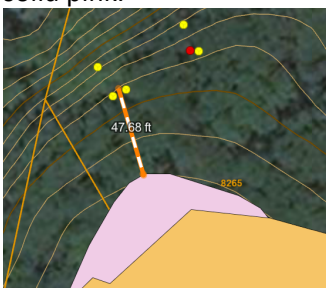
Thank you,
Mike Capra

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

CERTIFICATE OF SURVEY

~for~ DAVID KRANZ
~of~ 8265 HIDDEN BAY TRAIL
LAKE ELMO, MN

GRAPHIC SCALE
50 0 25 50 100
1 INCH = 50 FEET

NORTH LINE OF OACE ACRES THIRD ADDITION AS MONUMENTED
S89°44'15"E 1313.65
941.97 FND-JLM
963.82 FND-PINCH
949.18 FND-JLM
965.10 FND-0.5-IP
WINDBREAK HILL TRAIL NORTH
953.7
951.96 FND-0.5"-IP (N 16.34' / W 5.31')
S89°44'15"E 93.73
Δ=76°02'16" R=40.00 53.08
HIDDEN BAY TRAIL NORTH
960.16 FND-PINCH
944.86 FND-PINCH
937.17 FND-2.5"-IP
S14°13'29"W 148.73
22.1
43.0
53.8
1.5
8.4
8.5
EXISTING HOUSE
72.0
17.6
48.1
EXISTING DRIVEWAY
28.1
PROPOSED SEPTIC AREA
1,000 GALLON TANKS
PUMP TANK OUTLET
45' X 10' ROCKBED ABSORPTION AREA
933.4 B2
930.9 B5
931.0 B1
931.6 B4
933.6 B3
48.3
52.5
112.0
61.5
WET
EDGE OF WETLAND AS DELINEATED BY ANDY KRANZ
460.00 S0°15'45"W
331.33 N30°17'29"W
FEMA ZONE "A"
DEER POND
OACE

NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 09/23/22.
- Bearings shown are on Washington County datum.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Parcel ID Number: 09.029.21.31.0025.
- 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.

LEGEND

- ● DENOTES IRON MONUMENT FOUND AS LABELED
- X 952.36 DENOTES EXISTING SPOT ELEVATION
- ◉ DENOTES SOIL BORING. (BY OTHERS)
- ⊕ DENOTES FOUND JUDICIAL LANDMARK
- Ⓦ DENOTES WELL
- DENOTES WET LAND
- DENOTES BITUMINOUS SURFACE
- DENOTES GRAVEL SURFACE

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

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.

By: _____
Minnesota License No. 41578

Dated 18th day of October 2022.

DATUM: Washington
JOB NO. 221036LS
SCALE: 1" = 50 '
DATE: 09-27-22
DRAWN BY: BCD
CREW: DT/CT

REVISIONS			
1	10/18/22	ADDED SEPTIC DESIGN	BCD
2			
3			
NO.	DATE	DESCRIPTION	BY

E.G. RUD & SONS, INC.
EST. 1977
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701
www.egrud.com

LOT 24

COLDWELL BANKER
REALTY
MARY ANN BETTS
651-336-7019
MARK POTTER
612-414-6689


LAKE ELMO

Wetland Delineation Map
8265 Hidden Bay Trail N
Washington County, MN

N

25 0 25 50 75 100 ft

Andy Kranz

Property Boundary

Wetland_Delineation

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 30th 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/County: Lake Elmo / Washington County | Sampling Date: 9/10/2022

Applicant/Owner: David Kranz | State: MN | Sampling Point: dp1

Investigator(s): Andy Kranz | Section, Township, Range: S9 T29N R21W

Landform (hillside, terrace, etc.): Toe slope | Local relief (concave, convex, none): concave

Slope (%): 0-3 | Lat: 45.013133 | Long: -92.938476 | Datum: UTM 15

Soil Map Unit Name: Poskin silt loam | NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
Fresh (wet) meadow in a residential neighborhood; separates a pond to the south from a wooded upland slope to the north. The wetland is partially shaded by trees rooted near or beyond the upland boundary. Site conditions were drier than normal at the time of delineation according to WETS analysis.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	5	Yes	FAC
2. *Fraxinus pennsylvanica*	5	Yes	FACW
3.			
4.			
5.			
	10	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	80	Yes	FACW
2. *Typha X glauca*	5	No	OBL
3. *Persicaria amphibia*	5	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	85	x 2 =	170
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		195 (B)

Prevalence Index = B/A = 1.95

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: dp1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					Mucky Loam/Clay	
5-15	10YR 2/2	90	10YR 4/1	10	D	M	Loamy/Clayey	
15-24	10YR 2/1	85	7.5YR 2.5/3	15	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- X Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ 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 Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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/County: Lake Elmo / Washington County | Sampling Date: 9/10/2022

Applicant/Owner: David Kranz | State: MN | Sampling Point: dp2

Investigator(s): Andy Kranz | Section, Township, Range: S9 T29N R21W

Landform (hillside, terrace, etc.): Back slope | Local relief (concave, convex, none): none

Slope (%): 5-10 | Lat: 45.013233 | Long: -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 of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland hardwood forest on a slope that separates a residence and septic drainage from a wet meadow. Site condition drier than normal at time of delineation according to WETS analysis.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	20	Yes	FACU
2. *Acer negundo*	15	Yes	FAC
3. *Fraxinus pennsylvanica*	5	No	FACW
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Glechoma hederacea*	30	Yes	FACU
2. *Ageratina altissima*	30	Yes	FACU
3. *Rhamnus cathartica*	10	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	25	x 3 =	75
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	110 (A)		405 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: dp2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(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=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ 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 Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

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

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

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