

<b>Project ID:</b>	LPL165818
<b>Name:</b>	GRANITE LAKE ASSOCIATION INC.: Granite Lake Water Quality Planning Project
<b>Type:</b>	Lakes Grant
<b>Subtype:</b>	Large Scale Lake Planning
<b>Status:</b>	COMPLETE
<b>Start Date:</b>	2/15/2018
<b>End Date:</b>	12/31/2020
<b>Purpose:</b>	The Granite Lake Association is sponsoring a water quality planning project for Granite Lake.

Specific project activities include: 1) In-lake chemistry monitoring; 2) Tributary chemistry and flow monitoring; 3) Precipitation monitoring; 4) Shoreline and woody habitat monitoring; 5) CBCW watercraft inspection; 6) Spring and summer whole lake point intercept aquatic plant surveys; 7) Watershed modeling; 8) Sociological survey; 9) Comprehensive Lake Management Plan.

Special Conditions: 1) CLMN efforts should not be duplicated, and these data shall be included in the trends analysis and final reporting; 2) Sponsor shall contact DNR immediately if a new AIS is found; 3) All monitoring data shall be entered into SWIMS; 4) WDNR/2019s Aquatic Plant Management in Wisconsin guidance shall be followed for point-intercept survey monitoring and aquatic plant management plan development. The NOR Native Plant Protection Strategy shall be integrated into the plan; 5) Draft sociological surveys must be reviewed and approved by the Department before being initiated.

This scope summarizes the project detail provided in the application and does not negate tasks/deliverables described therein. The grant sponsor shall submit all data, records, and reports, including GIS-based maps and digital images, to the Department in a format specified by the regional Lakes Biologist.

**QA Measures:**

Name	Role	Status	Start Date	End Date	Organization	Comments
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Date	Reported By	Status	Comments
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## Actions

Wisconsin Department of Natural Resources  
SWIMS Project Summary

Action	Detailed Description	Start Date	End Date	Status
Grant Awarded	<p>The Granite Lake Association is sponsoring a water quality planning project for Granite Lake.</p> <p>Project deliverables include GIS data &amp; maps of areas monitored; water quality, flow, and precipitation data, shoreline and woody habitat monitoring data and report, watershed modeling, aquatic plant data and reports, and a Comprehensive Lake Management Plan that meets the requirements of NR 191.45.</p> <p>Specific project activities include: 1) In-lake chemistry monitoring; 2) Tributary chemistry and flow monitoring; 3) Precipitation monitoring; 4) Shoreline and woody habitat monitoring; 5) CBCW watercraft inspection; 6) Spring and summer whole lake point intercept aquatic plant surveys; 7) Watershed modeling; 8) Sociological survey; 9) Comprehensive Lake Management Plan.</p>	2/15/2018	6/30/2020	COMPLETE

Monitoring Stations

Station ID	Name	Comments
10022925	Granite Lake Outlet Stream At Hwy. B	
033177	Granite Lake at Deep Hole	
10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake	

Assessment Units

WBIC	Segment	Local Name	Official Name
2100000	1	Unnamed Creek	Unnamed
2100000	3	Unnamed Creek	Unnamed
2100000	4	Unnamed Creek	Unnamed
2100800	1	Granite Lake	Granite Lake

Lab Account Codes

Account Code	Description	Start Date	End Date
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Forms

Form Code	Form Name
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Methods

Method Code	Method Description
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Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
4/25/2018 10:30	COMPLETE	GRANITE LAKE-INLET-A	10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake

6/16/2024

## Wisconsin Department of Natural Resources SWIMS Project Summary

5/8/2018 10:15	COMPLETE	NA	10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake
5/8/2018 10:35	COMPLETE	NA	10022925	Granite Lake Outlet Stream At Hwy. B
6/20/2018 12:00	COMPLETE	10022924	10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake
6/20/2018 12:15	COMPLETE	GRANITE LAKE 1 METER	033177	Granite Lake at Deep Hole
6/20/2018 12:20	COMPLETE	GRANITE LAKE 3 METER	033177	Granite Lake at Deep Hole
6/20/2018 12:20	COMPLETE	GRANITE LAKE 5 METER	033177	Granite Lake at Deep Hole
6/20/2018 12:30	COMPLETE	10022925	10022925	Granite Lake Outlet Stream At Hwy. B
6/20/2018 12:30	COMPLETE	GRANITE LAKE 7 METER	033177	Granite Lake at Deep Hole
6/20/2018 12:40	COMPLETE	GRANITE LAKE 9 METER	033177	Granite Lake at Deep Hole
7/25/2018 8:00	COMPLETE	1 METER	033177	Granite Lake at Deep Hole
7/25/2018 8:00	COMPLETE	3 METERS	033177	Granite Lake at Deep Hole
7/25/2018 8:00	COMPLETE	5 METERS	033177	Granite Lake at Deep Hole
7/25/2018 8:00	COMPLETE	7 METERS	033177	Granite Lake at Deep Hole
7/25/2018 8:00	COMPLETE	9 METERS	033177	Granite Lake at Deep Hole
8/20/2018 11:00	COMPLETE	10022924	10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake
8/20/2018 11:45	COMPLETE	10022925	10022925	Granite Lake Outlet Stream At Hwy. B
8/22/2018 10:00	COMPLETE	1 METER	033177	Granite Lake at Deep Hole
8/22/2018 10:00	COMPLETE	3 METERS	033177	Granite Lake at Deep Hole
8/22/2018 10:10	COMPLETE	5 METERS	033177	Granite Lake at Deep Hole
8/22/2018 10:20	COMPLETE	9 METERS	033177	Granite Lake at Deep Hole
8/23/2018 10:15	COMPLETE	7 METERS	033177	Granite Lake at Deep Hole
9/12/2018 9:30	COMPLETE	10022925	10022925	Granite Lake Outlet Stream At Hwy. B
9/12/2018 10:15	COMPLETE	10022924	10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake
9/17/2018 9:00	COMPLETE	GRANITE LAKE	033177	Granite Lake at Deep Hole
10/16/2018 8:20	COMPLETE	OUTLET OCT 2018	10022925	Granite Lake Outlet Stream At Hwy. B
10/16/2018 9:35	COMPLETE	INLET OCT 2018	10022924	Unnamed Granite Lake Inlet Stream 200 Yds. Above Granite Lake
10/17/2018 14:00	COMPLETE	GRANITE LAKE	033177	Granite Lake at Deep Hole
4/30/2019 13:45	COMPLETE	GRANITE LAKE	033177	Granite Lake at Deep Hole
9/23/2019 16:00	COMPLETE	GRANITE LAKE	033177	Granite Lake at Deep Hole
10/14/2019 10:00	COMPLETE	NA	033177	Granite Lake at Deep Hole

### Documents

## Wisconsin Department of Natural Resources SWIMS Project Summary

Title	Description	Author	Published	Comments
Curly-leaf pondweed (Potamogeton crispus) Point-intercept and Bed Mapping Surveys, and Warm-water Macrophyte Point-intercept Survey Granite Lake - WBIC: 2100800	In 2009, the Granite Lake Association (GLA) and the Wisconsin Department of Natural Resources (WDNR) authorized a series of whole-lake plant surveys as a prerequisite to developing an Aquatic Plant Management Plan (APMP). Although those surveys found that the exotic invasive species Curly-leaf pondweed (Potamogeton crispus) (CLP) occurred in scattered locations throughout the lakes spring littoral zone, it was decided that the low growth levels did not justify active management.	Endangered Resource Services, LLC	7/31/2018	
Granite Lake Sediment Release Estimate-2018	Granite Lake Sediment Release Estimate-2018		1/1/2018	
Granite Lake Survey Data [zip file]	Survey forms and results.		1/1/2019	
Granite Lake in-lake loading calculations [excel]	data		1/1/2021	
Granite_Barron_2100800_ (2018 July)_ERS PI survey [excel]	PI survey	Matt Berg	7/31/2018	
Granite_Barron_2100800_ (2018 June)_ERS PI survey [excel]	CLP only survey	Matt Berg	6/4/2018	
Near Shore Land Use Granite Lake Barron County WDNR WBIC 2100800	Land use map			

Wisconsin Department of Natural Resources  
SWIMS Project Summary

Shoreline Habitat Assessment Granite Lake, Barron County WDNR WBIC 2100800 [PART 1]	The protocol used in this survey was developed by the Wisconsin Department of Natural Resources (WDNR) as a way to evaluate shoreline habitat. This survey is intended to provide management recommendations to individual property owners based on the evaluation of their property. This protocol involves photographing each parcel from the lake which is then matched to land use information about the riparian zone. For this survey, the riparian zone is defined as the strip of land, along the shore, from the high water level back 35 feet. The information collected includes ground cover which includes lawn, impervious surfaces, and native plants. Additional land use information includes the number of human structures in the riparian zone and various other runoff concerns. This protocol also assesses the amount of woody debris present in the lake however this is done for the entire lake instead of for each individual parcel. Woody debris provides habitat for fish, birds, and numerous other types of wildlife as well in addition to providing some protecting from bank erosion. This protocol defines woody debris as wood in no deeper than 2 feet of water that is at least 4 inches in diameter, at the widest point, and at least 5 feet long.	Heather Wood	1/1/2018	
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Wisconsin Department of Natural Resources  
SWIMS Project Summary

Shoreline Habitat Assessment Granite Lake, Barron County WDNR WBIC 2100800 [PART 2]	The protocol used in this survey was developed by the Wisconsin Department of Natural Resources (WDNR) as a way to evaluate shoreline habitat. This survey is intended to provide management recommendations to individual property owners based on the evaluation of their property. This protocol involves photographing each parcel from the lake which is then matched to land use information about the riparian zone. For this survey, the riparian zone is defined as the strip of land, along the shore, from the high water level back 35 feet. The information collected includes ground cover which includes lawn, impervious surfaces, and native plants. Additional land use information includes the number of human structures in the riparian zone and various other runoff concerns. This protocol also assesses the amount of woody debris present in the lake however this is done for the entire lake instead of for each individual parcel. Woody debris provides habitat for fish, birds, and numerous other types of wildlife as well in addition to providing some protecting from bank erosion. This protocol defines woody debris as wood in no deeper than 2 feet of water that is at least 4 inches in diameter, at the widest point, and at least 5 feet long.	Heather Wood	1/1/2018	
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Wisconsin Department of Natural Resources  
SWIMS Project Summary

Water and Nutrient Budget Model for Granite Lake, Barron County-2018	This nutrient and water budget model utilized Bathtub reservoir model created by the US Army Corp of Engineers. It is a steady-state, mass balance empirical model. The focus for nutrient budget was phosphorus, which likely limits algae production in Granite Lake. This model is based on very limited data, so calibration is difficult and some assumptions were made to make the nutrients and water balance over the averaging period (0.58 years) of the growing season. Therefore, this initial model should be used with caution for making major management decisions. To better determine a more accurate budget of water and nutrients, more extensive and additional data would need to be collected.		1/1/2018	
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Budget

Combined Budgets:  
Combined WSLH:  
Combined Total: \$0.00

Funding					
Organization	Source	Type	Amount	Start Date	End Date