

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: LPT-475-15
Name: BONE LAKE MANAGEMENT DISTRICT: LMI-Lake Management Plan Implementation
Type: Lakes Grant
Subtype: Lake Protection Grant
Status: ACTIVE
Start Date: 04/15/2015
End Date: 12/31/2020
Purpose: Bone Lake Management District is sponsoring a Lake Protection grant to implement activities from their approved lake management plan.

The specific project tasks include: 1) Design and install watershed BMPs; 2) Mini (10x35 foot) shoreline buffer restorations; 3) Design and install waterfront runoff projects; 4) ALUM dosage analysis; 5) Installation of woody habitat structures; 6) Establish Slow-No-Wake Ordinance; 7) Develop land protection strategy.

Maintenance, operation, and protection will be specified in a ten-year contract for each BMP site. The Department may perform site inspection and/or monitoring.

Project deliverables include: a report and map summarizing project activities including number of shoreline buffers and watershed BMPs installed, number of runoff reduction sites installed, pre/post photos of funded restorations and other BMPs, list of property owners and parcels committed to covenants and/or contracts, alum dosage report, and educational materials developed.

Special conditions: Applicable water regulation and/or county zoning permits must be issued before construction activities commence.

This scope summarizes the project detail provided in the application and does not negate tasks/deliverables described therein. 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 Biologist.

Objective:

Comments: Grantee is BONE LAKE MANAGEMENT DISTRICT

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Bone Lake Management Dist	GRANT_RECIP	ACTIVE	04/15/2015		Bone Lake Management District	
Smith, Alex R	COORDINATOR	ACTIVE	04/15/2015		Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
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Actions

Action	Detailed Description	Start	End Date	Status
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Action	Detailed Description	Start	End Date	Status
Grant Awarded	Bone Lake Management District is sponsoring a Lake Protection grant to implement activities from their approved lake management plan. The specific project tasks include: 1) Design and install watershed BMPs; 2) Mini (10x35 foot) shoreline buffer restorations; 3) Design and install waterfront runoff projects; 4) ALUM dosage analysis; 5) Installation of woody habitat structures; 6) Establish Slow-No-Wake Ordinance; 7) Develop land protection strategy.	04/15/2015	06/30/2018	COMPLETE
ATTAINS Implementation Initiated	Maintenance, operation, and protection will be specified in a ten-year contract for each BMP site. Bone Lake Management District is sponsoring a Lake Protection grant to implement activities from their approved lake management plan. The specific project tasks include: 1) Design and install watershed BMPs; 2) Mini (10x35 foot) shoreline buffer restorations; 3) Design and install waterfront runoff projects; 4) ALUM dosage analysis; 5) Installation of woody habitat structures; 6) Establish Slow-No-Wake Ordinance; 7) Develop land protection strategy.	04/15/2015	12/31/2018	COMPLETE
Habitat Restoration - Shoreland	Shoreland Restoration	04/15/2015	06/30/2018	PROPOSED

Monitoring Stations

Station ID	Name	Comments
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Assessment Units

WBIC	Segment	Local Name	Official Name
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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	Description
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Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
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Documents

Title	Description	Author	Published	Comments
Angelo Project [PDF of Photos]	PDF of before and after photos of the Angelo property			
Angelo Property Rock	Design of the rock infiltration BMP on	USDA Natural	08/17/2018	

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Title	Description	Author	Published	Comments
Infiltration Design	the Angelo property	Resources Conservation Service		
Berm Cross Sections [Rosenthal Property]	Design of the berm cross sections for the Rosenthal Property	Ron and Gail Rosenthal	08/04/2015	
Bone Lake Property Owner Letter	Letter to Bone Lake residents about the grant and options for property owner projects. Offers section for property owners to ask for more information about what they can do on their property.	Alex Chorewycz	08/17/2018	
Drawings and quantities [DePhillips Property Design]	Drawing and list of materials/quantities needed to complete the project	Susan DePhillips	07/20/2015	
Examination of Sediment Phosphorus Fluxes and Aluminum Sulfate Dosage Considerations for Bone Lake, Wisconsin	Hypolimnetic anoxia, frequent summer water column mixing, and late summer peaks in epilimnetic P and chlorophyll all suggest that internal P loading from bottom sediments may be contributing to WQ impairment in Bone Lake. These investigations are designed to examine rates of phosphorus (P) release from sediment under aerobic and anaerobic conditions and mobile forms of sediment P in order to better understand the magnitude of internal P loading in the lake.	UW-Stout Center for Limnological Research and Rehabilitation	12/01/2017	
Exhibit B Cost Share Agreement [Rosenthal Property]	Maintenance plan for the Rosenthal property			
More Information about Waterfront Runoff Mitigation Projects and Assistance	Waterfront properties (along with the larger watershed) are one of the sources of phosphorus and sediment that flow into our lake causing algae blooms 36% of the problem as identified by a 2017 study of multiple sources of phosphorus. Some properties generate more runoff and carry more phosphorus and sediment; those with steeper slopes, channels of water flow, structures or hard surfaces close to the lake, or a lack of natural vegetation at the shoreline. Your property might have at least one of these characteristics. If it does, consider scheduling a free, no-obligation site visit.	Bone Lake Waterfront Runoff Committee		
Polk County LiDAR Final Grant Report	In 2015 Ayres Associates completed a LiDAR data acquisition project for Polk County. LiDAR mapping for Polk County will be the basis for developing county-wide phosphorus reduction strategies for lake protection. LiDAR was used to delineate watershed boundaries and determine areas of highest nutrient loading for the Cedar Lake TMDL.	Dane Christenson, Jeremy Williamson, Katelin Anderson	01/01/2015	
Project Quantities [Rosenthal Property Materials]	List of materials and quantity used for Rosenthal property	Ron and Gail Rosenthal		
Runoff Reduction Plan [Rosenthal Property Report]	This Runoff Reduction Plan includes instructions for installing the proposed practice to increase water infiltration on the Rosenthal property.	Ron and Gail Rosenthal	08/05/2015	

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Title	Description	Author	Published	Comments
Sandy Hook Court, Bone Lake [Design]	Design of a infiltration area near Sandy Hook Lane	USDA Natural Resources Conservation Service	08/17/2018	
Signed Angelo Cost-Share Agreement	Signed cost-share agreement for the Angelo property	Bone Lake Management District	11/01/2017	
Top View [Rosenthal Property]	Top view of Rosenthal property rock infiltration area design.	Ron and Gail Rosenthal		

Budget

Combined Budgets:

Combined SLOH:

Combined Total:

Funding

Organization	Source	Type	Amount	Start Date	End Date
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