

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: LPT-324-08
Name: MERCER LAKE ASSOCIATION: LMI-Mercer Lake Water Quality,Hydrology, and Watershed Study
Type: Lakes Grant
Subtype: Lake Protection Grant
Status: COMPLETE
Start Date: 09/01/2007
End Date: 12/31/2014
Purpose: The Mercer Lake Association in cooperation with the Town of Mercer and the US Geological Service (USGS) will conduct a lake/watershed evaluation and develop a final lake/watershed management plan.

Project goals include:

1. Develop a water & phosphorus (including internal sediment loading) budget for Mercer Lake including a model to simulate phosphorus loading changes & predict water quality improvements.
2. Work with Mercer lake Association to analyze & interpret USGS report.
3. Determine amount of suspended solids & phosphorus entering the lake from the downtown commercial area in the Town of Mercer.
4. Analyze alternatives to treat stormwater runoff from urban area.
5. Develop sub watershed action management plan for watershed planning area.
6. Update Preliminary Lake Watershed Management Plan with USGS data; revise the Plan for Mercer Lake.
7. Present project updates at Association, Town & County meetings; invite interested parties.
8. Develop future courses of action to improve water quality in Mercer Lake.

Project deliverables include:

- * Precipitation data, stream stage & flow data presented "real-time" on USGS internet site.
- * Archive data in USGS computer database.
- * Publish data annually in USGS, Wisconsin data reports.
- * Hard copy & electronic map of Mercer Lake's watershed and land cover by USGS.
- * USGS present interpretive information to the Lake Association at the annual 2011 meeting.
- * Technical report in the "Scientific Investigations Report" series prepared by USGS at the end of the project.
- * A sub watershed action plan identifying and prioritizing recommended actions and associated costs.
- * A Final Comprehensive Management Plan.

Specific conditions:

- * Forward lake/watershed plan to WDNR for review and approval before adoption of the plan.
- * The WDNR will be provided electronic and hard copies of all data and or reports/plans generated as a result of this project.

Objective:

Comments: Grantee is MERCER LAKE ASSOCIATION

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Manteufel, Bridgett	TEAM_MEMBER	ACTIVE	09/01/2007		USGS	
Mercer Lake Association,	GRANT_RECIP	ACTIVE	09/01/2007		Mercer Lake Association	
Robertson, Dale	COORDINATOR	ACTIVE	09/01/2007	12/31/2013	USGS	
USGS,	TEAM_MEMBER	INACTIVE	09/01/2007		U.S. Geological Survey	

Project Statuses

Date	Reported By	Status	Comments
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Actions

Action	Detailed Description	Start	End Date	Status
Grant Awarded	<p>The Mercer Lake Association in cooperation with the Town of Mercer and the US Geological Service (USGS) will conduct a lake/watershed evaluation and develop a final lake/watershed management plan.</p> <p>Project goals include:</p> <ol style="list-style-type: none"> 1. Develop a water & phosphorus (including internal sediment loading) budget for Mercer Lake including a model to simulate phosphorus loading changes & predict water quality improvements. 2. Work with Mercer lake Association to analyze & interpret USGS report. 3. Determine amount of suspended solids & phosphorus entering the lake from the downtown commercial area in the Town of Mercer. 4. Analyze alternatives to treat stormwater runoff from urban area. 5. Develop sub watershed action management plan for watershed planning area. 6. Update Preliminary Lake Watershed Management Plan with USGS data; revise the Plan for Mercer Lake. 7. Present project updates at Association, Town & County meetings; invite interested parties. 	09/01/2007		COMPLETE
Nutrient Budget Development		09/01/2007	12/31/2012	PROPOSED
Watershed Mapping or Assessment		09/01/2007	12/31/2012	PROPOSED

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Action	Detailed Description	Start	End Date	Status
Grant Awarded	<p>The Mercer Lake Association in cooperation with the Town of Mercer and the US Geological Service (USGS) will conduct a lake/watershed evaluation and develop a final lake/watershed management plan.</p> <p>Project goals include:</p> <ol style="list-style-type: none"> 1. Develop a water & phosphorus (including internal sediment loading) budget for Mercer Lake including a model to simulate phosphorus loading changes & predict water quality improvements. 2. Work with Mercer lake Association to analyze & interpret USGS report. 3. Determine amount of suspended solids & phosphorus entering the lake from the downtown commercial area in the Town of Mercer. 4. Analyze alternatives to treat stormwater runoff from urban area. 5. Develop sub watershed action management plan for watershed planning area. 6. Update Preliminary Lake Watershed Management Plan with USGS data; revise the Plan for Mercer Lake. 7. Present project updates at Association, Town & County meetings; invite interested parties. 	09/01/2007	12/31/2012	COMPLETE
Lake Management Plan Development	<p>The Mercer Lake Association in cooperation with the Town of Mercer and the US Geological Service (USGS) will conduct a lake/watershed evaluation and develop a final lake/watershed management plan.</p>	09/01/2007	12/31/2014	COMPLETE
Hydrologic Budget Development		09/01/2007	12/31/2012	PROPOSED

Monitoring Stations

Station ID	Name	Comments
263125	Grand Portage Lake - Outlet	
263009	Little Turtle River - Tn Rd BI Mercer Lake	
10022388	Mercer Lake West Basin Deep Hole	
263129	Mercer Lake at Max Point Of Depth	
10022086	Mercer Well 1 At Mercer WI	
10022087	Mercer Well 2 At Mercer WI	
10022088	Mercer Well 3 At Mercer WI	
10022089	Mercer Well 4 At Mercer Wi	
10022090	Mercer Well 5 At Mercer WI	
10022091	Mercer Well 6 At Mercer WI	
10022092	Mercer Well 7 At Mercer WI	
10022390	Storm Sewer at Mercer L. Boat Landing	
10022093	Tahoe Creek Near Mercer Wi	

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Assessment Units

WBIC	Segment	Local Name	Official Name
2312800	1	Little Turtle River	Little Turtle River
2312800	3	Little Turtle River	Little Turtle River
2312800	4	Little Turtle River	Little Turtle River
2313600	1	Mercer Lake	Mercer Lake
2313700	1	Tahoe Creek	Tahoe Creek

Lab Account Codes

Account Code	Description	Start Date	End Date
CF013	LAKE PROTECTION GRANTS	01/01/1960	12/31/2099
CF014	LAKE PROTECTION GRANTS	01/01/1960	12/31/2099
CF015	LAKE PROTECTION GRANTS	01/01/1960	12/31/2099
CF016	LAKE PROTECTIONS GRANTS	01/01/1960	12/31/2099

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
10/23/2007 15:15	COMPLETE	T-1	10022093	Tahoe Creek Near Mercer Wi
10/30/2007 13:00	COMPLETE	LT01	263009	Little Turtle River - Tn Rd BI Mercer Lake
10/30/2007 14:05	COMPLETE	LTI1	263125	Grand Portage Lake - Outlet
11/13/2007 14:15	COMPLETE	LT02	263009	Little Turtle River - Tn Rd BI Mercer Lake
11/13/2007 15:15	COMPLETE	LTI2	263125	Grand Portage Lake - Outlet
03/20/2008 11:30	COMPLETE	WBB1	10022388	Mercer Lake West Basin Deep Hole
04/21/2008 11:00	COMPLETE	CUL-4	10022390	Storm Sewer at Mercer L. Boat Landing
04/21/2008 11:30	COMPLETE	IN-5	263125	Grand Portage Lake - Outlet
04/21/2008 12:45	COMPLETE	OUT-6	263009	Little Turtle River - Tn Rd BI Mercer Lake
05/05/2008 10:07	COMPLETE	MDB3	263129	Mercer Lake at Max Point Of Depth
05/05/2008 11:12	COMPLETE	MWBB3	10022388	Mercer Lake West Basin Deep Hole
06/17/2008 12:05	COMPLETE	WBB-4	10022388	Mercer Lake West Basin Deep Hole
07/10/2008 10:30	COMPLETE	WBB-5	10022388	Mercer Lake West Basin Deep Hole
07/25/2008 07:37	COMPLETE		10022388	Mercer Lake West Basin Deep Hole
08/14/2008 15:56	COMPLETE	WBB-6	10022388	Mercer Lake West Basin Deep Hole
08/31/2008 12:02	COMPLETE		10022388	Mercer Lake West Basin Deep Hole
09/16/2008 18:06	COMPLETE	WBB-7	10022388	Mercer Lake West Basin Deep Hole
01/21/2009 09:30	COMPLETE	IN-16	263125	Grand Portage Lake - Outlet
01/21/2009 11:00	COMPLETE	OUT-16	263009	Little Turtle River - Tn Rd BI Mercer Lake
01/21/2009 12:00	COMPLETE	T-4	10022093	Tahoe Creek Near Mercer Wi
03/07/2009 11:30	COMPLETE	SS-15	10022390	Storm Sewer at Mercer L. Boat Landing
03/07/2009 11:45	COMPLETE	IN-17	263125	Grand Portage Lake - Outlet
03/07/2009 13:00	COMPLETE	OUT-17	263009	Little Turtle River - Tn Rd BI Mercer Lake
03/07/2009 14:30	COMPLETE	T-5	10022093	Tahoe Creek Near Mercer Wi
03/17/2009 12:00	COMPLETE	SS-16	10022390	Storm Sewer at Mercer L. Boat Landing
03/23/2009 10:52	COMPLETE	MDT-8	263129	Mercer Lake at Max Point Of Depth

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Start Date	Status	Field ID	Station ID	Station Name
03/23/2009 11:36	COMPLETE	WBT-8	10022388	Mercer Lake West Basin Deep Hole
04/15/2009 13:50	COMPLETE	OUT-18	263125	Grand Portage Lake - Outlet
04/15/2009 14:15	COMPLETE	T-6	10022093	Tahoe Creek Near Mercer Wi
04/15/2009 15:15	COMPLETE	IN-18	263009	Little Turtle River - Tn Rd BI Mercer Lake
04/15/2009 15:45	COMPLETE	SS-17	10022390	Storm Sewer at Mercer L. Boat Landing
04/28/2009 11:30	COMPLETE	SS-18	10022390	Storm Sewer at Mercer L. Boat Landing
04/28/2009 12:00	COMPLETE	T-7	10022093	Tahoe Creek Near Mercer Wi
04/28/2009 12:06	COMPLETE	MDH	263129	Mercer Lake at Max Point Of Depth
04/28/2009 13:09	COMPLETE	MWB	10022388	Mercer Lake West Basin Deep Hole
05/20/2009 12:00	COMPLETE	SSL	10022390	Storm Sewer at Mercer L. Boat Landing
05/20/2009 12:30	COMPLETE	IN-19	263125	Grand Portage Lake - Outlet
05/20/2009 12:45	COMPLETE	P3	10022088	Mercer Well 3 At Mercer WI
05/20/2009 13:30	COMPLETE	P2	10022087	Mercer Well 2 At Mercer WI
05/20/2009 13:45	COMPLETE	OUT-18	263009	Little Turtle River - Tn Rd BI Mercer Lake
05/20/2009 14:30	COMPLETE	P7	10022092	Mercer Well 7 At Mercer WI
05/20/2009 16:00	COMPLETE	P2	10022086	Mercer Well 1 At Mercer WI
05/20/2009 17:05	COMPLETE	P5	10022090	Mercer Well 5 At Mercer WI
05/20/2009 17:05	COMPLETE	P6	10022091	Mercer Well 6 At Mercer WI
05/20/2009 17:30	COMPLETE	P4	10022089	Mercer Well 4 At Mercer Wi
06/16/2009 11:10	COMPLETE		263009	Little Turtle River - Tn Rd BI Mercer Lake
06/16/2009 11:35	COMPLETE		10022093	Tahoe Creek Near Mercer Wi
06/29/2009 10:00	COMPLETE	MLDHT	263129	Mercer Lake at Max Point Of Depth
06/29/2009 10:00	COMPLETE	OUT-20	263009	Little Turtle River - Tn Rd BI Mercer Lake
06/29/2009 11:05	COMPLETE	MLWT	10022388	Mercer Lake West Basin Deep Hole
06/29/2009 12:00	COMPLETE	SS-22	10022390	Storm Sewer at Mercer L. Boat Landing
06/29/2009 12:15	COMPLETE	LTI-21	263125	Grand Portage Lake - Outlet
07/30/2009 15:09	COMPLETE	OUTLET	263009	Little Turtle River - Tn Rd BI Mercer Lake
07/30/2009 15:21	COMPLETE	LANDING	10022390	Storm Sewer at Mercer L. Boat Landing
07/30/2009 16:41	COMPLETE	INLET	263125	Grand Portage Lake - Outlet
08/05/2009 08:31	COMPLETE	MB-12	263129	Mercer Lake at Max Point Of Depth
08/05/2009 09:41	COMPLETE	MWB-12	10022388	Mercer Lake West Basin Deep Hole
08/05/2009 10:25	COMPLETE	IN-22	263125	Grand Portage Lake - Outlet
08/05/2009 11:24	COMPLETE	OUT-22	263009	Little Turtle River - Tn Rd BI Mercer Lake
08/19/2009 11:13	COMPLETE	MB	263129	Mercer Lake at Max Point Of Depth
08/19/2009 12:10	COMPLETE	WB	10022388	Mercer Lake West Basin Deep Hole
08/19/2009 12:37	COMPLETE	IN	263125	Grand Portage Lake - Outlet
08/19/2009 14:45	COMPLETE	OUT	263009	Little Turtle River - Tn Rd BI Mercer Lake
08/25/2009 08:29	COMPLETE	OT	263009	Little Turtle River - Tn Rd BI Mercer Lake
08/25/2009 08:45	COMPLETE	IN	263125	Grand Portage Lake - Outlet
09/02/2009 11:30	COMPLETE	P1	10022086	Mercer Well 1 At Mercer WI
09/02/2009 12:00	COMPLETE	TC	10022093	Tahoe Creek Near Mercer Wi
09/02/2009 12:30	COMPLETE	OUT	263009	Little Turtle River - Tn Rd BI Mercer Lake
09/02/2009 12:57	COMPLETE	MDB	263129	Mercer Lake at Max Point Of Depth
09/02/2009 13:30	COMPLETE	IN-1	263125	Grand Portage Lake - Outlet
09/02/2009 13:59	COMPLETE	WBB	10022388	Mercer Lake West Basin Deep Hole
09/02/2009 15:00	COMPLETE	P-3	10022088	Mercer Well 3 At Mercer WI
09/02/2009 15:15	COMPLETE	P2	10022087	Mercer Well 2 At Mercer WI
09/02/2009 16:00	COMPLETE	P4	10022089	Mercer Well 4 At Mercer Wi

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Start Date	Status	Field ID	Station ID	Station Name
09/02/2009 16:15	COMPLETE	P5	10022090	Mercer Well 5 At Mercer WI
09/02/2009 16:30	COMPLETE	P7	10022092	Mercer Well 7 At Mercer WI
09/16/2009 13:10	COMPLETE	MDHB	263129	Mercer Lake at Max Point Of Depth
09/16/2009 13:45	COMPLETE	MWT	10022388	Mercer Lake West Basin Deep Hole
10/01/2009 14:00	COMPLETE	IN	263125	Grand Portage Lake - Outlet
10/01/2009 14:15	COMPLETE	OUT	263009	Little Turtle River - Tn Rd BI Mercer Lake
10/07/2009 09:15	COMPLETE	IN-27	263125	Grand Portage Lake - Outlet
10/15/2009 11:30	COMPLETE	IN-28	263125	Grand Portage Lake - Outlet
10/15/2009 12:00	COMPLETE	T-8	10022093	Tahoe Creek Near Mercer Wi
10/15/2009 12:15	COMPLETE	OUT-27	263009	Little Turtle River - Tn Rd BI Mercer Lake

Documents

Title	Description	Author	Published	Comments
Aquatic Macrophyte Survey - Point Intercept Method - Mercer Lake, Iron County Wisconsin		Ecological Integrity Service, LLC	08/30/2010	
Aquatic Plant Management Plan - Mercer Lake, Iron County, Wisconsin		Ecological Integrity Service	06/30/2012	

Budget

Combined Budgets:
Combined SLOH:
Combined Total:

Funding

Organization	Source	Type	Amount	Start Date	End Date
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