#### **General Project Information**

Project ID: AIRR19216

Name: LAKE MINNESUING SANITARY DISTRICT: Yellow Flag Iris Mitigation - Lake Minnesuing

**Type:** Aquatic Invasives Grant

**Subtype:** Aquatic Invasives Early Detection and Response

Status: COMPLETE

**Start Date:** 6/3/2015 **End Date:** 12/31/2020

Purpose: The Lake Minnesuing Sanitary District is sponsoring a four-year Yellow Flag Iris response project on Lake Minnesuing to do

the following activities: pretreatment monitoring, collect geotagged photos of YFI sites, perform control work to include

digging, cutting, and herbicide, and education of property owners.

Project deliverables include: 1) Annual summary of effectiveness comparing pre and post-treatment, including initial size of area of YFI controlled and remaining, technique used at each site, estimated density of plants at each site, hours spent performing control work, and photos of sites comparing each year; 2) Electronic copy of monitoring log submitted via email to local WI DNR Lakes Coordinator or data sheets entered into SWIMS database. Any newly identified YFI populations that were not listed in initial project will be reported with size, density, and GPS location via this monitoring log or reported into SWIMS database; 3) Summary of education component listing number of participants and dates of any workshops held, if any; copies of any media releases or outreach to sanitation district or property owners; 4) A final project report summarizing pre and post treatment size and density of areas controlled, management techniques used, outcome/post monitoring of control, qualitative summary of effectiveness of education efforts and participation of private property owners and volunteers in monitoring or control work

Special condition: A chemical control permit should be applied for if management includes herbicide techniques. Licensed applicators must be used where required by law.

This scope is intended to summarize the detailed project scope provided in the application and does not supersede those application tasks/deliverables. Data, records, and reports, including GIS-based maps and digital images, must be submitted to the Department in a format specified by the regional Lake Coordinator.

Objective:

Outcome:

Comments: Grantee is LAKE MINNESUING SANITARY DISTRICT

Study Design:

**QA Measures:** 

People						
Name	Role	Status	Start Date	End Date	Organization	Comments
Bates, Jeremy M	TEAM_MEMBER	ACTIVE	8/19/2019		Wisconsin DNR	
Lake Minnesuing Sanitary Distr	GRANT_RECIPI ENT	ACTIVE	6/8/2016		Lake Minnesuing Sanitary District	
Toshner, Pamela J	LAKE_BIOLOGI ST	ACTIVE	8/19/2019		Wisconsin DNR	

Project Statuses				
Date	Reported By	Status	Comments	

#### **Actions**

Action	Detailed Description	Start Date	End Date	Status
Grant Awarded	Grant AIRR19216 awarded	6/3/2015	12/31/2015	COMPLETE
APM Chemical Permit Request	Chemical Permit Details	7/21/2016	10/1/2016	APPROVED
D 4 11 D	V. I /A /	11.24		

APM Chemica	I Permit Request	Chemical Permit Details		7/21/2016	10/1/2016	APPROVED
Details:	Parameter	Value/Amount	Units	Co	mments	
	APM Plan	N				
	APM Plan Agree	N				
	Advance Notification	N				
	Broad-leaved cattail (Typha latifolia)	N				
	Business Location License	N/A				
	CO - # days	2				
	CO - 15 days	Υ				
	CO – Date Sent	7/25/2016				
	CO-Date_Received	7/21/2016				
	CONTROL_INVASIVES	N				
	CONTROL_OTHER	N				
	Category 5 Certification Number	N/A				
	Chemical Permit ID	3532				
	Chemicals - Approved	Rodeo				
	Common arrowhead (Sagittaria latifolia)	N				
	Common reed (Phragmites australis)	N				
	Common waterweed (Elodea canadensis)	a N				
	Control - Algae	N				
	Control - Emergent water plants	Υ				
	Control - Floating water plan	ts N				
	Control - Nuissance algae	N				
	Control - PL	N				
	Control - Submerged water plants	N				
	Coontail (Ceratophyllum demersum)	N				
	Curly-leaf pondweed (Potamogeton crispus)	N				
	Entered in SharePoint	N				
	Estimated Acres	0.0313				
	Eurasian water-milfoil (Myriophyllum spicatum)	N				
	Expiration Date	10/1/2016				
	Fee	20				
	Field - 15 days	N				
	Field Issued By	Mark_Sundeen				

Details:	Parameter	Value/Amount	Units	Comments
	Filamentous Algae	N		
	Improvement - swimming	N		
	Lake Surface Area			
	Large Duckweed (Spirodela polyrhiza)	N		
	Large Scale Treatment Form	N		
	Large-leaf pondweed (Potamogeton amplifolius)	N		
	Maintain - Other Text	Yellow Flag Iris		
	Maintain navigational channel	N		
	Maintain private access - boating	N		
	Maintain private access - fishing	N		
	Muskgrasses (Chara)	N		
	NUISANCE_CAUSED_OTHER	Υ		
	Native Plants	N		
	Next Steps	Sent to Mark		
	Payment Number	1392		
	Permit County	Douglas		
	Permit End Year	2016		
	Permit Latitude	46.4690		
	Permit Longitude	-91.7448		
	Permit PLSS Section	16 46N11W		
	Permit Start Year	2016		
	Permit WBIC	2866200		
	Permit Year	2016		
	Pithophora	N		
	Planktonic Algae	N		
	Private Pond	N		
	Purple loosestrife (Lythrum salicaria)	N		
	Sensitive Area	N		
	Softstem bulrush (Schoenoplectus tabernaemontani)	N		
	Sogo pondweed (Stuckenia pectinata)	N		
	TREATMENT_AREA	Lake Minnesuing		
	Treatment Date	N		
	Treatment Date	N		
	Treatment Record - Received	N		
	Treatment Record - Scanned	N		
	Waterbody Type	LAKE		

lotalia.	Parameter	Value/Amount	Units	C	nmonto	
Jetaiis:			Comments			
	APM Plan Agree	N				
	APM Plan Agree	N				
	Advance Notification	N				
	Broad-leaved cattail (Typha latifolia)	N				
	Business Location License	93-013996-011211				
	CO - # days	1				
	CO - 15 days	Υ				
	CO – Date Sent	8/21/2017				
	CO-Date_Received	8/18/2017				
	CONTROL_INVASIVES	N				
	CONTROL_OTHER	N				
	Category 5 Certification Number	N/A				
	Chemical Permit ID	5059				
	Chemicals - Approved	Rodeo				
	Common arrowhead (Sagittaria latifolia)	N				
	Common reed (Phragmites australis)	N				
	Common waterweed (Elodea canadensis)	N				
	Control - Algae	N				
	Control - Emergent water plants	Υ				
	Control - Floating water plan	s N				
	Control - Nuissance algae	N				
	Control - PL	N				
	Control - Submerged water plants	N				
	Coontail (Ceratophyllum demersum)	N				
	Curly-leaf pondweed (Potamogeton crispus)	N				
	Entered in SharePoint	N				
	Estimated Acres	0.0035				
	Eurasian water-milfoil (Myriophyllum spicatum)	N				
	Expiration Date	10/1/2017				
	Fee	20				
	Field - 15 days	N				
	Field Issued By	Mark_Sundeen				
	Filamentous Algae	N				
	Improvement - swimming	N				

Details:	Parameter	Value/Amount	Units	Comments
	Lake Surface Area			
	Large Duckweed (Spirodela polyrhiza)	N		
	Large Scale Treatment Form	N		
	Large-leaf pondweed (Potamogeton amplifolius)	N		
	Maintain - Other Text	Yellow iris		
	Maintain navigational channel	N		
	Maintain private access - boating	N		
	Maintain private access - fishing	N		
	Muskgrasses (Chara)	N		
	NUISANCE_CAUSED_OTHER	Υ		
	Native Plants	N		
	Next Steps	Mark		
	Payment Number	1479		
	Permit County	Douglas		
	Permit End Year	2017		
	Permit Latitude	0		
	Permit Longitude	0		
	Permit PLSS Section	46N 11W		
	Permit Start Year	2017		
	Permit WBIC	2866200		
	Permit Year	2017		
	Pithophora	N		
	Planktonic Algae	N		
	Private Pond	N		
	Purple loosestrife (Lythrum salicaria)	N		
	Sensitive Area	N		
	Softstem bulrush (Schoenoplectus tabernaemontani)	N		
	Sogo pondweed (Stuckenia pectinata)	N		
	TREATMENT_AREA	Lake Minnesuing		
	Treatment Date	N		
	Treatment Date	N		
	Treatment Record - Received	N		
	Treatment Record - Scanned	N		
	Waterbody Type	LAKE		

#### **Monitoring Stations**

Station ID	Name	Comments
10001293	Minnesuing Lake	

Assessment Units						
WBIC Segment Lo		Local Name	Official Name			
2866200	1	Minnesuing Lake	Lake Minnesuing			

Lab Account Codes					
Account Code	Description	Start Date	End Date		
Forms					

Form Code	Form Name
Methods	
Method Code	Method Description

Fieldwork Events						
	Start Date	Status	Field ID	Station ID	Station Name	

Documents						
Title	Description	Author	Published	Comments		
2018 Herbicide Treatment Sites	Treatment map		1/1/2018			
2019 Herbicide Treatment Site Size [excel]	Treatment sites information		1/1/2019			
2019 Herbicide Treatment Sites	Treatment map		1/1/2019			
Lake Minnesuing [AIS Map]	Map of yellow iris and purple loosestrife.		1/1/2015			
Yellow Flag Iris Herbicide Treatment. Lake Minnesuing Douglas County	Yellow Flag Iris Herbicide Treatment presentation.	Jim Giffin	6/24/2017			
Yellow Flag Iris Mitigation - Lake Minnesuing Final Report [Part 1]	Yellow Flag Iris (YFI) seemed to first appear in significant volume on Lake Minnesuing in 2014. We now understand that the reality is that it had been on the lake for a long time. In 2014 the stands of YFI seemed to be much more prevalent, perhaps because of weather conditions that promoted a prolific June bloom. The plants were all, or at least early in our process seemed to be, located in the immediate shore area, generally within a few feet of the ordinary high water mark (OHWM) either in the water or shoreward.	Jim Giffin	12/31/2020			

Yellow Flag Iris Mitigation - Lake Minnesuing Final Report [Part 2]	Yellow Flag Iris (YFI) seemed to first appear in significant volume on Lake Minnesuing in 2014. We now understand that the reality is that it had been on the lake for a long time. In 2014 the stands of YFI seemed to be much more prevalent, perhaps because of weather conditions that promoted a prolific June bloom. The plants were all, or at least early in our process seemed to be, located in the immediate shore area, generally within a few feet of the ordinary high water mark (OHWM) either in the water or shoreward.	Jim Giffin	12/31/2020	
Yellow Flag Iris Mitigation - Lake Minnesuing Final Report [Part 3]	Yellow Flag Iris (YFI) seemed to first appear in significant volume on Lake Minnesuing in 2014. We now understand that the reality is that it had been on the lake for a long time. In 2014 the stands of YFI seemed to be much more prevalent, perhaps because of weather conditions that promoted a prolific June bloom. The plants were all, or at least early in our process seemed to be, located in the immediate shore area, generally within a few feet of the ordinary high water mark (OHWM) either in the water or shoreward.	Jim Giffin	12/31/2020	

#### **Budget**

Combined Budgets: Combined WSLH:

Combined Total: \$0.00

Funding					
Organization	Source	Туре	Amount	Start Date	End Date