



Village of Menomonee Falls
W156 N8480 Pilgrim Road
Menomonee Falls, WI 53051-3140
Telephone: (262) 532-4200

STORMWATER MANAGEMENT FACILITIES OPERATION AND INSPECTION REPORT

Quarter Section
Property Tax ID Number
Date: 8/14/2021

NE1/4, Sec 34
0133.216
Name of Business/Subdivision
Ravenswood Subdivision
Address of Property

Dry Pond		Pond ID: SWP34n003	Location of Pond	Outlet 3 – Pond #2
Wet Pond	X			Northern Pond
Other				

Year Pond
Constructed

2004

Year of Last
Certification

2014

Compliance Verification	Design	Actual	Compliant Yes	No	Comments (Condition of Structure)
Primary Outlet Pipe					
Opening Diameter (inches)	12"	12"	X		Outlet Pipe Material
Upstream Invert	801.20	800.78	X		Outlet pipe material is RCP.
Downstream Invert	799.17	799.25	X		RCP is in good condition and no evidence of sediment accumulation within pipe, appears to be operating as originally intended.
Length (feet)	78	74	X		
Slope (%)	2.6%	2.07%	X		
Secondary Outlet Pipe	(If Applicable)				
Opening Diameter (inches)					Outlet Pipe Material
Upstream Invert					
Downstream Invert					
Length (feet)					
Slope (%)					
Riser	(If Applicable)				
Opening Diameter (inches)	24"x36"	24"x36"	X		Riser is a concrete structure with a metal inlet grate placed on top
Elevation	807.90	807.65	X		
Upper Discharge Control	(If Applicable)				
Opening Diameter (inches)					
Elevation					

Compliance Verification	Design	Actual	Compliant Yes No	Comments	
Lower Discharge Control	(If Applicable)				
Opening Diameter (inches)	5"	5"	X		Orifice is in good condition and operating as intended, however, it appears that there is some sediment or dead vegetation blocking some of the water trying to flow through the system
Elevation	801.20	800.78	X		
Other (Description)					
Opening Type and Size (inches)					
Elevation					
Emergency Spillway					
Elevation	808.90	808.50	X		
Length of spillway (feet)	20'	18'	X		Some weedy vegetation growing, spray or hand remove
Embankment	Present Yes no		Comments/Maintenance Requirements		
Unauthorized Plantings, trees, or woody vegetation	X		There are couple of trees that reside within the active storage area of the wet pond that should be moved and or cut down.		
Animal burrows or slope erosion	X		Trees can be installed above the high water elevation of 808.24. The tree located along the west edge of the pond has its root system showing and this is causing erosion issues around the tree. Tree and stump should be removed and the area should be filled in and covered with erosion mat and seed.		
Storm Sewer Outfalls	Type & Size		Location	Comments	
Outfall 1	RCP. 24"		Southwest Corner	There is evidence that there is sediment accumulation within the riprap outfall area, however, at this time, it does not seem to be hindering the conveyance of stormwater and there are no signs of erosion or movement of sediment into the wet pond. Pipe is in good working condition and sediment is not accumulating within the pipe itself.	
Outfall 2	RCP, 15"		Northwest Corner	The invert of this pipe is at 801.63. The invert of the outlet structure orifice is 880.78. Therefore no water should be pooling at the bottom of the pipe. This suggests that the orifice is plugged, not allowing water to flow through the system properly. Otherwise, the pipe is in good working condition. There is very little riprap at the end of the pipe, however, with the water elevation currently above the bottom of the pipe, erosion at the end of the pipe is not of concern.	
Outfall 3					

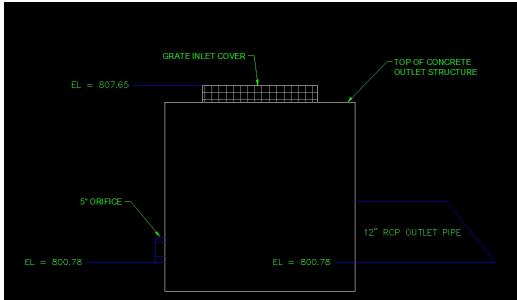
Storage Properties	Design	Actual	Compliant Yes No		Not Applicable	Equipment Used
Normal Water Elevation (Wet Ponds)	801.20	801.73	X			Drone technology and laser level To determine elevations and contours HydroCAD 10.0 to determine areas and pond volumes
Design High Water Elevation	808.24	808.25	X			
Area at Normal Water Elevation (Ac) (Wet Ponds)	0.27	0.29	X			
Area at Design High Water Elevation (Ac)	0.77	0.76	X			
Active Storage Available (Ac-Ft)*	3.5	3.43	X			
Lowest Elevation at Top of Embankment (If Applicable)	809.90	809.75	X			
Average Elevation at Top of Embankment (If Applicable)	809.90	809.85	X			
Maximum Bottom Elevation	795.00	796.81		X		
Average Pond Bottom Elevation	795.00	795.95	X			
Pond Bottom Area (Ac)		0.12	X			
Maximum Pond Depth	6.2 ft	7.25 ft	X			The majority of the sediment accumulation is near the outlet structure and the southwest infall pipe. These areas have anywhere from 16" of sediment to 22" of sediment accumulation. There is a spot closer to the outlet structure where the sediment accumulation is about 48" thick. It is recommended that these areas of sediment be removed and the pond returned to its original shape and volume.
Average Pond Depth	6.2 ft	5.78 ft	X			
Average Permanent Pool Depth (Wet Ponds)	6.2 ft	5.78 ft	X			

*To Determine Active Storage $V=(H/3)(A1+A2+(\sqrt{(A1+A2)}))$

Wet Ponds Use H = Height of Section, $A1$ = area at normal water elevation, $A2$ = area at top section

Dry Ponds Use H = Height of Section, $A1$ = pond bottom area, $A2$ = area at top section

Sketch Outlet or Attach to Document



01/06/2021 11:00:13 AM

View of overall wet pond and outlet structure.



01/06/2021 11:13:13 AM

View of exposed roots and erosion.



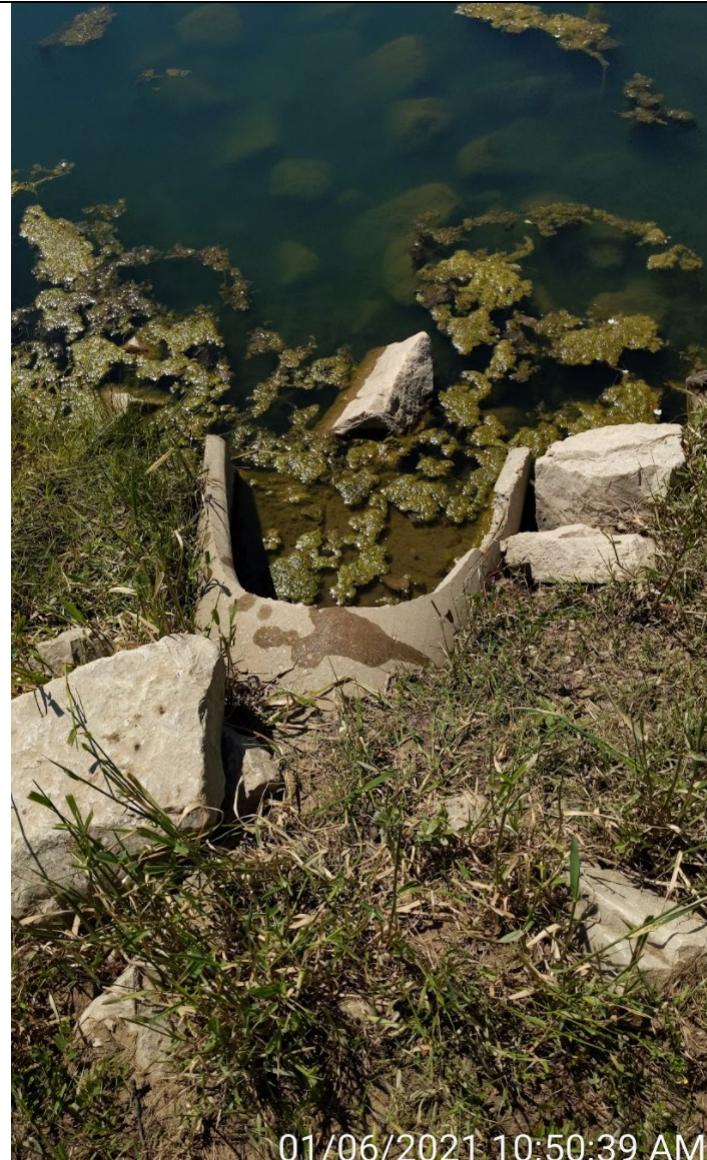
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View of emergency overflow weir.



01/06/2021 11:08:00 AM

View of southwest infall pipe.



01/06/2021 10:50:39 AM

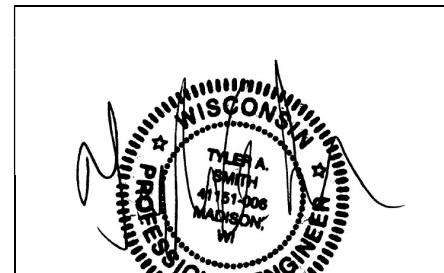
Northwest infall pipe.

Attach As-built Survey to the Document for the first report submission

Inspection Firm: Drainage Doctor, LLC
Phone Number: 608.535.9380
Address: 416 W Red Pine Circle
Dousman, WI 53118

Inspector Name : Tyler Smith, PE
Inspection Date: 06.01.2021

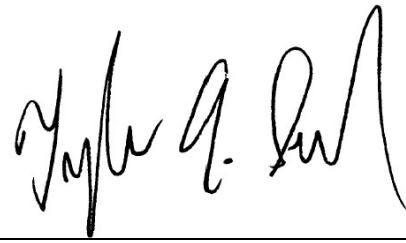
Certifying Professional Tyler Smith, PE
Name:
Phone Number: 608.535.9380



Date:

08.14.2021

Signature:

A handwritten signature in black ink, appearing to read "Yvonne A. Smith". The signature is fluid and cursive, with distinct loops and strokes.

Affix Seal Here

10-3-2012