# <u>AGENDA</u>

THE **BOARD OF ADJUSTMENT** WILL ASSEMBLE FOR A HEARING OF APPEALS FROM THE AITKIN COUNTY ZONING ORDINANCE ON January 3, 2024 **AT 4:00 P.M.** IN THE **AITKIN COUNTY GOVERNMENT CENTER BOARD ROOM, 307 SECOND STREET NW, AITKIN, MN 56431.** THE FOLLOWING APPLICATIONS WILL BE REVIEWED.

- **1.** Call the meeting to order.
- 2. Roll call.
- **3.** Approve the agenda for the January 3, 2024 Board of Adjustment meeting.
- 4. Election of officers for the 2024 Board of Adjustment
  - Election of Chairperson
  - Election of Vice Chair
  - Election of Secretary
  - Appointment of BOA member to the Planning Commission

# Old Business:

**5. SUSAN WARD, 14232 TAMARACK ST NW, ANDOVER, MN 55304,** is requesting a variance from the required 75 foot ordinary high water level setback on a general development lake (Minnewawa) to a setback distance of 70 feet to construct a 1344 square foot residence, in an area zoned shoreland. W 100 FT OF LOT 3 LESS S1410 IN C. T. #1088, Section Twenty-eight (28), Township Forty-nine (49), Range Twenty-three (23), Aitkin County, MN.

# APP-2023-000499

## New Business:

**6. RICHARD MATTSON, 52805 LOON AVE, MCGREGOR, MN 55760,** is requesting a variance from the required 15 foot property line setback to a setback distance of 10 feet for a mound septic system, in an area zoned shoreland. LOT 35 BIG SANDY LAKE HIGHLANDS FIFTH ADDITION. Section Thirty-four (34), Township Fifty (50), Range Twenty-three (23), Aitkin County, MN.

APP-2023-001336

# 7. Approval of minutes, December 6, 2023. 8. Adjourn.

# **AITKIN COUNTY ZONING**

## OneGov

# **Property Location**

Property:	Property Location		Legal Description		Property Attributes		Owner Information	Tax Payer Information		
	Parcel Number	Property Address	Township or City Name	Legal Description	Plat Name	Section- Township- Range	Lake Class	Lake Name	Owner Name(s)	Taxpayer Name(s)
	32-1- 061900	52805 Loon Ave MCGREGOR, MN 55760	TURNER TWP	LOT 35	BIG SANDY LAKE HIGHLANDS FIFTH ADDITION	S:34 T:50 R:23	GD	BIG SANDY LAKE	MATTSON, RICHARD M	MATTSON, RICHARD M
Driving directions to the proposed project from Aitkin:	Take Lake	Ave South off H	wy 65 to Loc	on Ave. Turn le	ft going approxim	nately 1 Mile to	property	/ on the le	ft.	
Is the above parcel located in the Shoreland Zoning District?	Yes									

12/11/23,	9:22 AM
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## **Detailed Narrative**

Enter a Detailed Narrative (If you have a prepared narrative please state "See attached" and attach the document below):	Variance for septic absorption area to be 10 feet from West Property Line to allow room for a driveway on this 50 ft. lot. Have spoken with the neighbor and he is OK with this.
Provide the Ordinance(s) and the Section(s) of the Ordinance(s) from which you are requesting a variance:	lot line setback
Are you requesting a variance to a road right-of-way setback in one of these Townships? Fleming, Glen, Lakeside, Pliny, Shamrock, Wagner	No

## Supplemental Data

Attach completed form here:	 File 1: 🖶 supplemental-data.pdf

#### OneGov

# A Scaled Drawing or Survey

Scaled Drawing or Survey Checklist:	Location and dimensions for all lot lines. Location and dimensions of all existing and proposed structures/additions. Location and depth of all existing and proposed wells within 100 feet of the property. Location and dimensions of all existing and proposed septic system components (septic tank, septic drainfield).		
	Location and dimensions of all existing and proposed driveways, road right-of-ways, and easements. If topography is unusual, show elevations and location of bluffs, steep slopes, wetlands, etc. Indicate all setback distances for items listed above: ordinary high water level of lakes or rivers, lot lines, road right-of-ways, etc.		
Attach a Scaled Drawing or Survey:	File 1: 🕹 2577_001.pdf		

## Side Profile Sketch of the Structure

Attach a side profile sketch of		
your proposed structure or	File 1: 👆 2577_001.pdf	
addition here (if applicable):		

## **Certificate of Septic Compliance**

in_Copdf nt_Plan.pdf f	
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#### Shoreland Performance Worksheet

Complete the Shoreland	
Performance Worksheet and	File 1: 🖶 shoreland-performance.pdf
attach here:	··

### Standard Erosion Control Plan

Attach the completed		
Standard Erosion Control	File 1: 🖶 2577_001.pdf	
Plan here:	Ld	

### **Property Deed**

Attach the property deed(s):	File 1: — AITKIN_COUNTYREC-REAL_EST4440405136.pdf

#### Terms

### **General Terms**

The landowner or authorized agent hereby certifies that to the best of their knowledge the application and supporting documents are a factual representation of the proposed project. The landowner or authorized agent agrees that, in making application, the landowner grants permission to Aitkin County, at reasonable times, to enter the property to determine compliance of the application with applicable Local, County or State Ordinances or Statutes. It is the applicant's responsibility to contact other Local, County or State agencies to ensure the applicant has complied with all relevant Local, County or State Ordinances or Statutes.

Submittal of the above materials does not always constitute a complete application. Other information may be necessary to complete the application based on the type of request and onsite inspection.

I acknowledge that by submitting this application, the application and its attachments are public information.

OneGov

## Invoice #59083 (12/07/2023) Expected Payment Method: Pay Online - Card or ECheck

Charge	Cost	Quantity	Total
Recording Fee added 12/07/2023 10:09 AM \$46 Flat Fee	\$46.00	x 1	\$46.00
<b>Variance</b> added 12/07/2023 10:09 AM \$650 Flat Fee	\$650.00	x 1	\$650.00
Grand Total			
		Total	\$696.00
		Payment 12/07/2023	\$696.00
		Due	\$0.00

# Results (Go to top) Signature accepted Failed to send Variance Ready for Action notification to:

### Approvals

Approval	Signature
Applicant	Wendy Gamache - 12/07/2023 10:30 AM
	7fccad07f4da13ef4109b71ed87f7ab0
	1af8bcca48295c43ea91ca984e8b3e77
#1 Admin	Kim Burton - 12/11/2023 9:22 AM
	d2d06219ea5c8b951218d057365992a0
	5c5b4e613a635e97a03f8d7b66dc9d10
#2 Board of Adjustment	

#### Public Notes

Teret		
Text:		
File(s):		
riie(s).	r	
	L	

# Admin Checklist

This review has been started by:	Kim Burton 🗸
Zoning District of project location:	Shoreland V
Project located in the floodplain?	No 🗸
Is the parcel a Lot of Record before 1-21-92 or have alternate sites been identified?	Yes 🗸
Is this an after-the-fact application?	No 🗸

Numbers

	Current Number	Next from Sequence	
UID #	209414	not applicable	
Арр. #	App-2023-001336	«« App-2023-001341	
Permit #		<b>««</b> 2023-1194	

Print View

# PART I: SUPPLEMENTAL DATA TO VARIANCE APPLICATION

Aitkin County Environmental Services 307 Second St. NW, Room 219, Aitkin, MN 56431 Phone: 218.927.7342 Fax: 218.927.4372 www.co.aitkin.mn.us

**Note:** Place an "X" by each item below that applies to your variance request. Then, fill out **only** the applicable following section(s) that apply, as directed. **If a section does not apply to your request, leave it blank.** 

What is the reason(s) for applying for the variance? Place an "X" by each applicable item.

- \_\_\_\_\_ Setback issues for a proposed new structure: Complete Section 1
- \_\_\_\_\_ Setback issues for an alteration to an existing nonconforming structure: Complete Section 2
- \_\_\_\_\_ Setback issues for a septic system: Complete Section 3
- \_\_\_\_ Land alteration: Complete Section 4
- \_\_\_\_ Creating a lot not in conformance with the minimum Ordinance standards: Complete Section 5
- \_\_\_\_ Other: attach separate sheet explaining variance request

# Section 1 – New Structure(s)

Check all that apply and fill in requested information:

Basement	One Story Level
Crawlspace	Story-and-a-Half Level
Walk-out Basement	2 <sup>nd</sup> Story Level
Proposed # of Bedrooms	Proposed Structure Height ft.
Existing Total Building Coverage%	Proposed Total Building Coverage%
Existing Total Impervious Surface Coverage%	Proposed Total Impervious Surface Coverage%

"Building Coverage" means the ground surface covered by any building or appurtenance, including, but not limited to, decks, platforms, overhangs and projections therefrom, outdoor furnaces, fishhouses, sheds, carports, lean-to's, or any similar building. —as per the Aitkin County Shoreland Management Ordinance.

"Impervious surface coverage" means any structure, facility or surface that sheds water including structures and facilities, sewage treatment system absorption areas (equal to 190 sq.ft./bedroom), retaining walls, and roadway surfaces and parking areas. Impervious surface does not include eaves of two feet and less. – Per the Aitkin Count Shoreland Management Ordinance.

Itemized square footage of proposed structure(s):

Check the item(s) from which you are requesting a variance and fill in the proposed setback distance. \* Setbacks are measured to the nearest point on a structure which can be the eave overhang or an attached deck/platform.

Proposed Structure Type (indicate with or without living quarters)\_\_\_\_\_\_

Ordinary High Water Level (OHWL)	Proposed Setback	ft.
Property Line	Proposed Setback	ft.
Road Right-of way Twp Co State	Proposed Setback	ft.
Bluff	Proposed Setback	ft.
Other:	Proposed Setback	ft.
Other:	Troposed Setback	IC.

# Section 2 – Alteration(s) to Existing Nonconforming Structure(s)

Check all that apply and fill in requested information:

Existing Structure	Proposed Addition(s)	
Basement	Basement	
Crawlspace	Crawlspace	
Walk-out Basement	Walk-out Basement	
One Story Level	One Story Level	
Story-and-a-Half Level	Story-and-a-Half Level	
2 <sup>nd</sup> Story Level	2 <sup>nd</sup> Story Level	
Existing Structure Height ft.	Proposed Addition(s) Height ft.	
Existing # of Bedrooms	Final # of bedrooms after remodel	
Existing Building Coverage%	Proposed Building Coverage%	
Existing Total Impervious Surface Coverage%	Proposed Total Impervious Surface Coverage%	

"Building Coverage" means the ground surface covered by any building or appurtenance, including, but not limited to, decks, platforms, overhangs and projections therefrom, outdoor furnaces, fishhouses, sheds, carports, lean-to's, or any similar building. —as per the Aitkin County Shoreland Management Ordinance.

"Impervious surface coverage" means any structure, facility or surface that sheds water including structures and facilities, sewage treatment system absorption areas (equal to 190 sq.ft./bedroom), retaining walls, and roadway surfaces and parking areas. Impervious surface does not include eaves of two feet and less. – Per the Aitkin Count Shoreland Management Ordinance.

Itemized square footage of proposed structure(s):

Check the item(s) from which you are requesting a variance and fill in the proposed setback distance. \* Setbacks are measured to the nearest point on a structure which can be the eave overhang or an attached deck/platform.

Proposed Alteration Type \_\_\_\_\_\_

Ordinary High Water Level (OHWL)	Existing Setback ft.	Proposed Setback	ft.
Property Line	Existing Setbackft.	Proposed Setback	ft.
Road Right-of way Twp Co State	Existing Setbackft.	Proposed Setback	ft.
Bluff	Existing Setbackft.	Proposed Setback	ft.
Other:	Existing Setbackft.	Proposed Setback	ft.

# Section 3 – Septic System

Check the item(s) from which you are requesting a variance and fill in the proposed setback distance.

Ordinary High Water Level (OHWL)	Proposed Setback ft.
Property Line	Proposed Setback 🔄 🗋 ft.
Road Right-of way Twp Co State	Proposed Setback ft.
Bluff	Proposed Setback ft.
Other:	Proposed Setback ft.

# Section 4 – Land Alteration

What is your land alteration? Check all categories that apply and indicate the total amount of excavation or placement of fill.

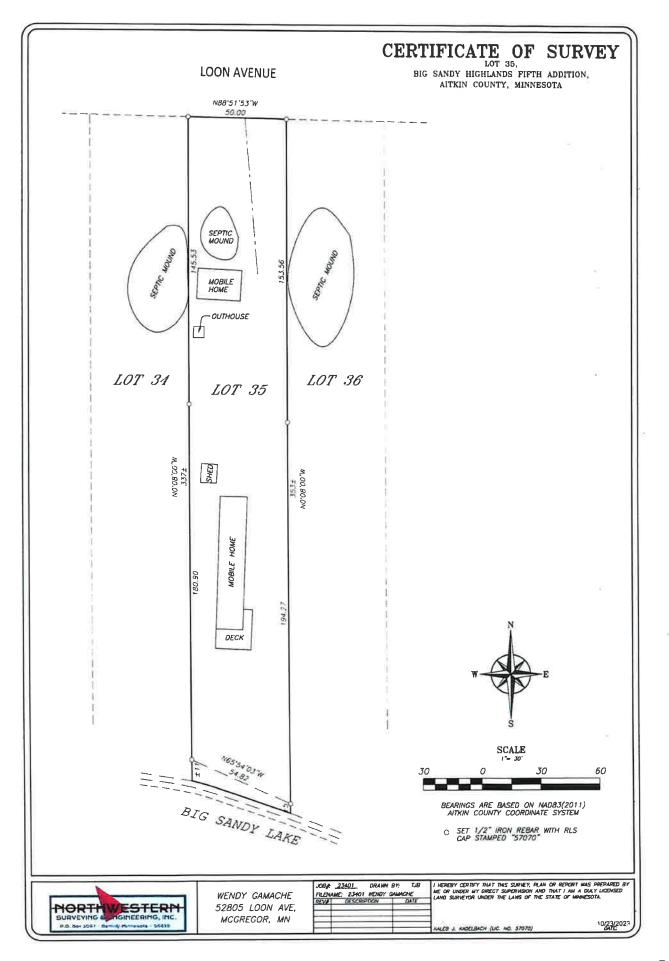
More than 10 cubic yards on steep slopes and	Total Cubic Yds
shore and bluff impact zones.	
Other:	Total Cubic Yds.

# Section 5 – Creating Nonconforming Lot(s)

Check the item(s) from which you are requesting a variance and fill in the proposed dimensions.

- \_\_\_\_\_ Property Width
- \_\_\_\_\_ Property Area
- \_\_\_\_\_ (2) Standard Septic Sites
- \_\_\_\_\_ Legal Access

Proposed Property Width \_\_\_\_\_\_ Proposed Property Area \_\_\_\_\_\_



# **Preliminary & Field Evaluation Form**

Type III Mound

www.SepticResource.com vers 12.4

Owner Information			
Date	11/29/2023	Sec / Twp / Rng	S-34, T-50, R-23
Parcel ID	32-1-061900	LUG (county, city, township)	Aitkin Co.
Property Owner:	Wendy Gamache	Owners address (if different)	
Property Address:	52805 Loon Ave. McGregor MN 55760	0 10 Farmstead Rd	
City / State / Zip:		Esko MN 55733	

Flow Information and Waste Type / Strength				
Estimated Design flow <u>300</u>	Anticipated Waste strength	Hi Strength	✓ Domestic	
Comments: Type III Mound	Any Non-Domestic Waste	Yes (class V)	✓ No	
Type III Mound 8" to mottles & onDisturbed soils. Requires an Aitkin Co Operating Permit	Sewage ejector/grinder pump	Yes	✓ No	
May require a variance for absorption width 10 ft from West property line.	Water softener	Yes	✓ No	
Both Neighbor's (East & West) mound rockbeds are Less than 15 ft to property line.	Garbage Disposal	Yes	✓ No	
Follow Aitkin County Operating permit requirments.	Daycare / In home business	Yes	✓ No	

Site Information					
Existing & proposed lot improvements located (see site map	) Yes	✓ No	Well casing depth Ex	isting Deep and	Shallow wells
Easements on lot located (see site map)	Yes	✓ No	Drainfield w/in 100' of residential well	Yes	✓ No
Property lines determinedImage: YesNoSite w/in 200' of transientYesImage: No(see site map)Surveyednoncommunity water supply (TNCWS)					✓ No
Req'd setbacks determined (see site map)	Yes	✓ No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	Yes	✓ No
Utilities located & identified (gopher state one call)	Yes	V No	Buried water supply pipe w/in 50' of system	Yes	✓ No
Access for system maintenance (shown on site map)	✓ Yes	No No	Site located in Shoreland (w/in 1000' of lake, 300' of rive	√ Yes	No No
Soil treatment area protected	✓ Yes	No No	Site map prepared with previous items included	✓ Yes	No No
Construction related issues	truction related issues New mound West berm will be right on the West property line				
	West Neighbor's mound is to the East property line. (He is Ok with berm on line)				
May need a variance for Aborpsion width 10 ft from property line.( Code is 15 ft )					

		Soil Information
Original soils	🗌 Yes 🗹 N	Evidence of site:       Yes       No         Cut       Yes       No         Filled       Yes       No         Compacted       Yes       No         Disturbed       Yes       No
Soil logs completed and attached	🗸 Yes 🗌 N	Perk test completed and Yes Vo attached (if applicable)
Soil loading rate (gpd/ft <sup>2</sup> )	0.60	Percolation rate (if applicable)
Depth/elev to SHWT Depth to system bottom	<u>8"</u> ( + 36" )	Flooding or run-on potential Yes Vo (comments)
maximum (or elev minimum) Depth/elev to standing water (if applicable)		Flood elevation (if applicable)
Depth/elev to bedrock (if applicable)		Elevation of ordinary high water level (if applicable) 1216.5
Soil Survey information determined (see attachment)	🗸 Yes 🗌 N	Floodplain designation and elev - 100 yr/10 yr (if applicable) <u>1223.9</u> Estimated Mound Area Elevation 1242' from Aitkin Co. GIS Map
Differences between soil survey and field evaluation (if applicable)		

I hereby certify this evaluation was completed in accordance with MN 7080 and any local req's.

Designer Signature

Brummer Septic LLC.

Company

L-1347

License #

# **Soil Observation Log**

	Owner Information	www.sep	tickesource.com vers 12	.4
Property Owner / project:	Wendy Gamache	Date	11/29/2023	
Property Address / PID:	52805 Loon Ave. McGregor MN 557			

		Soil Survey	Information	refer to attach	ed soil survey
Parent matl's:	✓ Till	Outwash	Lacustrine Alluviun	n 🗌 Organic	Bedrock
landscape position:	Summit	Shoulder	Side slope	Toe slope	
soil survey map units:	504B	_	slope 0 %	direction	

Г

Soil Log #1							
			Pit Elevation		Depth to SHWT	8"	_
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 8	Silt Loam	<35	10YR 5/3		Friable	Loose	Blocky
8 - 12	Silt Loam	<35	10YR 5/3	7.5YR5/6	Friable	Loose	Blocky
Comments:							

52805 Loo	2805 Loon Ave. McGregor MN 55760Soil Log #2						
		Boring	] Pit Elevation	96.9'	Depth to SHWT	8"	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 8	Silt Loam	<35	10YR 5/3		Friable	Loose	Blocky
8 - 12	Silt Loam	<35	10YR 5/3	7.5YR5/6	Friable	Loose	Blocky
						-	
52805 Loo	n Ave. McGrego	or MN 5576	0 <b>S</b>	oil Log #3			
	✓ Bo	oring 🗌 Pi	t Elevation	96.9'	Depth to SHWT	8"	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 8	Silt Loam	<35	10YR 5/3		Friable	Loose	Blocky
8 - 12	Silt Loam	<35	10YR 5/3	7.5YR5/6	Friable	Loose	Blocky
8 - 12	Silt Loam	<35	10YR 5/3	7.5YR5/6	Friable	Loose	Blocky

I hereby certify this work was completed in accordance with MN 7080 and any local req's.

Designer Signatur

Brummer Septic LLC.

Company

L-1347

License #

Page 4 of 27B

52805 L001	n Ave. McGreg			oil Log #4			
		Boring	Pit Elevation	96.9'	Depth to SHWT	8"	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 5	Topsoil Loam	<35	10YR3/2		Loose	Loose	Granular
5 - 8	Silt Loam	<35	10YR 5/3		Friable	Loose	Blocky
8 - 12	Silt Loam	<35	10YR 5/3	7.5YR5/6	Friable	Loose	Blocky
2805 Loor	n Ave. McGreg	or MN 55760	) S	oil Log #5			
	E	oring 🗌 Pit	Elevation		Depth to SHWT	,	
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular bloc prismatic plat massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular bloc prismatic pla massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular bloc prismatic pla massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular bloc prismatic pla massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular bloc prismatic pla massive

I hereby certify this work was completed in accordance with MN 7080 and any local req's.

Designer Signarde

Brummer Septic LLC.

Company

L-1347 License #

	2011 purple code	ound Design	- Aitkin c	ounty	www.SepticResou	irce.com (vers 15.2)
	Property Owner:	Wendy Gamache		Date: 11/2	9/2023	
	Site Address:	52805 Loon Ave. McGregor M	MN 55760	PID:	32-1-061900	
	Comments:	Type III Mound ( 8" to mo	ttles and on Disturb	ed soils ).		
instrue	ctions: = ent	er data =	adjust if desired	= co	omputer calculated	- DO NOT CHANGE!
1)	2 bedroom	Type III Re	esidential	System		
2)	300 GPD design f	low				
3)	No Garbage disp	osal or pumped to septic	Install 1650 Ja	acobson 2/Co	ompartment Septic/	Pump Tank.
4)	1000 Gal Septic ta	nk (code minimum)		ptic tank (de ptions: none	esign size / LUG req	ł'd)
5)	1.2 GPD/ft <sup>2</sup> mou	nd sand loading rate	contour loading	rate of 12	req's a min	25 ft. long rockbed
6)	6.0 ft rockbed v	vidth 42.0 ft rockbe	ed length			
7)	3.0 ft lateral spa		ation spacing	(maximum o	of 3 for both)	
8)	2 laterals		14.0 perfs / latera /2 a perf means the	l 28	perfs total	feed manifold)
9)	1/4" inch perfs at			-	ate per perforation	×
	for this perf size & sp	pacing, & pipe size on line	12, max perfs/later	al = 16	, line #8 must be	e less> OK
10)	6.0 doses per da	y ( 4 minimum)			-	
11)	50 gallons per d	ose (treatment volume)				
						1.50 5x
12)	1.50 inch diamete	er laterals must be used to a	meet "4x pipe volun	ne" requirem	ent	2.00 3x
13)	30 feet of	2.0 inch supply line	leads to 5		rainback volume	
14)	55 gallons TOTA	L pump out volume (treatm	ment + drainback)	(Tip: "top fe	ed" manifold to co	ntrol the drainback)
15)	12 feet vertical	lift from pump to mound la	aterals, leads to a:			
16)	21 GPM @	18 feet of head, Pur		(note: >50g	pm may require an	extra 3-6' of head)
17)	500 gal Dose tanl	k (code minimum)	533 gal Dose tank	(design size	/ LUG req'd)	at 12.69 gpi
18)	leads to a	n Demand float, or tim	ed dosing of 2.6	min ON	(confirm pump r	ata with drawdawa
18)		Average flow, =70% of Peak	-	hrs OFF	test and adjust a	ate with drawdown as necessary)
19)		bottom of tank to "Pump O		-		
20) 21)		bottom of tank to "Pump O bottom of tank to "Hi Level		-	Timer ON" float if ti Hi Level" float if tin	
22)		ve capacity (after High Le				

23)       0.60 gpd/ft <sup>2</sup> Absorption area Soil Loading Rate, (this must match the soil boring log)       which gives a mound ratio of 2 desired mound ratio 2.0       (minimum)
24)     0     percent site slope     (0-20% range)     0     (% downslope site slope, if different than upslope)
25)       0       inches, or       0.0       ft. to Redox or other limiting condition       (need at least 12" to be a Type I)         Treatment zone contains       0       inches of 0% soil credit, and       0       inches of 50% soil credit. Giving a:         26)       36       inch, or       3.0       ft. Sand Lift Mound       CRITICAL FOR FUTURE CERTIFICATIONS!!!
<ul> <li>27) 12.0 ft. base absorption width (with sand beyond rockbed as follows:)</li> <li>16.0 greater of: absorption width OR sand slope</li> <li>28) 3.0 ft. upslope and sideslope sand upslope 5.0</li> <li>3.0 ft. Downslope sand down slope 5.0</li> <li>Individual slope ratios give BERM widths (topsoil beyond rockbed) of:</li> <li>29) 3:1 upslope ratio 15 ft. upslope berm</li> <li>30) 3:1 sideslope 15 ft. sideslope berms</li> <li>31) 3:1 downslope 15 ft. downslope berm</li> </ul>
32)Overall Dimensions:6.0ft. wide by42.0ft. long Rock bed36ft. wide by72ft. long Mound footprint
4" inspection pipe 4" inspection pipe 18" cover on top 15 12" cover on sides (6" loamy cap & 6" topsoil) 3.0 Clean sand lift
0.0 Depth to Limiting Limiting Condition Absorption Width 16.0
Note: For 0 to 1% slopes, <i>Absorption Width</i> is measured from the <i>Bed</i> equally in both directions. For slopes >1%, <i>Absorption Width</i> is measured downhill from the upslope edge of the <i>Bed</i> .
33)Rock Bed:6.0ft. by42.0ft. by9inches under pipe, plus 20% gives12yd³ or *1.4=17ton
Mound Sand: (note: volume is based on 3:1/4:1 slope from top of rockbed, Exchange sand for loamy cap if desired) 58.7 up + 58.7 downslope + 10.7 ends + 28.0 under rock = 187 yd <sup>3</sup> or *1.4= 262 ton plus 20%
35)       Loamy Cap:         32       ft. by 68       ft. 6" deep, plus 20% gives         49       yd³ or *1.4=         69       ton
36)       Topsoil:         36       ft. by       72         ft. by       72 <tr< td=""></tr<>
I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.         Image: Designer Signature       Brummer Septic LLC.       L-1347       11/29/2023         Designer Signature       Company       License#       Date

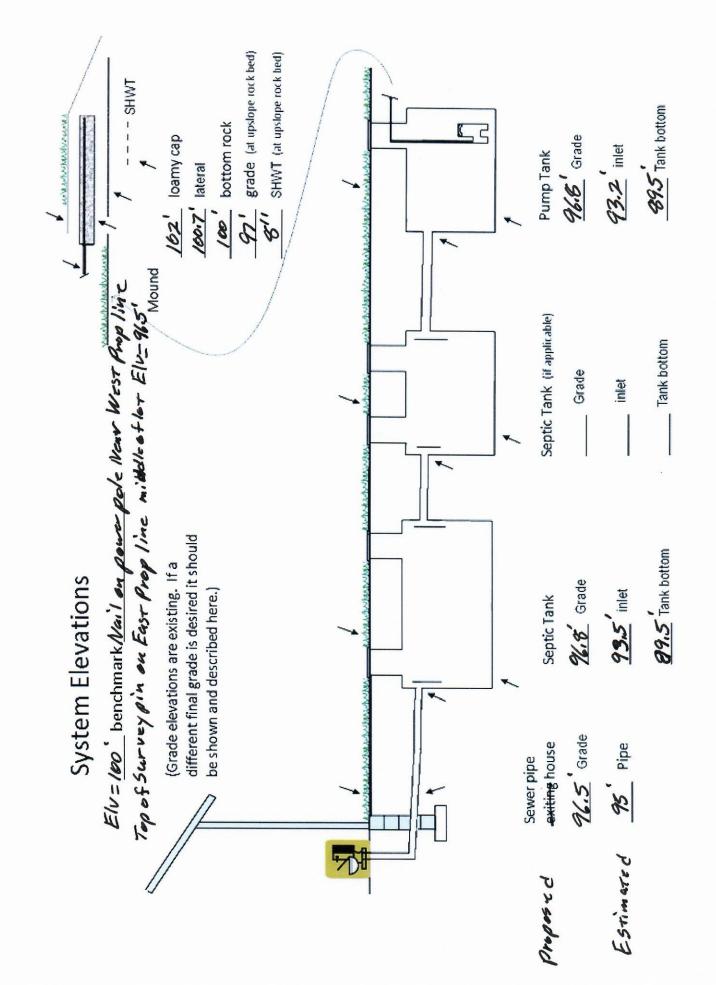
# **Installer Summary**

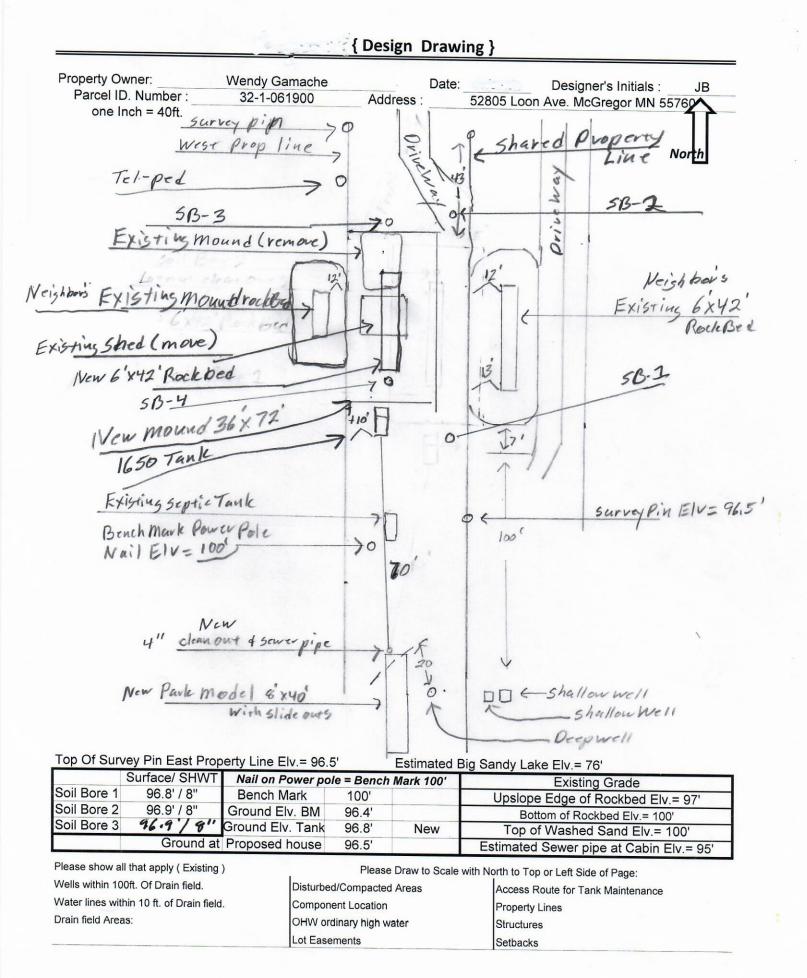
1120 gallon Septic tank (minimum) Tank options: none
533Install 1650 Jacobson 2/Compartment Septic/Pump Tank.533gallon Dose tank (minimum)at12.69gpi
21       GPM @       18       ft. of head, Pump required         4.3       inch swing on Demand float       which translates to roughly       3.2       inches of float tether length         if time dosing is required>         2.6       minutes ON time &       6       hours OFF time
16inches from bottom of tank to "pump ON" float, or12inches to "timer ON" float19inches from bottom of tank to "Hi Level Alarm" or29inches to "Hi level alarm" if time dosed
30ft. of2.0inch supply linewith end feedmanifold connection (Tip: "top feed" manifold to control drainback)36inch, or 6.03.0ft. Sand Lift Mound 42.0ft. long Rock bed2laterals1.50inch diameter40.0ft. long3.0ft. lateral spacing1/4"inch perfs3.0ft. perforation spacingft. long1.0ft. lateral spacing
NoEffluent filter & alarm2clean out & valve box assemblies
16.0       ft. Total sand ABSORPTION width (minimum)         5.0       ft. upslope and sideslope (sand beyond rockbed, minimum)         5.0       ft. Downslope (sand beyond rockbed, minimum)         Specific slope ratios give BERM widths (topsoil beyond rockbed) of:         3:1       upslope ratio
3:1sideslope15ft. sideslope berms3:1downslope15ft. downslope berm
4" inspection pipe 18" cover on top L Downslope berm 15
12" cover on sides       3.0   Clean sand lift
0.0     Depth to Limiting       Limiting Condition     Absorption Width 16.0       Note:     Absorption Width 16.0
For 0 to 10 classes the section Width is measured from the 2 days that is the interview.

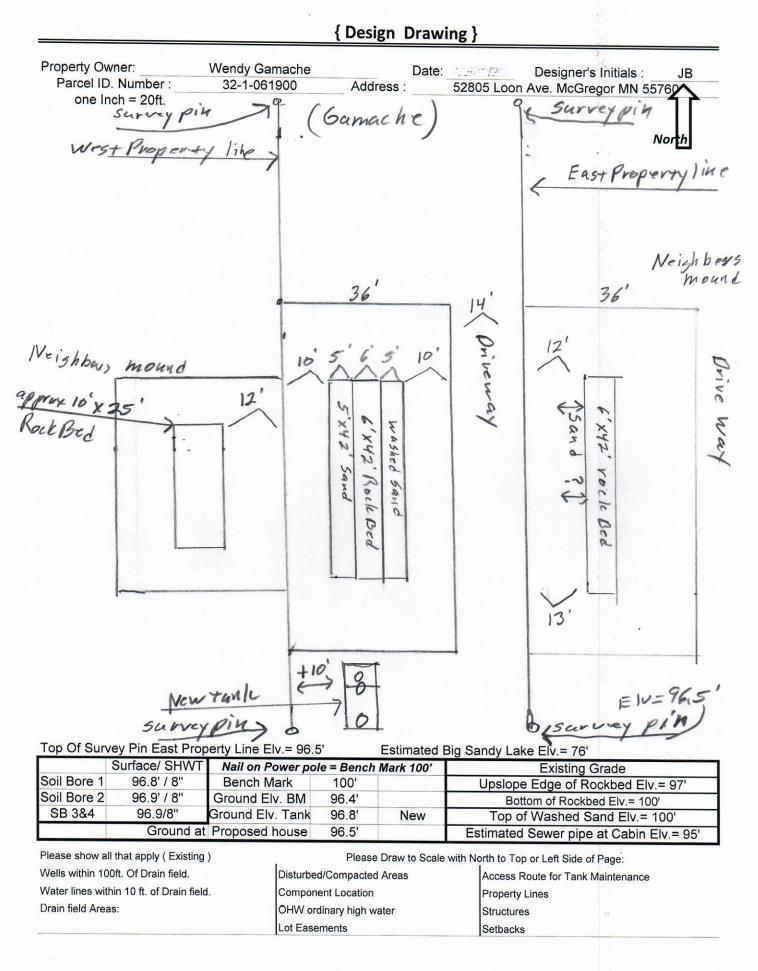
For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both directions. For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Bed*.

Rock Bed:	12.0	yd <sup>3</sup> or *1.4=	17	ton	9	inches under pipe
Mound Sand:	187	yd <sup>3</sup> or *1.4=	262	ton		
Loamy Cap:	49	yd <sup>3</sup> or *1.4=	69	ton	6" de	ep
Topsoil:	58	yd <sup>3</sup> or *1.4=	81	ton	6" de	ер

	52805 Loon Ave. McGregor Mi	INSPECTOR CHECKLIST - mound
	WELL setbacks:	
	WEEL Setbacks.	20' to pressure tested sewer line (5 psi for 15 min) 50' to everything 100' to dispersal area with shallow well
	PROPERTY LINES setback:	50' to everything 100' to dispersal area with shallow well 10' to everything
	Road setback:	
		platted: 10' prop line. Metes & bounds: out of road easement, or outer ditch.
	Building setbacks:	20' for bluff. Lakes: GD, RD, NE Protected wetland
		10' for everything, 20' for dispersal area.
	WATER LINE under pressure se	10' to bed, tank & sewer line. (else sewer line > 12" below, else ok w/pvc)
	Sower line & haffle connection	
		on (no 90's, 3' between 45's, slope min 1" in 8', max 2" in 8') In out every 100', Sch 40 pipe)
	(no deptil reds, clea	n ouc every 100; sch 40 pipe)
	Septic tank and risers (water mfg	r tight, insulated, proper depth, existing verified by pumping) 1120 gallons none
	Riser over outlet, riser over	inlet or center, and 6"+ inspection pipe over any remaining baffles.
	No effluent filter & alarr	
	Dose tank risers and piping (	water tight, insulated, proper depth, drainback)
	mfg	533 gallons
	dose pump	gpm18 head VERIFY PUMP CURVE2.6 min ON6 hr OFF
		inches at 12.7 gpi "DESIGNED" 3.2 inches approx float tether length
		gal dose divided bygpi "INSTALLED" =inches float drop (field corrected
_		nents and drawdown on riser or panel
		de - 30" max. J-hook weep hole. Supply line access (no hard 90's)
		40, sloped 1/8"+, supported by 4" sch40 sleeve or compacted, and buried 6"+.
	splice box / control panel / e	
		time dosed, home water meter
	mound absorption area rough	
	mound rock dimensions	$\frac{6.0}{1.00}$ X $\frac{42.0}{1.00}$
	Sand lift depth 36	inches. (Jar test : 2" sand leaves < 1/8" silt after 30 min)
	Absorption Sand beyond rock	5.0 upslope 5.0 downslope
	Bermed topsoil beyond rockb	ed
	cover depth of 12-18"+	VERIFY
	laterals (1-2' from e	
	1.50 inch pipe size	(Sch40 pipe & fittings)
	3.0 ft lateral spacing	
	1/4" inch perforations	
	3.0 ft perforation spacing	g
		and at top feed manifold if necessary. VERIFY
	clean outs (no hard 90's)	
	4" inspection pipe to bottom	of rock, anchored VERIFY
	Abandon existing system - if	necessary Re-use existing tank certification
$\vdash$	monitoring plan and type	
$\vdash$	well abandonment form - if	necessary







# Mound Design Notes - Aitkin county

Property Owner:	Wendy Gamache	Date:	11/29/23	
Site Address:	52805 Loon Ave. McGregor MN 55760	PID:	32-1-061900	
Comments:	See Notes on shared property lin	ne easement r	easons. ( next Pag	e)

1 This is a type III mound , ( Soil Separation 8" ) sized for a 2 bedroom system. Constructed on same site as existing mound and old shed. Disturbed soils.

- 2 There is an existing deep well near trailer house, Neighbors 2 Shallow wells are near same deep well.
- 3 Existing tank to be pumped collapsed, filled, or removed. Existing Mound will be removed to good original soils. Existing Shed / cabin to be moved.
- 4 The Proposed house (Park Model) will be gravity flow from NW corner of house, install clean-out near house. The new sewer pipe once outside of the park model foot print must be 20 ft from any well. Owner will have to locate Park model to insure that sewer pipe is 20 ft away from well. Air test new sewer pipe.
- 5 Lot is Flat, install 1650 Jacobson compartment tank for gravity flow from house. Install tank low enough for drainback from mound to pump tank.
- 6 The berm slopes are at 3:1, lot is only 50 ft wide. West mound berm will be on the West property line. See notes on Aitkin Co. Possible variance on this mound.
- 7 Elevation contour of rock bed upslope edge is 97'. North berm will be approx. 43 ft. from property line/ RW. The area size of the rock bed is 6' x 42'. Absorption area is 42' x 16'.
  Sand absorption area is 5 ft. up slope + 6 ft. rockbed + 5 ft. downslope = 16ft. wide sand base.
  Berms are 15ft. Upslope, 15ft. Down slope, 6ft. Rock bed = approx. 36ft. Wide.
  Overall mound size is approx. 36' wide x 72' long and approx. 5' high. End berms are 15ft. Wide.
- 8 The bench mark is the nail on the Power Pole near West Property line BM = Elv. 100'. Installer to double check bench mark. Installer should confirm bench mark and sand height Elv. with inspector. Installer should record bench mark Elv. and sand height on installation inspection form. The top of the sand and bottom of rock bed is Elv. 100'.
- 9 It is important that the soils do not get compacted, and that clean Washed sand is used. If old Mound / Shed area is compacted, remove (Subcut area and fill with washed sand).
- 10 The Jacobson 1650 tank will be gravity flow from dwelling. Install the pump for 6 demand doses per day. approx. 55 gallons per dose, 4.3 inches of tank level. Install alarm at 3 inches from pump on level. Install all manholes, inspection pipes and clean-outs to grade or above. (Recommend min. 4" above grade)

Recommend Raising tank manholes at least 4" above finished grade. Shape tank area to shed surface water. Install a 2" supply pipe from tank to end manifold in rock bed, install so pipe drains back to tank.

Install 1.5" laterals with 9" of rock under them. (Install Lateral clean-outs at far end of laterals. Recommended )

# 11 Drill 1/4" perf holes spaced 3 ft. on center.

Install 4" inspection pipe to bottom of rock bed, secure in rock bed and raise to above final grade.

12 Install Event counter on Effluent pump, calibrate pump and give gallons per event to Owner.

13 Designer does not guarantee or warranty any Type III systems.

Designed to Aitkin Co and MPCA recommendations and requirements.

mm Signature Desia

Brummer Septic LLC. Design Company

-1347 License#

This System will require an Aitkin Co. Operator permit, annual inspection Owner and installer are responsible for owner knowing how system is maintained.

# Possible Variance Mound Design Notes - Aitkin county

Property Owner:	Gamache & RXXXXXX	Date:	11/29/23
Site Address:	52805 Loon Ave. McGregor MN 55760	PID:	32-1-061900 & 32-1-062000
Comments:	Shared property line Us	e And Reaso	ns whv

1 Gamache has to install a new Type III mound 2 bedroom. The lot is 50 ft wide. has New mound design gas been design as narrow as possible to allow for a driveway on east side of proposed mound To fit on lot where existing mound is to be removed.

2 Gamache may / will need a variance for absorption width to West property line. Gamache's proposed mound absorption area will be 10 ft from property line. Aitkin Co, Code for absorption area setback to property line is 15 ft.

4 Both of the Neighbors (Nielsen on the West) (Rodriques on the East) have mounds.
Both of these mounds have rockbeds that are closer than 15 ft to their property line.
The designer could not tell how close the Sand (Absorption area) is to the property line.
But both are less that 15 ft.

- 5 Gamache's mound will be as high as Rodriques's mound, with approx. 14 ft between the berms for a driveway. Rodriques's mound is on East property line.
- 6 Nielsen's mound is on the West property line. Nielsen is OK with Gamache's mound right on the line.
- 7 The way all 3 of these mounds are/ were installed they should be able to be replaced with out damage to each other.

Designed to Aitkin Co. and MPCA recommendations and requirements.

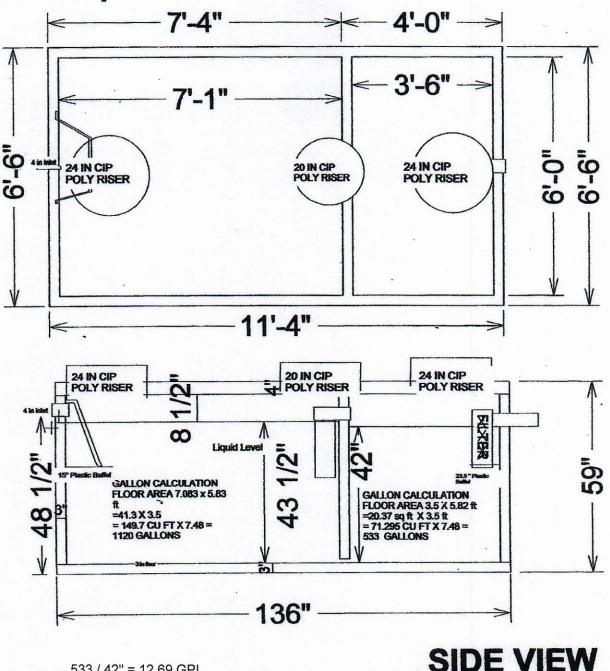
er Signature

Brummer Septic LLC. Design Company

L-1347 License#

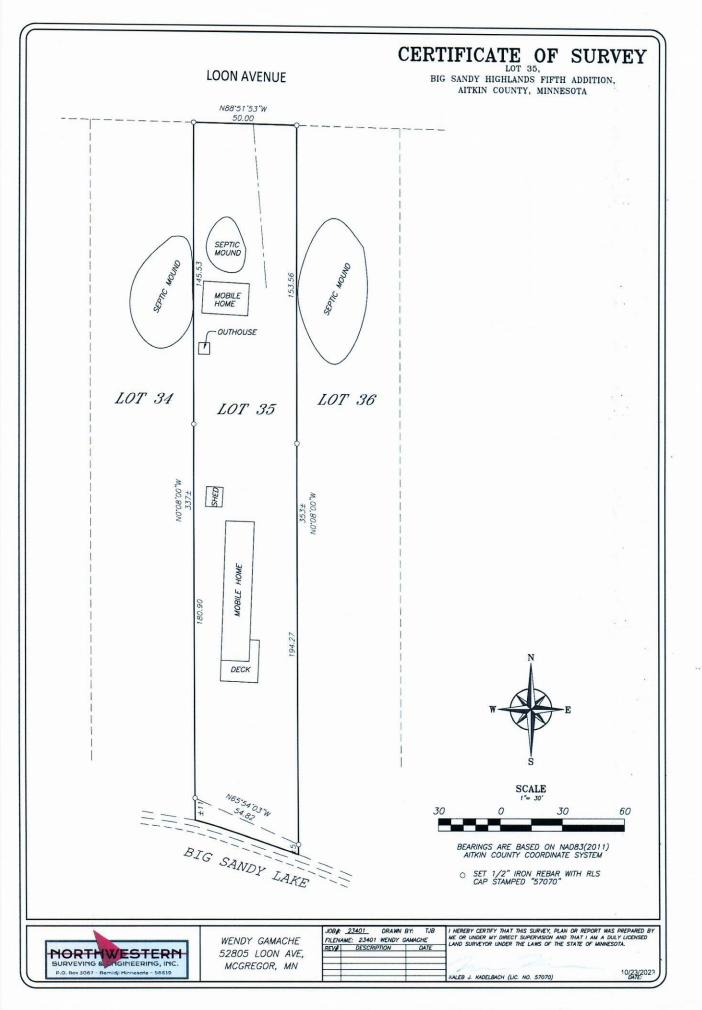
# 1650 Gallon 2 Compartment Septic Tank

**TOP VIEW** 



533 / 42" = 12.69 GPI

Drawings Owned BY Jacobson Precast, Inc. 36641 HWY 169, Aitkin, Mn 56431





# **Detailed Parcel Report**

Parcel Number: 32-1-061900

# **General Information**

Township/City:	TURNER TWP				
Taxpayer Name:	MATTSON, RICHARD M				
Taxpayer Address:	1407 BILLY JON RD				
Property Address:	CLOQUET MN 55720 52805 Loon Ave				
Township:	50	Lake Number:	1006200		
Range:	23	Lake Name:	<b>BIG SANDY LAKE</b>	GD	
Section:	34	Acres:	0.00		
Green Acres:	No	School District:	4.00		
Plat:	BIG SANDY LAKE HIGHLANDS FIFTH ADDITION				
<b>Brief Legal Description:</b>	LOT 35				

# **Tax Information**

OHW - 1216.56 Non-Comm Seasonal Residential Recreational 100 41 Flood 1723.9 Class Code 1: Class Code 2: Unclassified Class Code 3: Unclassified Homestead: Non Homestead **Assessment Year:** 2023

Estimated Land Value:	\$219,500.00
Estimated Building Value:	\$10,100.00
Estimated Total Value:	\$229,600.00
Prior Year Total Taxable Value:	\$186,900.00
Current Year Net Tax (Specials Not Included):	\$1,196.00
Total Special Assessments:	\$0.00
<b>**Current Year Balance Not Including Penalty:</b>	\$0.00
Delinquent Taxes:	No

\* For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.

\*\* Balance Due on a parcel does not include late payment penalties.



# **Detailed Parcel Report**

Parcel Number: 32-1-061800

# **General Information**

General Information		We	St Neighbor
Township/City:	TURNER TWP		
Taxpayer Name:	NIELSEN, WALTER C JR		
Taxpayer Address:	52809 LOON AVE MCGREGOR MN 55760		
Property Address:			
Township:	50	Lake Number:	1006200
Range:	23	Lake Name:	<b>BIG SANDY LAKE</b>
Section:	34	Acres:	0.00
Green Acres:	No	School District:	4.00
Plat:	BIG SANDY LAKE HIGHLANDS FIFTH ADDITION		
Brief Legal Description:	LOT 34		

# **Tax Information**

Class Code 1:	Residential 1-3 units Previously SRR
Class Code 2:	Unclassified
Class Code 3:	Unclassified
Homestead:	Owner Homestead
Assessment Year:	2023

Estimated Land Value:	\$162,500.00
Estimated Building Value:	\$0.00
Estimated Total Value:	\$162,500.00
Prior Year Total Taxable Value:	\$123,800.00
Current Year Net Tax (Specials Not Included):	\$716.00
Total Special Assessments:	\$0.00
<b>**Current Year Balance Not Including Penalty:</b>	\$0.00
Delinquent Taxes:	No

\* For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.

\*\* Balance Due on a parcel does not include late payment penalties.



# **Detailed Parcel Report**

Parcel Number: 32-1-062000

# **General Information**

1.1 / 01.

East Neighbor.

Township/City:	TURNER TWP			
Taxpayer Name:	RODRIQUES, RONALD & WANDA			
Taxpayer Address:	5851 MEADOWVIEW DR			
	WHITE BEAR LAKE MN 55110			
Property Address:	52801 Loon Ave			
Township:	50	Lake Number:	1006200	
Range:	23	Lake Name:	<b>BIG SANDY LAKE</b>	
Section:	34	Acres:	0.00	
Green Acres:	No	School District:	4.00	
Plat:	BIG SANDY LAKE HIGHLANDS FIFTH ADDITION			
<b>Brief Legal Description:</b>	LOT 36			

# **Tax Information**

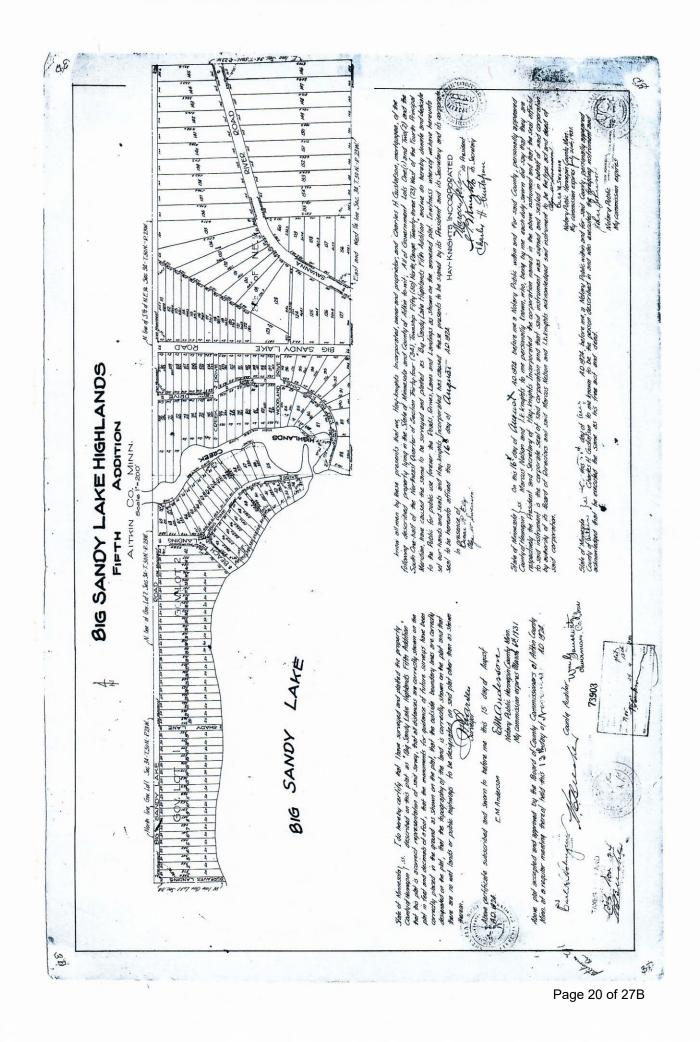
Class Code 1:	Non-Comm Seasonal Residential Recreational
Class Code 2:	Unclassified
Class Code 3:	Unclassified
Homestead:	Non Homestead
Assessment Year:	2023

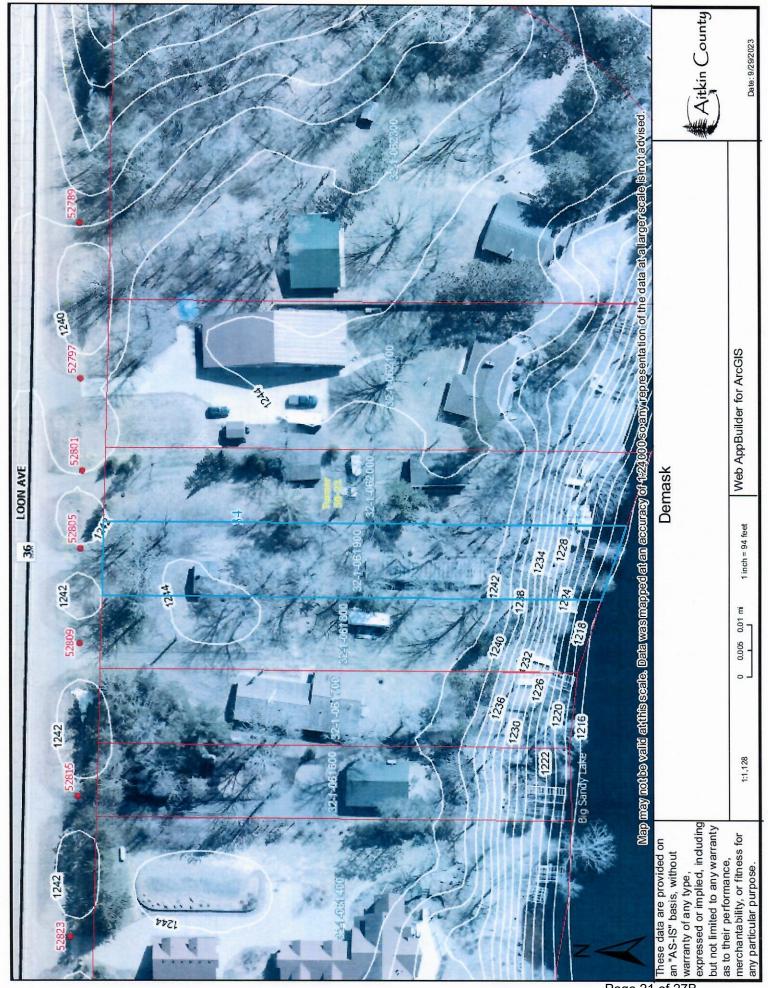
Estimated Land Value:	\$219,500.00
Estimated Building Value:	\$91,700.00
Estimated Total Value:	\$311,200.00
Prior Year Total Taxable Value:	\$263,700.00
Current Year Net Tax (Specials Not Included):	\$1,710.00
Total Special Assessments:	\$0.00
<b>**Current Year Balance Not Including Penalty:</b>	\$0.00
Delinquent Taxes:	No

\* For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.

\*\* Balance Due on a parcel does not include late payment penalties.

p. 1





Page 21 of 27B



National Cooperative Soil Survey

Page 1 of 3

# Aitkin County, Minnesota

## 504B—Duluth fine sandy loam, 1 to 6 percent slopes

### Map Unit Setting

National map unit symbol: gjh7 Elevation: 980 to 1,640 feet Mean annual precipitation: 25 to 30 inches Mean annual air temperature: 39 to 45 degrees F Frost-free period: 120 to 140 days Farmland classification: All areas are prime farmland

#### **Map Unit Composition**

Duluth and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Duluth**

## Setting

Landform: Moraines Landform position (two-dimensional): Backslope, summit Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy till

## **Typical profile**

A - 0 to 3 inches: fine sandy loam E,Bw,2BE,2Bt - 3 to 41 inches: clay loam 2C - 41 to 60 inches: loam

## **Properties and qualities**

Slope: 1 to 6 percent Depth to restrictive feature: More than 80 inches Drainage class: Moderately well drained Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr) Depth to water table: About 13 inches Frequency of flooding: None Frequency of ponding: None Calcium carbonate, maximum content: 5 percent Available water supply, 0 to 60 inches: High (about 10.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C/D Ecological site: F090AY015WI - Loamy Upland with Carbonates Forage suitability group: Sloping Upland, Acid (G090AN006MN) Other vegetative classification: Sloping Upland, Acid (G090AN006MN) Hydric soil rating: No

#### **Minor Components**

### Blackhoof

Percent of map unit: 3 percent Landform: Depressions Hydric soil rating: Yes

### Mahtowa

Percent of map unit: 3 percent Landform: Depressions Hydric soil rating: Yes

## Rifle

Percent of map unit: 3 percent Landform: Bogs Hydric soil rating: Yes

#### Cromwell

Percent of map unit: 2 percent Hydric soil rating: No

## Cutaway

Percent of map unit: 2 percent Hydric soil rating: No

### Dusler

Percent of map unit: 2 percent Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Aitkin County, Minnesota Survey Area Data: Version 24, Sep 9, 2023



## Aitkin County, Minnesota

### 928C—Cushing-Mahtomedi complex, 2 to 10 percent slopes

### Map Unit Setting

National map unit symbol: gjk4 Elevation: 980 to 1,640 feet Mean annual precipitation: 25 to 30 inches Mean annual air temperature: 39 to 45 degrees F Frost-free period: 120 to 140 days Farmland classification: Not prime farmland

#### Map Unit Composition

Cushing and similar soils: 50 percent Mahtomedi and similar soils: 35 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

### **Description of Cushing**

#### Setting

Landform: Moraines Landform position (two-dimensional): Backslope Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy till

### **Typical profile**

E - 0 to 16 inches: very fine sandy loam B/E - 16 to 19 inches: loam Bt - 19 to 44 inches: loam C - 44 to 60 inches: loam

### **Properties and qualities**

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: High (about 9.0 inches)

## Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3e Hydrologic Soil Group: B Ecological site: F090AY015WI - Loamy Upland with Carbonates Forage suitability group: Sloping Upland, Acid (G090AN006MN)

ISDA

Other vegetative classification: Sloping Upland, Acid (G090AN006MN) Hydric soil rating: No

#### **Description of Mahtomedi**

### Setting

Landform: Moraines Landform position (two-dimensional): Backslope Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy and gravelly outwash

#### **Typical profile**

A - 0 to 4 inches: loamy sand E - 4 to 15 inches: coarse sand Bw - 15 to 26 inches: gravelly coarse sand C - 26 to 60 inches: gravelly sand

### **Properties and qualities**

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: A Ecological site: F090AY019WI - Dry Sandy Uplands Forage suitability group: Sandy (G090AN022MN) Other vegetative classification: Sandy (G090AN022MN) Hydric soil rating: No

### **Minor Components**

#### Cathro

Percent of map unit: 4 percent Landform: Bogs Hydric soil rating: Yes

#### Meehan

Percent of map unit: 4 percent Hydric soil rating: No

#### Sandwick

Percent of map unit: 4 percent Landform: Flats Hydric soil rating: Yes

USDA

#### Alstad

Percent of map unit: 3 percent Hydric soil rating: No

## **Data Source Information**

Soil Survey Area: Aitkin County, Minnesota Survey Area Data: Version 24, Sep 9, 2023



## Subsurface Sewage Treatment System Management Plan

Property Owner: Wendy Gamache	Phone:218-391-3058	Date: 10/31/2023
Mailing Address: 10 Farmstead Rd	City: Esko MN 55733	Zip:
Site Address: 52805 Loon Ave.	City: McGregor MN 55760	Zip:

This management plan will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic service provider.

System Designer:	check every 12	2	_ months.
Local Government:	check every 12		months.
State Requirement:	check every	36	months.

My System needs to be checked every <u>12</u> months.

WEEKLY

(State requirements are based on MN Rules Chapter 7080.2450, Subp. 2 & 3)

### **Homeowner Management Tasks**

Leaks – Check (look, listen) for leaks in toilets and dripping faucets. Repair leaks promptly.

*Surfacing sewage* – Regularly check for wet or spongy soil around your soil treatment area.

*Effluent filter – Inspect and clean twice a year or more.* 

- Owner ----> Alarms Alarm signals when there is a problem. Contact a service provider any time an alarm signals.
- Owner ----> Event counter or water meter Record your water use.

-recommend meter readings be conducted (circle one: DAILY

<u>MONTHLY</u>)

### Professional Management Tasks

- Check to make sure tank is not leaking
- □ Check and clean the in-tank effluent filter
- Check the sludge/scum layer levels in all septic tanks
- Recommend if tank should be pumped
- Check inlet and outlet baffles
- Check the drainfield effluent levels in the rock layer
- $\mathbf{Y}$ , Check the pump and alarm system functions
- Check wiring for corrosion and function
- $\hfill\square$  , Check dissolved oxygen and effluent temperature in tank
- $m{ extsf{Y}}$  Provide homeowner with list of results and any action to be taken
- □ Flush and clean laterals if cleanouts exist

"I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in the Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Signa	ure:	Date:
Designer Signature:	Jeff Brummer	Date: 10/31/2023

See Reverse Side for Management Log

## **Maintenance Log**

Activity	Date Accomplished					
Check frequently:						
Leaks: check for plumbing leaks						
Soil treatment area check for surfacing						
Lint filter: check, clean if needed						
Effluent screen: if owner-maintained						
Water usage rate (monitor frequency)						
Check annually:						
Caps: inspect, replace if needed						
Sludge & Scum/Pump						
Inlet & Outlet baffles						
Drainfield effluent leaks						
Pump, alarm, wiring						
Flush & clean laterals if cleanouts exists						
Other:						
Other:						

Notes: Aitkin Co Operating Permit Required Follow Aitkin Co. Operating permit requirements.

Check alarm at least once a year. Pump Tanks at least once every 3 years.

Mow Mound Area at least once a year to keep brush and trees from growing

No Traffic on mound area, No Snowmobiles, No ATV's, No Parking.

Mitigation/corrective action plan:\_\_\_\_\_

P:\PZSHARE\Forms\SSTS Management Plan.docx

## AITKIN COUNTY ENVIRONMENTAL SERVICES

## APPLICATION for an OPERATING PERMIT FOR WASTEWATER TREATMENT AND DISPERSAL

PERMITTEE	Wendy Gamache	PARCEL NUMBER	32-1-061900
ADDRESS	52805 Loon Ave.	McGregor Mn 55760	
LEGAL DESC	RIPTION lot 35 Big Sa	andy Lake Highlands 5th Add.	
TELEPHONE	#218-391-3058	_ GIS LOCATION	
(Attach IS construct	TS site evaluation and e ion, operation, monitori	R TREATMENT AND DISPERS design; estimated cost of sys ing, service, component repla life, hydraulic and organic lo	stem acement, and

Type III because mottles at 8" and on compacted soils.

Type III 2 Bedroom Mound\_36" washed sand under Rockbed. Rockbed is 6' x 42'\_\_\_\_\_

## **B. MONITORING PLAN AND REPORTING FREQUENCY:**

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENCY
FLOW	300 GPD	Event counter	Once a Month or when present		Send Report to Aitkin Co. Once a year
5-DAY BOD					
TOTAL NITROGEN					
TOTAL PHOSPHORUS					
TSS					•
FATS,OILS AND GREASE					
FECAL COLIFORM					
SEPARATION DISTANCE					

Owner will read event counter once a month or when present. Owner will send monthly readings report to

Aitkin co. or the inspector ONCE A YEAR.

will perform the monitoring of this septic system.

## C. MAINTENANCE PLANS

PARAMETER	LOCATION	FREQUENCY
300 gpd	Read Event Counter	Once a month or when present
Calibrate pump out gallons	Measure pump tank and calculate gallons pumped out per event	Calibrate system when installed and in operation. Check calibration number at 1st year inspection and every one after
Report monthly readings to Aitkin Co.	Keep records of monthly readings	Once a year submitt report to Aitkin Co.

### D. MITIGATION PLAN:

Have system Inspected

I hereby certify with my signature as the designer, that all data for the operating permit application is true and correct to the best of my knowledge. I agree to indemnify and hold Altkin County harmless from loses, damages, costs and charges that may be incurred by the County because of the information submitted with this application.

£

Jeff Brummer	L-1347	10/31/2023
Signature	License Number	Date
Jeff Brummer	14650 Agate Ridge Rd Brainerd MN 56401	(218) 821-0704
Name (please print)	Address	Telephone #

c:operatpermit.doc

## MAINTENANCE SERVICE, MONITORING AND INSPECTION CONTRACT FOR INDIVIDUAL SEWAGE TREATMENT SYSTEM

	It is hereby agre	ed this	_day of (Inspector) and _	Wendy (	by and Gamache	between _(client)
	(Client) Name & Wendy	Address / Gamache	52805 Loor	n Ave.	McGrego	<u>r Mn 55</u> 760
Mailing	Street Address _	10 Farmst	ead Rd			_
	City State 7in	Esko M	MN 55733			

City, State, Zip \_\_\_\_\_ESKO MIN 55733 That in consideration of the payments provided herein, the Inspector shall

That in consideration of the payments provided herein, the Inspector shall provide services to perform Preventative Maintenance, Monitoring and Inspection of the Individual Sewage Treatment System (ISTS) located at the property described in the Aitkin County Operating Permit.

Each inspection includes an examination of the ISTS followed by a written report to the client. This inspection report shall contain recommendations for operation and maintenance for failure-preventative measures, if any are deemed appropriate by the inspector and a list of recommended corrective measures or replacement parts. The Inspector is authorized to submit a copy of the report to the Aitkin County Environmental Services Department.

This contract does not assume any responsibilities or obligations, which are normally the responsibilities of the Client, as related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

The Inspector can only contract or subcontract for parts or labor after authorization. Billings for service calls shall be made on a case by case basis. This contract only covers maintenance, monitoring and inspection services per current Aitkin County Operating Permit and does not cover alarm calls of any kind.

The Inspector shall be provided access to the site and the system in order to perform the following services:

## SEPTIC TANK AND LIFT STATIONS INSPECTION

(check the boxes needed to fill the requirements of the Operating Permit)

 $\checkmark$  Check septic tank and compartments for solids buildup and general appearance. If necessary, have tanks pumped (cost of pumping is the responsibility of the client).

\_ Check effluent filter for buildup and clean, if applicable.

Check pumping system, including control panel and floats.

Owner ----> X Record and date the readings of the elapsed time meter and cycle counter(s), if applicable. Owner is respondsible for monthly event counter readings

Check dosing settings (in the control panel, if applicable).

\_\_\_ Other:

\*\*If the septic tank or lift stations need pumping to be in compliance with the operating permit the cost of the pumping is the responsibility of the Client.

### TREATMENT DEVICE

Inspect pretreatment unit (aerobic tank, sand filter, etc.) per manufacturer's recommendations, if applicable.

\_\_\_\_ Inspect and clean any parts per manufacturer's recommendations.

\_\_\_\_\_ Inspect and clean laterals, if applicable.

\_\_\_\_\_ Inspect the appearance of the wastewater inside the unit for color, turbidity and examination of odors.

\_\_\_\_ Sample effluent per Operating Permit monitoring requirements.

(Cost of sampling and analysis is the responsibility of the Client)

Other: \_\_\_\_\_

## **DISPERSAL FIELD**

 $\underline{\checkmark}$  Inspect for visible signs of failure (surface discharge, soggy ground, wet spots, settling, etc.)

✓ If liquid level monitors are installed, levels will be observed and recorded.

\_\_\_\_\_ Flush filters and clean cartridges, if applicable.

\_\_\_\_ Check field control unit solenoid operations or manual control, if applicable.

1.

Other:

In no event shall the Inspector be responsible for special or consequential damages, including but not limited to, loss of time, injury to personal property or any other consequential damages or incidental or economic loss due to equipment failure or for any other reason. This contract does not assume any responsibilities or obligations, which are normally, the responsibility of the Client or as, related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

This contract shall be effective: Beginning At time of Certification of Compliance Installation

and Ending \_\_\_\_\_, \_\_\_\_,

### Cost for Maintenance Service, Monitoring and Inspection Contract is:

\$\_\_\_\_\_\_\_ /yr. For \_\_\_\_\_\_ years totaling \$\_\_\_\_\_To be Determind at time of service

The Inspector agrees to provide inspection, monitoring and routine maintenance service only under this contract. The Client remedies for breach of this contract shall be limited to refund of any of the amounts paid in advance for service. This contract may be renewed 30 days from the ending date.

Payment for all services shall be paid	At 1st inspection and every one after

Client:	Inspec	tor:
Sign:	_ Sign: _	Jeff Brummer
Print:	_ Print: _	Jeff Brummer
Date:	_ Date: _	10/31/2023
		Brummer Septic LLC. 218-821-0704

14650 Agate Ridge Rd Brainerd MN 56401 brummerseptic@gmail.com

{	Type III Design Notes for (	Owner and Installe	r }
Property Owner: Wendy Ga	amache Date:	li	nstaller's Initials :
PIN : 32-1-061900	Site Address:	52805 Loon Ave.	McGregor Mn 55760
This is a TYPE III Septic Sys	stem, Operating Permit Required of	f Owner. Permit #	
Reason for Type III	Mottles at 8" and on compac	ted soils.	
Description of System	Type III 2 Bedroom Mound	36" washed sand u	nder Rockbed.
	Rockbed is 6' x 42'		
1st Tank Gal.	1st compartment gal.	2nd Comp	3rd
2nd Tank Gal.	1st compartment gal.	2nd Comp	3rd
3rd Tank Gal.	1st compartment gal.	2nd Comp	3rd
1st Pump tank Gal.	1st Pump Brand and mo	del #	
1st Pump GPM	1st Pump Ft. of Head	1st Pump Ga	al. per Dose
1st Pump tank Gal. per inch.	1st Pump Inches per D	ose1st Pu	mp Doses per Day
1st Pump Design GPD	1st Pump Measured dose per o	day Timed	or demand Dose
Time Settings: Minutes ON	Minutes OFF	Inches Pumped af	ter drainback
Notes :			
2nd Pump tank Gal.	2nd Pump Brand and mo	odel #	
2nd Pump GPM	2nd Pump Ft. of Head	2nd Pump G	al. per Dose
2nd Pump tank Gal. per inch.	2nd Pump Inches per D	ose 2nd P	ump Doses per Day
2nd Pump Design GPD	2nd Pump Measured dose per	day Timed	or demand Dose
Time Settings: Minutes ON	Minutes OFF	inches Pumped af	ter drainback
Notes :			
1st Alarm: Tank	Reason:		
2nd Alarm: Tank	Reason:		
3rd Alarm: Tank	Reason:		
Water Meter Installed on house	hold water: Where	is it located :	
Event counter Installed on pum	: Which Pump:		Gal. Per Event
Where is Event Counter Located	:		
Requirement of Operating Pern	nit		
Owner to UNDERSTAND System	Operation: Required to do monthly	y readings of water met	er or event counter.
Owner to record readings every	month that system is being used, s	hould know calculations	for Gal. per day.
Owner to REPORT to Aitkin Co. o	once a year with log of monthly rea	dings and annual Inspec	tion Report
Owner to Hire an Inspector for a	Once a year Inspection of the syst	em's, Operation, Mecha	nical functions,
and Compliance with Operating	Permit.		

## AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING

307 Second Street NW, Room 219 Aitkin, Minnesota 56431



PH: (218) 927-7342 FX: (218) 927-4372

## PART VI: VARIANCE APPLICATION

## <u>"Aitkin County Shoreland Performance" Worksheet</u> Instructions:

Are you applying for a variance from the Aitkin County Shoreland Management Ordinance? If so, you <u>must</u> complete the "Aitkin County Shoreland Performance" sheet. This is used as an attempt to evaluate your property and project as it relates to the required setbacks and the intent of the Ordinance to protect water quality, habitat and aesthetics. Your project will receive a ranking/score that relates to a "percentage" of compliance with the Department of Natural Resources guidelines and Aitkin County Ordinances.

<u>STEP 1:</u> Determine the level of non-conformance and score by completing 1-5 on the worksheet. The actual setback will be multiplied by the corresponding 'score multiplier' to determine your "Pre-mitigation Lot Score".

# <u>STEP 2:</u> Review the mitigation options and circle those that you would be willing to implement as a condition of your variance. See letters A-J.

\*As a note, if you will be creating a buffer zone or other landscape project as part of your mitigation plan, please be prepared to present an approved plan to the Board of Adjustment. Although not familiar with specifics of the "Aitkin County Shoreland Performance" worksheet, the Aitkin County Soil & Water Conservation District [SWCD] (218-927-7284) and the University of Minnesota Extension Master Gardeners (218-927-2538) may be resources that would be able to provide you with planting suggestions and landscaping ideas.

## <u>STEP 3:</u> A final score is determined by adding your "Pre-mitigation Lot Score" with your "Mitigation Total". *Please note, the property should obtain a* score of 100 or more to meet performance standard requirements.

After a practical difficulty has been determined, the Board of Adjustment may use the "Aitkin County Shoreland Performance" sheet submitted with your application and/or use their own completed sheet to attempt to mitigate impacts to the water-body and/or adjoining properties.

If you have any questions, please contact Aitkin County Environmental Services – Planning & Zoning at (218) 927-7342.

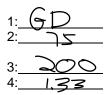
## AITKIN COUNTY SHORELAND PERFORMANCE

(Structure Placement Guidance)

A property should obtain a score of 100 or more to meet performance standard requirements. A conforming lot is assigned a score of 100. A lot is deemed conforming when the structure meets the required setbacks to the protected water as specified in the Aitkin County Shoreland Management Ordinance (SMO). A structure that fails to meet this definition is considered non-conforming.

To determine the level of non-conformance and score (See Reference Table):

- 1) Determine the DNR classification of the protected water on the lot (SMO-4.13 & 4.14) .....
- 2) Determine the required "Structure Setback" to that classification of water (SMO 5.2).....
- 3) Determine the "Actual Setback" of the structure by measuring the closest part of the structure to the protected water, bluff, right-of-way, property line, etc. for which a variance is sought.....
- - standard setback by multiplying the Actual Setback with the 'Score Multiplier' (Note: round to the nearest whole number) .....



Reference Table: Performance Multipliers for structures, septics, bluff, and sidelots in Aitkin County.

Protected Waters Type (DNR Classification; SMO 4.13-4.14)	Required Structure Setback	Score Multiplier Structures	Required Septic Setback	Score Multiplier Septic	Score Multiplier Bluff	Score Multiplier Sidelot
General Development Lake	75'	1.333	75'	1.333	(30' setback) 3.33	(10' setback) 10.000
Recreational Development Lake	100'	1.000	75'	1.333		
Natural Environment Lake	150'	0.667	150'	0.667		
Mississippi River	150'	0.667	125'	0.800		
Tributary Stream	100'	1.000	75'	1.333		
Forested Stream	150'	0.667	100'	1.000		
Remote Stream	200'	0.500	150'	0.667		

Mitigation: To bring a non-conforming structure to a score of 100 the landowner conducts and maintains one or more of the below listed mitigating activities:

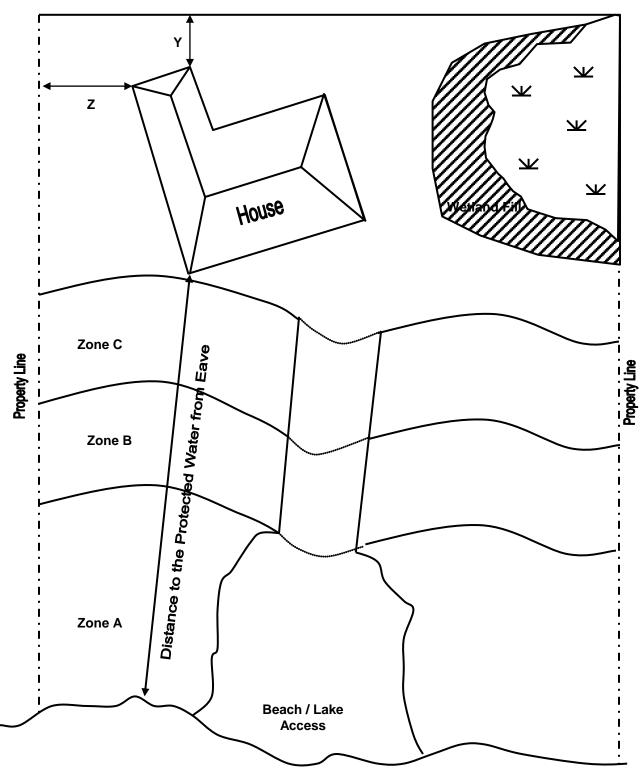
a r	Zone A(1): Plant and/or maintain a 12.5' wide natural vegetated buffer zone adjacent to the OHW and record deed restrictions to maintain vegetation in its natural state, prohibit mowing or vegetation removal.* Water access as defined in the Shoreland Management Ordinance is allowed (Section 5.21 B.2.c)	15 points
ź	5.31.B.2.c) Zone A(2): Plant and/or maintain a 25' wide natural vegetated buffer zone adjacent to the OHW and record deed restrictions to maintain vegetation in its natural state, prohibit mowing or vegetation removal.* Water access as defined in the Shoreland Management Ordinance is allowed (Section	15 points
B) 2	5.31.B.2.c) Zone B: Plant and/or maintain an <u>additional</u> 12.5' wide natural vegetated buffer zone between Zone A landward. Record deed restrictions to maintain vegetation in its natural state, prohibit mowing or	30 points
C) 2 E	vegetation removal.* A ten-foot (10') access path is allowed Zone C: Plant and/or maintain an <u>additional</u> 12.5' wide natural vegetated buffer zone between Zone B landward. Record deed restrictions to maintain vegetation in its natural state, prohibit mowing or	20 points
	vegetation removal.* A ten-foot (10') access path is allowed.	10 points
,	Construction of rain garden(s) to Wisconsin DNR Manual specifications	20 points
Ŵ	vater oriented structures	20 points
	Removal of impervious surfaces to at least half ordinance limits (SMO 5.52.A)	10 points
	deed	10 points
	Re-vegetate bluff or steep slopes* and provide screening of structures from the lake	10 points
	subsurface drains, wetlands, etc. with no outlet to the lake or tributary	10 points
	Existing conditions may apply on the property that warrant credit	

Final Score = Pre-mitigation Lot Score (Line 5) \_\_\_\_\_+ Mitigation Totals (Lines A-I)\_

\*Note: Plant materials for vegetative buffers shall be native to northern Minnesota. For every 5,000 square feet of buffer area, there shall be a minimum of four types of trees, six types of shrubs, seven forbs, and three grasses planted to achieve a one plant per square foot minimum coverage. Survival of all plants must be guaranteed for a minimum of 5 years

## AITKIN COUNTY SHORELAND PERFORMANCE (Example)

Road right-of-way (ROW)



**Recreational Development Lake (RD)** 



### A444040

Office of the County Recorder Aitkin County, Minnesota

I HEREBY CERTIFY THE WITHIN INSTRUMENT WAS FILED, AND/OR RECORDED ON 3/5/2018 9:00 AM

PACKAGE: 57788

REC FEE: \$46.00

Minnesota Uniform Conveyancing Blanks

Form 50.2.2 (2011)

Michael T. Moriarty, Aitkin County Recorder

### AFFIDAVIT OF IDENTITY AND SURVIVORSHIP

State of Minnesota, County of Carlton

Name of Decedent: BEVERLY J. MATTSON, a/k/a BEVERLY JEAN MATTSON

I, RICHARD M. MATTSON, being duly sworn on oath state from personal knowledge:

1. That Decedent is the person named in the certified copy of the Certificate of Death attached hereto and made a part hereof.

2. That the name of the survivor is: Richard M. Mattson.

3. That on the date of death, Decedent was an owner as a joint tenant of the land legally described as follows:

Lot Thirty-five (35), Big Sandy Lake, Highlands Fifth Addition. SUBJECT to the U.S. Government flowage rights and mineral reservations of record.

AND

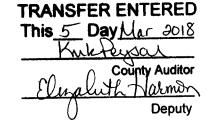
Lot One Hundred Forty-two (142), Big Sandy Lake, Highlands Second Addition.

as shown by instrument recorded on April 25, 1979, as Document No. 202322, in the Office of the 🗷 County Recorder

I know the matters herein stated are true and make this Affidavit for the purpose of inducing the acceptance of title to the real property described in the above documents.

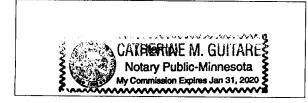
Affiant

m notizon



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Signed and sworn to before me on February 26, 2018, by Richard M. Mattson.



(Signature of Notarial Officer)	
Title and Rank: Nothing Public	
My commission expires: 131/2020	

THIS INSTRUMENT WAS DRAFTED BY: Jennifer L. Carey Hanft Fride 1000 U.S. Bank Place 130 W. Superior Street Duluth, MN 55802

TAX STATEMENTS FOR THE REAL PROPERTY DESCRIBED IN THIS INSTRUMENT SHOULD BE SENT TO: (insert name and address of person to whom tax statements should be sent):

Richard M. Mattson 1407 Billy Jon Road Cloquet, MN 55720