

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** AEPP52417

**Name:** NORTH LAKE LAND DISCOVERY CENTER: Manitowish Chain of Lake Management Plan - Phase V

**Type:** Aquatic Invasives Grant

**Subtype:** Aquatic Invasives Education

**Status:** COMPLETE

**Start Date:** 2/15/2017

**End Date:** 12/31/2020

**Purpose:** North Lakeland Discovery Center is sponsoring an AEPP grant to study Benson, Sturgeon, Vance, and Stone Lakes in Vilas County. The project will focus on developing a Lake Management Plan (LMP) for phase V lakes and conducting AIS education and monitoring.

Project activities include: 1) Stakeholder participation \2013 stakeholder survey, planning meetings (up to 2), kick-off meeting, wrap-up meeting, news release(s), and newsletter article; 2) Water quality sampling and analysis; 3) Watershed assessment and P load modeling; 4) Fisheries assessment and professional Dreissena monitoring; 5) Shoreline and coarse woody habitat assessment; 6) Early-season AIS monitoring and professional Dreissena monitoring; 7) Aquatic plant surveys (PI survey, community mapping, substrate mapping, wild rice mapping); 8) Volunteer AIS monitoring and watercraft inspections; 9) Data analysis; 10) Develop LMP; 11) Hire AIS Coordinator and Water Education Intern; 12) AIS educational activities.

Project deliverables include: 1) Stakeholder survey, news release(s), and newsletter article; 2) Water chemistry data; 3) Watershed maps and modeling data; 4) PI, shoreland, wild rice, and coarse woody habitat data; 5) Aquatic plant community and substrate maps; 6) Entered watercraft inspection data \2013 200 hours; 7) LMP; 8) Hired staff; 9) AIS educational products and events.

Specific conditions for this project: 1) Draft of stakeholder survey needs to be submitted to Lakes Management Coordinator for review and approval before sending to the public; 2) Draft of LMP needs Dept review and approval.

WDNR Lakes Management Coordinator will be provided with an electronic (pdf or word) copy of LMP, news release(s), newsletter article, any AIS educational products, stakeholder survey, and all data and maps from the project.

**Objective:**

**Comments:** Grantee is NORTH LAKE LAND DISCOVERY CENTER

**Outcome:**

**Study Design:**

**QA Measures:**

### People

Name	Role	Status	Start Date	End Date	Organization	Comments
Behrendt, Johnny	TEAM_MEMBER	ACTIVE	5/17/2018		North Lakeland Discovery Center	
Curtis, Eric	TEAM_MEMBER	ACTIVE	5/22/2019		North Lakeland Discovery Center	
Durre, Colby	TEAM_MEMBER	ACTIVE	5/17/2018		North Lakeland Discovery Center	
Heald, Emily	TEAM_MEMBER	COMPLETE	4/25/2017	4/11/2022	UW Madison Division of Extension	
North Lakeland Discovery Cente	GRANT_RECIPIENT	ACTIVE	4/25/2017		North Lakeland Discovery Center	

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Oberleitner, Brandon	TEAM_MEMBER	ACTIVE	5/3/2017		North Lakeland Discovery Center	
Platt, Heather	TEAM_MEMBER	ACTIVE	5/3/2017		North Lakeland Discovery Center	
Scheff, Jarod	TEAM_MEMBER	ACTIVE	5/22/2019		North Lakeland Discovery Center	
Spears, Nicole	TEAM_MEMBER	ACTIVE	5/22/2019		North Lakeland Discovery Center	
Tesensky, John	TEAM_MEMBER	ACTIVE	5/3/2017		North Lakeland Discovery Center	
Westerhoff, Braden	TEAM_MEMBER	ACTIVE	5/17/2018		North Lakeland Discovery Center	

### Project Statuses

Date	Reported By	Status	Comments
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### Actions

Action	Detailed Description	Start Date	End Date	Status
Grant Awarded	Grant AEPP52417 awarded	2/15/2017	6/30/2019	COMPLETE

### Monitoring Stations

Station ID	Name	Comments
643193	Benson Lake - Max Depth	
643260	Stone Lake - Deep Hole	
10047636	Sturgeon Lake - N Basin	
643573	Vance Lake - Deep Hole	

### Assessment Units

WBIC	Segment	Local Name	Official Name
2327100	1	Benson Lake	Benson Lake
2327200	1	Sturgeon Lake	Sturgeon Lake
2327300	1	Vance Lake (Dam, Dan)	Vance Lake
2328800	1	Stone Lake	Stone Lake
2329400	1	Manitowish Lake	Manitowish Lake

### Lab Account Codes

Account Code	Description	Start Date	End Date
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### Forms

Form Code	Form Name
AIS_PRES_ABS_0903	Aquatic Invasives Presence/Absence Report (R 03/09)
SECCHI_TEMPDO	Lake Monitoring - Secchi, Temperature and D.O.

### Methods

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Method Code		Method Description		
<b>Fieldwork Events</b>				
Start Date	Status	Field ID	Station ID	Station Name
4/25/2017 13:30	COMPLETE	STOB	643260	Stone Lake - Deep Hole
4/25/2017 13:30	COMPLETE	STOS	643260	Stone Lake - Deep Hole
6/27/2017 12:15	COMPLETE	STOB	643260	Stone Lake - Deep Hole
6/27/2017 12:15	COMPLETE	STOS	643260	Stone Lake - Deep Hole
6/28/2017 9:00	COMPLETE	BENB	643193	Benson Lake - Max Depth
6/28/2017 9:00	COMPLETE	BENS	643193	Benson Lake - Max Depth
6/28/2017 11:15	COMPLETE	STUB	10047636	Sturgeon Lake - N Basin
6/28/2017 11:15	COMPLETE	STUS	10047636	Sturgeon Lake - N Basin
6/28/2017 11:15	COMPLETE	STUS	10047636	Sturgeon Lake - N Basin
6/28/2017 12:05	COMPLETE	VANB	643573	Vance Lake - Deep Hole
6/28/2017 12:05	COMPLETE	VANS	643573	Vance Lake - Deep Hole
7/25/2017	COMPLETE		10047636	Sturgeon Lake - N Basin
7/25/2017	COMPLETE		643573	Vance Lake - Deep Hole
7/25/2017	COMPLETE		643193	Benson Lake - Max Depth
7/25/2017 12:40	COMPLETE	STOB	643260	Stone Lake - Deep Hole
7/25/2017 12:40	COMPLETE	STOS	643260	Stone Lake - Deep Hole
7/27/2017 10:15	COMPLETE	BENB	643193	Benson Lake - Max Depth
7/27/2017 10:15	COMPLETE	BENS	643193	Benson Lake - Max Depth
7/27/2017 11:30	COMPLETE	VANB	643573	Vance Lake - Deep Hole
7/27/2017 11:30	COMPLETE	VANS	643573	Vance Lake - Deep Hole
7/27/2017 12:30	COMPLETE	STUB	10047636	Sturgeon Lake - N Basin
7/27/2017 12:30	COMPLETE	STUS	10047636	Sturgeon Lake - N Basin
8/28/2017 11:30	COMPLETE	STOB	643260	Stone Lake - Deep Hole
8/28/2017 11:30	COMPLETE	STOS	643260	Stone Lake - Deep Hole
8/28/2017 12:45	COMPLETE	BENB	643193	Benson Lake - Max Depth
8/28/2017 12:45	COMPLETE	BENS	643193	Benson Lake - Max Depth
8/28/2017 13:55	COMPLETE	VANB	643573	Vance Lake - Deep Hole
8/28/2017 13:55	COMPLETE	VANS	643573	Vance Lake - Deep Hole
8/28/2017 14:30	COMPLETE	STUB	10047636	Sturgeon Lake - N Basin
8/28/2017 14:30	COMPLETE	STUS	10047636	Sturgeon Lake - N Basin
10/17/2017 12:00	COMPLETE	STOB	643260	Stone Lake - Deep Hole
10/17/2017 12:00	COMPLETE	STOS	643260	Stone Lake - Deep Hole

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<b>Documents</b>				
<b>Title</b>	<b>Description</b>	<b>Author</b>	<b>Published</b>	<b>Comments</b>
Alder Lake		Onterra	10/14/2014	
Alder Lake - Map		Onterra	1/1/2014	
Aquatic Plant Survey Data		Onterra	1/1/2017	
Benson Lake		Onterra	1/1/2017	
Benson Lake - Map		Onterra	1/1/2017	
Clear Lake		Onterra	1/1/2013	
Clear Lake - Map		Onterra	1/1/2013	
Fawn Lake		Onterra	1/1/2014	
Fawn Lake - Map		Onterra	1/1/2013	
Island Lake		Onterra	1/1/2012	
Island Lake - Map		Onterra	1/1/2012	
Little Star Lake		Onterra	1/1/2016	
Little Star Lake - Map		Onterra	1/1/2016	
Manitowish Chain Native American Spear Harvest Data		Onterra	1/1/2014	
Manitowish Lake		Onterra	1/1/2018	
Manitowish Lake - Map		Onterra	1/1/2016	
Manitowish Water Chain of Lakes		Onterra	1/1/2019	
Manitowish Water Chain of Lakes Culy-leaf Pondweed Monitoring Report		Onterra	1/1/2018	
Manitowish Waters Chain of Lakes - Map		Onterra	1/1/2017	

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Manitowish Waters Chain of Lakes Vilas County, Wisconsin. Comprehensive Management Plan [Part 1]	Curly- leaf pondweed was first documented on the Manitowish Waters Chain of Lakes in Island Lake on June 18, 2010 by a volunteer who had attended a training session the previous day. In July of that year, subsequent monitoring turned up the presence of curly-leaf pondweed in Rice Creek. With the discovery of curly-leaf pondweed, the TAISP began discussing the need for management plans in order to address this looming threat as well as document the health of the chain lakes. The TAISP contracted with Onterra, LLC in late 2010/early 2011 to steer this process. [File split into two documents due to size]	Onterra, LLC	12/1/2019	
Manitowish Waters Chain of Lakes Vilas County, Wisconsin. Comprehensive Management Plan [Part 2]	Curly- leaf pondweed was first documented on the Manitowish Waters Chain of Lakes in Island Lake on June 18, 2010 by a volunteer who had attended a training session the previous day. In July of that year, subsequent monitoring turned up the presence of curly-leaf pondweed in Rice Creek. With the discovery of curly-leaf pondweed, the TAISP began discussing the need for management plans in order to address this looming threat as well as document the health of the chain lakes. The TAISP contracted with Onterra, LLC in late 2010/early 2011 to steer this process. [File split into two documents due to size]	Onterra, LLC	12/1/2019	
Public Participation Material		Onterra	7/28/2012	
Public Participation Material pt. 2		Onterra	1/1/2016	
Rest Lake		Onterra	1/1/2012	
Rest Lake - Map		Onterra	1/1/2013	
Review Comments and Responses with WDNR and Other Agencies		Onterra	10/14/2015	
Spider Lake		Onterra	1/1/2012	
Spider Lake - Map		Onterra	1/1/2012	
Stakeholder Survey Response Charts and Comments - 2019		N/A	1/1/2019	
Stone Lake		Onterra	1/1/2017	

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Stone Lake - Map		Onterra	1/1/2017	
Sturgeon Lake		Onterra	1/1/2017	
Sturgeon Lake - Map		Onterra	1/1/2017	
Vance Lake		Onterra	1/1/2017	
Vance Lake - Map		Onterra	1/1/2017	
Water Quality Data		Onterra	1/1/2017	
Watershed Analysis WiLMS Results		Onterra	12/26/2017	
Wild Rice Lake		Onterra	1/1/2014	
Wild Rice Lake - Map		Onterra	1/1/2014	

### Budget

**Combined Budgets:**

**Combined WSLH:**

**Combined Total:**                    \$0.00

### Funding

Organization	Source	Type	Amount	Start Date	End Date
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