

Exhibit 4K. 1937 Aerial PhotographLittle Menomonee River Corridor Ecosystem/Habitat
Restoration Project on MMSD Greenseam Parcel SE Quarter, Section 20, T9N-R21E City of Mequon, Ozaukee County



Exhibit 5. Sanitary Sewer Service Map

Little Menomonee River Corridor Ecosystem/Habitat Restoration Project on MMSD Greenseam Parcel SE Quarter, Section 20, T9N-R21E City of Mequon, Ozaukee County

Map 2-5

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF MEQUON

U.S. Public Land Survey Sections 17, 18, 19, and 20 Township 9 North, Range 21 East

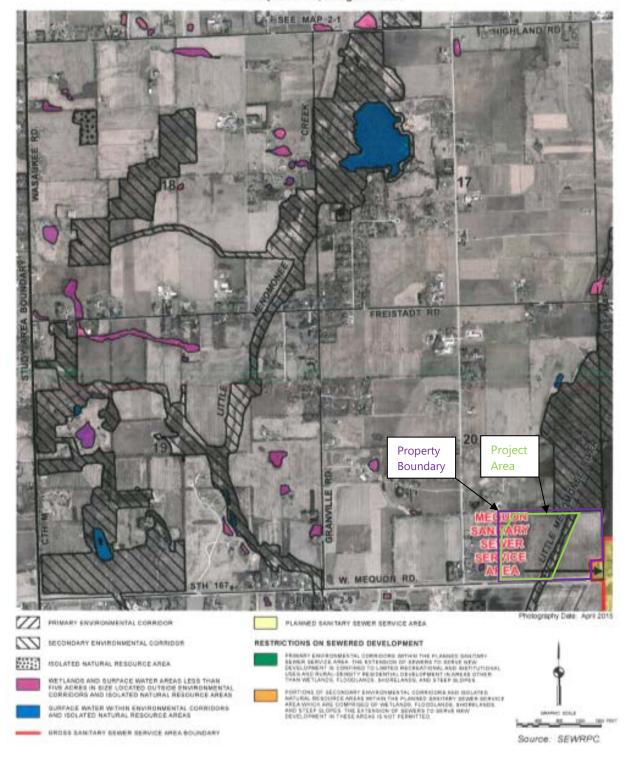
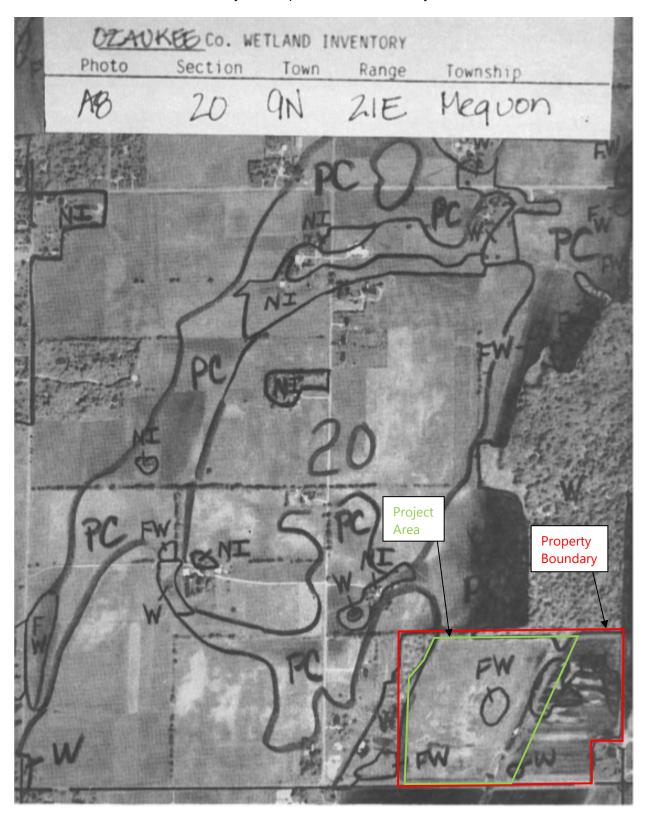


Exhibit 6. NRCS Draft Wetland Inventory Map

Little Menomonee River Corridor Ecosystem/Habitat Restoration Project on MMSD Greenseam Parcel SE Section 20, T9N-R21E City of Mequon, Ozaukee County



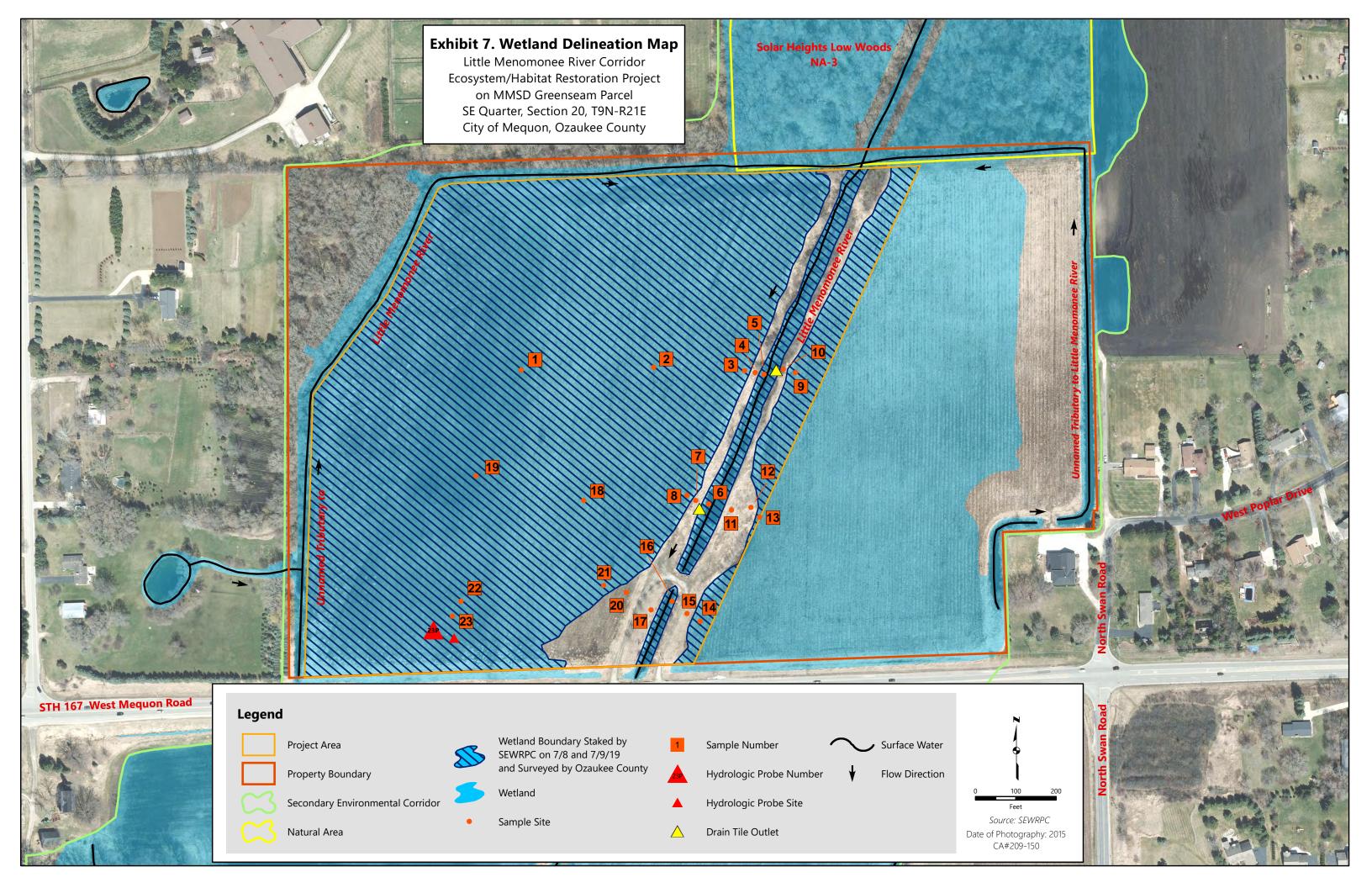


Exhibit 8. Preliminary Vegetation Survey

Little Menomonee River Corridor Ecosystem/Habitat Restoration Project on MMSD Greenseam Parcel

Dates: July 8 and 9, 2019

Observers: Christopher J. Jors, Principal Biologist

Jennifer L. Dietl, Senior Biologist

Shane T. Heyel, Biologist

Southeastern Wisconsin Regional Planning Commission

Location: City of Mequon in parts of the Southeast one-quarter of U.S. Public Land Survey

Section 20, Township 9 North, Range 21 East, Ozaukee County, Wisconsin.

Species List: Native Species

Co-dominant species

Acer negundo -- Boxelder

<u>Ambrosia</u> <u>trifida</u>--Giant ragweed <u>Asclepias</u> <u>syriaca</u>--Common milkweed

Euthamia graminifolia -- Grass-leaved goldenrod

Fraxinus pennsylvanica--Green ash Geum canadense--White avens Impatiens capensis--Jewelweed Larix laricina--Tamarack (planted) Lemna minor--Lesser duckweed Panicum virgatum--Switch grass Poa palustris--Marsh bluegrass Populus deltoides--Cottonwood

<u>Quercus</u> <u>alba</u>--White oak (planted) <u>Quercus</u> <u>bicolor</u>--Swamp white oak (planted)

Ribes americanum -- Wild black currant

<u>Sambucus</u> <u>nigra</u>--Elderberry

<u>Scirpus</u> <u>atrovirens</u>--Green bulrush <u>Solidago</u> <u>altissima</u>--Tall goldenrod

Solidago gigantea -- Giant goldenrod

<u>Sphenopholis</u> <u>intermedia</u>--Slender wedge grass

<u>Symphyotrichum</u> <u>lanceolatum</u>--Marsh aster

<u>Symphyotrichum</u> <u>lateriflorum</u>--Calico aster

<u>Symphyotrichum</u> <u>novae-angliae</u>--New England aster

Symphyotrichum puniceum--Red-stemmed aster

<u>Ulmus</u> <u>americana</u>--American elm <u>Urtica</u> <u>dioica</u>--Stinging nettle

Vitis riparia -- Riverbank grape

NON-Native Species

<u>Cirsium</u> <u>arvense</u>--Canada thistle <u>Daucus</u> <u>carota</u>--Queen Anne's lace NON-Native Species cont.

<u>Elymus repens</u>--Quack grass
<u>Phalaris arundinacea</u>--Reed canary grass
<u>Poa pratensis</u>--Kentucky bluegrass
<u>Rhamnus cathartica</u>--Common buckthorn
<u>Taraxacum officinale</u>--Common dandelion

Total number of plant species: 34

Number of alien, or non-native, plant species: 7 (21 percent)

This approximately 28.86-acre plant community area is part of the Little Menomonee River floodplain-wetland complex and consists of open water and fresh (wet) meadow (partly degraded). Disturbances to the plant community area include past sod farming, side casting of dredge spoil material, and water level changes due to ditching, draining, and stream channel realignment. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

SVY4583 CA209-150

Exhibit 9.

Project/Site: <u>Little Menomonee River Corridor Restoration</u> Applicant/Owner: <u>Ozaukee County/MMSD (Greenseam Par Investigator(s)</u> : <u>Chris Jors, Jen Dietl, and Shane Heyel: SEV Landform (hillslope, terrace, etc.)</u> : <u>terrace/floodway</u>	<u>rcel)</u> <u>WRPC</u> Sec		p, Range: <u>SE</u>	State: <u>WI</u> Sampling Point: <u>1</u> E Quarter, Section 20, T9N-R21E
Slope (%): 0-2% Lat:	Long:		,,	Datum:
Soil Map Unit Name: Ogden mucky peat (Od)			–	NWI classification: None
Are climatic/hydrologic conditions on the site typical for this take Vegetation, Soil, or Hydrology signifi	•			no, explain in Remarks) nces" present? Yes ⊠ No ☐
Are Vegetation, Soil, or Hydrology natura				y answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	npling point loca			
Hydrophytic Vegetation Present? ☐ Yes ☐ N		Is the Samp within a We		⊠ Yes □No
Hydric Soils Present?		within a vve	tialiu:	⊠ les □N0
Remarks: 90-day antecedent precipitation is normal.				
VEGETATION – Use scientific names of plants.				
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species
2				That are OBL, FACW, or FAC: 4 (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>5</u> (B)
5				Percent of Dominant Species
	<u>0</u>	= Total Co	ver	That Are OBL, FACW, or FAC: 80% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksheet:
1. Rhamnus cathartica	<u>7</u>	\boxtimes	FAC	Total % Cover of: Multiply by:
2. Larix laricina (planted)	<u>3</u>	\boxtimes	FACW	OBL species x 1 =
3		П		FACW species x 2 =
4				
				FAC species x 3 =
5	10	= Total Co	——	FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size: <u>5' radius</u>)	<u>10</u>	- 10tai 00	VCI	· — — — — — — — — — — — — — — — — — — —
1. Solidago gigantea	<u>30</u>	\boxtimes	FACW	Column Totals: (A) (B) Prevalence Index = B/A =
	<u>25</u>		FACW	Hydrophytic Vegetation Indicators:
2. Symphyotrichum lanceolatum			FACU	
3. Solidago altissima	<u>20</u>			☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50%
4. Symphyotrichum novae-angliae	<u>18</u>		FACW FACW	☐ 3 - Prevalence Index is ≤3.01
5. <u>Euthamia graminifolia</u>	<u>12</u>		<u>FACW</u>	4 - Morphological Adaptations¹ (Provide supporting
6. Rhamnus cathartica	<u>5</u>		<u>FAC</u>	data in Remarks or on a separate sheet) 5 - Problematic Hydrophytic Vegetation¹ (Explain)
7. Asclepias syriaca	<u>3</u>		<u>UPL</u>	C Problematic Phydrophytic Vegetation (Explain)
8				4
9				Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.
10				De present, uniose distance en presionade.
	<u>113</u>	= Total Co	ver	
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic
1				Vegetation
2		П		Present? Yes ⊠ No □
	<u>0</u>	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate sl	heet.) Fresh (we	t) meadow.		1

SOIL							'	g Point: <u>1</u>
Profile Des	scription: (Describe t	o the dep	oth needed to doo	cument the ind	icator or cor	nfirm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures		<u></u>	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	N 2.5/	95	2.5Y 5/2	5	D	PL M	Muck	
16-30	10Y 5/1	80	10YR 5/6	20	С	PL M	Clay loam	
	Concentration, D=Dep	letion, RM	I=Reduced Matrix	, MS=Masked S	and Grains		² Location: PL=Pore Indicators for Proble	
-	Histosol (A1)			☐ Sandy Gle	yed Matrix (S	64)	Coast Prairie F	
	Histic Epipedon (A2)		-	Sandy Red		,	Dark Surface (
	Black Histic (A3)		_	Stripped M			Iron-Manganes	
	Hydrogen Sulfide (A4)		_		cky Mineral (Dark Surface (TF12)
	Stratified Layers (A5) 2 cm Muck (A10)		_	Depleted N	eyed Matrix (F Matrix (F3)	-2)	Other (Explain	in Remarks)
	Depleted Below Dark	Surface (A	- \11)		rk Surface (F	6)		
	Thick Dark Surface (A	A12)			Dark Surface		³ Indicators of Hydro	phytic vegetation and
	Sandy Mucky Mineral		-	Redox Dep	pressions (F8	3)	Wetland hydrol	ogy must be present,
	5 cm Mucky Peat or P						Unless disturbe	ed or problematic.
Type	Layer (if observed):						Undria Cail Brasant	Vac M No 🗆
• •	 h (inches):						Hydric Soil Present?	Yes⊠ No □
Remarks:	· · · · · · · · · · · · · · · · · · ·							
HYDROL								
	ydrology Indicators:							
<u>Prima</u>	ry Indicators (minimum	n of one is	required; check a	ill that apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)			Water-Stained)		l Cracks (B6)
	High Water Table (A2)			Aquatic Fauna	a (B13)		Drainage P	atterns (B10)
	Saturation (A3)			True Aquatic I				Water Table (C2)
	Water marks (B1)			Hydrogen Sul		•	Crayfish Bu	, ,
<u> </u>	Sediment Deposits (B2	2)	<u>_</u>	Oxidized Rhiz	•	•	` ' 	/isible on Aerial Imagery (C9)
	Drift Deposits (B3)			Presence of R				Stressed Plants (D1)
	Algal Mat or Crust (B4)	므	Recent Iron R		illed Soils	· · · — ·	c Position (D2)
	Iron Deposits (B5)		<u> </u>	Thin Muck Su	` '		_ ⊠ FAC-Neutr	al Test (D5)
	Inundation Visible on A		· · · · —	Gauge or Wel	` ,			
Field Obse	Sparsely Vegetated Co	oncave Su	urface (B8)	Other (Explain	n in Remarks)		
		s □ N	l o 🛛 Depth (ir	oches).				
Water Tabl				nches): nches): <u>27</u>				
Saturation				nches): <u>27</u> nches): <u>5</u>				
	apillary fringe)	5 🖂 1	lo	iciles). <u>5</u>			Wetland Hydrology Present	? Yes 🛛 No 🗌
,		dalide m	onitoring well ser	ial photos prov	ious inspectio	one) if ava	ailable: Topo Maps (Exhibit 1	WWW Man (Exhibit 2) Soils
	oit 3), and Aerial photo		-	iai priotos, prev	ious irispection	0115), 11 ava	aliable. Topo Maps (Exhibit I)	, vvvvi iviap (Extilibit 2), 30iis
				ndscape in the	SEWRPC-	mapped	floodway of the Little Mend	omonee River. However,
	nic position (D2) doe			•			•	

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam Pa Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SE Landform (hillslope, terrace, etc.): terrace/floodway Slope (%): 0-2%	City/County: Cit arcel) EWRPC Sec Loc Long: time of year? ficantly disturbed? rally problematic? mpling point loca No No	y of Mequon/C stion, Township al relief (conca Yes ⊠ Are "Norm (If, needed	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Quarter, Section 20, T9 none): none NWI cl no, explain in Remarks) nces" present? Yes v answers in Remarks.)	Datum: assification: <u>None</u>
VEGETATION – Use scientific names of plants.		<u> </u>	1 1 6		
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test we	orksheet:
1				Number of Dominant S	Species
2				That are OBL, FACW,	or FAC: <u>1</u> (A)
3				Total Number of Domir	nant
4				Species Across All Stra	
5				Percent of Dominant S	necies
	0	= Total Co	ver	That Are OBL, FACW,	•
Sapling/Shrub Stratum (Plot size: 30' radius)	_			Prevalence Index wor	rksheet:
1. Quercus bicolor (planted)	<u>2</u>	П	FACW	Total % Cover of:	Multiply by:
	<u>=</u> <u>1</u>		FACW		
2. <u>Ulmus americana</u>	<u> </u>		171011	OBL species	x 1 =
3				FACW species	x 2 =
4				FAC species	x 3 =
5				FACU species	x 4 =
	<u>3</u>	= Total Co	ver	UPL species	x 5 =
Herb Stratum (Plot size: 5' radius)				Column Totals:	(A) (B)
1. Symphyotrichum puniceum	<u>60</u>	\boxtimes	<u>OBL</u>		! Index = B/A =
2. <u>Euthamia graminifolia</u>	<u>10</u>		<u>FACW</u>	Hydrophytic Vegetati	on Indicators:
3. Panicum virgatum	<u>8</u>		<u>FAC</u>	☐ 1 - Rapid Test for H	Hydrophytic Vegetation
4. <u>Solidago gigantea</u>	<u>5</u>		<u>FACW</u>	2 - Dominance Te	
5				3 - Prevalence Inde	ex is ≤3.0¹ Adaptations¹ (Provide supporting
6					s or on a separate sheet)
7				5 - Problematic Hy	drophytic Vegetation¹ (Explain)
8					
9				1 Indicators of hydric so	oil and wetland hydrology must
				Be present, unless dist	turbed or problematic.
10					
N 1 1 1 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 2 2 1 2	<u>83</u>	= Total Co	v C I		
Woody Vine Stratum (Plot size: 30' radius)		_		Hydrophytic	
1				Vegetation Present? Yes	s⊠ No □
2				riesent: 16:	a M ∩ M □
	<u>0</u>	= Total Co	ver		
Remarks: (Include photo numbers here or on a separate s	sheet.) Fresh (we	t) meadow.			
I .					

SOIL							Samplin	g Point: <u>2</u>
Profile De	scription: (Describe t	o the de	oth needed to docur	nent the ind	icator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-16	N 1/	100			-		Muck	
16-24	10Y 4/1	75	10YR 4/6	15		PL M	Clay loam	
10-24	101 4/1						Clay loani	
			5YR 3/4	10	C	PL M		
		-						
17	O to . ti D. D	- ti DA	A. D. dere d.M. Arie M	0. Marshard 0			21 than DI Dans	Lining M. Madrin
	:Concentration, D=Depl il Indicators:	etion, Riv	/I=Reduced Matrix, M	S=Masked S	and Grains		² Location: PL=Pore Indicators for Proble	
-	Histosol (A1)			Sandy Gle	yed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)			 Sandy Red		,	 ☐ Dark Surface (
	Black Histic (A3)			Stripped M			☐ Iron-Manganes	
	Hydrogen Sulfide (A4)				cky Mineral (F	-		Oark Surface (TF12)
	_ , , ,				eyed Matrix (F	2)	Other (Explain	in Remarks)
	2 cm Muck (A10)	Surface (_ Depleted N	лаtrıx (F3) rk Surface (F6	.,		
	Depleted Below Dark S Thick Dark Surface (A		<u> </u>		ok Surface (Fo Dark Surface (,	2	
	Sandy Mucky Mineral	•	H		oressions (F8		-	phytic vegetation and ogy must be present,
	5 cm Mucky Peat or P		<u></u>		,	,	-	d or problematic.
	e Layer (if observed):							<u>'</u>
Туре	e:						Hydric Soil Present?	Yes⊠ No □
Dept	th (inches):							
 HYDROL	OGY							
	lydrology Indicators:							
	ary Indicators (minimum	n of one is	s required; check all t	nat apply)			Secondary Indica	ators (minimum of two required)
	•				d L coves (PO)		-	I Cracks (B6)
	Surface Water (A1) High Water Table (A2)			quatic Fauna	d Leaves (B9)			atterns (B10)
	Saturation (A3))						
	• •			rue Aquatic I	fide Odor (C1	`		Water Table (C2)
	Water marks (B1)				•	•	Crayfish Bu	
	Sediment Deposits (B2	<u>2)</u>			ospheres on I	•	` ' 	/isible on Aerial Imagery (C9)
<u></u>	Drift Deposits (B3)				Reduced Iron (Stressed Plants (D1)
	Algal Mat or Crust (B4))			eduction in Ti	lled Soils	· · · —	Position (D2)
	Iron Deposits (B5)			hin Muck Su	` ,		_	al Test (D5)
	Inundation Visible on A		- · · · · 	Sauge or Wel				
	Sparsely Vegetated Coervations:	oncave S	urface (B8)	ther (Explair	n in Remarks)	ı		
		- - •	In Danth (in the	\.				
			lo Depth (inch	,				
			No Depth (inch	•				
Saturation (includes of	capillary fringe)	s ⊠ 1	No	es): <u>0 (at su</u>	<u>rface)</u>		Wetland Hydrology Present	? Yes⊠ No □
	Recorded Data (stream bit 3), and Aerial photos			photos, prev	ious inspectio	ns), if ava	ailable: Topo Maps (Exhibit 1)	, WWI Map (Exhibit 2), Soils
			•	cape in the	SEWRPC-r	napped	floodway of the Little Mend	monee River. However,
geomorpl	hic position (D2) doe	s not ap	ply due to the pres	ence of a d	rain tile syste	em.		

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam Par Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SEV Landform (hillslope, terrace, etc.): toeslope/floodway Slope (%): 0-2%	City/County: Cit cel) WRPC Sec Loc Long: ime of year? cantly disturbed? ally problematic? npling point loca	y of Mequon/C tion, Township al relief (conca Yes ⊠ Are "Norm (If, needed	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Sampling Point: 3 E Quarter, Section 20, T9N-R21E none): concave Datum: NWI classification: None no, explain in Remarks) inces" present? Yes \(\) No \(\) y answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species
2				That are OBL, FACW, or FAC: <u>1</u> (A)
3		П		Total Number of Dominant
4				Species Across All Strata: <u>1</u> (B)
5			-	Percent of Dominant Species
	<u>0</u>	= Total Co	ver	That Are OBL, FACW, or FAC: 100% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksheet:
1		П		Total % Cover of: Multiply by:
2		П		OBL species x 1 =
3				FACW species x 2 =
4				
				FAC species x 3 =
5	0	☐ = Total Co		FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size: 5' radius)	<u> </u>	- 10tal CO	VCI	· — — — — — — — — — — — — — — — — — — —
,,	<u>75</u>	\boxtimes	FACW	Column Totals: (A) (B)
1. Phalaris arundinacea	<u>75</u> 25		FACW	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
2. <u>Solidago gigantea</u>				The second secon
3. Symphyotrichum puniceum	<u>15</u>		<u>OBL</u>	1 - Rapid Test for Hydrophytic Vegetation
4. <u>Taraxacum officinale</u>	<u>12</u>		<u>FACU</u>	Z - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
5. <u>Solidago altissima</u>	<u>10</u>	<u> </u>	<u>FACU</u>	4 - Morphological Adaptations ¹ (Provide supporting
6				data in Remarks or on a separate sheet)
7				5 - Problematic Hydrophytic Vegetation¹ (Explain)
8				
9				1 Indicators of hydric soil and wetland hydrology must
10		П		Be present, unless disturbed or problematic.
_	<u>137</u>	= Total Co	ver	
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic
1				Vegetation
2.				Present? Yes ⊠ No □
	<u> </u>	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate sl				1
	•			

SOIL							Samplin	g Point: 3
Profile De	scription: (Describe t	o the dep	oth needed to docur	nent the ind	icator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-21	N 2.5/	100					Muck	
21-31	10Y 5/1	80	10YR 4/6	20		PL M	Clay loam	
21-31	101 3/1	- 60	101K 4/0			PL IVI	Clay Ioaiii	
		-					<u> </u>	
				<u> </u>				
	<u> </u>	-						
1- 0	0 1 "			0.14 10			21 (1 D) D	
	Concentration, D=Dep	letion, RN	I=Reduced Matrix, M	S=Masked S	and Grains		² Location: PL=Pore Indicators for Proble	
-	Histosol (A1)		П	Sandy Gle	yed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)			Sandy Red		-,	Dark Surface (
	Black Histic (A3)			Stripped M	1atrix (S6)		Iron-Manganes	e Masses (F12)
	Hydrogen Sulfide (A4))		Loamy Mu	ıcky Mineral (F	=1)	☐ Very Shallow □	Park Surface (TF12)
	Stratified Layers (A5)				eyed Matrix (F	2)	Other (Explain	in Remarks)
	2 cm Muck (A10)		<u> </u>	Depleted N	` ,			
	Depleted Below Dark		¹¹¹⁾		rk Surface (F6	,		
	Thick Dark Surface (A Sandy Mucky Mineral		H		Dark Surface (pressions (F8)		•	phytic vegetation and
	5 cm Mucky Peat or P			_ Nedox De	pressions (ro,	,	•	ogy must be present, d or problematic.
	e Layer (if observed):						Offices disturbe	u or problematic.
Туре							Hydric Soil Present?	Yes ⊠ No □
Dept	th (inches):						, , , , , , , , , , , , , , , , , , , ,	
- HYDROL	OGY							
	lydrology Indicators:							
	ary Indicators (minimum		required; check all t	nat apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)		⊠ v	Vater-Staine	d Leaves (B9))	☐ Surface Soi	l Cracks (B6)
	High Water Table (A2))		quatic Fauna		,		atterns (B10)
	Saturation (A3)			rue Aquatic l				Water Table (C2)
	Water marks (B1)				fide Odor (C1)	☐ Crayfish Bu	
	Sediment Deposits (B2	2)			ospheres on I	•		/isible on Aerial Imagery (C9)
	Drift Deposits (B3)	-/			Reduced Iron (•	· / 	Stressed Plants (D1)
-	Algal Mat or Crust (B4)	١			Reduction in Ti			Position (D2)
	Iron Deposits (B5)	,		hin Muck Su		iica ooiis	FAC-Neutra	
		Acrial Ima			` '		FAC-Neutra	ai lest (D3)
	Inundation Visible on A			Sauge or Wel				
	Sparsely Vegetated Coervations:	oncave Si	urface (B8) 🔲 C	uner (⊏xpiair	n in Remarks)			
		s 🗌 🛚 N	lo 🛛 Depth (inch	es).				
		_	lo Depth (inch	,				
Saturation				es): <u>20</u> es): <u>0 (at su</u>	ırface)			
	capillary fringe)	.3 🖂 🗆	io 🔲 Deptii (iiioii	03). <u>0 (at 3u</u>	<u>irracc j</u>		Wetland Hydrology Present	? Yes⊠ No □
<u> </u>		naline m	onitoring well aerial	nhotos nrev	ious inspectio	ne) if av	ailable: Topo Maps (Exhibit 1)	WWI Man (Exhibit 2) Soils
	bit 3), and Aerial photo		-	priotos, piev	ious mapeodo	, II ave	LINDIC TOPO Maps (EXHIDIC T)	, ***** wap (Exilibit 2), 30115
	•			•			odway of the Little Menomo	onee River. However,
geomorpl	nic position (D2) doe	s not ap	ply due to the pres	ence of a d	rain tile syste	em.		

Project/Site: <u>Little Menomonee River Corri</u>	dor Restoration City	_	y of Mequon/C		nty	Sampling Date: 7-8-2019
Applicant/Owner: Ozaukee County/MMSD		_			State: WI	Sampling Point: 4
Investigator(s): <u>Chris Jors, Jen Dietl, and S</u> Landform (hillslope, terrace, etc.): <u>berm (w</u>				-	<u> Quarter, Section 20, T9N</u> none): <u>linear, convex</u>	<u>I-R21E</u>
Slope (%): 0-2% Lat:			ai reliei (conca	ave, convex, i	illiear, convex	Datum:
Soil Map Unit Name: Ogden mucky peat (_	<u> </u>			NWI clas	ssification: None
Are climatic/hydrologic conditions on the sit	• •	-	Yes ⊠	_ `	no, explain in Remarks)	—
Are Vegetation, Soil, or Hydrol					nces" present? Yes 🛭 r answers in Remarks.)	No 🗆
Are Vegetation, Soil, or Hydrol						
SUMMARY OF FINDINGS – Attach site m	ap snowing sampiir	ig point loca	tions, transe	cts, importai	nt features, etc.	
Hydrophytic Vegetation Present?	′es □No		Is the Samp		_	_
Hydric Soils Present?			within a We	tland?	☐ Yes	⊠No
	res ⊠No	1 '1		P 4 1		1 (1 11 1
Remarks: 90-day antecedent precipital shown on Exhibit 2.	ition is normal. The	sample site	is located in	nmediately (outside the WWI-mapp	ed wetland boundary
SHOWN ON EXHIBIT 2.						
VEGETATION – Use scientific names of pl	ante					
Tree Stratum (Plot size: 30' radius)	ants.	Absolute	Dominant	Indicator		
Tree Stratum (Flot size. <u>50 radius</u>)		% Cover	Species?	Status	Dominance Test wo	rksheet:
1. Acer negundo		<u>15</u>	\boxtimes	FAC	Number of Dominant Sp	
2. Rhamnus cathartica		<u>10</u>	\boxtimes	FAC	That are OBL, FACW, o	r FAC: <u>3</u> (A)
3					Total Number of Domina	ant
4					Species Across All Strat	a: <u>5</u> (B)
5					Percent of Dominant Sp	ecies
		<u>25</u>	= Total Co	ver	That Are OBL, FACW, o	or FAC: <u>60%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30' rad	<u>ius</u>)				Prevalence Index work	sheet:
1. Rhamnus cathartica		<u>20</u>	\boxtimes	<u>FAC</u>	Total % Cover of:	Multiply by:
2. <u>Lonicera x bella</u>		<u>10</u>	\boxtimes	FACU	OBL species	x 1 =
3			П		FACW species	x 2 =
4					FAC species	x 3 =
5			☐ = Total Co		FACU species	x 4 =
Llark Stratum (Diet size: El radius)		<u>30</u>	- 10tai Co	vei	UPL species	x 5 =
Herb Stratum (Plot size: 5' radius)			5-7		Column Totals:	(A) (B)
1. Bromus inermis		<u>75</u>		<u>UPL</u>		ndex = B/A =
2. <u>Phalaris arundinacea</u>		<u>20</u>		<u>FACW</u>	Hydrophytic Vegetatio	n indicators:
3. Rhamnus cathartica		<u>10</u>		<u>FAC</u>	☐ 1 - Rapid Test for Hy	ydrophytic Vegetation
4. <u>Solidago altissima</u>		<u>5</u>		<u>FACU</u>	2 - Dominance Test	
5. <u>Solidago gigantea</u>		<u>3</u>		<u>FACW</u>	3 - Prevalence Index	≀is ≤3.0¹ daptations¹ (Provide supporting
6. Symphyotrichum lateriflorum		<u>3</u>		FAC		or on a separate sheet)
7					☐ 5 - Problematic Hydr	rophytic Vegetation¹ (Explain)
8						
9					¹ Indicators of hydric soil	I and wetland hydrology must
					Be present, unless distu	
10						
		<u>116</u>	= Total Co	ver		
Woody Vine Stratum (Plot size: 30' radius	<u>.</u>)				Hydrophytic	
1			П		Vegetation	.
2					Present? Yes	⊠ No □
		<u>0</u>	= Total Co	ver		
Remarks: (Include photo numbers here of	r on a separate sheet.) Old field w	rith scattered	shrubs and	trees.	

Depth		o the dep	our needed	to docum	ient the mai	cator or cor	ifirm the a	bsence of indicators.)	
	Matrix		_		Redox Feat			<u> </u>	
(inches)	Color (moist)	%	Color ((moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/1	100						Silt loam	
3-12	10YR 5/3	60	10YR 5/6		10	C	PL M	Silt loam	with gravel
	10YR 3/1	30							
12+			_						Refusal: Gravel/dry soils
			_				-		
			_						
<i></i>	Concentration, D=Depl	letion, RN	/I=Reduced	Matrix, MS	S=Masked Sa	and Grains		² Location: PL=Pore	ELining, M=Matrix Ematic Hydric Soils³:
-	I Indicators: Histosol (A1)				Sandy Glev	ed Matrix (S	4)	Coast Prairie I	
	Histic Epipedon (A2)			一十	Sandy Red		.,	Dark Surface	
	Black Histic (A3)				Stripped M	atrix (S6)		☐ Iron-Mangane	se Masses (F12)
	Hydrogen Sulfide (A4)				_	cky Mineral (l	•		Dark Surface (TF12)
	Stratified Layers (A5)				_	yed Matrix (F	⁻ 2)	Other (Explain	n in Remarks)
	2 cm Muck (A10) Depleted Below Dark S	Surface (۸11)	井	Depleted M	latrıx (F3) k Surface (F6	2)		
	Thick Dark Surface (A	•	ATT)	+	_	ark Surface	,	31 11 4 611 1	
	Sandy Mucky Mineral					ressions (F8			ophytic vegetation and logy must be present,
<u> </u>	5 cm Mucky Peat or Pe	eat (S3)			_				ed or problematic.
	Layer (if observed):								
	: Gravel/dry soil							Hydric Soil Present	? Yes ☐ No ☒
	n (inches): <u>12</u> The soil profile includ	-ll-l -		ila Nia la	adata a a titisa a	-l: 4 l			
IYDROLO									
	OGY								
	OGY ydrology Indicators:								
Wetland Hy		n of one is	s required; c	heck all th	at apply)			Secondary Indic	ators (minimum of two required)
Wetland Hy Primar	ydrology Indicators:	n of one is	s required; c			Leaves (B9)	,	<u> </u>	· · · · · ·
Wetland Hy Primar	ydrology Indicators: ry Indicators (minimum Surface Water (A1)		s required; c	w	ater-Stained	Leaves (B9)	1	Surface So	il Cracks (B6)
Wetland Hy Primar	ydrology Indicators: ry Indicators (minimum Surface Water (A1) High Water Table (A2)		s required; c	W	ater-Stained	(B13)	,	Surface So Drainage P	eatterns (B10)
Wetland Hy Primar	ydrology Indicators: ry Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		s required; c	W Ad	ater-Stained quatic Fauna rue Aquatic F	(B13) Plants (B14)		Surface So Drainage P Dry-Season	ril Cracks (B6) Patterns (B10) In Water Table (C2)
Wetland Hy Primar S S S S S S S S S S S S S S S S S S	ydrology Indicators: ry Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water marks (B1)		s required; c	W	ater-Stained quatic Fauna rue Aquatic F ydrogen Sulf	(B13) Plants (B14) ide Odor (C1)	Surface So Drainage P Dry-Seasor Crayfish Bu	oil Cracks (B6) Patterns (B10) In Water Table (C2) In Works (C8)
Primar Primar S S S S S S S S S S S S S S S S S S S	ydrology Indicators: ry Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water marks (B1) Sediment Deposits (B2)		s required; c	W Ac	ater-Stained quatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizo	(B13) Plants (B14) ide Odor (C1 ospheres on) Living Roo	Surface So Drainage P Dry-Seasor Crayfish Buts (C3) Saturation	vil Cracks (B6) Patterns (B10) In Water Table (C2) Incurrows (C8) Visible on Aerial Imagery (C9)
Primal S	ydrology Indicators: ry Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	2)	s required; c	W Ac Ac Tr Hy O:	dater-Stained quatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizoresence of R	(B13) Plants (B14) ide Odor (C1 ospheres on educed Iron) Living Roo (C4)	Surface So Drainage P Dry-Season Crayfish But Sturted or	vil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C3) In Water Table (C4) In Water Table (C5) In Water Table (C6) In Water Table
Primar Primar S S S S S S S S S S S S S S S S S S S	ydrology Indicators: ry Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	2)	s required; c	W Ac	dater-Stained quatic Fauna rue Aquatic Fydrogen Sulf xidized Rhizoresence of Recent Iron R	Plants (B14) ide Odor (C1 ospheres on educed Iron eduction in T) Living Roo (C4)	Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	vil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C2) Visible on Aerial Imagery (C9) Stressed Plants (D1) In Cracks (D2)
Primar S	ydrology Indicators: ry Indicators (minimum 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)	2)		W Ac Tr Hy O Pr Ri Tr	dater-Stained quatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizoresence of R ecent Iron Renin Muck Sur	Plants (B14) ide Odor (C1 ospheres on educed Iron eduction in T face (C7)) Living Roo (C4)	Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	vil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C3) In Water Table (C4) In Water Table (C5) In Water Table (C6) In Water Table
Primar S	ydrology Indicators: ry Indicators (minimum 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)	2)) Aerial Ima	igery (B7)	W A A C C C C C C C C	later-Stained quatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizo resence of R ecent Iron Rohin Muck Sur auge or Well	Plants (B14) ide Odor (C1 pospheres on educed Iron eduction in T face (C7) Data (D9)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	oil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C3) Visible on Aerial Imagery (C9) Stressed Plants (D1) In Crosition (D2)
Primar S S S S S S S S S	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Co	2)) Aerial Ima	igery (B7)	W A A C C C C C C C C	later-Stained quatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizo resence of R ecent Iron Rohin Muck Sur auge or Well	Plants (B14) ide Odor (C1 ospheres on educed Iron eduction in T face (C7)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	vil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C2) Visible on Aerial Imagery (C9) Stressed Plants (D1) In Cracks (D2)
Primar Primar S S S S S S S Field Obse	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Co	2)) Aerial Ima oncave Si	igery (B7) urface (B8)	W Ad Ad Tr Hy G Tr Re Tr G G G	later-Stained quatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizo resence of R ecent Iron Rohin Muck Sur auge or Well	Plants (B14) ide Odor (C1 pospheres on educed Iron eduction in T face (C7) Data (D9)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	vil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C2) Visible on Aerial Imagery (C9) Stressed Plants (D1) In Cracks (D2)
Primar Primar Primar S S S S S S S S S S S S S	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Coervations: ater Present?	2)) Aerial Ima oncave Si	igery (B7) urface (B8) No ⊠ De	W Ad Tr Hy Co Tr Co Tr Co	dater-Stained quatic Fauna rue Aquatic Fauna rue Aquatic Fydrogen Sulf xidized Rhizo resence of Recent Iron Renin Muck Surauge or Well ther (Explain	Plants (B14) ide Odor (C1 pospheres on educed Iron eduction in T face (C7) Data (D9)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	oil Cracks (B6) Patterns (B10) In Water Table (C2) In Water Table (C3) Visible on Aerial Imagery (C9) Stressed Plants (D1) In Crosition (D2)
Primar Primar Primar S S S S S S S S S S S S S	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Coervations: ater Present? Ye e Present?	2) Aerial Ima oncave Si s	igery (B7) urface (B8) No ⊠ De No ⊠ De	W Ad Tr Hy O: Pr Garage Grepth (inchesepth (inchesepth)	dater-Stained quatic Fauna rue Aquatic Fauna rue Aquatic Fauna rue Aquatic Fauna rue Aquatic Fauna Ruesence of Ruecent Iron Ruck Surauge or Well ther (Explain res):	Plants (B14) ide Odor (C1 pospheres on educed Iron eduction in T face (C7) Data (D9)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Season Crayfish But Saturation Stunted or Geomorphi	oil Cracks (B6) Patterns (B10) In Water Table (C2) Patrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Ic Position (D2) Ial Test (D5)
Primar Primar Primar S S S S S S S Field Obse Surface Wa Water Table Saturation F (includes ca	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Coervations: ater Present? Present? Ye Present? Ye apillary fringe)	2) Aerial Ima bncave Si s	ngery (B7) urface (B8) No ⊠ De No ⊠ De nonitoring we	W Ad Tr Hy Co	dater-Stained quatic Fauna rue Aquatic Fauna rue F	Plants (B14) ide Odor (C1 pospheres on educed Iron eduction in T face (C7) Data (D9) in Remarks)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra Wetland Hydrology Present	vil Cracks (B6) Patterns (B10) In Water Table (C2) Patrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Ic Position (D2) Ial Test (D5)
Primar Primar Primar S S S S S S Field Obse Surface Wa Water Table Saturation F (includes ca Describe Re Map (Exhib	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Coervations: ater Present? Present? Ye Present? Ye apillary fringe) ecorded Data (stream it 3), and Aerial photos	2) Aerial Ima bncave Si s	ngery (B7) urface (B8) No	W Ad Tr Hy Co	dater-Stained quatic Fauna rue Aquatic Fauna rue Aquatic F ydrogen Sulf xidized Rhizo resence of Recent Iron Renin Muck Surauge or Well ther (Explain es):es):	Plants (B14) ide Odor (C1 pospheres on educed Iron eduction in T face (C7) Data (D9) in Remarks)) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra Wetland Hydrology Present ilable: Topo Maps (Exhibit 1	il Cracks (B6) Patterns (B10) In Water Table (C2) Patrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Ic Position (D2) Ial Test (D5) The No Image of the No Imag
Primar Primar Primar S S S S S S S S S S S S S S S S S	ydrology Indicators: ry Indicators (minimum 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 A Sparsely Vegetated Co ervations: ater Present? Present? Ye apillary fringe) ecorded Data (stream bit 3), and Aerial photos The sample site is ir	Aerial Ima concave Si s	ngery (B7) urface (B8) No	W Ad Tr Ad Tr Ad Pr Ad Tr Ad	dater-Stained quatic Fauna rue Aquatic Fauna resence of Ruecent Iron Renin Muck Surauge or Well ther (Explain res):	Plants (B14) ide Odor (C1 pspheres on educed Iron eduction in T face (C7) Data (D9) in Remarks) ous inspection) Living Roo (C4) illed Soils (Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra Wetland Hydrology Present ilable: Topo Maps (Exhibit 1	ill Cracks (B6) Patterns (B10) In Water Table (C2) Patterns (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Ic Position (D2) Ial Test (D5) It? Yes No In No I

WETLAND DETERMINATION DATA FORM – Midwest Region Project/Site: Little Menomonee River Corridor Restoration City/County: City of Mequon/Ozaukee County Sampling Date: 7-8-2019 Applicant/Owner: Ozaukee County/MMSD (Greenseam Parcel) State: WI Sampling Point: 5 Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SEWRPC Section, Township, Range: SE Quarter, Section 20, T9N-R21E Landform (hillslope, terrace, etc.): Little Menomonee River/floodway Local relief (concave, convex, none): linear, concave Slope (%): 0-2% Lat: Datum: NWI classification: T3K Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typical for this time of year? Yes ⊠ No ☐ (If no, explain in Remarks) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? No 🗌 Are Vegetation X, Soil , or Hydrology anaturally 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? Is the Sampled Area ⊠Yes □No within a Wetland? □No Hydric Soils Present? ⊠Yes □No Wetland Hydrology Present? ⊠Yes □No Remarks: 90-day antecedent precipitation is normal. The sample site has naturally problematic vegetation due to an unvegetated section of a

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test work	(sheet:	
1	70 COVE		Olalus	Number of Dominant Spe		
2				That are OBL, FACW, or		
3				Total Number of Dominar	nt	
4				Species Across All Strata		
5				Percent of Dominant Spe	ries	
<u> </u>	<u> </u>	= Total Co	ver	That Are OBL, FACW, or)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index works	heet:	
1				Total % Cover of:	Multiply	<u>y by:</u>
2				OBL species	x 1 =	
3				FACW species	x 2 =	
4				FAC species	x 3 =	
5				FACU species	x 4 =	
	<u>0</u>	= Total Co	ver	UPL species	x 5 =	
Herb Stratum (Plot size: 5' radius)				Column Totals:	(A)	(B)
1				Prevalence In	dex = B/A =	
2				Hydrophytic Vegetation	Indicators:	
3				☐ 1 - Rapid Test for Hyd	Irophytic Vegetatio	n
4				2 - Dominance Test is	s >50%	
5		П		☐ 3 - Prevalence Index☐ 4 - Morphological Ada		sunnorting
6				data in Remarks o		
7		П		∑ 5 - Problematic Hydrop	hytic Vegetation ¹ (E	xplain)
8		П				
9				¹ Indicators of hydric soil		
10				Be present, unless disturb	oed or problematic	
10	<u>0</u>	= Total Co	ver			
Woody Vine Stratum (Plot size: 30' radius)	_			Hydrophytic		
1				Vegetation		
2				Present? Yes	⊠ No □	
	<u> </u>	= Total Co	ver			

Remarks: (Include photo numbers here or on a separate sheet.) The sample site is in an unvegetated section of the Little Menomonee River. It exhibits wetland hydrology indicators and has (inundated) hydric soil. Vegetation on the banks includes: Acer negundo (FAC), Bromus inermis

(UPL), Phalaris arundinacea (FACW), and Rhamnus cathartica (FAC). Open water.

SOIL							Samplin	g Point: <u>5</u>
Profile Des	scription: (Describe to	the depth	needed to docum	ent the ind	icator or con	firm the a	absence of indicators.)	
Depth	Matrix			Redox Fea	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
()			00.0. (0.0.)					. temente
								-
								-
				· 				-
				· 				
1- 0							21 (1 D) D	
	Concentration, D=Deple I Indicators:	ition, RM=F	Reduced Matrix, MS	S=Masked S	and Grains		² Location: PL=Pore Indicators for Proble	
-	Histosol (A1)		П	Sandy Gle	yed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)		一	Sandy Red		.,	Dark Surface (
	Black Histic (A3)			Stripped M	, ,		☐ Iron-Manganes	•
	Hydrogen Sulfide (A4)			Loamy Mu	ıcky Mineral (F	- 1)	☐ Very Shallow □	Dark Surface (TF12)
	Stratified Layers (A5)			_	eyed Matrix (F	2)	Other (Explain	າ in Remarks)
	2 cm Muck (A10)			_Depleted N	, ,			
	Depleted Below Dark S	•	1) <u> </u>		rk Surface (F6	,		
	Thick Dark Surface (A1		님	•	Dark Surface (pressions (F8	. ,		phytic vegetation and
	Sandy Mucky Mineral (-	<u> </u>	_ Redox De	pressions (Fo)	•	ogy must be present,
	5 cm Mucky Peat or Pe Layer (if observed):	at (53)					Uniess disturbe	ed or problematic.
Type							Hydric Soil Present?	Yes⊠ No □
	h (inches):						Tiyunc 3011 Fresent:	163 🖂 140 🗀
Remarks: S	Soils inundated with 5	5 inches o	f river water, hvd	ric by defin	ition - Criter	ia 3.		
HYDROL	OGY							
Wetland H	ydrology Indicators:							
<u>Prima</u>	ry Indicators (minimum	of one is re	equired; check all th	at apply)			Secondary Indica	ators (minimum of two required)
\boxtimes	Surface Water (A1)		Пw	ater-Stained	d Leaves (B9)		☐ Surface Soi	l Cracks (B6)
	High Water Table (A2)			quatic Fauna				atterns (B10)
	-							
	Saturation (A3)				Plants (B14)	`		Water Table (C2)
	Water marks (B1)				fide Odor (C1	•	Crayfish Bu	
	Sediment Deposits (B2)	,			ospheres on	•	` ' —	/isible on Aerial Imagery (C9)
<u></u>	Drift Deposits (B3)				Reduced Iron (Stressed Plants (D1)
	Algal Mat or Crust (B4)		R	ecent Iron R	Reduction in Ti	lled Soils	· · · —	ic Position (D2)
	Iron Deposits (B5)		TI	nin Muck Su	rface (C7)		FAC-Neutra	ıl Test (D5)
	Inundation Visible on Ae	rial Imagery	(B7) <u> </u>	auge or We	ll Data (D9)			
	Sparsely Vegetated Co	ncave Surfa	ace (B8) 🔲 O	ther (Explair	n in Remarks)			
Field Obse	ervations:							
Surface Wa	ater Present? Yes	s⊠ No	☐ Depth (inche	es): <u>5</u>				
Water Tabl	e Present? Yes	s □ No	☐ Depth (inche	es):				
Saturation (includes c	Present? Yes apillary fringe)	No No	☐ Depth (inche	es):		,	Wetland Hydrology Present	? Yes⊠ No □
	ecorded Data (stream on the corded Data (stream of the corded Data (stream			photos, prev	rious inspectio	ns), if ava	ailable: Topo Maps (Exhibit 1)	, WWI Map (Exhibit 2), Soils
				C-mapped	d floodway o	f a straig	htened, dredged portion o	f the Little Menomonee
River. The	e banks of the river a	re steep a	nd undercut at th	is location			· ·	

WETLAND DETERMINATION DATA FORM – Midwest Region Project/Site: Little Menomonee River Corridor Restoration City/County: City of Mequon/Ozaukee County Sampling Date: 7-8-2019 Applicant/Owner: Ozaukee County/MMSD (Greenseam Parcel) State: WI Sampling Point: 6 Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SEWRPC Section, Township, Range: SE Quarter, Section 20, T9N-R21E Landform (hillslope, terrace, etc.): <u>Little Menomonee River/floodway</u> Local relief (concave, convex, none): linear, concave Slope (%): 0-2% Lat: Datum: NWI classification: T3K Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typical for this time of year? Yes ⊠ No ☐ (If no, explain in Remarks) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? No 🗌 Are Vegetation X, Soil , or Hydrology anaturally 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? Is the Sampled Area ⊠Yes □No within a Wetland? □No Hydric Soils Present? ⊠Yes □No Wetland Hydrology Present? ⊠Yes □No Remarks: 90-day antecedent precipitation is normal. The sample site has naturally problematic vegetation due to an unvegetated section of a

VEGETATION – Use scientific names of plants.					
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test work	sheet:
1				Number of Dominant Spec	cies
2				That are OBL, FACW, or F	FAC: <u>0</u> (A)
3				Total Number of Dominant	t
4				Species Across All Strata:	<u>0</u> (B)
5				Percent of Dominant Spec	ies
	<u>0</u>	= Total Cov	ver	That Are OBL, FACW, or I	FAC: <u>0%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksl	neet:
1				Total % Cover of:	Multiply by:
2			-	OBL species	x 1 =
3				FACW species	x 2 =
4			-	FAC species	x 3 =
5		П		FACU species	x 4 =
	<u>0</u>	= Total Cov	ver	UPL species	x 5 =
Herb Stratum (Plot size: 5' radius)				Column Totals:	(A) (B)
1				Prevalence Inc	
2				Hydrophytic Vegetation	Indicators:
3				☐ 1 - Rapid Test for Hyd	rophytic Vegetation
4		П		2 - Dominance Test is	
5				3 - Prevalence Index is	s ≤3.0¹ otations¹ (Provide supporting
6					on a separate sheet)
7		П		□ 5 - Problematic Hydroph	nytic Vegetation¹ (Explain)
8		П			
9				-	nd wetland hydrology must
10				Be present, unless disturb	ed or problematic.
	<u>0</u>	= Total Cov	ver		
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation	
2				Present? Yes	No □
	0	= Total Cov	ver		

Remarks: (Include photo numbers here or on a separate sheet.) The sample site is in an unvegetated section of the Little Menomonee River. It exhibits wetland hydrology indicators and has (inundated) hydric soil. Vegetation on the banks includes: Bromus inermis (UPL), Phalaris arundinacea (FACW), Rhamnus cathartica (FAC), Sambucus nigra (FAC), Solidago gigantea (FACW), and Vitis riparia (FACW). Open water.

US Army Corps of Engineers

SOIL		Sampling Point: <u>6</u>
Profile Description: (Describe to the depth needed	to document the indicator or confirm the	e absence of indicators.)
Depth Matrix	Redox Features	<u></u>
	(moist) % Type ¹ Loc ²	Texture Remarks
		
		
17 000 111 000 111		21
¹ Type: C=Concentration, D=Depletion, RM=Reduced	Matrix, MS=Masked Sand Grains	² Location: PL=Pore Lining, M=Matrix Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Redox (S5)	Dark Surface (S7)
☐ Black Histic (A3)	☐ Iron-Manganese Masses (F12)	
Hydrogen Sulfide (A4)	Stripped Matrix (S6) Loamy Mucky Mineral (F1)	☐ Very Shallow Dark Surface (TF12)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
2 cm Muck (A10)	Depleted Matrix (F3)	
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	³ Indicators of Hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	Wetland hydrology must be present,
☐ 5 cm Mucky Peat or Peat (S3)		Unless disturbed or problematic.
Restrictive Layer (if observed):		
Type:		Hydric Soil Present? Yes ⊠ No □
Depth (inches): Remarks: Soils inundated with 12 inches of river		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (minimum of two required)
_	_	<u> </u>
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	☐ Dry-Season Water Table (C2)
☐ Water marks (B1)	☐ Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living R	oots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	FAC-Neutral Test (D5)
		
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Field Observations:	Other (Explain in Remarks)	Г
	North (in the the 10	
	Pepth (inches): 12	
	Pepth (inches):	
	Depth (inches):	Wetland Hydrology Present? Yes ⊠ No □
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring w	vell, aerial photos, previous inspections), if a	vailable: Topo Maps (Exhibit 1), WWI Map (Exhibit 2), Soils
Map (Exhibit 3), and Aerial photos (Exhibit 4).		
	* *	ightened, dredged portion of the Little Menomonee
		d plastic drain tile outlet was observed near the sample
site, approximately eight inches above river wat	er level.	

Project/Site: Little Menomonee River Cc Applicant/Owner: Ozaukee County/MMS Investigator(s): Chris Jors, Jen Dietl, and Landform (hillslope, terrace, etc.): berm Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky pea Are climatic/hydrologic conditions on the Are Vegetation, Soil, or Hyd Are Vegetation, Soil, or Hyd SUMMARY OF FINDINGS – Attach site Hydrophytic Vegetation Present?	SD (Greenseam Parcel) d Shane Heyel: SEWRI (old dredge spoils)/floo Lo t (Od) site typical for this time rology significan rology naturally map showing sampli YesNo YesNo	y/County: Cit PC Sec dway Loc ng: of year? tly disturbed? problematic?	y of Mequon/C tion, Township al relief (conca Yes Are "Norm (If, needec	Dzaukee Cou D, Range: SE ave, convex, No	state: <u>WI</u> <u>E Quarter, Section 20, T9N</u> none): <u>linear, convex</u> NWI cla no, explain in Remarks) nces" present? Yes ⊠ n answers in Remarks.)	Datum: essification: <u>None</u>
VEGETATION – Use scientific names of	plants.					
Tree Stratum (Plot size: 30' radius)		Absolute	Dominant	Indicator	Dominance Test wo	arka haati
		% Cover <u>20</u>	Species? ⊠	Status		
1. Acer negundo		20		<u>FAC</u>	Number of Dominant Sp That are OBL, FACW, or	
2			_			_ 、
3			Ц		Total Number of Domina Species Across All Stra	
4					·	_ ` ,
5			☐ = Total Cov		Percent of Dominant Sp That Are OBL, FACW, o	
Sanling/Shrub Stratum /Dlot aizo: 20' r	adiua)	<u>20</u>	- 10101 001		Prevalence Index work	`
Sapling/Shrub Stratum (Plot size: 30' r	<u>adius)</u>	40		EAC		
1. Acer negundo		<u>10</u>		<u>FAC</u>	Total % Cover of:	Multiply by:
2					OBL species	x 1 =
3					FACW species	x 2 =
4					FAC species	x 3 =
5					FACU species	x 4 =
9		10	= Total Cov	ver	UPL species	x 5 =
Herb Stratum (Plot size: <u>5' radius</u>)					Column Totals:	(A) (B)
1. Phalaris arundinacea		<u>65</u>	\boxtimes	FACW		Index = B/A =
Solidago altissima		<u>20</u>		FACU	Hydrophytic Vegetation	
		<u>15</u>		<u>FACU</u>		
3. Arctium minus					☐ 1 - Rapid Test for H ☐ 2 - Dominance Tes	
4. Rhamnus cathartica		<u>8</u>		<u>FAC</u>	3 - Prevalence Inde	
5. <u>Cirsium arvense</u>		<u>3</u>		<u>FACU</u>		daptations ¹ (Provide supporting
6						or on a separate sheet)
7					5 - Problematic Hyd	rophytic Vegetation ¹ (Explain)
8						
9					=	il and wetland hydrology must
10					Be present, unless distu	urbed or problematic.
10		111	= Total Cov	ver		
Woody Vine Stratum (Plot size: 30' radi	ius)	<u></u>				
	- /				Hydrophytic Vegetation	
1		-	<u> </u>		Present? Yes	⊠ No □
2			☐ = Total Cov			
Demontos (Include what would are		<u>0</u>	- 10tal C0\	v C I		
Remarks: (Include photo numbers here	on on a separate sheet	., Olu Ilelu.				

SOIL							· ·	g Point: <u>7</u>
Profile Des	scription: (Describe	to the de	oth needed to docur	nent the ind	licator or cor	firm the a	absence of indicators.)	
Depth	Matrix			Redox Fea	tures		<u> </u>	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 3/2	100					Silt loam	
5-15	2.5Y 4/1	90	7.5YR 4/6	10	. <u> </u>		Clay loam	
15-19	2.5Y 4/1	55	10YR 4/6	5	. <u> </u>		Silt loam	
	10YR 2/1	40						
19+				_		ī		Refusal: Hard, dry soil
			· -				<u> </u>	
¹Typo: C=	Concentration, D=Dep	olotion PA	4-Poducod Matrix M	S-Maskad S	Sand Grains		² Location: PL=Pore	Lining M-Matrix
	il Indicators:	Dietion, IXI	VI-I LEGUCEU WALITA, IVI	O-Masked C	Danu Grains		Indicators for Proble	
_	Histosol (A1)				eyed Matrix (S	34)	Coast Prairie F	Redox (A16)
	Histic Epipedon (A2)			Sandy Re			Dark Surface (•
	Black Histic (A3)	`	<u> </u>	Stripped N		E4)	Iron-Mangane	
	Hydrogen Sulfide (A4 Stratified Layers (A5)		<u> </u>		ıcky Mineral (eyed Matrix (F	-	Other (Explain	Dark Surface (TF12)
	2 cm Muck (A10)				eyed Matrix (F3)	-2)	Other (Explain	III Remarks)
	Depleted Below Dar	k Surface			rk Surface (F	3)		
	Thick Dark Surface (A		` _		Dark Surface		³ Indicators of Hydro	phytic vegetation and
	Sandy Mucky Mineral	(S1)		Redox De	pressions (F8)		ogy must be present,
	5 cm Mucky Peat or F						Unless disturbe	ed or problematic.
	Layer (if observed)	:						
Type	: <u>19</u> h (inches): <u>Hard, dry s</u>	oil					Hydric Soil Present?	P Yes⊠ No □
Cicvatcu	convex location.							
HYDROL	OGY							
Wetland H	ydrology Indicators:							
<u>Prima</u>	ry Indicators (minimur	m of one is	s required; check all t	hat apply)			Secondary Indicate	ators (minimum of two required)
	Surface Water (A1)		□ V	Vater-Staine	d Leaves (B9))	☐ Surface So	l Cracks (B6)
	High Water Table (A2)	A	quatic Faun	a (B13)		☐ Drainage P	atterns (B10)
	Saturation (A3)		т	rue Aquatic	Plants (B14)		☐ Dry-Seasor	Water Table (C2)
	Water marks (B1)		<u> </u>	lydrogen Sul	lfide Odor (C1)	Crayfish Bu	rrows (C8)
	Sediment Deposits (B	2)		xidized Rhiz	zospheres on	Living Roc	ots (C3) Saturation \	/isible on Aerial Imagery (C9)
	Drift Deposits (B3)		P	resence of F	Reduced Iron	(C4)	Stunted or	Stressed Plants (D1)
	Algal Mat or Crust (B4	1)	F	Recent Iron F	Reduction in T	illed Soils	(C6) Geomorphi	c Position (D2)
	Iron Deposits (B5)		т	hin Muck Su	ırface (C7)			al Test (D5)
	Inundation Visible on	Aerial Ima	gery (B7)	auge or We	ll Data (D9)		<u> </u>	
	Sparsely Vegetated C	oncave S	urface (B8)	ther (Explain	n in Remarks))		
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es 🗌 🛮 N	lo 🛛 Depth (inch	es):				
Water Tabl	le Present? Ye	es 🗌 🛮 N	lo 🛛 Depth (inch	es):				
Saturation (includes c	Present? Ye apillary fringe)	es 🗌 🛚 N	lo ⊠ Depth (inch	es):		1	Wetland Hydrology Present	? Yes ☐ No ⊠
	Recorded Data (stream bit 3), and Aerial photo		-	photos, prev	vious inspection	ons), if ava	ilable: Topo Maps (Exhibit 1), WWI Map (Exhibit 2), Soils
				odway of th	ne Little Mer	nomonee	River. However, geomorp	hic position (D2) does not
apply as t	· · · · · · · · · · · · · · · · · · ·			-			erefore, only one seconda	

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam Palnvestigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SE'Landform (hillslope, terrace, etc.): toeslope/floodway Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typical for this Are Vegetation, Soil, or Hydrology signiff Are Vegetation, Soil, or Hydrology natura SUMMARY OF FINDINGS - Attach site map showing sate Hydrophytic Vegetation Present?	City/County: Cit rcel) WRPC Sec Loc Long: time of year? icantly disturbed? ally problematic? mpling point loca	y of Mequon/C tion, Township al relief (conca Yes ⊠ Are "Norm (If, needec	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Quarter, Section 20, T9N none): concave NWI clas no, explain in Remarks) nces" present? Yes / answers in Remarks.)	Sampling Date: 7-8-2019 Sampling Point: 8 I-R21E Datum: ssification: None No □
VEGETATION – Use scientific names of plants.				I	
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	rksheet:
1	——			Number of Dominant Sp	ecies
2		П		That are OBL, FACW, or	r FAC: <u>1</u> (A)
3				Total Number of Domina	ınt
4				Species Across All Strata	a: <u>1</u> (B)
5				Percent of Dominant Spe	ecies
	<u>0</u>	= Total Co	ver	That Are OBL, FACW, or	r FAC: <u>100%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index work	sheet:
1		П		Total % Cover of:	Multiply by:
2		П		OBL species	x 1 =
3				FACW species	x 2 =
4					
				FAC species	x 3 =
5	0	☐ = Total Co		FACU species UPL species	x 4 = x 5 =
Herb Stratum (Plot size: 5' radius)	<u> </u>	- 10tai C0	VCI	·	
	<u>100</u>	\boxtimes	FACW	Column Totals:	(A) (B)
1. <u>Phalaris arundinacea</u>			·	Hydrophytic Vegetation	ndex = B/A =
2. Solidago altissima	<u>10</u>		FACU	Tryurophytic regulation	ii iiididatoi o.
3. Solidago gigantea	<u>10</u>		<u>FACW</u>	1 - Rapid Test for Hy	
4. Asclepias syriaca	<u>6</u>		<u>FACU</u>		
5				_	laptations ¹ (Provide supporting
6					or on a separate sheet)
7		П		5 - Problematic Hydr	ophytic Vegetation¹ (Explain)
8					
9					and wetland hydrology must
10				Be present, unless distu	rbed or problematic.
	<u>126</u>	= Total Co	ver		
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation	
2				Present? Yes	⊠ No □
	0	= Total Co	ver		
Remarks: (Include photo numbers here or on a separate s	-			<u> </u>	
	,	-			

SOIL							Samplin	g Point: <u>8</u>
Profile De	scription: (Describe to	the dep	th needed to doo	ument the ind	licator or cor	nfirm the	absence of indicators.)	
Depth	Matrix			Redox Fea	tures		<u></u>	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-15	N 2.5/	100			. <u></u>		Muck	
15-26	10Y 5/1	60	7.5YR 4/4	40	C	PL M	Clay loam	
					. <u></u>			
					. 		_	
1T C-	Consentantian D-Daul	ation DN		MC-Maskad C	Sand Chains		21	Lining NA-Matrix
	Concentration, D=Deple il Indicators:	elion, Riv	i-Reduced Matrix,	MS-Masked S	Sand Grains		² Location: PL=Pore Indicators for Proble	
_	Histosol (A1)			☐ Sandy Gle	yed Matrix (S	64)	☐ Coast Prairie F	
	Histic Epipedon (A2)		_	Sandy Red			Dark Surface (•
╽╶╬	Black Histic (A3) Hydrogen Sulfide (A4)		_	Stripped M	/latrix (S6) icky Mineral (l	E1\		se Masses (F12) Dark Surface (TF12)
	Stratified Layers (A5)		_		eyed Matrix (F	•	Other (Explain	, ,
	2 cm Muck (A10)		-	Depleted N	•	_,	<u> </u>	,
	Depleted Below Dark S	•	A11)		rk Surface (F6	,		
	Thick Dark Surface (A			-	Dark Surface pressions (F8	. ,	,	phytic vegetation and
-	Sandy Mucky Mineral (5 cm Mucky Peat or Pe	,	_	Redox De	pressions (F8	9)		ogy must be present, d or problematic.
	e Layer (if observed):	ai (33)					Offices disturbe	u or problematic.
	e:						Hydric Soil Present?	Yes⊠ No □
Dept	th (inches):							
Remarks:								
HYDROL	OGY							
Wetland F	lydrology Indicators:							
Prima	ary Indicators (minimum	of one is	required; check a	Il that apply)			Secondary Indica	ators (minimum of two required)
П	Surface Water (A1)		П	Water-Stained	d Leaves (B9))	☐ Surface Soi	l Cracks (B6)
	High Water Table (A2)		<u> </u>	Aquatic Fauna		,		atterns (B10)
	Saturation (A3)		<u></u>	True Aquatic				Water Table (C2)
	Water marks (B1)			Hydrogen Sul	, ,	1)	, ☐ Crayfish Bu	
	Sediment Deposits (B2)		Oxidized Rhiz		•		/isible on Aerial Imagery (C9)
	Drift Deposits (B3)	,		Presence of F		-	· · · · 	Stressed Plants (D1)
	Algal Mat or Crust (B4)			Recent Iron R	Reduction in T	illed Soils	(C6) Geomorphic	Position (D2)
	Iron Deposits (B5)			Thin Muck Su	ırface (C7)			al Test (D5)
	Inundation Visible on A	erial Ima	gery (B7)	Gauge or We	ll Data (D9)			
	Sparsely Vegetated Co	ncave Su	ırface (B8)	Other (Explain	n in Remarks))		
Field Obs								
Surface W			o 🛛 Depth (in	, 				
Water Tab			lo 🗌 Depth (ir	nches): 21				
Saturation		s 🛛 N	lo 🗌 Depth (ir	nches): <u>5</u>			Wetland Hydrology Present	? Yes⊠ No □
•	capillary fringe)							
				ial photos, prev	rious inspection	ons), if ava	ailable: Topo Maps (Exhibit 1)	, WWI Map (Exhibit 2), Soils
	bit 3), and Aerial photos The sample site lies			n the SFWRF	C-manned	floodway	of the Little Menomonee F	River. However, geomorphic
	D2) does not apply d		•				2. LIG ELLIG MONOMONIO	Honorol, goomolpillo
`				•				

Project/Site: Little Menomonee River of Applicant/Owner: Ozaukee County/MI Investigator(s): Chris Jors, Jen Dietl, at Landform (hillslope, terrace, etc.): toe: Slope (%): 0-2%	MSD (Greenseam Parce and Shane Heyel: SEW) slope/floodway Leat (Od) ne site typical for this tin ydrology significatydrology naturally ite map showing samp \[\text{Yes}	City/County: Citel) RPC Seconds: Local Lo	y of Mequon/C stion, Township al relief (conca Yes ⊠ Are "Norm (If, needed	Dzaukee Cou D, Range: SE ave, convex, No	nty State: WI Quarter, Section 20, T9I none): concave NWI cla no, explain in Remarks) nces" present? Yes ⊠ y answers in Remarks.)	Datum: assification: <u>None</u>
Remarks. 30-day antecedent prec	apitation is normal.					
VEGETATION – Use scientific names	of plants.					
Tree Stratum (Plot size: 30' radius) 1		Absolute % Cover	Dominant Species? ☐	Indicator Status	Dominance Test wo	
2					That are OBL, FACW, o	or FAC: <u>3</u> (A)
3 4				_	Total Number of Domin Species Across All Stra	ta: <u>3</u> (B)
5		<u>0</u>	= Total Co	ver	Percent of Dominant Sp That Are OBL, FACW, o	or FAC: <u>100%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30	<u>)' radius</u>)				Prevalence Index work	ksheet:
1. Acer negundo		<u>15</u>	\boxtimes	<u>FAC</u>	Total % Cover of:	Multiply by:
2. Fraxinus pennsylvanica		<u>3</u>		<u>FACW</u>	OBL species	x 1 =
3					FACW species	x 2 =
4					FAC species	x 3 =
5					FACU species	x 4 =
		<u>18</u>	= Total Co	ver	UPL species	x 5 =
Herb Stratum (Plot size: <u>5' radius</u>)					Column Totals:	(A)(B)
1. Phalaris arundinacea		<u>60</u>	\boxtimes	FACW	Prevalence	Index = B/A =
2. Ambrosia trifida		<u>25</u>	\boxtimes	<u>FAC</u>	Hydrophytic Vegetation	on Indicators:
3. Elymus repens		<u>15</u>		<u>FACU</u>	☐ 1 - Rapid Test for H	ydrophytic Vegetation
4. <u>Cirsium arvense</u>		<u>10</u>		<u>FACU</u>	2 - Dominance Tes	st is >50%
5					3 - Prevalence Inde	x is ≤3.0¹ daptations¹ (Provide supporting
6						or on a separate sheet)
7					5 - Problematic Hyd	Irophytic Vegetation¹ (Explain)
8						
9					¹ Indicators of hydric so	il and wetland hydrology must
					Be present, unless distu	urbed or problematic.
10		110	= Total Co	ver		
Woody Vine Stratum (Plot size: 30' ra	adius)	<u></u>				
	 ,				Hydrophytic Vegetation	
1 2					Present? Yes	s⊠ No □
<u></u>		0	= Total Co	ver		
Remarks: (Include photo numbers he	ere or on a separate she				I	

SOIL							Samplin	g Point: <u>9</u>
Profile De	scription: (Describe to	the dep	th needed to do	cument the ind	licator or cor	nfirm the	absence of indicators.)	
Depth	Matrix			Redox Fea	tures		<u></u>	
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks
0-19	N 2.5/	100					Muck	
19-26	2.5Y 4/1	88	7.5YR 4/6	12	C	PL M	Clay loam	
1Tymer C-	Concentration D-Deal	otion DN	I-Daduard Matrix	MC=Mooked C	and Crains		21 continue DI =Doro	Lining M-Matrix
	Concentration, D=Deple il Indicators:	elion, Riv	i-Reduced Mainx	a, MS-Masked S	Sand Grains		² Location: PL=Pore Indicators for Proble	
	Histosol (A1)		_		eyed Matrix (S	64)	Coast Prairie F	Redox (A16)
	Histic Epipedon (A2)		-	Sandy Red			Dark Surface (•
╽╶╬	Black Histic (A3) Hydrogen Sulfide (A4)		-	Stripped M	/latrix (S6) icky Mineral (F1)		se Masses (F12) Dark Surface (TF12)
	Stratified Layers (A5)		-		eyed Matrix (F	•	Other (Explain	
	2 cm Muck (A10)		-	Depleted N	•	,		,
	Depleted Below Dark S	•	A11)		rk Surface (F	,		
	Thick Dark Surface (A Sandy Mucky Mineral (Dark Surface pressions (F8	. ,		phytic vegetation and
-	5 cm Mucky Peat or Pe	,	-	Redox De	pressions (Fo	·)		ogy must be present, ed or problematic.
	e Layer (if observed):	at (00)					Offices disturbe	d of problematic.
Туре	e:						Hydric Soil Present?	Yes⊠ No □
	th (inches):							
Remarks:								
HYDROL	OGY							
Wetland F	lydrology Indicators:							
Prima	ary Indicators (minimum	of one is	required; check	all that apply)			Secondary Indicate	ators (minimum of two required)
	Surface Water (A1)			Water-Stained	d Leaves (B9))	☐ Surface So	l Cracks (B6)
	High Water Table (A2)			- Aquatic Fauna	a (B13)		Drainage P	atterns (B10)
\boxtimes	Saturation (A3)			True Aquatic	Plants (B14)		☐ Dry-Seasor	Water Table (C2)
	Water marks (B1)			- Hydrogen Sul	fide Odor (C1	1)	Crayfish Bu	rrows (C8)
	Sediment Deposits (B2)		Oxidized Rhiz	ospheres on	Living Ro	ots (C3) Saturation \	/isible on Aerial Imagery (C9)
	Drift Deposits (B3)			Presence of F	Reduced Iron	(C4)	☐ Stunted or	Stressed Plants (D1)
	Algal Mat or Crust (B4)			Recent Iron R	Reduction in T	illed Soils	(C6) Geomorphi	c Position (D2)
	Iron Deposits (B5)			Thin Muck Su	ırface (C7)			al Test (D5)
	Inundation Visible on A	erial Ima	gery (B7)	Gauge or We	ll Data (D9)			
	Sparsely Vegetated Co	ncave Su	ırface (B8)	Other (Explain	n in Remarks)		
Field Obs		_						
			o 🛛 Depth (i	,				
			` `	nches): <u>25.5</u>				
Saturation (includes of	Present? Yes capillary fringe)	s 🛛 N	lo Depth (i	nches): <u>9</u>			Wetland Hydrology Present	? Yes⊠ No □
•	. , , ,							
	Recorded Data (stream bit 3), and Aerial photos			rial photos, prev	ious inspection	ons), if ava	ailable: Topo Maps (Exhibit 1	, WWI Map (Exhibit 2), Soils
				the SEWRPO	-mapped flo	oodway c	of the Little Menomonee Ri	ver. However, geomorphic
	D2) does not apply d		-			,		, 3

Project/Site: Little Menomonee River Corrid Applicant/Owner: Ozaukee County/MMSD (Investigator(s): Chris Jors, Jen Dietl, and SI Landform (hillslope, terrace, etc.): berm (wit Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (O Are climatic/hydrologic conditions on the site Are Vegetation, Soil, or Hydrolo Are Vegetation, Soil, or Hydrolo SUMMARY OF FINDINGS – Attach site ma Hydrophytic Vegetation Present?YG Hydric Soils Present?YG Wetland Hydrology Present?YG Remarks: 90-day antecedent precipitat	or Restoration City/O Greenseam Parcel) hane Heyel: SEWRPC h dredge spoils)/floody Long: d) typical for this time of gy significantly gy naturally pro ap showing sampling esNo esNo	Sec way Loca year? disturbed? blematic?	y of Mequon/O: tion, Township, al relief (concav Yes N Are "Norma (If, needed)	zaukee Cour , Range: SE ve, convex, r No (If I al Circumstal , explain any ets, importar	State: WI Quarter, Section 20, T9N none): linear convex NWI clas no, explain in Remarks) nces" present? Yes v answers in Remarks.)	Sampling Date: 7-8-2019 Sampling Point: 10 I-R21E Datum: ssification: T3K No □
VEGETATION – Use scientific names of pla						
Tree Stratum (Plot size: 30' radius)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	rksheet:
1. Rhamnus cathartica		30	Species?	FAC	Number of Dominant Spo	
2. Acer negundo		<u>25</u>		FAC	That are OBL, FACW, or	
3		==		IAG		
					Total Number of Domina Species Across All Strata	
4					·	_ 、
5		<u></u>	= Total Cov		Percent of Dominant Spe That Are OBL, FACW, or	
Conline (Chrysh Ctroture (Diet circo 20) redi)	<u>55</u>	- 10tal 00V		Prevalence Index works	,
Sapling/Shrub Stratum (Plot size: 30' radiu	<u>18</u>)	00	57	540		
1. Rhamnus cathartica		<u>60</u>	<u> </u>	FAC	Total % Cover of:	Multiply by:
2					OBL species	x 1 =
3					FACW species	x 2 =
4					FAC species	x 3 =
5			П		FACU species	x 4 =
3		60	= Total Cov	er	UPL species	x 4
Herb Stratum (Plot size: 5' radius)				<u></u>	Column Totals:	(A) (B)
		<u>20</u>	\boxtimes	FAC	·	(A) (B) ndex = B/A =
1. Rhamnus cathartica		<u>8</u>		FACU	Hydrophytic Vegetation	
2. <u>Taraxacum officinale</u>					,,	
3. Ribes americanum		<u>2</u>		<u>FACW</u>	1 - Rapid Test for Hy	
4						
5						aptations ¹ (Provide supporting
6						or on a separate sheet)
7					│	ophytic Vegetation¹ (Explain)
8						
9					¹ Indicators of hydric soil	and wetland hydrology must
			П		Be present, unless distur	rbed or problematic.
10		20	= Total Cov			
Woody Vino Stratum (Diet -i 20) i'		<u>30</u>	. 5.6.1 550			
Woody Vine Stratum (Plot size: 30' radius)					Hydrophytic	
1		-			Vegetation Present? Yes	⊠ No □
2						<u> </u>
		<u>0</u>	= Total Cov	er		
Remarks: (Include photo numbers here or	on a separate sheet.) I	Buckthorn	thicket.			

SOIL										ing Point: <u>10</u>
Profile De	scription: (Descri	be to the de	oth needed	to docun	nent the ind	icator or cor	firm the a	absence c	of indicators.)	
Depth	Matri	x	_		Redox Feat					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Remarks
0-6	10YR 3/1	100						Silt loar	n	
6-19	10YR 5/2	70	7.5YR 4/6		10	С	PL M	Silt loar	n	with gravel
	10YR 3/1	20	-							
19+			-		<u> </u>					Refusal: Hard, dry soil and gra
	·									
,	Concentration, D=I	Depletion, RN	/I=Reduced	Matrix, M	S=Masked S	and Grains				e Lining, M=Matrix
-	il Indicators:				0 1 01		. 45	Inc		lematic Hydric Soils ³ :
	Histosol (A1) Histic Epipedon (A	2)		井	Sandy Gle Sandy Red	yed Matrix (S	4)	-	☐ Coast Prairie ☐ Dark Surface	
+	Black Histic (A3)	12)		+	Stripped M	, ,		-		ese Masses (F12)
	Hydrogen Sulfide ((A4)		一一		cky Mineral (F1)	-		Dark Surface (TF12)
	Stratified Layers (A					yed Matrix (F	-	-		n in Remarks)
	` ,			\boxtimes	Depleted I	Matrix (F3)		_		
	Depleted Below D		(A11)			k Surface (F6	,			
	Thick Dark Surface					Dark Surface		3		ophytic vegetation and
	Sandy Mucky Mine				_ Redox Dep	oressions (F8)		•	ology must be present,
Postrictiv	5 cm Mucky Peat of e Layer (if observe								Uniess distur	ped or problematic.
	e: <u>Hard, dry soil and</u>	•						н	dric Soil Present	t? Yes⊠ No □
• .	th (inches): <u>19</u>							,	,	
HYDROL	OGY									
	lydrology Indicato	ors:								
	ary Indicators (minir		s required; c	heck all th	nat apply)				Secondary Indi	cators (minimum of two required
	-		•			d L agyes (DO)				
_ 	Surface Water (A1	•				d Leaves (B9))			oil Cracks (B6)
_ <u></u>	High Water Table ((A2)			quatic Fauna	` ,				Patterns (B10)
_ 	Saturation (A3)				rue Aquatic I		`			on Water Table (C2)
무	Water marks (B1)	(DO)				fide Odor (C1	•	. (00)		surrows (C8)
<u></u>	Sediment Deposits	, ,				ospheres on	-	ots (C3)		Visible on Aerial Imagery (C9)
	Drift Deposits (B3)					Reduced Iron				Stressed Plants (D1)
<u> </u>	Algal Mat or Crust	(B4)				eduction in T	illed Soils	(C6)		nic Position (D2)
	Iron Deposits (B5)				hin Muck Su	, ,			FAC-Neut	ral Test (D5)
	Inundation Visible				auge or Wel	l Data (D9)				
	Sparsely Vegetate	d Concave S	urface (B8)	<u> </u>	ther (Explair	n in Remarks))			
Field Obs			. 🖂 -							
	ater Present?			epth (inche						
	le Present?				es):					
•	capillary fringe)				es):				Hydrology Preser	
	Recorded Data (stre bit 3), and Aerial ph			ell, aerial _l	photos, prev	ious inspection	ons), if ava	ilable: To	po Maps (Exhibit	1), WWI Map (Exhibit 2), Soils
Remarks:	The sample site	is in the SE	WRPC-ma	pped floo	odway of th	ne Little Mer	omonee	River. Ho	owever, geomor	phic position (D2) does not
apply as	the site is on a co	onvex, dred	ge spoil be	m and a	drain tile s	system is pre	esent. No	wetland	hydrology indica	ators observed.

Project/Site: Little Menomonee River Corridor Restoral Applicant/Owner: Ozaukee County/MMSD (Greenseal Investigator(s): Chris Jors, Jen Dietl, and Shane Heye Landform (hillslope, terrace, etc.): berm (with dredge size Slope (%): 0-2%	m Parcel) bl: SEWRPC Sec spoils) Loc Long: r this time of year? significantly disturbed? naturally problematic? g sampling point loca No No	y of Mequon/C tion, Township al relief (conca Yes Are "Norm (If, needec	Dzaukee Cou D, Range: SE ave, convex, No	Sampling Date: 7-8-2019 State: WI Sampling Point: 11 E Quarter, Section 20, T9N-R21E none): linear convex Datum: NWI classification: None no, explain in Remarks) reas" present? Yes \(\) No \(\)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30' radius)	Absolute	Dominant	Indicator	Dominance Test worksheet:
4 Assumaniumda	% Cover <u>25</u>	Species? ⊠	Status <u>FAC</u>	
1. Acer negundo	<u>20</u>		IAU	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2				_ ,
3				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
4				_ ` _ ` ,
5	<u></u> <u>25</u>	= Total Cov	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)	23	Total oo	VOI	Prevalence Index worksheet:
	10	\square	EAC	
1. Rhamnus cathartica	<u>10</u>		FAC	Total % Cover of: Multiply by:
2. Acer negundo	<u>8</u>	\boxtimes	<u>FAC</u>	OBL species x 1 =
3. Lonicera x bella	<u>6</u>	\boxtimes	<u>FACU</u>	FACW species x 2 =
4				FAC species x 3 =
5				FACU species x 4 =
	<u>24</u>	= Total Cov	ver	UPL species x 5 =
Herb Stratum (Plot size: 5' radius)				Column Totals: (A) (B
1. Bromus inermis	<u>60</u>	\boxtimes	<u>UPL</u>	Prevalence Index = B/A =
2. Elymus repens	<u>20</u>		FACU	Hydrophytic Vegetation Indicators:
3. Phalaris arundinacea	20		FACW	D. A. Bookli Took for the decode the Manual of the
	<u>8</u>	_	FACU	☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50%
4. <u>Asclepias syriaca</u>	<u> </u>		17100	☐ 3 - Prevalence Index is ≤3.0¹
5				4 - Morphological Adaptations ¹ (Provide supporting
6				data in Remarks or on a separate sheet) 5 - Problematic Hydrophytic Vegetation¹ (Explain)
7				5 - Froblematic Frydrophytic Vegetation (Explain)
8				
9				¹ Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.
10				be present, unless disturbed of problematic.
	<u>108</u>	= Total Cov	ver	
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic
1				Hydrophytic Vegetation
2				Present? Yes ⊠ No □
	0	= Total Cov	ver	
Remarks: (Include photo numbers here or on a separ	_			l trees
	als shost, old hold w	coattorou	3 455 and	

SOIL							Sampling	Point: <u>11</u>
Profile De	scription: (Describe	to the dep	oth needed to docu	ument the ind	licator or cor	nfirm the a	absence of indicators.)	
Depth	Matrix			Redox Fea	itures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-4	10YR 3/2	100			·		Silt loam	
4-20	10YR 3/2	50	7.5YR 4/6			PL M	Loam	
4-20			7.511\ 4/0			- FL IVI	Loan	
	10YR 6/2	18	-			-		
	10YR 6/4	30					Very fine sand	
	<u> </u>							
		_						
1= 0	0 1 " 0 0						21 (1 51 5 1	
	Concentration, D=Del	pletion, RN	I=Reduced Matrix,	MS=Masked S	Sand Grains		² Location: PL=Pore L Indicators for Problem	
-	Histosol (A1)		Г	☐ Sandy Gle	eyed Matrix (S	34)	Coast Prairie Re	
	Histic Epipedon (A2)			Sandy Re		, . ,	Dark Surface (S	
	Black Histic (A3)			Stripped N	, ,		Iron-Manganese	•
	Hydrogen Sulfide (A4	.)		Loamy Mu	ucky Mineral (F1)	☐ Very Shallow Da	ark Surface (TF12)
	Stratified Layers (A5)]		eyed Matrix (F	- 2)	Other (Explain in	n Remarks)
	2 cm Muck (A10)		<u> </u>		Matrix (F3)			
	Depleted Below Dark	,	\11) <u>[</u>	<u> </u>	rk Surface (F	,		
	Thick Dark Surface (A Sandy Mucky Minera		L		Dark Surface pressions (F8		³ Indicators of Hydrop	
	•		_ <u>L</u>		pressions (Fo	·)	•	gy must be present,
	5 cm Mucky Peat or F e Layer (if observed)						Unless disturbed	or problematic.
Type							Hydric Soil Present?	Yes □ No ⊠
	:h (inches):						Trydric 30ii Fresenti	res 🗆 🔞 🖂
HYDROL	OGY							
	lydrology Indicators	•						
	ary Indicators (minimu		required: check all	that apply)			Secondary Indicat	ors (minimum of two required)
		0. 0			d.L (D0)		<u>_</u>	
	Surface Water (A1)			Water-Staine)	Surface Soil	, ,
	High Water Table (A2	(.)		Aquatic Faun			Drainage Pat	
	Saturation (A3)			True Aquatic				Water Table (C2)
	Water marks (B1)			Hydrogen Sul		•	Crayfish Burr	, ,
	Sediment Deposits (E	32)		Oxidized Rhiz	-	•	` '	sible on Aerial Imagery (C9)
	Drift Deposits (B3)			Presence of F				tressed Plants (D1)
	Algal Mat or Crust (B4	4)		Recent Iron R	Reduction in T	illed Soils	(C6) Geomorphic	Position (D2)
	Iron Deposits (B5)			Thin Muck Su	urface (C7)		FAC-Neutral	Test (D5)
	Inundation Visible on	Aerial Ima	gery (B7)	Gauge or We	ell Data (D9)			
	Sparsely Vegetated C	Concave Si	urface (B8)	Other (Explain	n in Remarks)		
Field Obs	ervations:							
Surface W	ater Present? Y	es 🗌 🛮 N	lo 🛛 Depth (ind	ches):				
Water Tab	le Present? Y	es 🗌 🛮 N	lo 🛭 Depth (ind	ches):				
Saturation (includes of	Present? Y capillary fringe)	es 🗌 🛚 N	lo 🛛 Depth (ind	ches):		,	Wetland Hydrology Present?	Yes □ No ⊠
	Recorded Data (strean bit 3), and Aerial photo			al photos, prev	vious inspection	ons), if ava	ailable: Topo Maps (Exhibit 1),	WWI Map (Exhibit 2), Soils
		-		loodway of th	he Little Mer	nomonee	River. However, geomorph	ic position (D2) does not
apply as t	the site is on a conv	ex, dredo	ge spoil berm and	a drain tile s	system is pre	esent. No	wetland hydrology indicato	ors observed.

Project/Site: Little Menomonee River Corridor Resi Applicant/Owner: Ozaukee County/MMSD (Greens Investigator(s): Chris Jors, Jen Dietl, and Shane H Landform (hillslope, terrace, etc.): hillslope/floodwa Slope (%): 0-2%	seam Parcel) eyel: SEWRPC Set AY Long: Long: significantly disturbed? naturally problematic? wing sampling point locations No No	ty of Mequon/C ction, Township cal relief (conca Yes ⊠ Are "Norm (If, needed	Dzaukee Cou p, Range: SE ave, convex, No	Sampling Date: 7-8-2019 State: WI Sampling Point: 12 E Quarter, Section 20, T9N-R21E none): linear Datum: NWI classification: None no, explain in Remarks) r answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1	// Cover		Status	Number of Dominant Species
2				That are OBL, FACW, or FAC: $\underline{3}$ (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>3</u> (B)
5	<u> </u>	☐ = Total Co	—— ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)	_			Prevalence Index worksheet:
1. Acer negundo	<u>80</u>	\boxtimes	FAC	Total % Cover of: Multiply by:
2				OBL species x 1 =
3		П		FACW species x 2 =
4				FAC species x 3 =
5				· — —
5	80	= Total Co	ver	FACU species
Herb Stratum (Plot size: 5' radius)	<u> </u>			Column Totals: (A) (B
1. Alliaria petiolata	<u>35</u>	\boxtimes	FAC	Prevalence Index = B/A =
2. Rhamnus cathartica	<u> 15</u>	\boxtimes	FAC	Hydrophytic Vegetation Indicators:
3. Phalaris arundinacea	<u>10</u>		FACW	D 4 David Task familiadasahadis Vanakatian
4. Hesperis matronalis	<u>8</u>		FACU	☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50%
5. Ambrosia trifida	<u>-</u> <u>5</u>		FAC	☐ 3 - Prevalence Index is ≤3.0¹
6. Galium aparine	<u>-</u> <u>5</u>		FACU	 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
7. Ambrosia artemisiifolia	<u>3</u>		FACU	5 - Problematic Hydrophytic Vegetation¹ (Explain)
8	-			
9				¹ Indicators of hydric soil and wetland hydrology must
		<u> </u>		Be present, unless disturbed or problematic.
10	81	= Total Co	ver	
Woody Vine Stratum (Plot size: 30' radius)	<u> </u>			
1		П		Hydrophytic Vegetation
2.		_		Present? Yes ⊠ No □
	<u> </u>	= Total Co	ver	
Remarks: (Include photo numbers here or on a se	parate sheet.) Shrub thic	ket.		1

Sampling Point: 12									
Profile Des	scription: (Describe t	o the dep	oth needed to do	cument the ind	icator or co	onfirm the a	bsence of indicators.)		
Depth Matrix			Redox Features				<u> </u>		
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks	
0-10	10YR 3/2	60	10YR 5/6	25	С	PL M	Silty clay loam	dredge spoils	
	10YR 5/2	10	10YR 4/4	5	С	PL M			
10-18	N 2.5/	100	•				Muck		
18-25	10YR 5/2	90	7.5YR 4/6	10	С	PL M	Clay loam		
								-	
								-	
					•	-	-		
	Concentration, D=Depl	letion, RM	1=Reduced Matrix	, MS=Masked S	and Grains		² Location: PL=Por		
	I Indicators: Histosol (A1)			□ Sandy Cla	wod Matrix (S4)	Indicators for Probl ☐ Coast Prairie	lematic Hydric Soils ³ :	
Histosol (A1) Histic Epipedon (A2) Sandy Gleyed Matrix (S4) Sandy Redox (S5)						Dark Surface			
☐ Black Histic (A3) ☐ Stripped Matrix (S6)						Iron-Manganese Masses (F12)			
	Hydrogen Sulfide (A4)		-		cky Mineral	` '	☐ Very Shallow	Dark Surface (TF12)	
	Stratified Layers (A5)		<u>-</u>		eyed Matrix ((F2)	Other (Explai	n in Remarks)	
	2 cm Muck (A10)			Depleted N	, ,				
	Depleted Below Dark S Thick Dark Surface (A		A11) -		rk Surface (Dark Surface				
	Sandy Mucky Mineral	,			pressions (F			ophytic vegetation and	
	5 cm Mucky Peat or Pe	. ,	-		, , , , , , , , , , , , , , , , , , , ,	٠,	-	ology must be present, ped or problematic.	
	Layer (if observed):						Offices dictars	or problemate.	
Туре	: <u></u>						Hydric Soil Present	t? Yes⊠ No □	
	h (inches):							inate in this elevated location.	
HYDROL	OGY								
	ydrology Indicators:								
<u>Prima</u>	ry Indicators (minimum	required; check a	all that apply)			Secondary Indicators (minimum of two required)			
	Surface Water (A1)			Water-Stained	d Leaves (B	9)	Surface So	oil Cracks (B6)	
	High Water Table (A2)			Aquatic Fauna	a (B13)		Drainage F	Patterns (B10)	
Saturation (A3)				True Aquatic I	Plants (B14))	Dry-Seaso	on Water Table (C2)	
Water marks (B1)				Hydrogen Sul	fide Odor (C	:1)	☐ Crayfish B	surrows (C8)	
Sediment Deposits (B2) Oxidized Rhizo					ospheres or	n Living Roo	ts (C3) Saturation	Visible on Aerial Imagery (C9)	
	☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4)						☐ Stunted or	Stressed Plants (D1)	
							(C6) Geomorph	nic Position (D2)	
								ral Test (D5)	
	Inundation Visible on A	Aerial Ima	gery (B7)	Gauge or Wel	ll Data (D9)				
	Sparsely Vegetated Co	oncave Si	urface (B8)	Other (Explair	n in Remarks	s)			
Field Obse	ervations:								
Surface Wa	ater Present? Ye	s 🗌 🛮 N	lo 🛛 Depth (i	nches):					
Water Tabl	e Present? Ye	s 🗌 🛚 N	lo 🛛 Depth (i	nches):					
Saturation Present? Yes \boxtimes No (includes capillary fringe)			o Depth (inches): 23				Wetland Hydrology Present? Yes ☐ No ☒		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo Maps (Exhibit 1), WWI Map (Exhibit 2), Soils Map (Exhibit 3), and Aerial photos (Exhibit 4).									
Remarks: The sample site is in the SEWRPC-mapped floodway of the Little Menomonee River. However, geomorphic position (D2) does not apply as the site is on an elevated dredge spoil berm and a drain tile system is present. No wetland hydrology indicators observed.									

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam Pa Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SE Landform (hillslope, terrace, etc.): toeslope/floodway Slope (%): 0-2%	City/County: Cit arcel) EWRPC Sec Loc Long: time of year? ficantly disturbed? rally problematic? umpling point loca No No	y of Mequon/C stion, Township al relief (conca Yes ⊠ Are "Norm (If, needed	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Sampling Point: 13 E Quarter, Section 20, T9N-R21E none): concave Datum: NWI classification: None no, explain in Remarks) inces" present? Yes \(\) No \(\) y answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species
2				That are OBL, FACW, or FAC: 2 (A)
3		П		Total Number of Dominant
4			-	Species Across All Strata: <u>2</u> (B)
5			-	Percent of Dominant Species
	<u>0</u>	= Total Co	ver	That Are OBL, FACW, or FAC: 100% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksheet:
1. Quercus bicolor (planted)	<u>10</u>	\boxtimes	FACW	Total % Cover of: Multiply by:
2			-	OBL species x 1 =
3		П		FACW species x 2 =
4				
		_		FAC species x 3 =
5	10	☐ = Total Co		FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size: 5' radius)	<u>10</u>	- 10tal C0	VCI	· — — — — — — — — — — — — — — — — — — —
	<u>100</u>	\boxtimes	FACW	Column Totals: (A) (B)
1. Phalaris arundinacea	<u></u>	<u> </u>	·	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
2. Ambrosia trifida	<u>10</u>		FAC	Trydrophytio Vogotation maloutors.
3. <u>Cirsium arvense</u>	<u>5</u>		<u>FACU</u>	1 - Rapid Test for Hydrophytic Vegetation
4				Z - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
5		Ш		4 - Morphological Adaptations¹ (Provide supporting
6				data in Remarks or on a separate sheet)
7				5 - Problematic Hydrophytic Vegetation ¹ (Explain)
8				
9				¹ Indicators of hydric soil and wetland hydrology must
10				Be present, unless disturbed or problematic.
	<u>115</u>	= Total Co	ver	
Woody Vine Stratum (Plot size: 30' radius)	<u> </u>			Lindranbytia
1		П	_	Hydrophytic Vegetation
2				Present? Yes ⊠ No □
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate s				
, ,	, 3	():		

SOIL								g Point: <u>13</u>
Profile De	scription: (Describe	to the dep	th needed to docum	ent the ind	icator or cor	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-24	N 2.5/	100					Muck	
24-32	10YR 3/2	95	7.5YR 4/4	5		PL M	Mucky loam	
24 02	10111 0/2		7.011(4/4				- Masky louin	
						-		
		· 					-	
		· 						
	-					-		
1T C-	Composition D-Don	Jatian DM	L-Daduard Matrix M		and Onsina		21 tion . DI - Dono	Limina Mandahiy
	Concentration, D=Dep il Indicators:	netion, Riv	i-Reduced Matrix, Mi	5-iviaskeu 5	and Grains		² Location: PL=Pore Indicators for Proble	
_	Histosol (A1)			Sandy Gle	yed Matrix (S	54)	☐ Coast Prairie R	
	Histic Epipedon (A2))		Sandy Red		,	Dark Surface (
	Black Histic (A3)			Stripped M	, ,		☐ Iron-Manganes	
	Hydrogen Sulfide (A4)		_	cky Mineral (I	-		ark Surface (TF12)
	Stratified Layers (A5)			_	eyed Matrix (F	⁻ 2)	Other (Explain	in Remarks)
	2 cm Muck (A10)	Cf //	<u> </u>	_ Depleted N	` '	2)		
	Depleted Below Dark Thick Dark Surface (A		\'') <u></u>		rk Surface (F6 Dark Surface		0	
	Sandy Mucky Mineral				park curiace or oressions (F8			phytic vegetation and
	5 cm Mucky Peat or F		<u> </u>			,		ogy must be present, d or problematic.
	Layer (if observed)						Offices distalls	a or problematic.
Туре							Hydric Soil Present?	Yes ⊠ No □
Dept	h (inches):						1	
HYDROL	OGY							
Wetland H	lydrology Indicators:							
<u>Prima</u>	ary Indicators (minimur	m of one is	required; check all th	nat apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)		□ W	ater-Stained	d Leaves (B9))	☐ Surface Soil	Cracks (B6)
	High Water Table (A2)	A	quatic Fauna	a (B13)		☐ Drainage Pa	atterns (B10)
\boxtimes	Saturation (A3)		T	rue Aquatic I	Plants (B14)		☐ Dry-Season	Water Table (C2)
	Water marks (B1)				fide Odor (C1)	Crayfish Bu	
	Sediment Deposits (B	2)		-	ospheres on		 •	isible on Aerial Imagery (C9)
	Drift Deposits (B3)	,			Reduced Iron	•	` ' —	Stressed Plants (D1)
	Algal Mat or Crust (B4	1)			eduction in T			Position (D2)
	Iron Deposits (B5)	• /		hin Muck Su			FAC-Neutra	
	Inundation Visible on	Δerial Ima		auge or Wel	` '		IAO NOULL	11000 (50)
	Sparsely Vegetated C	•	· · · · · 	•	n in Remarks)			
Field Obse		oncave oc	illace (Bb) 🔲 O	uiei (Expiaii	i iii Neiliaiks	<u>'</u>		
		es 🔲 N	o 🛛 Depth (inch	es):				
		_	lo Depth (inch					
Saturation		_	lo Depth (inch	•				
	apillary fringe)		io 🖂 Depui (illeiii	55). <u>0</u>			Wetland Hydrology Present	? Yes⊠ No □
	·		-	ohotos, prev	ious inspectio	ons), if ava	ailable: Topo Maps (Exhibit 1)	, WWI Map (Exhibit 2), Soils
	oit 3), and Aerial photo		•	05/4/050			£ 41 - 1 (441 - 144 - 14	H
			•			odway o	of the Little Menomonee Riv	er. However, geomorphic
ρυσιμοτί (Ι	D2) does not apply	uu c (O (i)6	e presence or a dra	iii iiie syste	7111.			

Project/Site: <u>Little Menomonee River Corridor Re</u> Applicant/Owner: <u>Ozaukee County/MMSD (Gree</u> Investigator(s): <u>Chris Jors, Jen Dietl, and Shane</u> Landform (hillslope, terrace, etc.): <u>toeslope/flood</u>	nseam Parcel) Heyel: SEWRPC Seway Loc	ction, Township	Ozaukee Cou p, Range: <u>SE</u>	nty State: <u>WI</u> E Quarter, Section 20, TS none): <u>concave</u>	
Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typic Are Vegetation, Soil, or Hydrology _ Are Vegetation, Soil, or Hydrology _	significantly disturbed? naturally problematic?	(If, needed	nal Circumsta d, explain any	no, explain in Remarks) nces" present? Yes [y answers in Remarks.)	Datum: lassification: <u>None</u> ☑ No □
SUMMARY OF FINDINGS – Attach site map sh	nowing sampling point loc	ations, transe	cts, importa	nt features, etc.	
Hydrophytic Vegetation Present?	□No □No □No	Is the Samp within a We		⊠ Yes	□No
Remarks: 90-day antecedent precipitation is	s normal.				
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test w	orksheet:
1 2	<u> </u>		<u> </u>	Number of Dominant S That are OBL, FACW,	•
3 4	<u> </u>			Total Number of Domi Species Across All Str	ata: <u>5</u> (B)
5	<u>0</u>	☐ = Total Co	ver	Percent of Dominant S That Are OBL, FACW,	•
Sapling/Shrub Stratum (Plot size: 30' radius)		_		Prevalence Index wo	rksheet:
1. Quercus bicolor (planted)	<u>12</u>	\boxtimes	<u>FACW</u>	Total % Cover of:	Multiply by:
2. Fraxinus pennsylvanica	<u>8</u>	\boxtimes	<u>FACW</u>	OBL species	x 1 =
3. Acer negundo	<u>5</u>	\boxtimes	<u>FAC</u>	FACW species	x 2 =
4				FAC species	x 3 =
5				FACU species	x 4 =
	<u>25</u>	= Total Co	ver	UPL species	x 5 =
Herb Stratum (Plot size: <u>5' radius</u>)		-		Column Totals:	(A) (B)
1. Solidago gigantea	<u>50</u>		FACW	Prevalence Hydrophytic Vegetati	e Index = B/A =
2. Poa pratensis	<u>18</u>		FAC	nyurophytic vegetati	on marcators.
3. Solidago altissima	<u>15</u>		<u>FACU</u>	☐ 1 - Rapid Test for □ ☐ 2 - Dominance Te	Hydrophytic Vegetation
4. <u>Cirsium arvense</u>	<u>10</u>		<u>FACU</u>	☐ 3 - Prevalence Ind	
5. Symphyotrichum puniceum	<u>8</u>		<u>OBL</u>		Adaptations ¹ (Provide supporting
6. Fraxinus pennsylvanica	<u>5</u>		<u>FACW</u>		s or on a separate sheet) drophytic Vegetation¹ (Explain)
7. Ambrosia trifida	<u>3</u>		<u>FAC</u>	3-1 Toblematic Try	diophytic vegetation (Explain)
8				1 la dia stana at buddia a	-:
9				Be present, unless dis	oil and wetland hydrology must turbed or problematic.
10				•	·
	<u>109</u>	= Total Co	ver		
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation Present? Ye	s⊠ No □
2				Fresent: 16	.a □
	<u>0</u>	= Total Co	ver		
Remarks: (Include photo numbers here or on a	separate sheet.) Fresh we	t meadow.			

SOIL							Samplin	g Point: <u>14</u>
Profile De	scription: (Describe t	o the dep	oth needed to docun	nent the ind	licator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Fea	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-14	N 2.5/	100					Muck	
14-24	10Y 5/1	75	7.5YR 4/4	25		PL M	-	
14-24	101 3/1		7.51K 4/4			PL IVI	Clay loam	
		-			·			
	<u> </u>							
				<u> </u>				
1= 0	0 1 11 1 1 1 1			0.14 10			21 (1 D) D	
	Concentration, D=Dep il Indicators:	letion, Riv	I=Reduced Matrix, M	S=Masked S	sand Grains		² Location: PL=Pore Indicators for Proble	
_	Histosol (A1)		П	Sandy Gle	eyed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)			Sandy Red		,	Dark Surface (
	Black Histic (A3)			Stripped M			☐ Iron-Manganes	
	Hydrogen Sulfide (A4)				ıcky Mineral (F	-		Dark Surface (TF12)
	Stratified Layers (A5)		<u> </u>	_	eyed Matrix (F	2)	Other (Explain	in Remarks)
	2 cm Muck (A10) Depleted Below Dark	Surface (<u>∐</u>	_	Matrix (F3) rk Surface (F6	:)		
	Thick Dark Surface (\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Dark Surface (F	,	31 11 1 611 1	
	Sandy Mucky Mineral				pressions (F8)			phytic vegetation and ogy must be present,
	5 cm Mucky Peat or P	eat (S3)						ed or problematic.
Restrictive	e Layer (if observed):							-
Туре							Hydric Soil Present?	Yes⊠ No 🗌
Dept	h (inches):							
HYDROL	OGY							
	lydrology Indicators:							
	ary Indicators (minimun	n of one is	required; check all th	nat apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)			later-Stainer	d Leaves (B9)		☐ Surface Soi	l Cracks (B6)
	High Water Table (A2)			quatic Fauna				atterns (B10)
	Saturation (A3)				Plants (B14)			Water Table (C2)
	Water marks (B1)				lfide Odor (C1	`	Dry-Season ☐ Crayfish Bu	
		2)			zospheres on I	•		/isible on Aerial Imagery (C9)
	Sediment Deposits (B2	<u> </u>			•	•	` ' 	
-	Drift Deposits (B3)	`			Reduced Iron (Stressed Plants (D1)
	Algal Mat or Crust (B4)			Reduction in Ti	ileu Solis	· · · —	c Position (D2)
	Iron Deposits (B5)	\ - wi =		hin Muck Su	` ,		_ ⊠ FAC-Neutra	II Test (D5)
	Inundation Visible on A		- · · · · 	auge or We				
Field Obs	Sparsely Vegetated Co	oncave S	urface (B8) 🔲 O	itner (Explair	n in Remarks)			
		s □ N	lo ⊠ Depth (inch	es).				
			lo Depth (inch					
Saturation			lo Depth (inch					
	apillary fringe)	5 🖂 1	io 🔲 Deptii (ilicii	es). <u>10</u>			Wetland Hydrology Present	? Yes⊠ No □
•			anitaring wall parial	nhataa nray	viava inanastia	na\ if av	ailabla: Tana Mana (Eybibit 1)	MMM Man (Eyhibit 2) Saila
	oit 3), and Aerial photo		_	priotos, prev	nous inspectio	ris), ii ava	ailable: Topo Maps (Exhibit 1)	, www map (Exhibit 2), Soils
Remarks:	The sample site is o	n a cond	cave toeslope in the	∋ SEWRPC	C-mapped flo	odway c	of the Little Menomonee Riv	ver. However, geomorphic
position (D2) does not apply o	due to th	e presence of a dra	in tile syste	em.			

Project/Site: <u>Little Menomonee River Corridor Restoration</u> Applicant/Owner: <u>Ozaukee County/MMSD (Greenseam Parallin</u> Investigator(s): <u>Chris Jors, Jen Dietl, and Shane Heyel: SEV</u> Landform (hillslope, terrace, etc.): <u>dredge spoil berm/floodwa</u>	City/County: Cit cel) VRPC Sec ay Loc Long: ime of year? cantly disturbed? lly problematic? apling point loca	y of Mequon/C tion, Township al relief (conca Yes ⊠ Are "Norm (If, needec	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Sampling Point: 15 E Quarter, Section 20, T9N-R21E none): linear convex Datum: NWI classification: None no, explain in Remarks) nces" present? Yes \(\) No \(\) answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1	——		<u></u>	Number of Dominant Species
2				That are OBL, FACW, or FAC: 0 (A)
3		П		Total Number of Dominant
4		П		Species Across All Strata: <u>2</u> (B)
5		П		Percent of Dominant Species
	<u>0</u>	= Total Co	ver	That Are OBL, FACW, or FAC: 0% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksheet:
1		П		Total % Cover of: Multiply by:
2		П		OBL species x 1 =
3				FACW species x 2 =
4				
				FAC species x 3 =
5	0	☐ = Total Co		FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size: 5' radius)	<u> </u>	- 10tai C0	vei	· — — — — — — — — — — — — — — — — — — —
,	<u>50</u>	\boxtimes	FACU	Column Totals: (A) (B)
1. <u>Cirsium arvense</u>			FACU	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
2. Sonchus arvense	<u>25</u>		· · · · · · · · · · · · · · · · · · ·	The spring to go the service of the
3. Elymus repens	<u>20</u>		<u>FACU</u>	☐ 1 - Rapid Test for Hydrophytic Vegetation☐ 2 - Dominance Test is >50%
4. Ambrosia trifida	<u>10</u>		<u>FAC</u>	☐ 3 - Prevalence Index is ≤3.01
5				4 - Morphological Adaptations¹ (Provide supporting
6				data in Remarks or on a separate sheet)
7	-			5 - Problematic Hydrophytic Vegetation¹ (Explain)
8		П		
9				¹ Indicators of hydric soil and wetland hydrology must
10		П		Be present, unless disturbed or problematic.
_	<u>105</u>	= Total Co	ver	
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic
1				Vegetation
2.				Present? Yes □ No ⊠
	<u> </u>	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate sh				1
,				

SOIL								Sampling	g Point: <u>15</u>	
Profile De	scription: (Describe t	o the depth	n needed to docun	nent the ind	licator or con	firm the	e absenc	e of indicators.)		
Depth	Matrix			Redox Fea	tures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Texture	Re	emarks
0-25	N 2.5/	100		·			Mucl			
0 20	14 2.0/									
	·			· 	· . -					
				· 	. -					
1- 0								2		
	Concentration, D=Depl il Indicators:	etion, RM=	Reduced Matrix, M	S=Masked S	Sand Grains			² Location: PL=Pore I		
-	Histosol (A1)		П	Sandy Gle	eyed Matrix (S	4)		Coast Prairie R		·OIIS":
	Histic Epipedon (A2)		늄	Sandy Re		7)		Dark Surface (\$		
	Black Histic (A3)			Stripped M	, ,			☐ Iron-Manganes	,)
	Hydrogen Sulfide (A4)			_	ıcky Mineral (F	F1)		Very Shallow D		
	Stratified Layers (A5)			Loamy Gle	eyed Matrix (F	2)		Other (Explain	in Remarks)	
	2 cm Muck (A10)				Matrix (F3)					
	Depleted Below Dark S		1)		rk Surface (F6	,				
	Thick Dark Surface (A		닏	•	Dark Surface (. ,		³ Indicators of Hydro		
	Sandy Mucky Mineral			_ Redox De	pressions (F8)		Wetland hydrolo	••	
	5 cm Mucky Peat or Pea							Unless disturbed	d or problemation	D
Type								Hydria Sail Brasant?	Voc ⊠	No. 🗆
	h (inches):							Hydric Soil Present?	Yes ⊠	No 🗌
Remarks:	· /									
										-
HYDROL	OGY									
Wetland H	lydrology Indicators:									
Prima	ry Indicators (minimum	of one is r	equired; check all th	nat apply)				Secondary Indica	tors (minimum	of two required)
П	Surface Water (A1)			/ater_Staine	d Leaves (B9)			☐ Surface Soil	Cracks (B6)	
	High Water Table (A2)									
	• , ,			quatic Faun				Drainage Pa		20)
	Saturation (A3)				Plants (B14)				Water Table (C	,2)
	Water marks (B1)			-	lfide Odor (C1			Crayfish Bur	` '	
	Sediment Deposits (B2	<u>'</u> .)			zospheres on l	•	oots (C3)		isible on Aerial	
	Drift Deposits (B3)		P	resence of F	Reduced Iron ((C4)		Stunted or S	tressed Plants	(D1)
	Algal Mat or Crust (B4))	R	ecent Iron R	Reduction in Ti	illed Soils	ls (C6)	Geomorphic	Position (D2)	
	Iron Deposits (B5)		TI	hin Muck Su	ırface (C7)			FAC-Neutra	l Test (D5)	
	Inundation Visible on A	verial Image	ery (B7) 🔲 G	auge or We	ll Data (D9)					
	Sparsely Vegetated Co	oncave Surf	face (B8)	ther (Explaii	n in Remarks))				
Field Obse	ervations:									
Surface Wa	ater Present? Ye	s 🗌 No	□ Depth (inche)	es):						
Water Tab	le Present? Ye	s 🗌 No	Depth (inch	es):						
Saturation	Present? Ye	s⊠ No	☐ Depth (inch	· ·					–	=
	apillary fringe)	_	_ ' '	, <u>—</u>			Wetlan	d Hydrology Present	? Yes □	No 🛛
Describe R	Pecorded Data (stream	dalide mo	nitoring well aerial	nhotos nrev	vious inspectio	ne) if av	vailahle.	Topo Maps (Exhibit 1)	WWI Man (Ev	hihit 2) Soils
	pit 3), and Aerial photos			onotos, prev	nous maperill	,,,,,,,, av	va⊪abi5.	Topo Maps (EXHIDICT)	, vvvvi iviap (EXI	111011 Zj, OUIIS
				odwav of th	ne Little Men	omone	e River.	However, geomorph	nic position (D)2) does not
	·			-				land hydrology indic		•
,		`	•		, ,			, 0,		

				wildwest Region	Committee Date: 7.0.2040
Project/Site: <u>Little Menomonee River Corridor Restoration</u> Applicant/Owner: <u>Ozaukee County/MMSD (Greenseam Pagenty)</u>		y of Mequon/C	<u> Dzaukee Cou</u>	<u>nty</u> State: WI	Sampling Date: <u>7-8-2019</u> Sampling Point: 16
Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SE	·	tion, Township	o, Range: SE	E Quarter, Section 20, T9	. • _
Landform (hillslope, terrace, etc.): toeslope/floodway			-	none): <u>concave</u>	
Slope (%): <u>0-2%</u> Lat:	Long:				Datum:
Soil Map Unit Name: Ogden mucky peat (Od) Are elimetic/hydrologic conditions on the site typical for this	time of year?	Voc ⊠	No 🗆 (If	NWI cl no, explain in Remarks)	assification: <u>T3K</u>
Are climatic/hydrologic conditions on the site typical for this Are Vegetation, Soil, or Hydrology signi				nces" present? Yes	☑ No □
Are Vegetation, Soil, or Hydrology nature				answers in Remarks.)	3 NO []
SUMMARY OF FINDINGS – Attach site map showing sa					
Hydrophytic Vegetation Present?		Is the Samp within a We		⊠ Yes	□No
Hydric Soils Present?				△ 100	
Remarks: 90-day antecedent precipitation is normal.					
VEGETATION – Use scientific names of plants.					
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test w	orksheet:
1				Number of Dominant S	
2				That are OBL, FACW,	or FAC: <u>2</u> (A)
3				Total Number of Domir	nant
4				Species Across All Stra	
5				Percent of Dominant S	necies
<u> </u>	<u> </u>	= Total Co	ver	That Are OBL, FACW,	•
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index wo	rksheet:
1. <u>Sambucus nigra</u>	<u>15</u>	\boxtimes	<u>FAC</u>	Total % Cover of:	Multiply by:
2. <u>Ribes americanum</u>	<u>3</u>		FACW	OBL species	x 1 =
3				FACW species	x 2 =
4				FAC species	x 3 =
5				FACU species	x 4 =
	<u>18</u>	= Total Co	ver	UPL species	x 5 =
Herb Stratum (Plot size: 5' radius)				Column Totals:	(A) (B)
1. Phalaris arundinacea	<u>50</u>	\boxtimes	FACW	Prevalence	e Index = B/A =
2. Impatiens capensis	<u>15</u>		FACW	Hydrophytic Vegetati	on Indicators:
3. Lemna minor	<u>5</u>	П	<u>OBL</u>	☐ 1 Papid Tast for I	Hydrophytic Vegetation
4. Ribes americanum	<u>5</u>	П	<u>FACW</u>	2 - Dominance Te	
	<u>-</u> <u>5</u>		FAC	3 - Prevalence Inde	
5. <u>Urtica dioica</u>	<u>s</u> <u>5</u>		FACW		Adaptations ¹ (Provide supporting
6. <u>Vitis riparia</u>	<u> </u>		FACVV		s or on a separate sheet) drophytic Vegetation¹ (Explain)
7				,	1, 3 (1,)
8				1 to divide a second for data	- 9
9				Be present, unless dist	oil and wetland hydrology must
10				Do processi, assess and	and a problematic
	<u>85</u>	= Total Co	ver		
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation	- N
2				Present? Ye	s⊠ No □
	<u>0</u>	= Total Co	ver		
Remarks: (Include photo numbers here or on a separate s	sheet.) Fresh (we	t) meadow.		•	
i					

SOIL							Samplii	ng Point: <u>16</u>
Profile Des	scription: (Describe to	the dep	oth needed to docum	ent the ind	licator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14	10YR 3/2	85	10YR 4/2	10	D	М	Silty clay loam	with gravel
			10YR 4/6	5	C	PL M		
14-26	10Y 5/1	80	10YR 4/6	20	C	PL M	Clay loam	·
							_	
			·					-
¹Type: C=	Concentration, D=Depl	etion RN	1=Reduced Matrix MS	S=Masked S	Sand Grains		² Location: PL=Pore	Lining M=Matrix
	il Indicators:	ouon, rui	T Troduced Waters, We	, Maskea C	Jana Oramo			ematic Hydric Soils ³ :
	Histosol (A1)			_	eyed Matrix (S	4)	Coast Prairie	
	Histic Epipedon (A2) Black Histic (A3)		井	Sandy Red Stripped M			Dark Surface	(S7) ese Masses (F12)
	Hydrogen Sulfide (A4)		<u> </u>		icky Mineral (f	- 1)		Dark Surface (TF12)
	Stratified Layers (A5)		<u> </u>	_	eyed Matrix (F	-	☐ Other (Explain	
	2 cm Muck (A10)			Depleted N				·
	Depleted Below Dark S	•	A11) 🗵		rk Surface (F			
	Thick Dark Surface (A1 Sandy Mucky Mineral (•	Dark Surface (pressions (F8	. ,	,	ophytic vegetation and
	5 cm Mucky Peat or Pe	` '	<u> </u>	- Nedox Be	pressions (r o	,		logy must be present, ed or problematic.
	Layer (if observed):	out (00)					Criticos dictars	ou or problemate.
Туре							Hydric Soil Present	? Yes⊠ No □
	h (inches):							
Remarks:								
HYDROL	OGY							
Wetland H	ydrology Indicators:							
<u>Prima</u>	ry Indicators (minimum	of one is	required; check all th	at apply)			Secondary Indic	cators (minimum of two required)
	Surface Water (A1)		□ W	ater-Stained	d Leaves (B9)	1	☐ Surface Sc	oil Cracks (B6)
	High Water Table (A2)		Ad	quatic Fauna	a (B13)		Drainage F	Patterns (B10)
\square	Saturation (A3)		Tr	ue Aquatic l	Plants (B14)		☐ Dry-Seaso	n Water Table (C2)
	Water marks (B1)		ну	/drogen Sul	fide Odor (C1)	☐ Crayfish B	urrows (C8)
	Sediment Deposits (B2	<u>'</u>)	Ox	kidized Rhiz	cospheres on	Living Ro	ots (C3) Saturation	Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Pr	esence of F	Reduced Iron ((C4)	☐ Stunted or	Stressed Plants (D1)
	Algal Mat or Crust (B4)		Re	ecent Iron R	Reduction in Ti	illed Soils	(C6) Geomorph	ic Position (D2)
	Iron Deposits (B5)		Th	in Muck Su	ırface (C7)			ral Test (D5)
	Inundation Visible on A	erial Ima	gery (B7) 🔲 Ga	auge or Wel	ll Data (D9)			
	Sparsely Vegetated Co	ncave S	urface (B8) 🔲 Ot	her (Explair	n in Remarks)			
Field Obse		_	_					
			lo ⊠ Depth (inche					
Water Tabl		· <u></u>	lo Depth (inche	•				
Saturation		s 🛛 N	lo Depth (inche	es): <u>0 (at su</u>	<u>ırface)</u>		Wetland Hydrology Presen	t? Yes⊠ No □
,	apillary fringe)							
	·			hotos, prev	ious inspectio	ns), if ava	ailable: Topo Maps (Exhibit 1), WWI Map (Exhibit 2), Soils
	oit 3), and Aerial photos			SEWRPO	`-manned flo	odway a	t the edge of the Little Me	nomonee River. However,
	nic position (D2) does		-			ouway a	it the days of the Little Me	Homonoc (Aver. However,
Jp.	, (==, 300)		, ,	Is.				

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam Par Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SEV Landform (hillslope, terrace, etc.): berm/floodway Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typical for this take Vegetation, Soil, or Hydrology significate Vegetation, Soil, or Hydrology natura SUMMARY OF FINDINGS - Attach site map showing sand Hydrophytic Vegetation Present?YesNote Hydric Soils Present?YesNote Wetland Hydrology Present?YesNote Remarks: 90-day antecedent precipitation is normal.	City/County: Cit cel) WRPC Sec Loc Long: ime of year? cantly disturbed? illy problematic? npling point loca	y of Mequon/C tion, Township al relief (conca Yes Are "Norm (If, needed	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Sampling Point: 17 E Quarter, Section 20, T9N-R21E none): convex Datum: NWI classification: T3K no, explain in Remarks) nces" present? Yes \(\) No \(\) y answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1	70 00V0I			Number of Dominant Species
2				That are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>1</u> (B)
5				Percent of Dominant Species
	<u>0</u>	= Total Co	ver	That Are OBL, FACW, or FAC: 0% (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksheet:
1		П		Total % Cover of: Multiply by:
2		П		OBL species x 1 =
3				FACW species x 2 =
4				
				FAC species x 3 =
5	0	☐ = Total Co		FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size: 5' radius)	<u> </u>	- 10tai C0	VCI	· — — — — — — — — — — — — — — — — — — —
	<u>60</u>	\boxtimes	<u>UPL</u>	Column Totals: (A) (B)
1. Bromus inermis	<u>35</u> <u>15</u>		<u>G. L</u> FACU	Prevalence Index = B/A = Hydrophytic Vegetation Indicators:
2. Elymus repens				.,,
3. Phalaris arundinacea	<u>15</u>	_	<u>FACW</u>	☐ 1 - Rapid Test for Hydrophytic Vegetation☐ 2 - Dominance Test is >50%
4. <u>Cirsium arvense</u>	<u>10</u>		<u>FACU</u>	☐ 3 - Prevalence Index is ≤3.0¹
5. Arctium minus	<u>8</u>		FACU	4 - Morphological Adaptations¹ (Provide supporting
6. Symphyotrichum lateriflorum	<u>5</u>		<u>FACW</u>	data in Remarks or on a separate sheet) 5 - Problematic Hydrophytic Vegetation¹ (Explain)
7				S - Problematic Hydrophytic Vegetation (Explain)
8				
9		П		Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.
10				be present, unless disturbed of problematic.
	<u>113</u>	= Total Co	ver	
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic
1				Vegetation
2				Present? Yes ☐ No ☒
	<u>0</u>	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate sh	neet.) Old field.			1

SOIL							' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	g Point: <u>17</u>
Profile Des	scription: (Describe	to the dep	th needed to	document the in	dicator or co	nfirm the a	absence of indicators.)	
Depth	Matrix			Redox Fe	atures			
(inches)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 3/2	100					Silt loam	
7-14	10YR 5/2	85	10YR 4/6		C	PL M	Clay loam	
	2.5Y 5/1	7			_	-	_ · · · · · · · · · · · · · · · · · · ·	
14-24	N 2.5/	100	-				Muck	
					_			
		-		, <u> </u>				
	Concentration, D=Dep	oletion, RM	I=Reduced Ma	trix, MS=Masked	Sand Grains		² Location: PL=Pore	
_	il Indicators: Histosol (A1)			☐ Sandy Gl	leyed Matrix (S4)	Indicators for Proble Coast Prairie F	
	Histic Epipedon (A2)				edox (S5)	O 1,	Dark Surface (
	Black Histic (A3)				Matrix (S6)		Iron-Manganes	•
	Hydrogen Sulfide (A4))			lucky Mineral	. ,		Dark Surface (TF12)
	Stratified Layers (A5)				leyed Matrix ((F2)	Other (Explain	in Remarks)
	2 cm Muck (A10)	. Cf	(844)		l Matrix (F3)	-0\		
	Depleted Below Darl Thick Dark Surface (A		(A11)		ark Surface (F Dark Surface	,	•	
	Sandy Mucky Mineral				epressions (F			phytic vegetation and ogy must be present,
	5 cm Mucky Peat or F				1	-,	-	ed or problematic.
	Layer (if observed)							'
Туре	: <u></u>						Hydric Soil Present?	Yes⊠ No □
	h (inches):						d dredge spoils that did no	
HYDROL								
	ydrology Indicators:		required, abou	als all that apply)			Casandan India	atora (minimum of two required)
_	ry Indicators (minimur	n or one is	requirea; cned				<u>_</u>	ators (minimum of two required)
	Surface Water (A1)		_		ed Leaves (B9	9)		l Cracks (B6)
	High Water Table (A2))	_	Aquatic Faur				atterns (B10)
	Saturation (A3)		_		Plants (B14)			Water Table (C2)
	Water marks (B1)		_		ulfide Odor (C	•	Crayfish Bu	, ,
	Sediment Deposits (B	2)	_		izospheres on	_	· · · —	/isible on Aerial Imagery (C9)
	Drift Deposits (B3)		_		Reduced Iron			Stressed Plants (D1)
	Algal Mat or Crust (B4	!)	_		Reduction in 1	Tilled Soils	· / ·	Position (D2)
	Iron Deposits (B5)		_	Thin Muck S			FAC-Neutra	ıl Test (D5)
	Inundation Visible on A		- · · · · -	Gauge or We	, ,			
	Sparsely Vegetated C	oncave Si	ırface (B8)	☐ Other (Expla	in in Remarks	s)		
Field Obse			- M D4	h (in ah a a).				
				h (inches):	-			
Water Tabl				h (inches):				
Saturation (includes c	Present? Ye apillary fringe)	es 🗌 N	o 🛛 Deptl	h (inches):			Wetland Hydrology Present	? Yes ☐ No ☒
,			anitaring wall	aarial nhataa nra	vious inspecti	iona) if ave	oilable: Tana Mana (Eybibit 1)	MMM Man (Exhibit 2) Saila
	ecorded Data (stream oit 3), and Aerial photo			aenai priotos, pre	vious irispecti	ions), if ava	ailable: Topo Maps (Exhibit 1)	i, vvvvi iviap (Extilbit 2), Solis
			•	ed floodway of	the Little Me	nomonee	River. However, geomorp	hic position (D2) does not
	•			-			No wetland hydrology indic	

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam F Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: S Landform (hillslope, terrace, etc.): terrace/floodway Slope (%): O-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typical for thi Are Vegetation, Soil, or Hydrology sign Are Vegetation, Soil, or Hydrology natu SUMMARY OF FINDINGS – Attach site map showing s Hydrophytic Vegetation Present? \[\text{Yes} = \] Hydrosoils Present?	Parcel) EWRPC Second Local Long: Long: is time of year? ifficantly disturbed? urally problematic? sampling point local No No No	y of Mequon/C tion, Township al relief (conca Yes Are "Norm (If, needed	Dzaukee Cou D, Range: SE ave, convex, No	State: WI Quarter, Section 2 none): none NY no, explain in Remances" present? Y v answers in Remark	Sa Sa 0, T9N-R2 Da WI classifid Irks) (es 🖂	ampling P 21E atum: cation: <u>N</u>	one Jo 🗆	19
VEGETATION – Use scientific names of plants.								
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Tes	st works	heet:		
1	——			Number of Domina	ant Specie	es		
2		П		That are OBL, FA	CW, or FA	C: <u>1</u>	(A)	
3		П		Total Number of D	ominant			
4				Species Across Al	l Strata:	<u>2</u>	(B)	
5				Percent of Domina	ant Specie	s		
	<u>0</u>	= Total Co	ver	That Are OBL, FA	CW, or FA	AC: <u>50</u>	<u>0%</u> (A/B)	
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index	workshe	et:		
Quercus bicolor (planted)	<u>2</u>		<u>FACW</u>	Total % Cove	er of:	1	Multiply by:	
2		П		OBL species	 35	x 1 =	35	
3				FACW species	10	x 2 =	20	-
4				·		_		-
				FAC species	0	_ x 3 =	0	
5	<u></u>	☐ = Total Co		FACU species UPL species	35 0	_ x 4 =	140	
Herb Stratum (Plot size: 5' radius)		- 10tai C0	VCI	'		x 5 =		(D)
	25	\boxtimes	FACU	Column Totals:	80	_ (A)	195	(B)
1. <u>Solidago altissima</u>	<u>35</u>		· · · · · · · · · · · · · · · · · · ·	Hydrophytic Veg	lence Inde			
2. Symphyotrichum puniceum	<u>35</u>		OBL 54.004	nyaropnyaro vog	otation in	aicatoro.		
3. <u>Solidago gigantea</u>	<u>8</u>		<u>FACW</u>	1 - Rapid Test	•		getation	
4				2 - Dominance				
5				4 - Morphologi			rovide suppo	rting
6				data in Rer				- : \
7				5 - Problemati	c Hydroph	lytic Vege	tation' (Expla	ain)
8								
9				¹ Indicators of hyd				ust
10				Be present, unless	s disturbed	a or proble	∍matic.	
	<u>78</u>	= Total Co	ver					
Woody Vine Stratum (Plot size: 30' radius)	<u> </u>			Uvdronby#ic				
1				Hydrophytic Vegetation				
2				Present?	Yes ⊠	No		
	0	= Total Co	ver					
Remarks: (Include photo numbers here or on a separate				<u> </u>				
, , , , , , , , , , , , , , , , , , , ,	, (,						

SOIL							· · · · · · · · · · · · · · · · · · ·	ng Point: <u>18</u>
Profile De	scription: (Describe to	o the dep	oth needed to docun	nent the ind	icator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture	Remarks
0-15	N 2.5/	100					Muck	with peat inclusions
15-28	10Y 5/1	70	7.5YR 4/6	30		PL M	Clay loam	with dolomite
13-20	101 3/1		7.511(4/0				Clay Idam	with dolonite
							- -	
	<u> </u>							
							<u> </u>	
		-						
1Tuno. C-	Cancantration D-Dani	ation DA	I-Daduard Matrix M	C=Mooked C	and Crains		21 continue DI -Doro	Lining M-Matrix
	Concentration, D=Deploit Indicators:	etion, Riv	i=Reduced Matrix, M	S=Iviasked S	and Grains		² Location: PL=Pore	ematic Hydric Soils³:
_	Histosol (A1)		П	Sandy Gle	yed Matrix (S	4)	Coast Prairie I	
	Histic Epipedon (A2)			Sandy Red		,	Dark Surface	
	Black Histic (A3)			Stripped M			☐ Iron-Mangane	
	Hydrogen Sulfide (A4)				ıcky Mineral (I	-		Dark Surface (TF12)
	_ , , ,				eyed Matrix (F	2)	Other (Explain	n in Remarks)
	2 cm Muck (A10)	Surface (<u> </u>	_ Depleted N	Matrıx (F3) rk Surface (F6	2)		
	Depleted Below Dark S Thick Dark Surface (A		·'')		Dark Surface (F	,	2	
	Sandy Mucky Mineral		H		pressions (F8		•	ophytic vegetation and logy must be present,
	5 cm Mucky Peat or Pe		<u> </u>	_ '	, ,	,		ed or problematic.
	e Layer (if observed):							
Туре	e:						Hydric Soil Present	? Yes⊠ No □
Dept	th (inches):							
HYDROL	OGY							
	lydrology Indicators:							
	ary Indicators (minimum	of one is	required; check all the	nat apply)			Secondary Indic	ators (minimum of two required)
	Surface Water (A1)			lator Stainer	d Leaves (B9)		☐ Surface So	il Cracks (B6)
	High Water Table (A2)			quatic Fauna	` '			ratterns (B10)
	Saturation (A3)				Plants (B14)			n Water Table (C2)
	, ,				fide Odor (C1	`		
	Water marks (B1)				cospheres on	,	·	Visible on Aerial Imagery (C9)
	Sediment Deposits (B2	-)			•	•	` ' 	• • • •
-	Drift Deposits (B3)				Reduced Iron			Stressed Plants (D1)
	Algal Mat or Crust (B4))			Reduction in Ti	illea Solis	· · · · · · · ·	c Position (D2)
	Iron Deposits (B5)			hin Muck Su	, ,		FAC-Neutr	al Test (D5)
	Inundation Visible on A		· · · · · 	auge or Wel				
	Sparsely Vegetated Coervations:	oncave Si	urface (B8) 🔲 C	ther (Explair	n in Remarks)	<u> </u>		
		s □ N	lo ⊠ Depth (inch	⊳ c).				
		_	lo Depth (inch					
Saturation								
	capillary fringe)	s⊠ N	lo Depth (inch	es). <u>Z</u>			Wetland Hydrology Present	t? Yes⊠ No □
•							Stable Tana Mana /Fabilitie	\ \A\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	Recorded Data (stream bit 3), and Aerial photos		-	photos, prev	ious inspectio	ons), if ava	ailable: Topo Maps (Exhibit 1), WWI Map (Exhibit 2), Soils
				EWRPC-m	napped flood	lway of t	he Little Menomonee Rive	r. However, geomorphic
position (D2) does not apply a	ıs a draiı	n tile system is pres	sent.				

Project/Site: Little Menomonee River Corridor Res Applicant/Owner: Ozaukee County/MMSD (Greens Investigator(s): Chris Jors, Jen Dietl, and Shane H Landform (hillslope, terrace, etc.): terrace	seam Parcel) eyel: SEWRPC See		ukee Cou ange: <u>SE</u>	State: <u>WI</u> E Quarter, Section 20, T9N	Sampling Date: <u>7-8-2019</u> Sampling Point: <u>19</u> N-R21E
Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typica Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology	Long: I for this time of year? significantly disturbed?	Yes ⊠ No Are "Normal C	☐ (If Circumsta		Datum: essification: <u>None</u> No □
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point loc	ations, transects,	importa	nt features, etc.	
Hydrophytic Vegetation Present? Hydric Soils Present? Wetland Hydrology Present? Yes Yes	□No □No □No	Is the Sampled within a Wetlan		⊠ Yes	□No
Remarks: 90-day antecedent precipitation is	normal.				
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Species?	ndicator Status	Dominance Test wo	rksheet:
1 2	_			Number of Dominant Sp That are OBL, FACW, o	
3 4	_		_	Total Number of Domina Species Across All Strat	ta: <u>4</u> (B)
5	<u>0</u>	☐ = Total Cover		Percent of Dominant Sp That Are OBL, FACW, o	or FAC: <u>75%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index work	ksheet:
1. Populus deltoides	<u>15</u>	\boxtimes	<u>FAC</u>	Total % Cover of:	Multiply by:
2. <u>Larix laricina (planted)</u>	<u>3</u>		<u>FACW</u>	OBL species	x 1 =
3				FACW species	x 2 =
4				FAC species	x 3 =
5				FACU species	x 4 =
	<u>18</u>	= Total Cover		UPL species	x 5 =
Herb Stratum (Plot size: 5' radius)				Column Totals:	(A) (B)
1. Symphyotrichum puniceum	<u>35</u>	\boxtimes	<u>OBL</u>		Index = B/A =
2. <u>Solidago altissima</u>	<u>20</u>		<u>FACU</u>	Hydrophytic Vegetation	on Indicators:
3. Symphyotrichum lateriflorum	<u>18</u>		<u>FACW</u>	☐ 1 - Rapid Test for H	ydrophytic Vegetation
4. Euthamia graminifolia	<u>15</u>		FACW_		
5. Poa pratensis	<u>12</u>		<u>FAC</u>	—	x is ≤3.0° daptations¹ (Provide supporting
6. <u>Solidago gigantea</u>	<u>8</u>		<u>FACW</u>	data in Remarks	or on a separate sheet)
7. <u>Daucus carota</u>	<u>7</u>		<u>UPL</u>	│	rophytic Vegetation ¹ (Explain)
8. Populus deltoides	<u>5</u>		<u>FAC</u>		
9. <u>Fraxinus pennsylvanica</u>	<u>3</u>		<u>FACW</u>	•	il and wetland hydrology must
10. Taraxacum officinale	<u>3</u>		<u>FACU</u>	Be present, unless distu	irbed or problematic.
	<u>126</u>	= Total Cover			
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation	_
2				Present? Yes	No □
	<u>0</u>	= Total Cover			
Remarks: (Include photo numbers here or on a se	eparate sheet.) Fresh (we	et) meadow.			

SOIL							Samplir	ng Point: 19
Profile De	scription: (Describe to	the dep	th needed to docun	nent the ind	icator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Feat	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-18	N 2.5/	100					Muck	
18-24	5GY 4/1	85	10YR 4/6	15		PL M	Clay loam	with dolomite
10-24	3G 1 4/1	- 65	10114/0			FL IVI	Clay Idaili	with dolonlite
							_	
					<u> </u>			
	<u> </u>						_	
1= 0	0 1 " 5 5 1	51					21 (1 D) D	
	Concentration, D=Deplement of the Concentration (Concentration)	etion, Riv	1=Reduced Matrix, M	S=Masked S	and Grains		² Location: PL=Pore	Eining, M=Matrix ematic Hydric Soils³:
-	Histosol (A1)		П	Sandv Gle	yed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)			_ Sandy Red		,	Dark Surface (
	Black Histic (A3)			Stripped M	latrix (S6)		☐ Iron-Mangane	se Masses (F12)
	Hydrogen Sulfide (A4)			Loamy Mu	cky Mineral (F	⁻ 1)		Dark Surface (TF12)
	Stratified Layers (A5)			_	eyed Matrix (F	2)	Other (Explain	in Remarks)
	2 cm Muck (A10)			_Depleted N	, ,			
	Depleted Below Dark S Thick Dark Surface (A		A11) <u> </u>		rk Surface (F6 Dark Surface (,		
	Sandy Mucky Mineral (pressions (F8)	-		pphytic vegetation and
	5 cm Mucky Peat or Pe		<u> </u>	_ redox be	pressions (1 0)	•		logy must be present, ed or problematic.
	e Layer (if observed):	ai (33)					Offices disturbe	ed of problematic.
Туре							Hydric Soil Present	? Yes⊠ No □
Dept	h (inches):						,	
Remarks:								
UVDDOL	007							
HYDROL	lydrology Indicators:							
							0	
Prima	ary Indicators (minimum	of one is	required; check all th	iat apply)			Secondary Indic	ators (minimum of two required)
	Surface Water (A1)		W	ater-Stained	d Leaves (B9)		☐ Surface So	il Cracks (B6)
	High Water Table (A2)		A	quatic Fauna	a (B13)		Drainage P	atterns (B10)
\boxtimes	Saturation (A3)		□ Ti	rue Aquatic I	Plants (B14)		☐ Dry-Seasor	n Water Table (C2)
	Water marks (B1)		н	ydrogen Sul	fide Odor (C1))	☐ Crayfish Bu	ırrows (C8)
	Sediment Deposits (B2)	0	xidized Rhiz	ospheres on L	iving Ro	ots (C3) Saturation	Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	,			Reduced Iron (•	· · · —	Stressed Plants (D1)
	Algal Mat or Crust (B4)				` eduction in Til	•		c Position (D2)
	Iron Deposits (B5)			hin Muck Su			· · · —	ral Test (D5)
		orial Ima			` '			ar rest (Bo)
	Inundation Visible on A		· · · · · 	auge or Wel				
	Sparsely Vegetated Coervations:	ncave Si	urface (B8) 🔲 O	tner (Expiair	n in Remarks)			
		s 🗆 N	o 🛛 Depth (inch	ac).				
			, ,					
			lo Depth (inch	•				
Saturation		s 🛛 N	lo	es): <u>0 (at su</u>	<u>rface)</u>		Wetland Hydrology Present	t? Yes⊠ No 🏻
•	capillary fringe)							
				photos, prev	ious inspectio	ns), if ava	ailable: Topo Maps (Exhibit 1), WWI Map (Exhibit 2), Soils
	bit 3), and Aerial photos		•	However o	neomorphic r	nosition	(D2) does not apply due to	the presence of a drain tile
system.	The sample site is 0	11 10 VV, 11	carry level ground.	i iowovei, g	Jeonnoi Princ F	Josidon	(DZ) doos not apply due to	, the presence of a drain tile
5,500111.								

WEILAND DEI					Compling Date: 7.0.2010
Project/Site: <u>Little Menomonee River Corridor Restoration</u> Applicant/Owner: <u>Ozaukee County/MMSD (Greenseam Par</u>		y or iviequon/C	<u>Jzaukee Cou</u>	<u>ուy</u> State: WI	Sampling Date: <u>7-9-2019</u> Sampling Point: 20
Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SEV		ction, Township	o, Range: <u>SE</u>	Quarter, Section 20, T	. • _
Landform (hillslope, terrace, etc.): slight hillslope/floodway		al relief (conca	ave, convex,	none): <u>linear</u>	D 4
Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od)	Long:			NIMI o	Datum: lassification: None
Are climatic/hydrologic conditions on the site typical for this t	ime of year?	Yes ⊠	No ☐ (If	no, explain in Remarks)	
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Norm	nal Circumsta	nces" present? Yes	
Are Vegetation, Soil, or Hydrology natura	Illy problematic?	(If, needed	d, explain any	answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing san	npling point loca	ations, transe	cts, importa	nt features, etc.	
Hydrophytic Vegetation Present? ☐Yes ☑ No	0	Is the Samp	oled Area		
Hydric Soils Present?		within a We	tland?	☐ Yes	⊠No
Wetland Hydrology Present?	0				
Remarks: 90-day antecedent precipitation is normal.					
VEGETATION – Use scientific names of plants.					
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test w	orksheet:
1		· 🗖		Number of Dominant S	Species
2				That are OBL, FACW,	or FAC: <u>0</u> (A)
3		П		Total Number of Domi	nant
4				Species Across All Str	rata: <u>2</u> (B)
5				Percent of Dominant S	Species
	<u>0</u>	= Total Co	ver	That Are OBL, FACW,	•
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index wo	rksheet:
1. Prunus americana (planted)	<u>8</u>	\boxtimes	<u>UPL</u>	Total % Cover of	Multiply by:
2. Rhamnus cathartica	<u>2</u>		FAC	OBL species	x 1 =
3. <u>Ulmus americana</u>	1		<u>FACW</u>	FACW species	x 2 =
4				FAC species	x 3 =
5				FACU species	x 4 =
	<u>11</u>	= Total Co	ver	UPL species	x 5 =
Herb Stratum (Plot size: 5' radius)				Column Totals:	(A) (B)
1. <u>Solidago altissima</u>	<u>60</u>	\boxtimes	<u>FACU</u>	Prevalence	e Index = B/A =
2. Poa pratensis	<u>12</u>		<u>FAC</u>	Hydrophytic Vegetat	ion Indicators:
3. Rhamnus cathartica	<u>10</u>		<u>FAC</u>	☐ 1 - Rapid Test for	Hydrophytic Vegetation
4. Ribes americanum	<u>8</u>		FACW	2 - Dominance Te	st is >50%
5. <u>Taraxacum officinale</u>	<u>8</u>		<u>FACU</u>	3 - Prevalence Ind	lex is ≤3.0¹ Adaptations¹ (Provide supporting
6. Cirsium arvense	<u>7</u>	П	<u>FACU</u>		adaptations (Provide supporting as or on a separate sheet)
7. Symphyotrichum puniceum	<u>5</u>		OBL		drophytic Vegetation¹ (Explain)
Euthamia graminifolia	<u>3</u>		FACW		
9. <u>Ulmus americana</u>	<u>-</u> <u>2</u>		FACW	¹ Indicators of hydric s	oil and wetland hydrology must
	=			Be present, unless dis	turbed or problematic.
10	445	☐ = Total Co			
Woody Vine Stratum (Plot size: 30' radius)	<u>115</u>	- 10tal CO	vei		
Woody Vine Stratum (Plot size: 30' radius)		П		Hydrophytic Vegetation	
1					es 🗌 No 🛛
2		☐ = Total Co			_
Pomarke: (Include phote numbers here or on a constitution	0	- 10tal C0	v GI		
Remarks: (Include photo numbers here or on a separate sh	icci.) Olu IICIU.				

SOIL							Samplin	g Point: <u>20</u>
Profile De	scription: (Describe t	o the de	oth needed to docum	nent the ind	licator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Fea	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-18	N 2.5/	100					Muck	
18-28	10Y 5/1	85	10YR 4/6	15		PL M		
10-20	101 3/1	- 65	10111 4/0	10		FL IVI	Clay loam	
	<u> </u>				· 			
	<u> </u>			<u> </u>				
	<u> </u>	-	-			-		
17	0	l. 4:	A. Dankara d Matrice M	0. Marshard C) 1 O i		21 than DI Dans	Lining M. M. Madrin
	Concentration, D=Dep il Indicators:	letion, RN	/I=Reduced Matrix, M	S=Masked S	sand Grains		² Location: PL=Pore Indicators for Proble	
-	Histosol (A1)		П	Sandv Gle	yed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)			 Sandy Red		,	 ☐ Dark Surface (
	Black Histic (A3)			Stripped M			☐ Iron-Manganes	
	Hydrogen Sulfide (A4))			ıcky Mineral (l	-		Dark Surface (TF12)
	Stratified Layers (A5)			_	eyed Matrix (F	2)	Other (Explain	in Remarks)
	2 cm Muck (A10)	0			Matrix (F3)	2)		
	Depleted Below Dark Thick Dark Surface (A11) <u></u>		rk Surface (F6 Dark Surface	,		
	Sandy Mucky Mineral				pressions (F8		-	phytic vegetation and
	5 cm Mucky Peat or P		<u> </u>			,		ogy must be present, d or problematic.
	e Layer (if observed):						Onloss distance	a or problemate.
Туре							Hydric Soil Present?	Yes⊠ No □
Dept	th (inches):							
HYDROL	OGY							
	lydrology Indicators:							
	ary Indicators (minimun		s required; check all the	nat apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)			Vator Stainer	d Leaves (B9)		☐ Surface Sei	I Cracks (B6)
	High Water Table (A2)			quatic Faun	, ,	1		atterns (B10)
		1						
	Saturation (A3)				Plants (B14)	`	 ·	Water Table (C2)
	Water marks (B1)	2)		-	fide Odor (C1		 ·	, ,
-	Sediment Deposits (B2	2)			cospheres on	_		/isible on Aerial Imagery (C9)
	Drift Deposits (B3)				Reduced Iron			Stressed Plants (D1)
-	Algal Mat or Crust (B4)			Reduction in T	illed Soils	· / ·	Position (D2)
	Iron Deposits (B5)			hin Muck Su	` '		FAC-Neutra	l Test (D5)
	Inundation Visible on A		· · · · —	Sauge or We	. ,			
	Sparsely Vegetated Coervations:	oncave S	urface (B8)	ther (Explain	n in Remarks))		
		s □ N	Io ⊠ Donth (inch	00/-				
		_	lo ☑ Depth (inch					
			No Depth (inch	-				
Saturation (includes of	eapillary fringe)	s 🛛 🕦	No Depth (inch	es): <u>16</u>			Wetland Hydrology Present	? Yes ☐ No ☒
<u> </u>								
	Recorded Data (stream bit 3), and Aerial photo		-	photos, prev	ious inspectio	ons), if ava	ailable: Topo Maps (Exhibit 1)	, WWI Map (Exhibit 2), Soils
		-	•	odway of th	ne Little Mer	omonee	River. However, geomorp	hic position (D2) does not
	•			-			y indicators observed.	

Project/Site: Little Menomonee River Corridor Restoration Applicant/Owner: Ozaukee County/MMSD (Greenseam Parc Investigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SEW Landform (hillslope, terrace, etc.): terrace/floodway	City/County: <u>Cit</u> <u>el)</u> <u>RPC</u> Sed	•	Ozaukee Cou o, Range: <u>SI</u>	State: <u>WI</u> Sampling Point: <u>21</u> E Quarter, Section 20, T9N-R21E	
Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site typical for this til	Long: me of year?	Yes ⊠	No 🗌 (If	Datum: NWI classification: <u>None</u> no, explain in Remarks)	
Are Vegetation, Soil, or Hydrology signific				nces" present? Yes No No No	
Are Vegetation, Soil, or Hydrology natural SUMMARY OF FINDINGS – Attach site map showing sam				/ answers in Remarks.)	
Sommart or Findings - Attach site map showing sam	pinig point loca	luons, transe	cts, importa	in leatures, etc.	
Hydrophytic Vegetation Present?		Is the Samp within a We		⊠ Yes □No	
Remarks: 90-day antecedent precipitation is normal.					
VEGETATION – Use scientific names of plants.					
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1		П		Number of Dominant Species	
2				That are OBL, FACW, or FAC: 3 (A)	
3				Total Number of Dominant Species Across All Strata: 4 (B)	
4					
5	<u> </u>	☐ = Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)	
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index worksheet:	
1. Rhamnus cathartica	<u>8</u>	\boxtimes	<u>FAC</u>	Total % Cover of: Multiply by:	
2. Quercus bicolor (planted)	<u>4</u>	\boxtimes	FACW	OBL species x 1 =	
3. Larix laricina (planted)	<u>3</u>	\boxtimes	FACW	FACW species x 2 =	
4				FAC species x 3 =	
5		П		FACU species x 4 =	
	<u>15</u>	= Total Co	ver	UPL species x 5 =	
Herb Stratum (Plot size: 5' radius)				Column Totals: (A) (E	3)
1. <u>Solidago altissima</u>	<u>60</u>	\boxtimes	<u>FACU</u>	Prevalence Index = B/A =	
2. <u>Symphyotrichum puniceum</u>	<u>18</u>		<u>OBL</u>	Hydrophytic Vegetation Indicators:	
3. <u>Poa pratensis</u>	<u>15</u>		<u>FAC</u>	1 - Rapid Test for Hydrophytic Vegetation	
4. Geum candense	<u>8</u>		<u>FAC</u>		
5. Symphyotrichum lanceolatum	<u>5</u>		<u>FAC</u>	☐ 3 - Prevalence Index is ≤3.0¹☐ 4 - Morphological Adaptations¹ (Provide supporting	~
6. <u>Taraxacum officinale</u>	<u>5</u>		<u>FACU</u>	data in Remarks or on a separate sheet)	A
7. Rhamnus cathartica	<u>4</u>		<u>FAC</u>	☐ 5 - Problematic Hydrophytic Vegetation¹ (Explain)	
8. Quercus bicolor (planted)	<u>3</u>		<u>FACW</u>		
9. Cirsium arvense	<u>2</u>		<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must	
10				Be present, unless disturbed or problematic.	
10.	120	= Total Co	ver		
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation	
2				Present? Yes ⊠ No □	
	<u>0</u>	= Total Co	ver		
Remarks: (Include photo numbers here or on a separate she	eet.) Fresh (we	t) meadow			

SOIL							Samplin	g Point: <u>21</u>
Profile De	scription: (Describe t	o the dep	oth needed to docum	nent the ind	licator or con	firm the	absence of indicators.)	
Depth	Matrix			Redox Fea	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	— Texture	Remarks
0-20	N 2.5/	100					Muck	
20-27	10Y 5/1	90	10YR 4/6	10		PL M	Clay loam	
20-21	101 3/1	90	10113 4/0			FL IVI	Clay loani	
	<u> </u>							
					· 			
	<u> </u>	-						
1- 0	0 1 " 0 0	51		0.14 10			21 (1 D) D	
	Concentration, D=Deplication il Indicators:	etion, RN	I=Reduced Matrix, M	S=Masked S	Sand Grains		² Location: PL=Pore Indicators for Proble	
-	Histosol (A1)		П	Sandy Gle	eyed Matrix (S	4)	Coast Prairie F	
	Histic Epipedon (A2)		一	Sandy Red		-,	☐ Dark Surface (
	Black Histic (A3)			Stripped M	/latrix (S6)		☐ Iron-Manganes	e Masses (F12)
	Hydrogen Sulfide (A4)			Loamy Mu	ıcky Mineral (f	- 1)		Park Surface (TF12)
	Stratified Layers (A5)			_	eyed Matrix (F	2)	Other (Explain	in Remarks)
· —	2 cm Muck (A10)		<u>-</u>	_	Matrix (F3)			
	Depleted Below Dark		¹¹¹⁾		rk Surface (F6	,		
	Thick Dark Surface (A Sandy Mucky Mineral				Dark Surface (pressions (F8		-	phytic vegetation and
	5 cm Mucky Peat or Pe		<u> </u>	_ INEGOX DE	pressions (i o	,	-	ogy must be present, d or problematic.
	e Layer (if observed):						Offices disturbe	d of problematic.
Туре							Hydric Soil Present?	Yes ⊠ No □
Dept	h (inches):						,	
HYDROL	OGY							
	lydrology Indicators:							
	ary Indicators (minimum	of one is	required; check all the	nat apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)			later-Stainer	d Leaves (B9)		☐ Surface Soi	Cracks (B6)
	High Water Table (A2)			quatic Faun				atterns (B10)
	Saturation (A3)				Plants (B14)			Water Table (C2)
	, ,				riants (B14) lfide Odor (C1	`		
	Water marks (B1)				•	,	Crayfish Bu	
	Sediment Deposits (B2	<u>2)</u>			zospheres on l	•	` ' 	/isible on Aerial Imagery (C9)
-	Drift Deposits (B3)				Reduced Iron (Stressed Plants (D1)
	Algal Mat or Crust (B4))			Reduction in Ti	lilea Solis	· / ·	Position (D2)
	Iron Deposits (B5)			hin Muck Su	` '		_	al Test (D5)
	Inundation Visible on A		· · · · · 	auge or We				
	Sparsely Vegetated Coervations:	oncave S	urface (B8) 🔲 C	ther (Explair	n in Remarks)	1		
		- - .	la 🔽 Danah (inah					
			lo 🛛 Depth (inch					
			lo Depth (inch					
Saturation (includes of	Present? Ye capillary fringe)	s ⊠ N	lo	es): <u>6</u>			Wetland Hydrology Present	? Yes⊠ No □
	Recorded Data (stream bit 3), and Aerial photos		-	photos, prev	vious inspectio	ons), if av	ailable: Topo Maps (Exhibit 1)	, WWI Map (Exhibit 2), Soils
				EWRPC-m	napped flood	lway of t	he Little Menomonee River	. However, geomorphic
position (D2) does not apply a	ıs a draiı	n tile system is pres	sent.				

Project/Site: Little Menomonee River Corridor I Applicant/Owner: Ozaukee County/MMSD (Gre Investigator(s): Chris Jors, Jen Dietl, and Shan Landform (hillslope, terrace, etc.): terrace	eenseam Parcel) e Heyel: SEWRPC See		zaukee Cou , Range: <u>SE</u>	State: <u>WI</u> E Quarter, Section 20, TS	Sampling Date: 7-9-2019 Sampling Point: 22 N-R21E
Slope (%): 0-2% Lat: Soil Map Unit Name: Ogden mucky peat (Od) Are climatic/hydrologic conditions on the site ty Are Vegetation, Soil, or Hydrology	Long: pical for this time of year? significantly disturbed?	Yes ⊠ N Are "Norma	No	NWI cl no, explain in Remarks) nces" present? Yes ∑	Datum: lassification: <u>None</u> ☑ No □
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS – Attach site map				/ answers in Remarks.) nt features, etc.	
Hydrophytic Vegetation Present? Hydric Soils Present? Wetland Hydrology Present? Yes Yes	□No □No □No	Is the Sampl within a Wet		⊠ Yes	□No
Remarks: 90-day antecedent precipitation	is normal.				
VEGETATION – Use scientific names of plants					
Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test w	orksheet:
2	<u> </u>			Number of Dominant S That are OBL, FACW,	or FAC: <u>2</u> (A)
3 4 5	<u> </u>			Total Number of Domin Species Across All Stra	ata: <u>3</u> (B)
5	<u>0</u>	= Total Cov	er	Percent of Dominant S That Are OBL, FACW,	or FAC: <u>67%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30' radius)	40	∇	FAC	Prevalence Index wo	
1. Rhamnus cathartica	<u>10</u> <u>2</u>		<u>FAC</u> FACW	Total % Cover of:	
2. Quercus bicolor (planted)	<u> </u>	<u> </u>	<u>r ACW</u>	OBL species	x 1 =
3				FACW species	x 2 =
4				FAC species	x 3 =
5	12	☐ = Total Cov		FACU species UPL species	x 4 = x 5 =
Herb Stratum (Plot size: <u>5' radius</u>)	<u>12</u>	- 10tai 00v	CI	Column Totals:	(A) (B)
1. Solidago altissima	<u>50</u>	\boxtimes	<u>FACU</u>		e Index = B/A =
2. Symphyotrichum lanceolatum	<u></u>	\boxtimes	FACW	Hydrophytic Vegetati	
3. Rhamnus cathartica	<u></u>		FAC	☐ 1 Panid Toot for I	Hydrophytic Vegetation
4. Symphyotrichum puniceum	<u>10</u>		<u>OBL</u>	2 - Dominance Te	
5. <u>Cirsium arvense</u>	<u>5</u>		<u>FACU</u>	3 - Prevalence Inde	ex is ≤3.0 ¹ Adaptations¹ (Provide supporting
6. Taraxacum officinale	<u>3</u>		<u>FACU</u>		s or on a separate sheet)
7				☐ 5 - Problematic Hy	drophytic Vegetation¹ (Explain)
8					
9					oil and wetland hydrology must
10				Be present, unless dis	turbed or problematic.
	<u>128</u>	= Total Cov	er		
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic	
1				Vegetation	_
2				Present? Ye	s⊠ No □
	<u>0</u>	= Total Cov	er		
Remarks: (Include photo numbers here or on	a separate sheet.) Fresh (we	et) meadow.			

OIL							'	ig Point: <u>22</u>
Profile Des	scription: (Describe	to the dep	oth needed to docun	nent the ind	licator or cor	firm the	absence of indicators.)	
Depth	Matrix			Redox Fea	tures			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture	Remarks
0-10	N 2.5/	100					Muck	
10-27	10Y 5/1	90	10YR 4/6	10		PL M	Clay loam	
10-27	101 3/1		1011(4/0			1 L IVI	Clay Ioaiii	
		· ·		-			- -	-
					·			
		<u> </u>		-		-		
	· -							
1т О	0	letien DN	A. D. door d.M. date. Ma	0. Maralara 1.0) 1 O i		21 the DI - De	Links A BA Addis
, ,	Concentration, D=Dep il Indicators:	pletion, Riv	I=Reduced Matrix, M	S=Masked S	sand Grains		² Location: PL=Pore Indicators for Proble	
•	Histosol (A1)		П	Sandy Gle	eyed Matrix (S	34)	Coast Prairie F	
	Histic Epipedon (A2))		_ Sandy Re		,	 ☐ Dark Surface (
	Black Histic (A3)			Stripped M	/latrix (S6)		☐ Iron-Manganes	
	Hydrogen Sulfide (A4)			ıcky Mineral (-		Dark Surface (TF12)
	Stratified Layers (A5)			_	eyed Matrix (F	-2)	Other (Explain	in Remarks)
	2 cm Muck (A10)			Depleted I	` '	2)		
	Depleted Below Dark Thick Dark Surface (A		(A11) <u></u>		rk Surface (F6 Dark Surface	•		
	Sandy Mucky Mineral	,			pressions (F8			ophytic vegetation and
	5 cm Mucky Peat or F			_ NOGOX DO	prosolorio (i o	')		ogy must be present, ed or problematic.
	Layer (if observed)						Offices disturbe	a or problematic.
Туре							Hydric Soil Present?	? Yes⊠ No □
	h (inches):							
IYDROL	OGY							
Wetland H	ydrology Indicators:	!						
<u>Prima</u>	ry Indicators (minimur	n of one is	required; check all th	nat apply)			Secondary Indica	ators (minimum of two required)
	Surface Water (A1)		Пν	/ater-Staine	d Leaves (B9))	☐ Surface Soi	il Cracks (B6)
	High Water Table (A2)		quatic Faun	` '	,		atterns (B10)
	Saturation (A3)	,			Plants (B14)			n Water Table (C2)
	Water marks (B1)				lfide Odor (C1	1	☐ Crayfish Bu	, ,
	, ,	2)		-		-		
	Sediment Deposits (B	۷)			zospheres on	-	· · · · —	Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	1)			Reduced Iron			Stressed Plants (D1)
	Algal Mat or Crust (B4	+)			Reduction in T	illed Solls	· · · —	c Position (D2)
	Iron Deposits (B5)			hin Muck Su			FAC-Neutra	II Test (D5)
	Inundation Visible on		· · · · —	auge or We	` ,			
Field Obse	Sparsely Vegetated C	oncave Su	urface (B8) 🔲 O	ther (Explain	n in Remarks)		
		N	le ⊠ Donth (inch	٠٠)،				
			lo 🛛 Depth (inch					
Water Tabl			lo Depth (inch	-				
Saturation (includes c	Present? Yeapillary fringe)	es 🛛 N	lo	es): <u>6</u>			Wetland Hydrology Present	?? Yes ⊠ No □
	ecorded Data (stream oit 3), and Aerial photo		_	photos, prev	vious inspection	ons), if ava	ailable: Topo Maps (Exhibit 1)), WWI Map (Exhibit 2), Soils
		-		EWRPC-m	napped one-	percent-	annual-probability floodpla	in of the Little Menomonee
	wever, geomorphic		•			•	•	

WETLAND DE	TERMINATIO	ON DATA F	FORM - N	/lidwest Regio	on			
Project/Site: <u>Little Menomonee River Corridor Restoration</u>	City/County: Ci	ty of Mequon/C	zaukee Cou	nty	Sa	ampling Da	ate: <u>7-9-20</u>)1 <u>9</u>
Applicant/Owner: Ozaukee County/MMSD (Greenseam Pa				State: WI	Sa	ampling Po	oint: <u>23</u>	
nvestigator(s): Chris Jors, Jen Dietl, and Shane Heyel: SE	WRPC Sec	ction, Township	, Range: <u>SE</u>	Quarter, Section 2	0, T9N-R2	1 <u>E</u>		
andform (hillslope, terrace, etc.): low terrace	Loc	cal relief (conca	ive, convex, i	none): <u>none</u>				
Slope (%): <u>0-2%</u> Lat:	Long:					atum:	_	
Soil Map Unit Name: Ogden mucky peat (Od)		v 54			WI classific	cation: <u>No</u>	<u>ne</u>	
Are climatic/hydrologic conditions on the site typical for this	-	Yes ⊠		no, explain in Rema	•	NI.		
Are Vegetation, Soil, or Hydrology signif Are Vegetation X, Soil, or Hydrology naturally				nces" present? Y		INC	□	
		-		answers in Remar	NS.)			
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point loc	ations, transed	cts, importa	nt features, etc.				
		le the Comm	lad Avaa					
Hydrophytic Vegetation Present? Yes N		Is the Samp within a We		⊠ Yes		□No		
Hydric Soils Present?				△ 100				
Remarks: 90-day antecedent precipitation is normal.		l d about 60 fe	et south of t	his samnle site w	ith virtual	ly the san	ne soil nro	ofile
saturation level, and observed water table. (See Ex	•		or south of t	ins sample site w	itii viitaaii	ly the san	ic son pre	Jilio,
Catalation lovel, and observed water table. (Coo Ex	more i, propo on	.0 20.)						
/EGETATION – Use scientific names of plants.								
	Absolute	Dominant	Indicator					
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	% Cover	Species?	Status	Dominance Tes	st worksl	heet:		
1		. П		Number of Domin	ant Specie	ıs.		
2				That are OBL, FA	•		A)	
						_ `	,	
3				Total Number of D Species Across A		2 /	'D\	
4	 -			Species Across A	ii Oliala.	<u>2</u> (ы)	
5				Percent of Domina	•			
	<u>0</u>	= Total Cov	/er	That Are OBL, FA	CW, or FA	·C: <u>50</u>	<u>%</u> (A/B)	
Sapling/Shrub Stratum (Plot size: 30' radius)				Prevalence Index	k workshe	et:		
1. Rhamnus cathartica	<u>12</u>	\boxtimes	FAC	Total % Cove	er of:	<u>N</u>	lultiply by:	
2				OBL species	5	x 1 =	5	
3.				FACW species	5	x 2 =	10	_
				·		_		_
4				FAC species	15	x 3 =	45	_
5				FACU species	93	_ x 4 =	372	_
	<u>12</u>	= Total Cov	/er	UPL species	0	x 5 =	0	_
Herb Stratum (Plot size: <u>5' radius</u>)		_		Column Totals:	118	_ (A)	432	_ (B)
1. <u>Solidago altissima</u>	<u>80</u>	\boxtimes	<u>FACU</u>		lence Inde		3.66	
2. <u>Taraxacum officinale</u>	<u>10</u>		<u>FACU</u>	Hydrophytic Veg	etation in	dicators:		
3. Euthamia graminifolia	<u>5</u>		<u>FACW</u>	☐ 1 - Rapid Test	for Hydro	phytic Veg	etation	
4. Symphyotrichum puniceum	<u>5</u>		<u>OBL</u>	2 - Dominance				
5. Cirsium arvense	<u>3</u>		<u>FACU</u>	☐ 3 - Prevalence☐ 4 - Morpholog			ovido supp	orting
6. Rhamnus cathartica	<u>3</u>		FAC	data in Rei				orang
7				□ 5 - Problemation	Hydrophyt	tic Vegetati	on¹ (Explain	1)
8.								
		_		¹ Indicators of hyd	lric soil and	d wetland h	nydrology n	must
9				Be present, unles				
10						-		
	<u>106</u>	= Total Cov	/er					
Woody Vine Stratum (Plot size: 30' radius)				Hydrophytic				
1.				Vegetation				
				Present?	Yes ⊠	No [コ	
2								
	0	= Total Cov	/⊏					

Remarks: (Include photo numbers here or on a separate sheet.) Vegetation determined to meet the Problematic Hydrophytic Vegetation indicator due to similar findings of hydric soils (A2-Histic Epipedon and A10-2cm Muck) and wetland hydrology indicators (A3-Saturation at 6 inches with an observed water table below) as wetland sample sites 21 and 22. Professional judgement used to include this sample area as wetland due to vegetation at wetland sample sites 21 and 22 meeting the Dominance Test (75 and 67%, respectively). Fresh (wet) meadow.

SOIL									Samplin	g Point: <u>23</u>	
Profile De	scription: (Describe to	the dep	th needed to	docum	ent the ind	icator or cor	firm the	absence	e of indicators.)		
Depth	Matrix				Redox Feat	tures					
(inches)	Color (moist)	%	Color (mo	oist)	%	Type ¹	Loc ²		Texture	Re	emarks
0-14	N 2.5/	100						Muck			
14-27	10Y 5/1	85	10YR 5/6		15	C	PL M	Clay	loam		
									_		
1T C-	Consentantian D-Daul	ation DN	I-Dadwaad Ma	tuit MC	`-Mk-d O	Sand Oneine			21tion: DIDone	Linina M-Matu	<u>.</u>
	Concentration, D=Deple il Indicators:	elion, Riv	i-Reduced ivia	auix, ivic	s-iviaskeu s	band Grains			² Location: PL=Pore Indicators for Proble		
	Histosol (A1)				_	yed Matrix (S	34)		Coast Prairie F	Redox (A16)	
	Histic Epipedon (A2)				Sandy Red				Dark Surface (,	
 	Black Histic (A3) Hydrogen Sulfide (A4)			+	Stripped M	iatrix (S6) icky Mineral (F1)		☐ Iron-Manganes ☐ Very Shallow □		
	Stratified Layers (A5)			+		eyed Matrix (F	•		Other (Explain	•	1 12)
	2 cm Muck (A10)			市	Depleted N	•	_,			,	
	Depleted Below Dark S	•	A11)			rk Surface (F6	,				
	Thick Dark Surface (A				•	Dark Surface pressions (F8	. ,		³ Indicators of Hydro	. , .	
	Sandy Mucky Mineral (5 cm Mucky Peat or Pe	,			_ Kedox Def	pressions (F8)		Wetland hydrol Unless disturbe		
	e Layer (if observed):	at (33)							Offiess disturbe	u or probleman	
	e:								Hydric Soil Present?	Yes ⊠	No 🗌
Dept	th (inches):										
Remarks:											
HYDROL	OGY										
Wetland F	lydrology Indicators:										
<u>Prima</u>	ary Indicators (minimum	of one is	required; che	ck all th	at apply)				Secondary Indica	ators (minimum	of two required)
	Surface Water (A1)			□ W	ater-Stained	d Leaves (B9))		☐ Surface Soi	l Cracks (B6)	
	High Water Table (A2)		_		quatic Fauna					atterns (B10)	
	Saturation (A3)		_			Plants (B14)				Water Table (0	C2)
	Water marks (B1)		_		•	fide Odor (C1)		Crayfish Bu		•
	Sediment Deposits (B2)	_		_	ospheres on		oots (C3)	☐ Saturation \	/isible on Aerial	I Imagery (C9)
	Drift Deposits (B3)		_			Reduced Iron	-	, ,	Stunted or S	Stressed Plants	(D1)
	Algal Mat or Crust (B4)		_	☐ Re	ecent Iron R	Reduction in T	illed Soils	(C6)	Geomorphic	c Position (D2)	
	Iron Deposits (B5)		_	Th	nin Muck Su	rface (C7)			FAC-Neutra	ıl Test (D5)	
	Inundation Visible on A	erial Ima	gery (B7)	☐ Ga	auge or Wel	ll Data (D9)					
	Sparsely Vegetated Co	ncave Su	ırface (B8)	☐ Ot	ther (Explair	n in Remarks))				
Field Obs	ervations:										
			·	h (inche							
Water Tab			lo 🗌 Dept	h (inche	es): <u>24</u>						
Saturation		s 🛛 N	lo 🗌 Dept	h (inche	es): <u>6</u>			Wetland	d Hydrology Present	? Yes ⊠	No 🔲
`	capillary fringe)										
	Recorded Data (stream			aerial p	hotos, prev	ious inspection	ons), if av	ailable:	Topo Maps (Exhibit 1)	, WWI Map (Ex	hibit 2), Soils
	bit 3), and Aerial photos The sample site is or			ound in	the SE\//	PDC_manna	d one n	ercent c	annual probability fl	oodplain of th	
	nee River. However,						-		•	Joupiain of the	e Little
		ا ۱۰۰۰۱	2 30111011	,, a	- 35o. up	r., a aia	o oy		F		

Exhibit 10. Site Photos

Little Menomonee River Corridor Ecosystem/Habitat Restoration Project on MMSD Greenseam Parcel SE Quarter, Section 20, T9N-R21E City of Mequon, Ozaukee County

Photo 1. Wetland sample site 1. Fresh (wet) meadow. (East view)



Photo 3. Wetland sample site 3. Fresh (wet) meadow near dredge spoil berm. Sample sites 8 and 9 are similar.



Photo 5. Wetland sample site 5. Open water. Little Menomonee River.



Photo 2. Wetland sample site 2. Fresh (wet) meadow. (North view)



Photo 4. Upland sample site 4. Old field with scattered trees and shrubs on a dredge spoil berm. (North view)



Photo 6. Wetland sample site 6. Open water. Little Menomonee River.



Photo 7. Upland sample site 7. Old field on a dredge spoil berm.



Photo 9. Upland sample site 11. Old field (berm) with scattered shrubs and trees alongside the river.



Photo 11. Wetland sample site 13. Degraded fresh (wet) meadow.



Photo 8. Upland sample site 10. Buckthorn thicket on a dredge spoil berm. River is visible in the background.



Photo 10. Upland sample site 12. Shrub thicket on dredge spoil material.



Photo 12. Wetland sample site 14. Fresh (wet) meadow.



Photo 13. Upland sample site 15. Old field on dredge spoil material. (North view)



Photo 15. Upland sample site 17. Old field.



Photo 17. Wetland sample site 19. (East view) Fresh (wet) meadow. Sample site 21 is similar.



Photo 14. Wetland sample site 16. Fresh (wet) meadow at the edge of the Little Menomonee River.



Photo 16. Wetland sample site 18. Fresh(wet) meadow. (North view)



Photo 18. Upland sample site 20. Old field. Wetland is on lower ground just to the left of the image. (N view)



Photo 19. Wetland sample site 22. Fresh (wet) meadow. (North view)



Photo 20. Wetland sample site 23. Fresh (wet) meadow. (North view)



Photo 21. Steep, undercut bank of the Little Menomonee River at sample site 5.



Photo 22. NE view toward steep bank of the Little Menomonee River across from sample site 5.



Photo 23. Large drain tile outlet pipe, and associated sediment deposit, just south of sample site 6. The outlet is approximately 7 inches above river level.



Photo 24. Submerged drain tile outlet pipe near sample site 10.



Photo 25. North/upstream view of the Little Menomonee River from sample site 10.



Photo 26. South/downstream view of the river with steep, eroding bank opposite sample site 10.



Photo 27. NE/upstream view of river from footbridge crossing near sample site 16.



Photo 28. NE/upstream view, Little Menomonee River from West Mequon Road.



Photo 29. West view, south end of project area along Mequon Road, from driveway just west of the river.



Photo 30. NW view across the project area from a similar vantage point as the previous photo.



Photo 31. North view of old driveway, NW of Little Menomonee River crossing at Mequon Road.



00253299