#### #27 Vilas Co Plum Creek Bridge #11 State of Wisconsin **Motorized Recreation Grant Application** Department of Natural Resources For: (choose all that apply) Form 8700-159 (R 12/18) dnr.wi.gov ☐ ATV/UTV Trail Aid Page 1 of 5 Due Date: April 15 Snowmobile Trail Aid ☐ Motorized Stewardship - 20% County match required Notice: Completion of this form is required under Wisconsin Statutes 23.09(26) and 23.33. Failure to complete this form will result in denial of financial assistance. Personally identifiable information found on this form is not intended to be used for any other purpose. The Department of Natural Resources (DNR) may provide this information to requesters as required by Wisconsin's Open Records law (ss. 19.31 – 19.39, Wis. Stats.). **DNR Use Only Instructions:** Applications may combine more than one source of funds. They may be submitted for consideration of traditional ATV, UTV, Snowmobile and Motorized Number Category Stewardship funding. Submit one copy of all forms and attachments. See Page 2 for necessary attachments. Send applications to your Community Services Specialist. Section 1: Applicant Information Applicant / Organization Name Check Recipient: Individual other than authorized individual to act on behalf of the applicant. Select if the same as applicant. Vilas County Parks and Recreation Individual Authorized to Act on Behalf of Applicant per Resolution Check Recipient Name (Name to Appear on Check) Todd Bierman Title Title Park and Recreation Supervisor Address Address 330 Court Street City State ZIP Code City State ZIP Code WI 54521 Eagle River Email Address Telephone Number (715) 479-5160 tobier@vilascountywi.gov Section 2: Project Information Required for all Projects **Project Title Current Funded Miles** New Miles (if applicable) Plum Creek Bridge 11 501 County Township Range Section 1/4 1/4 1/4 GPS Coordinates: E Lat. 45.944843 OW 8 18 Vilas 40 N Long. -89.541052 **Project Description Summary** Vilas County is proposing to replace the Plum Creek Bridge in St. Germain. This bridge has been inspectorate and was found to have a rotting piling with the others not to far behind. A new bridge would clear span the creek with no pilings in the stream bed like the current bridge has. replacing the 1 pilling is an option but there is the fear of the remaining 3 pilings to rot and become unsafe in the next couple of years Maintenance of this trail will be done by the Boulder Junction Snowmobile Club with AAA-2 grooming equipment. I certify that all maintenance land use agreements are on file. **Estimated Cost** Maintenance Acquisition Development Bridge Rehab. Trail Rehab. Total Estimated Cost Insurance

\$168,300.00 \$168,300.00 Leave Blank - DNR Use Only Applicant Certification Printed Name of Authorized Official Official's Title Todd Bierman Vilas County Parks and Recreation Supervisor As the applicant's authorized official, I certify that, to the best of my knowledge, the information in this application is true and correct. Signature of Authorized Official

#### **Motorized Recreation Grant Application**

Form 8700-159 (R 12/18)

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Appendix A – Required for	Bridge Rena	b/Repla	ce, Nev	v, or F	Reroute	with New Bi	riage		
⊠ Bridge Rehab/Replace	☐ New Brid	ge	Rere	oute w	ith new b	oridge			
County	Township Range	e S	ection 1/2	4 1/4	1/4	GPS Coordinate			
Vilas	40 N 8	⊙E ⊝W	18			Lat. 45.944			
Water Body Name		18 Long89.541052  Bridge Name County Inventory Number					ory Number		
							1	IIIVEIII	ory Number
Plum Creek	IADC if applicable			Plum Creek Bridge 11					
Funded Trail Name or Number (SN	IARS II applicable	1)		Has this bridge site ever received development or rehabilitation funds in the past?   Yes No Year: 2000 \$ 35,725,00					
Vilas County trail 70				1 0 100 0 110 1001. 2000 \$ 33,723,00					33,723.00
-	property			•	ulvert Siz		12'x68'		
_	property				Culvert Si		12'x74'		
Landowner Where Bridge is Locate	ed		Telephone Number Length of Trail Use Agreement (5 year					t (5 year minimum)	
State of Wisconsin				365-3		5			
Current maximum load 19	9,000 lbs.	Age of B	ridge	Bridge	e Materia	I			
Proposed maximum load 25	5,000 lbs.	23		Wood	d				
Sponsoring Club Name			Club Co	ntact			Telephone	Numbe	r
St. Germain Bo-Boen's			Roger Klien (715) 477-8570			8570			
Do you have your trail bridges post	ted as to maximu	n load?	What is the maximum load of the other bridges on the system if						
Yes  ○ No			groomed with this bridge? 25000						
What is the weight of your puller &	drag/grading equ	ipment?	23000						
22000									
What other recreational trail uses are planned for this bridge?									
None at this time.									
If there are other Recreational uses planned, how much of the bridge cost will be paid for by non-snowmobile or non-ATV users?									
Yes No Have you contacted your local <u>DNR Water Management Specialist (WMS)</u> regarding a permit?									
Yes No Is a permit needed? (Please provide any written correspondence from WMS.)									
○ Yes   No Have you conta									
○ Yes ● No Will an H & H (	hydrologic and hy	draulic) st	udy be re	equired'	?				

#### **Bridge Project Detailed Description**

Vilas county is proposing to replace an existing bridge on funded Vilas County Trail 70 in the Town of St. Germain. The current bridge is 23 years old and has 1 piling that is rotting with the remaining 3 not to far behind. The current bridge is rated for 19,000 pounds and is inadequate for the St. Germain Bo-Boen grooming equipment. Currently the pilings are in the creek bed. The new bridge would span the creek with no pilings. Another option would be to just replace the bad piling and some re-decking but, it is the general opinon of the manufactures and contractors who have looked at this project, to replace due to the fact that before 10 years, the remaining pilings will need replaced.

## Motorized Recreation Grant Application Form 8700-159 (R 12/18) Page 4 of 5

Appendix A (continued) Summarize Costs in Appropriate Categ	ories.				
Summarize Costs in Appropriate Categ	ories.	Bridge Structure			
		Quote 1		Quote 2	
	<ul><li>Ste</li></ul>	eel O Wooden	<ul><li>Stee</li></ul>	I 🔘 Wooden	
Bridge Dimensions:		12'x75'	,	12'x75'	
Bridge Manufacturer: Eby's Port	able Welding & Fabrication		Custom Manufacturing, Inc.		
Design Weight Load		<u>25,000</u> lbs.		25,000 lbs.	
Cost of Structure: 1. Engineering	\$	1,000	\$	2,800	
2. Structure	\$	121,500	\$	110,800	
Subtotal	\$	122,500	\$	113,600	
		Quote 1		Quote 2	
Installation Costs:	Contra	ctor or ( Sponsor Estimate	•	or or ⊜ Sponsor Estimate	
1. Engineering	\$	1,000	\$	1,000	
2. Site Preparation	\$	8,000	\$	8,000	
3. Abutments	\$	10,500	\$	10,500	
4. Pilings/Piers	\$	_	\$		
5. Approaches	\$	4,000	\$	4,000	
6. Riprap	\$		\$	5,000	
7. Labor	\$	15,000	\$	14,200	
8. Equipment Rental	\$	10,000	\$	6,000	
9. Culverts	\$		\$		
10. H & H Study	\$		\$	4	
11. Wetland Delineation	\$	6,000	\$	6,000	
12. Other	\$		\$		
Subtotal	\$	54,500	\$	54,700	
Total Cost	\$	177,000	\$	168,300	
For the application grant, yo	ou mu	st take the lowes	st of the two quo	tes.	
Entire Deck and Railing Projects		○ Contractor	r 🔘 Sponsor 🔘 C	ub	
Bridge Dimensions:	*********				
Design Weight Load		lbs.			
1. Materials	\$				
2. Labor	\$				
Tota	ıi \$	0			



#### Custom Manufacturing, Inc.

606 Delco Drive, P.O. Box 279 Clinton, WI 53525



608-676-2282 Fax: 608-676-2283

tina@custommfginc.com

Please Indicate The Above Number When Ordering

Date: April 4, 2023	Salesperson: Tina Forrest
Inquiry Date:	Inquiry Number

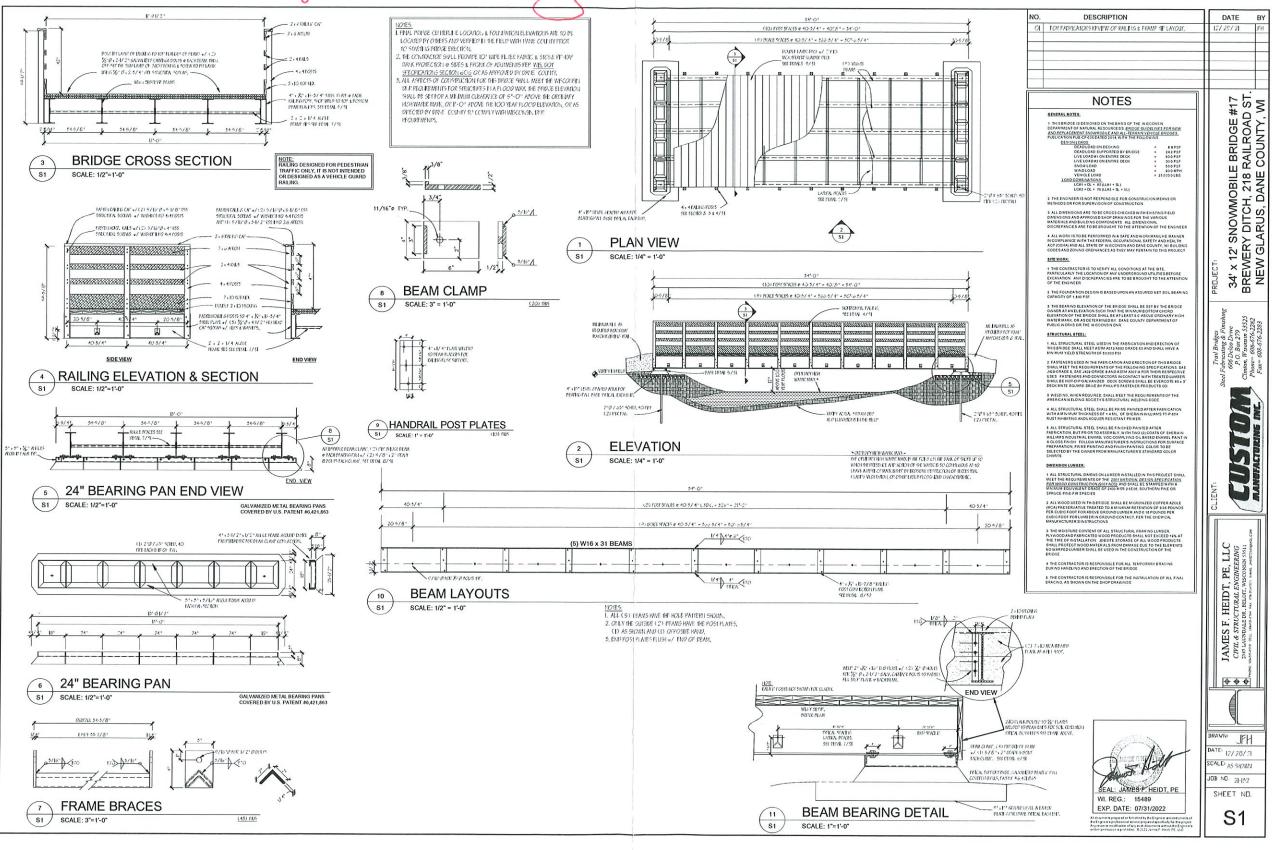
To: Vilas County Forestry, Recreation and Land Department 330 Court Street Eagle River, WI 54521

Estimated Ship Da 8 – 12 weeks	te	Shipped VIA Best way		F.O.B Clinton, WI	Terms Net 30		
	Descrip 2023 GRANT APPLIC Plum C		- CATION ESTIMATE	Price		Total	
1	75' Arched Bridge x 12' Double Decked - 42" He Hardware On 2 sets of G		orizontal Railing –	\$ 108,000	0.00		
Stamped Engineered Removal & Disposal Installation Equipment Rental Delivery Charges		osal Ex l	•	2,800 5,200 13,200 3,000 1,200	00.00 00.00 00.0		
	Т	`otal					\$133,400.00
	- 1	Above prices do recessary permits		ude sales tax or any			
	C re P	Crossmembers, w	which and finish, ber and				
	Bridge Kit Meets - WI D 25,000# Load		DNR Guidelines –				

We are pleased to submit the above quotation for your consideration. Should you place an order, be assured it will receive our prompt attention. This quotation is valid for 30 days. Thereafter it is subject to change without notice.

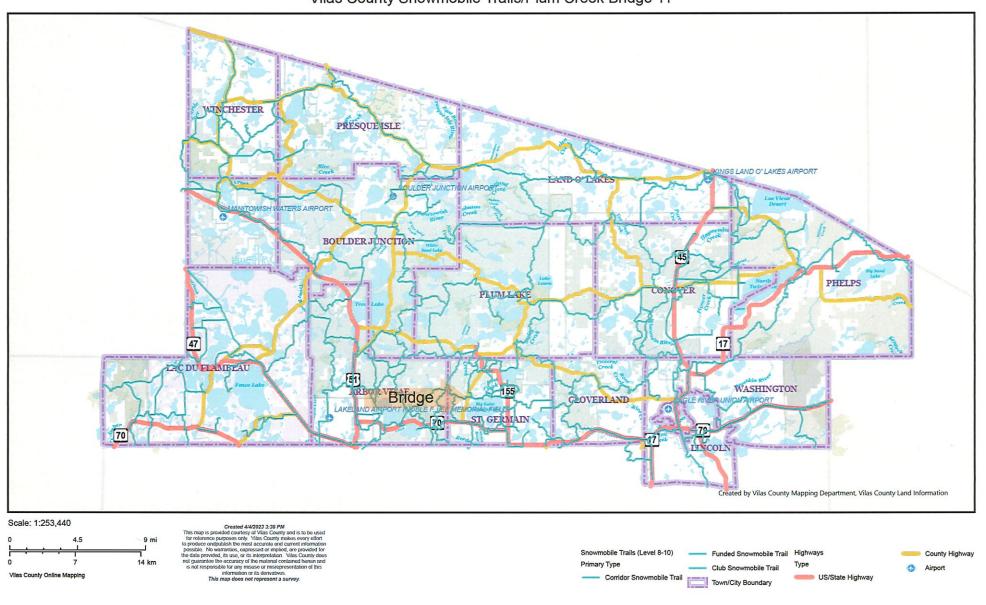
BY:	Tina Forrest	ACCEPTED:	DATE:
	~		

> Reference Only x

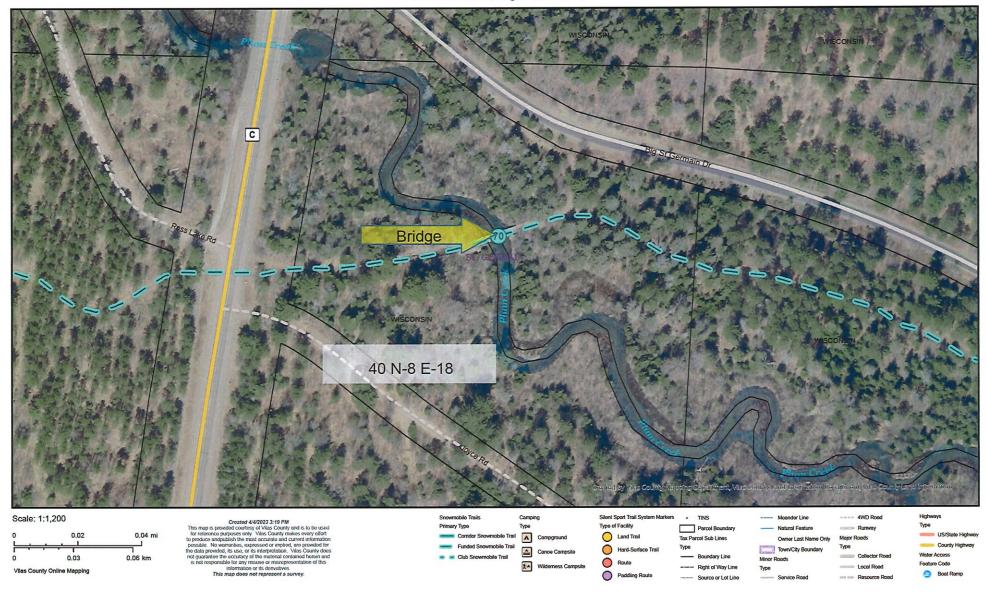


				Form 8700-159 (R 04/22)			
Bridge Structure	App	endix A (continued)					
Quote 1	Sum	marize Costs in Appropriate Cate	gories:	PLUM	CREEK	BRIDGE	
Steel   O   Wooden   O   Steel   O   Wooden				ùre			
Bridge Dimensions:         LOSA I > DOCTABLE LETANGE FABRICATION           Design Weight Load         Ibs.					Qı	uote 2	
Design Weight Load			•	1		○ Wooden	
Design Weight Load						THE PROPERTY OF THE PROPERTY O	
Cost of Structure: 1. Engineering \$ 1000.00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Bridg	ge Manufacturer; <u>SBUS</u>	PORTABLE WE	TONGE	FABRICATIO		
2. Structure \$ 17,500.00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Desi	gn Weight Load		•	***************************************	lbs.	
Subtotal   Subtotal	Cost	of Structure: 1. Engineering	PLICAL	~ ~	\$		
Quote 1		2. Structure	\$ 117,500.0	5 <b>~</b>	\$	The state of the s	
Contractor or   Sponsor		Subtota	1 \$ 118,500.	- 20	\$		
Estimate			Quote 1		Qı	uotė 2	
1. Engineering \$ 1000.00 \$  2. Site Preparation \$ 5000.00 \$  3. Abutments \$ 10,500.00 \$  4. Pllings/Plers \$ \$  5. Approaches \$ 11,000.00 \$  6. Riprap \$ \$  7. Labor \$ 15,000.00 \$  8. Equipment Rental \$ 10,000.00 \$  9. Culverts \$ \$  10. H & H Study \$ \$  11. Wetland Delineation \$  12. Other \$ \$  Subtotal \$ 18,500.00 \$  Total Cost \$ 1(07,000.00 \$   For the application grant, you must take the lowest of the two quotes.  Entire Deck and Railing Projects O Contractor O Sponsor O Club  Bridge Dimensions:  Design Weight Load                          1. Materials \$ \$  2. Labor \$                    Site Preparation                Site O Contractor O Sponsor O Club		•	Contractor or O Spon	isor	O Contractor	or O Sponsor	
2. Site Preparation \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$					Es	timate	
3. Abutments \$ 10,500.00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$				noige	S MANAGEMENT CONTROL CONTROL		
4. Pilings/Plers \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		·		ou-	\$		
5. Approaches \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$				Met	\$		
6. Riprap \$ S S  7. Labor \$ JS OO OO S  8. Equipment Rental \$ IO OO OO S  9. Culverts \$ S S  10. H & H Study \$ S S  11. Wetland Delineation \$ S S  12. Other \$ S S  Subtotal \$ LASSOOO S  Total Cost \$ IO OO OO S  For the application grant, you must take the lowest of the two quotes.  Entire Deck and Railing Projects O Contractor O Sponsor O Club  Bridge Dimensions:  Design Weight Load Ibs.  1. Materials \$ S  2. Labor \$ S		_		•	\$		
8. Equipment Rental \$ 10,000 00 \$  9. Culverts \$ \$  10. H & H Study \$ \$  11. Wetland Delineation \$ \$  12. Other \$ \$  Subtotal \$ 48,500 00 \$  Total Cost \$ 167,000 00 \$  For the application grant, you must take the lowest of the two quotes.  Entire Deck and Railing Projects O Contractor O Sponsor O Club  Bridge Dimensions:  Design Weight Load   Ibs.  1. Materials \$ \$  2. Labor \$ \$	5.	Approaches	\$ <u>4,000,00</u>	-	\$	neversene aastrone van de kommunie van de komm	
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9. Culverts \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	7,	Labor	\$ 15,000.00	.)	\$	Alandary and a second s	
10. H & H Study \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	8.	Equipment Rental	\$ 10,000.00	$\mathcal{C}_{\mathcal{C}}$	\$		
11. Wetland Delineation S S S S S S S S S S S S S S S S S S S	9.	Culverts	S DARAGEMENTALISMENTALISMENT CONTROL C	<u>.</u>	\$		
Subtotal \$ 48,500.00 \$  Total Cost \$ 167,000.00 \$  For the application grant, you must take the lowest of the two quotes.  Entire Deck and Railing Projects O Contractor O Sponsor O Club  Bridge Dimensions:  Design Weight Load    bs.    Materials   \$    Labor   \$	10.	H & H Study	\$	•	\$	***	
Subtotal \$ 48,500.00 \$ \$ Total Cost \$ 1(07,000.00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	11.	Wetland Delineation	\$	•	\$		
For the application grant, you must take the lowest of the two quotes.  Entire Deck and Railing Projects	12.		STREET, STREET		\$		
For the application grant, you must take the lowest of the two quotes.  Entire Deck and Railing Projects		Subtota	als 48,500°C	OX.	\$		
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1. Materials \$ 2. Labor \$	Bridge	e Dimensions:			**************************************		
1. Materials \$ 2. Labor \$	Desig	n Weight Load	lbs,	•			
2. Labor \$			<u> </u>				
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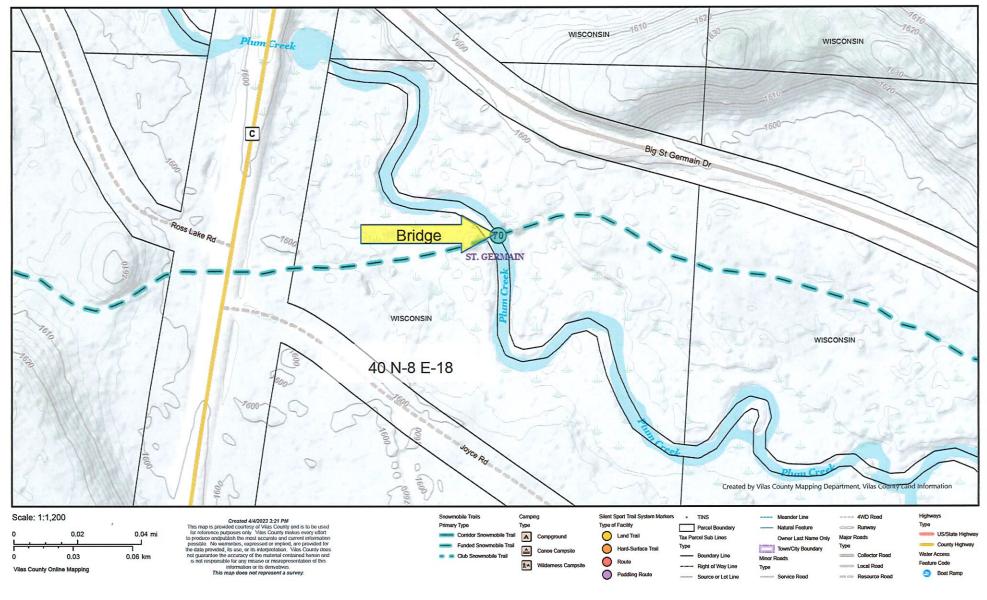
Vilas County Snowmobile Trails/Plum Creek Bridge 11



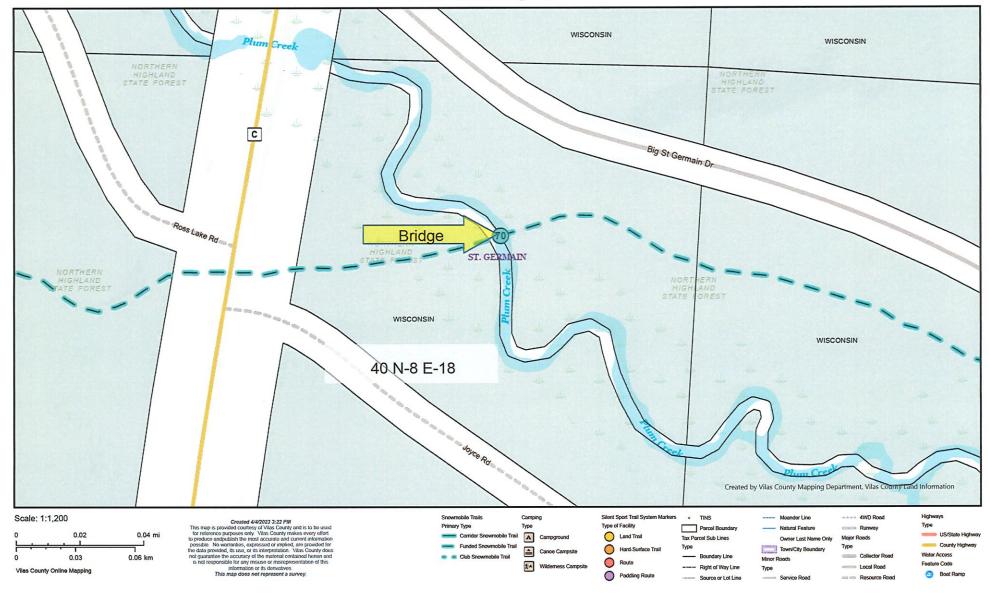
#### Plum creek Bridge 11 aerial

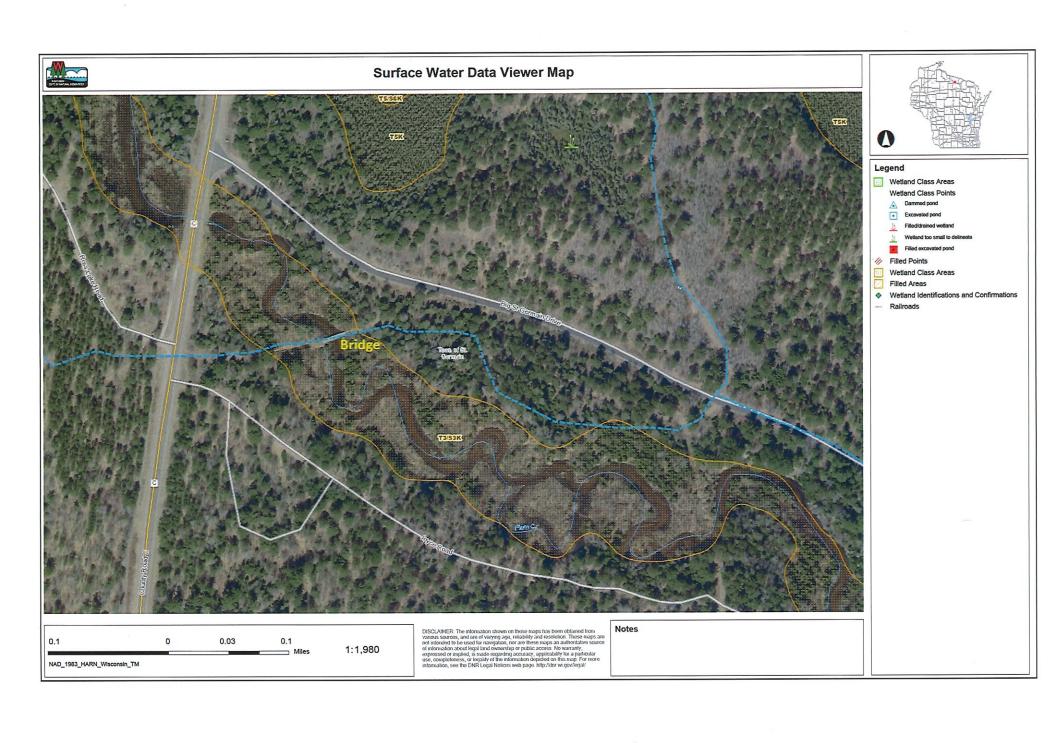


#### Plum Creek Bridge 11 Topo



#### Plum Creek Bridge 11 Plat







# Trail Bridge Inspection Vilas County

Bridge Name Vilas 11

#### **Inspected By:**

William S. Knaack Jr., P.E. William S Knaack Sr.

10/24/2022

Prepared By KBIS, LLC





### Bridge Inspection Report

#### General Information

The structure in this report was inspected by certified Wisconsin Department of Transportation Bridge Inspectors. William S Knaack Jr., P.E., is Program Manager, Team Leader, Fracture Critical Inspector, and Underwater Inspector qualified. William S Knaack Sr, is Program Manager, Team Leader qualified.

The bridge was inspected with trail use in mind, using normal vehicle bridge standard to determine the condition of the structure.

All recommendations made in the report are also considering the use of the trail. Trail bridges in general should have a load rating considering all the possible uses of the structure. Even though the bridges may be just for snowmobiles, several types of vehicles may use the structure.

KBIS, recommends as a minimum that bridge owners load rate all the structures in their inventory and post a single ton sign at each bridge. It is a "insurance" policy for the owner if the bridge is damaged by a user that should not be using the structure. Also, grooming/trail equipment is getting large every year, so bridges again should be rated.

#### Location information/General Description:

Lat and Long: 45.944843, -89.541052

#### **Bridge Condition**

Condition State (CS) 1-Good, CS2-Fair, CS3-Poor, CS4-Critical

16 LF of CS3 planks at the end need to be replaced.

Rest of the surface CS2.

Object markers, West 2 are map cracked, East 2 are map cracked and NE minor damage.

Bridge Ahead, East CS2 minor damage and map cracked. West CS3 map cracked, no reflectivity.

Both approaches have CS4 drops of 6+inches.

Girders have minor CS2 decay.

Pile Bent has 6 piles with CS3 decay and section loss.

Remaining components are CS1.



## Bridge Inspection Report

#### **Report Summary**

#### NBI Ratings: 9-7 Good, 6-5 Fair, 4-3 Poor, 2-1 Critical, 0-Closed

Deck # 6 Superstructure # 6 Substructure # 4 Channel # 8

Overall Condition Poor

#### Recommendations/Maintenance Items:

\*\*\*\*Keep the deck and superstructure and plan to replace the pier as soon as it can be planned and funded. This bridge should be inspected every 24 months or less. The bent should have diagonal bracing on it.

Fill the approaches in.

Replace West bridge ahead sign.

Signed By:

William S. Knaack Jr., P.E.

10/24/2022 Date



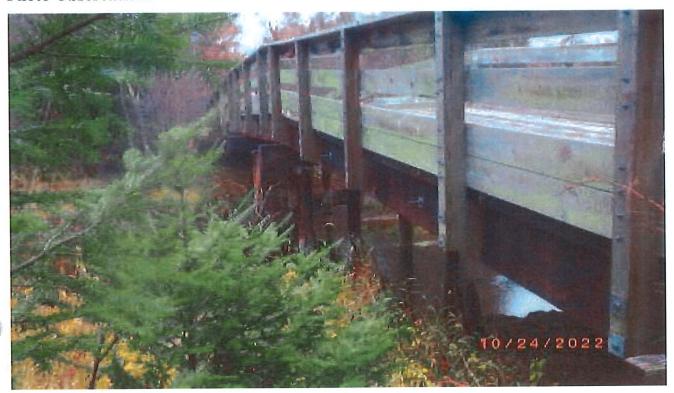
## Bridge Inspection Report



East Bridge Ahead sign.



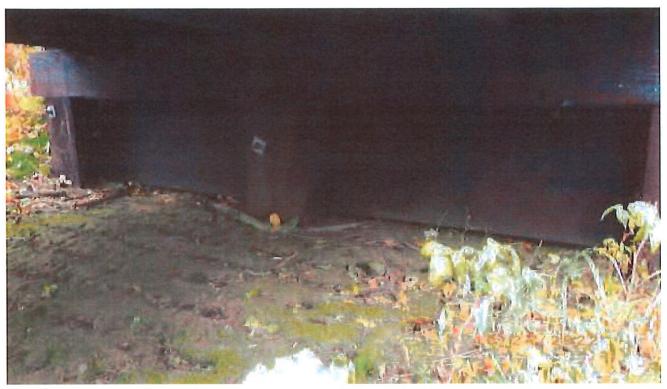
## Bridge Inspection Report



**Looking North** 



## Bridge Inspection Report



East abutment.



## Bridge Inspection Report



CS3 Timber pile decay. Measurable section loss.



## Bridge Inspection Report



West Bridge Ahead sign, CS3 map cracked and no reflectivity.



## Bridge Inspection Report



CS3 approach



## Bridge Inspection Report



Looking East.

