

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: Mead_Lake_TMDL

Name: Mead Lake TMDL

Type: TMDL/303d Projects

Subtype: Implement TMDL

Status: ACTIVE

Start Date: 07/01/2006

End Date: 06/30/2007

Purpose: Mead Lake is a shallow, eutrophic impoundment of the South Fork Eau Claire River (Hydrologic Unit Code 07050006, Wisconsin Waterbody Identification Code 2137000). The Mead Lake watershed drains 248 km² (61,282 acres) of west central Wisconsin. Approximately 99 percent of the watershed is within Clark County, with the remaining one percent in Taylor County. The South Fork Eau Claire River is the primary source of surface water inflow to Mead Lake. The lake was placed on the Wisconsin 303(d) impaired waters list in 1998 due to sediment and phosphorus. In 2008, the 303(d) list was updated to reflect that the pollutants of sediment and phosphorus are leading to impairments of degraded habitat, pH criteria exceedances, and excess algal growth in summer which result in limited body contact recreational use. The goal of this TMDL is to reduce phosphorus and sediment loadings to Mead Lake to address, pH criteria exceedances, decrease algal blooms in summer, and address degraded habitat so Mead Lake can be improved for recreational purposes.

Objective: Mead Lake is highly eutrophic and exhibits excessive concentrations of phosphorus and chlorophyll (a measure of algal densities) in its surface waters during the summer months (USACE 2005). Sediment and phosphorus enters the lake via the South Fork Eau Claire River, from nonpoint sources of pollution. Phosphorus is bound to the sediment particles, and once in the system, sediment has the capacity to transfer phosphorus to the lake bottom. The lake's shallow depth, phosphorus-laden sediments and excessive water column phosphorus levels, cause the lake to experience severe algal blooms during the "growing" season (May-October). These eutrophic conditions have significantly impaired body contact recreational activities.

In addition, algal blooms in Mead Lake are often accompanied by exceedances of the Wisconsin water quality criterion for pH. The elevated lake pH levels are due to removal of carbon dioxide from water during photosynthesis (by algae). The reduction in carbon dioxide levels during daylight causes an increase in pH. A reduction in sediment loading would reduce phosphorus levels and the corresponding reduction in phosphorus levels would result in a decrease in chlorophyll levels (a measure of productivity) and a reduction in maximum pH levels.

Comments:

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
HAZUGA, MARK J	COORDINATOR	COMPLETE	07/01/2006	06/30/2007	Wisconsin DNR	
SCHREIBER, KENNETH W	COORDINATOR	ACTIVE	11/18/2006			
Sorge, Patrick W	COORDINATOR	ACTIVE	07/01/2006	06/30/2007	Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
07/15/2014	Lisa Helmuth	Progress: 75-100% Complete	TMDL is approved but not yet implemented.

Actions

Action	Detailed Description	Start	End Date	Status
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Action	Detailed Description	Start	End Date	Status
TMDL Development	TMDL Development for Mead Lake in Clark County, WI. Mead Lake is highly eutrophic and exhibits excessive concentrations of phosphorus and chlorophyll (a measure of algal densities) in its surface waters during the summer months (USACE 2005). Sediment and phosphorus enters the lake via the South Fork Eau Claire River, from nonpoint sources of pollution.	07/01/2006	06/30/2007	COMPLETE
TMDL Development	TMDL Development for Mead Lake in Clark County, WI. Mead Lake is highly eutrophic and exhibits excessive concentrations of phosphorus and chlorophyll (a measure of algal densities) in its surface waters during the summer months (USACE 2005). Sediment and phosphorus enters the lake via the South Fork Eau Claire River, from nonpoint sources of pollution.	07/01/2007	12/31/2099	IN_PROGRESS
Details:	Parameter	Value/Amount	Units	Comments
	Total Phosphorus		Y/N	The South Fork Eau Claire River is the primary source of surface water inflow to Mead Lake. The lake was placed on the Wisconsin 303(d) impaired waters list in 1998 due to sediment and phosphorus.
	Total Suspended Solids		Y/N	The South Fork Eau Claire River is the primary source of surface water inflow to Mead Lake. The lake was placed on the Wisconsin 303(d) impaired waters list in 1998 due to sediment and phosphorus.
TMDL (USEPA) Approved	TMDL Development for Mead Lake in Clark County, WI. The South Fork Eau Claire River is the primary source of surface water inflow to Mead Lake. The lake was placed on the Wisconsin 303(d) impaired waters list in 1998 due to sediment and phosphorus. In 2008, the 303(d) list was updated to reflect that the pollutants of sediment and phosphorus are leading to impairments of degraded habitat, pH criteria exceedances, and excess algal growth in summer which result in limited body contact recreational use. The goal of this TMDL is to reduce phosphorus and sediment loadings to Mead Lake to address, pH criteria exceedances, decrease algal blooms in summer, and address degraded habitat so Mead Lake can be improved for recreational purposes.	10/02/2008	10/02/2008	COMPLETE

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Action	Detailed Description	Start	End Date	Status
TMDL Implementation	<p>TMDL Implementation for Mead Lake in Clark County, WI. The South Fork Eau Claire River is the primary source of surface water inflow to Mead Lake. The lake was placed on the Wisconsin 303(d) impaired waters list in 1998 due to sediment and phosphorus. In 2008, the 303(d) list was updated to reflect that the pollutants of sediment and phosphorus are leading to impairments of degraded habitat, pH criteria exceedances, and excess algal growth in summer which result in limited body contact recreational use. The goal of this TMDL is to reduce phosphorus and sediment loadings to Mead Lake to address, pH criteria exceedances, decrease algal blooms in summer, and address degraded habitat so Mead Lake can be improved for recreational purposes.</p>	10/02/2008		IN_PROGRESS

Monitoring Stations

Station ID	Name	Comments
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Assessment Units

WBIC	Segment	Local Name	Official Name
1352800	6	Yellow River	Yellow River
1352800	7	Yellow River	Yellow River
1372600	1	Yellow River-S. Branch	South Branch Yellow River
1372800	1	Tributary to S Br Yellow River	Unnamed
1372800	2	Unnamed Stream	Unnamed
1372900	1	Unnamed Stream	Unnamed
1373000	1	Unnamed Stream	Unnamed
1373700	1	Unnamed Stream	Unnamed
1373900	1	Local Water	Unnamed
1374000	1	Unnamed Trib to Yellow River	Unnamed
1412600	2	Little Eau Pleine River	Little Eau Pleine River
1430700	2	Dill Creek	Dill Creek
1431400	1	Local Water	Unnamed
1431500	2	Elm Brook	Elm Brook
1432200	1	Porky Creek	Porky Creek
1432200	2	Porky Creek	Porky Creek
1667150	1	Dorchester Lake	Dorchester Lake
1670830	1	Un Lake	Neillsville City Pond
1676700	4	Black River	Black River
1676700	5	Black River, Hwy H To Rock Creek	Black River
1676700	7	Black River	Black River
1676700	8	Black R. (Below Medford)	Black River
1676700	10	Black River	Black River

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WBIC	Segment	Local Name	Official Name
1676700	11	Black River	Black River
1676700	12	Black River	Black River
1711600	3	East Fork Halls Creek	East Fork Halls Creek
1711600	4	East Fork Halls Creek	East Fork Halls Creek
1711600	5	East Fork Halls Creek	East Fork Halls Creek
1712800	1	Emerson Lake (Humbird Pond)	Emerson Lake (Humbird Pond)
1713900	1	Creek 17-8	Unnamed
1726400	1	Vismal Creek	Vismal Creek
1726400	2	Vismal Creek	Vismal Creek
1727100	1	Local Water	Unnamed
1727700	1	Arbutus Lake	Arbutus Lake*
1727700	3	West Arbutus Beach, Arbutus Lake	Arbutus Lake*
1727800	1	Arnold Creek	Arnold Creek
1727800	2	Arnold Creek	Arnold Creek
1728750	1	Un Lake	Unnamed
1729000	1	E Fk Black R	East Fork Black River
1729000	4	East Fork Black River	East Fork Black River
1729000	5	East Fork Black River	East Fork Black River
1729300	1	Rock Creek	Rock Creek
1729900	1	Unnamed trib to Rock Creek	Unnamed
1729900	2	Black River East Fork	Unnamed
1730200	1	Unnamed Lake	1.95 Reservoir
1731100	1	Local Water	Unnamed
1731400	1	Schumann Creek	Schumann Creek
1735600	1	Lead Creek	Lead Creek
1736200	1	Sherwood Lake	Sherwood Lake*
1741900	1	Tomas Creek	Toms Creek
1743300	1	Wedges Creek	Wedges Creek
1743800	1	Fivemile Creek	Fivemile Creek
1743900	1	Local Water	Unnamed
1744300	1	Unnamed Lake	Unnamed
1744700	1	Unnamed Lake	Unnamed
1744900	1	Unnamed Lake	Unnamed T24n R04w S24-13a
1745100	1	Unnamed T24n R03w S19-10	Unnamed T24n R03w S19-10
1745500	1	Unnamed Lake	Unnamed
1746200	1	Unnamed Lake	Unnamed
1746400	1	Helling Creek	Helling Creek
1746600	1	Crooked Creek	Crooked Creek
1747100	1	Snyder Lake	Snyder Lake
1747200	1	Meadows Creek	Meadows Creek
1747300	1	Seif Creek	Unnamed
1747400	1	Poney Creek	Pony Creek
1747500	1	East Branch Wedges Creek	East Branch Wedges Creek
1747800	1	Conlan Creek	Conlan Creek
1747900	1	Cunningham Creek	Cunningham Creek
1748000	1	Jack Creek	Jack Creek
1748100	1	Hay Meadow Cr	Hay Meadow Creek
1748500	1	Unnamed Creek	Unnamed

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WBIC	Segment	Local Name	Official Name
1748600	1	Unnamed Creek 17-5	Unnamed
1748700	1	Spooner Creek	Spooner Creek
1748800	1	O'Neill Creek	O'Neill Creek
1749000	1	Local Water	Unnamed
1749200	1	Local Water	Unnamed
1749300	1	South Branch O'Neil Creek	South Branch O'Neill Creek
1749350	1	Un Lake	Unnamed
1749400	1	Unnamed Creek	Unnamed
1749600	1	North Branch O'Neill Creek	North Branch O'Neill Creek
1749700	1	Middle Branch Of O'Neill Creek	Middle Br O'Neill Creek
1749800	1	Unnamed Creek	Unnamed
1749900	1	Unnamed Trib to N Br O'Neill Creek	Unnamed
1750100	1	Cawley Creek	Cawley Creek
1750200	1	Panther Creek	Panther Creek
1750400	1	Unnamed Trib to Crawley Cr	Unnamed
1750500	1	Mound Creek	Mound Creek
1750570	1	Un Lake	Unnamed
1750800	1	Rock Creek	Rock Creek
1751000	1	Bear Creek	Bear Creek
1751000	2	Bear Creek	Bear Creek
1751400	1	Nelson Creek	Nelson Creek
1751500	1	Unnamed Trib to Nelson Cr	Unnamed
1752100	1	Local Water	Unnamed
1752500	1	Gile Creek	Gile Creek
1752900	1	Poplar River	Popple River
1752900	2	Poplar River	Popple River
1753000	1	Behringer Creek	Behringer Creek
1753100	1	Brick Creek	Brick Creek
1753100	2	Brick Creek	Brick Creek
1753300	1	Owen Pond	Owen Pond
1753500	1	Sportsman Lake	Sportsman Lake
1753700	1	Local Water	Unnamed
1754000	1	Local Water	Unnamed
1754100	1	South Fork Popple (Poplar) River	South Fork Popple River
1754100	2	South Fork Popple River	South Fork Popple River
1754500	1	Popple River East Fork	East Fork Popple River
1754700	1	Local Water	Unnamed
1754750	1	Tributary to the East Fork Popple River	Unnamed
1754750	2	Tributary to the East Fork Popple River	Unnamed
1754800	1	Popple (Poplar) River, North Fork	North Fork Popple River
1754800	2	Popple (Poplar) River, North Fork	North Fork Popple River
1755000	1	Unnamed Creek	Unnamed
1755600	1	Local Water	Unnamed
1755800	1	TRIBUTARY TO THE NORTH FORK POPPLE RIVER	Unnamed
1755800	2	Local Water	Unnamed
1756000	1	Dorchester Park Pond	Dorchester Park Pond
1756200	1	Kalepp Lake	Kalepp Lake

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WBIC	Segment	Local Name	Official Name
1756800	1	Syrup Creek	Syrup Creek
1758400	1	Trappers Creek	Trappers Creek
1891500	1	Un Lake	Unnamed
1891600	1	Un Lake	Unnamed
1891700	1	Un Lake	Unnamed
1891900	1	Un Lake	Unnamed
1892000	1	Local Water	Unnamed
2135700	2	Black Creek	Black Creek
2136600	1	Unnamed Creek	Unnamed
2136700	1	Local Water	Unnamed
2137000	1	South Fork Eau Claire River	South Fork Eau Claire River
2137000	2	South Fork Eau Claire River	South Fork Eau Claire River
2137000	3	South Fork Eau Claire River	South Fork Eau Claire River
2137100	2	Horse Creek	Horse Creek
2137400	1	Unnamed Lake	Unnamed
2137900	1	Surveyor Creek	Surveyor Creek
2138000	1	Iron Run Creek	Iron Run
2138000	2	Iron Run Creek	Iron Run
2138000	3	Iron Run Creek	Iron Run
2138400	1	Iron Run Flowage	Iron Run Flowage
2138600	1	Ryan Creek	Ryan Creek
2138700	1	Hay Creek	Hay Creek
2139000	1	Rock Dam Lake	Rock Dam Lake
2139100	1	Windy Run Creek	Windy Run
2139400	1	Cameron Creek	Cameron Creek
2140000	2	Scott Creek	Scott Creek
2140300	1	Thompson Creek	Thompson Creek
2140600	1	Unnamed Stream	Unnamed
2142200	1	Abbot Ranch Flowage	Abbot Ranch Flowage
2142800	1	Local Water	Unnamed
2142900	1	Dickison Creek	Dickison Creek
2143300	1	Unnamed Lake	Unnamed
2143400	1	Black Creek	Black Creek
2143700	1	Un Lake	Unnamed
2143900	1	Mead Lake	Mead Lake
2144100	1	Rocky Run	Rocky Run
2144500	1	Norwegian Creek	Norwegian Creek
2145000	1	Creek 27-8	Unnamed
2145200	1	Local Water	Unnamed
2145400	4	North Fork Eau Claire	North Fork Eau Claire River
2146000	1	Wolf River	Wolf River
2146000	3	Wolf River	Wolf River
2146000	4	Wolf River	Wolf River
2146500	1	Local Water	Unnamed
2146600	1	Roger Creek	Roger Creek
2147300	1	Little Otter Creek	Little Otter Creek
2147800	1	Simes Creek	Simes Creek
2148300	1	Robinson Creek	Robinson Creek

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WBIC	Segment	Local Name	Official Name
2148400	1	Local Water	Unnamed
2148500	1	Sterling Creek	Sterling Creek
2148600	1	Local Water	Unnamed
2148700	1	McGrogan Creek	McGrogan Creek
2148800	1	Goggle-Eye Creek	Goggle-Eye Creek
2148850	1	Unnamed Trib to N F Eau Claire River	Unnamed
2149500	1	Local Water	Unnamed
3000075	1	Local Water	Unnamed
3000137	1	Local Water	Unnamed
3000187	1	Local Water	Unnamed
3999992	1	Little Otter Creek	Little Otter Creek
5009703	1	Local Water	Unnamed
5009814	1	Local Water	Unnamed
5009824	1	Local Water	Unnamed
5009860	1	Local Water	Unnamed
5009901	1	Local Water	Unnamed
5009959	1	Local Water	Unnamed
5010000	1	Local Water	Unnamed
5010007	1	Local Water	Unnamed
5010017	1	Local Water	Unnamed
5010025	1	Local Water	Unnamed
5010049	1	Local Water	Unnamed
5010065	1	Local Water	Unnamed
5010074	1	Local Water	Unnamed
5010102	1	Local Water	Unnamed
5010106	1	Local Water	Unnamed
5010144	1	Local Water	Unnamed
5010150	1	Local Water	Unnamed
5010155	1	Local Water	Unnamed
5010193	1	Local Water	Unnamed
5010245	1	Local Water	Unnamed
5010252	1	Unnamed Stream	Unnamed
5010401	1	Local Water	Unnamed
5010590	1	Unnamed Stream	Unnamed
5010662	1	Local Water	Unnamed
5010839	1	Local Water	Unnamed
5011018	1	Local Water	Unnamed
5011064	1	Local Water	Unnamed
5011182	1	Local Water	Unnamed
5011233	1	Local Water	Unnamed
5011263	1	Local Water	Unnamed
5011335	1	Local Water	Unnamed
5011416	1	Local Water	Unnamed
5011427	1	Local Water	Unnamed
5011428	1	Local Water	Unnamed
5011439	1	Local Water	Unnamed
5011447	1	Local Water	Unnamed
5011469	1	Local Water	Unnamed

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WBIC	Segment	Local Name	Official Name
5011478	1	Local Water	Unnamed
5011537	1	Local Water	Unnamed
5011565	1	Local Water	Unnamed
5011570	1	Local Water	Unnamed
5011601	1	Local Water	Unnamed
5011608	1	Local Water	Unnamed
5011613	1	Unnamed Stream	Unnamed
5011643	1	Local Water	Unnamed
5011665	1	Local Water	Unnamed
5011696	1	Local Water	Unnamed
5011697	1	Unnamed Stream	Unnamed
5011720	1	Unnamed Stream	Unnamed
5011755	1	Local Water	Unnamed
5011784	1	Local Water	Unnamed
5011792	1	Unnamed Stream	Unnamed
5011811	1	Local Water	Unnamed
5011834	1	Local Water	Unnamed
5011872	1	Local Water	Unnamed
5011962	1	Local Water	Unnamed
5011992	1	Local Water	Unnamed
5011999	1	Local Water	Unnamed
5012057	1	Local Water	Unnamed
5012076	1	Local Water	Unnamed
5012077	1	Local Water	Unnamed
5012105	1	Local Water	Unnamed
5012176	1	Local Water	Unnamed
5012185	1	Local Water	Unnamed
5012192	1	Local Water	Unnamed
5012250	1	Local Water	Unnamed
5012256	1	Local Water	Unnamed
5012263	1	Local Water	Unnamed
5012320	1	Local Water	Unnamed
5012373	1	Local Water	Unnamed
5012388	1	Local Water	Unnamed
5012404	1	Local Water	Unnamed
5012466	1	Local Water	Unnamed
5012534	1	Local Water	Unnamed
5012549	1	Unnamed Stream	Unnamed
5012559	1	Local Water	Unnamed
5012576	1	Local Water	Unnamed
5012969	1	Local Water	Unnamed
5013106	1	Local Water	Unnamed
5013627	1	Unnamed Stream	Unnamed
5013752	1	Local Water	Unnamed
5014400	1	Unnamed Stream	Unnamed
5014440	1	Local Water	Unnamed
5014648	1	Unnamed Stream	Unnamed
5014920	1	Unnamed	Unnamed

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WBIC	Segment	Local Name	Official Name
5015003	1	Local Water	Unnamed
5015142	1	Unnamed Stream	Unnamed
5015374	1	Local Water	Unnamed
5015505	1	Local Water	Unnamed
5533421	1	Local Water	Unnamed
5533752	1	Local Water	Unnamed
5534159	1	Local Water	Unnamed
5534175	1	Local Water	Unnamed
5534201	1	Local Water	Unnamed
5534460	1	Local Water	Unnamed
5534588	1	Local Water	Unnamed
5534610	1	Local Water	Unnamed
5534635	1	Unnamed Lake	Unnamed
5535089	1	Local Water	Unnamed
5535362	1	Local Water	Unnamed
5535540	1	Local Water	Unnamed
5535669	1	Local Water	Unnamed
5536881	1	Local Water	Unnamed
5536909	1	Local Water	Unnamed
5537884	1	Local Water	Unnamed
5537925	1	Local Water	Unnamed
5537949	1	Local Water	Unnamed
5538125	1	Local Water	Unnamed
5538170	1	Local Water	Unnamed
5538593	1	Local Water	Unnamed
5538627	1	Local Water	Unnamed
5538665	1	Local Water	Unnamed
5538693	1	Local Water	Unnamed
5538751	1	Local Water	Unnamed
5538838	1	Local Water	Unnamed
5539491	1	Local Water	Unnamed
5539591	1	Local Water	Unnamed
5540208	1	Local Water	Unnamed
5540251	1	Local Water	Unnamed
5540255	1	Local Water	Unnamed
5540465	1	Local Water	Unnamed
5540843	1	Local Water	Unnamed
5541017	1	Local Water	Unnamed
5541070	1	Local Water	Unnamed
5541074	1	Local Water	Unnamed
5541588	1	Local Water	Unnamed
5541790	1	Local Water	Unnamed
5541898	1	Local Water	Unnamed
5542190	1	Local Water	Unnamed
5542232	1	Local Water	Unnamed
5542234	1	Local Water	Unnamed
5542303	1	Local Water	Unnamed
5542373	1	Local Water	Unnamed

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WBIC	Segment	Local Name	Official Name
5542484	1	Local Water	Unnamed
5542760	1	Local Water	Unnamed
5543029	1	Local Water	Unnamed
5543171	1	Local Water	Unnamed
5543364	1	Local Water	Unnamed
5543383	1	Local Water	Unnamed
5544501	1	Local Water	Unnamed
5544575	1	Local Water	Unnamed
5544611	1	Local Water	Unnamed
5545056	1	Local Water	Unnamed
5545156	1	Local Water	Unnamed
5545440	1	Local Water	Unnamed
5545750	1	Local Water	Unnamed
5545829	1	Local Water	Unnamed
5545840	1	Local Water	Unnamed
5546898	1	Local Water	Unnamed
5547310	1	Local Water	Unnamed
5547480	1	Local Water	Unnamed
5547611	1	Local Water	Unnamed
5547759	1	Local Water	Unnamed
5547845	1	Local Water	Unnamed
5548357	1	Local Water	Unnamed
5548419	1	Local Water	Unnamed
5548452	1	Local Water	Unnamed
5548502	1	Local Water	Unnamed
5548555	1	Local Water	Unnamed
5548558	1	Local Water	Unnamed
5548648	1	Local Water	Unnamed
5581981	1	Local Water	Unnamed
5584424	1	Local Water	Unnamed
5584689	1	Local Water	Unnamed
5590546	1	Local Water	Unnamed
5591011	1	Local Water	Unnamed
5591440	1	Unnamed	Unnamed
5591613	1	Local Water	Unnamed
5591614	1	Local Water	Unnamed

Lab Account Codes

Account Code	Description	Start Date	End Date
WT086	TMDL MONITORING	10/01/2006	09/30/2007

Forms

Form Code	Form Name
CONTINUOUS	Continuous Data Upload
INORGANIC	Inorganic Lab - Field Data

Methods

