Wisconsin Department of Natural Resources
SWIMS Project Summary

General Project Information

Project ID: NOR_05_CMP14

Name: Durphee Lake Water Quality Assessment - NOR_05_CMP14

Type: Competitive Projects

Subtype: Impaired Water Assessment

Status: ACTIVE

Start Date: 07/01/2014

End Date: 12/31/2014

Purpose: Durphee Lake (WBIC:2396800) is a 198 acre seepage lake with a maximum depth of 16 feet. Durphee Lake is classified as eutrophic, as is evident by the green color in aerial photos. However, there are no phosphorus or chlorophyll data to make a formal assessment. In 1969, the Surface Water Resources of Sawyer County states that "occasionally bluegreen algae develops to the nuisance stage and causes partial summer fish kill conditions" and that the lake is also connected via a channel to a cranberry operation on the west shore. Satellite imagery data suggest the TSI is between 50-60 with secchi measurements estimated at 1-2 meters.

Water quality sampling will be conducted by 2 DNR staff at the deep hole site (Site ID-10041471) of Durphee Lake (WBIC:2396800). Samples will be taken 3 times between July 15 and September 15 in 2014 and 2015 to coincide with WisCALM methodology. At each sampling event, multiparameter probes will be used to conduct profiles and integrated samplers will be used to collect the water samples.

Objective: Water quality sampling will be conducted by 2 DNR staff at the deep hole site (Site ID-10041471) of Durphee Lake (WBIC:2396800). Samples will be taken 3 times between July 15 and September 15 in 2014 (FY15) and 2015 (FY16) to coincide with WisCALM methodology. At each sampling event, multiparameter probes will be used to conduct profiles and integrated samplers will be used to collect the water samples.

Data collected at the 3 summer sampling events will be secchi, temperature, dissolved oxygen, and conductivity profiles; and total phosphorus and chlorophyll a concentrations. pH will be measured at 1 m depth.

Comments: This project will be continued as a Directed Lakes project.(project: Directed Lakes 2015 Smith, ID: DL2015_Smith).

Outcome: Water quality sampling will be conducted by 2 DNR staff at the deep hole site (Site ID-10041471) of Durphee Lake (WBIC:2396800). Samples will be taken 3 times between July 15 and September 15 in 2014 (FY15) and 2015 (FY16) to coincide with WisCALM methodology. At each sampling event, multiparameter probes will be used to conduct profiles and integrated samplers will be used to collect the water samples.

Data collected at the 3 summer sampling events will be secchi, temperature, dissolved oxygen, pH, and conductivity profiles; and total phosphorus and chlorophyll a concentrations.

The data will be entered into SWIMS database by Alex Smith by 11/30/14 and the final report will be complete by 12/31/14.

Study Design: Water quality sampling will be conducted by 2 DNR staff at the deep hole site (Site ID-10041471) of Durphee Lake (WBIC:2396800). Samples will be taken 3 times between July 15 and September 15 in 2014 (FY15) and 2015 (FY16) to coincide with WisCALM methodology. At each sampling event, multiparameter probes will be used to conduct profiles and integrated samplers will be used to collect the water samples.

Data collected at the 3 summer sampling events will be secchi, temperature, dissolved oxygen, pH, and conductance profiles; and total phosphorus, and chlorophyll a concentrations.

QA Measures: Standard DNR protocols will be used for sample collection and field measurements. Sample will be analyzed by the SLOH.

People

Name	Role	Status	Start Date	End Date	Organization	Comments
HAGEN, CHERIE L	SUPERVISOR	ACTIVE	07/01/2014	12/31/2014	Wisconsin DNR	
OLSON, FLORENCE A	COORDINATOR	ACTIVE	07/01/2014	12/31/2014	Wisconsin DNR	
PEACHER, RACHEL D	COORDINATOR	ACTIVE	07/01/2014	12/31/2015	Wisconsin DNR	
Smith, Alex R	PROJECT_LEAD	COMPLETE	07/01/2014	12/31/2014	Wisconsin DNR	
Sundeen, Mark R	COORDINATOR	ACTIVE	07/01/2014	12/31/2014	Wisconsin DNR	

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Project Statuses

Date	Reported By	Status	Comments
12/04/2013	Alex Smith	Proposed	
04/16/2014	Alex Smith	Active	
05/09/2014	Alex Smith	Progress: 0-25% Complete	Sampling won't begin until after July 15, 2014 per WisCALM requirements.
09/16/2014	Alex Smith	Progress: 75-100% Complete	Field work is complete.
01/23/2015	RUTH PERSON	Proposed	Proposed for continuation.
01/26/2015	Alex Smith	Progress: 25-50% Complete	FY 2015 field work is complete and data is entered in SWIMS. Continuing project includes FY 2016 field work, data entry, and final report.
02/09/2015	RUTH PERSON	Progress: 25-50% Complete	Was proposing as continuing local needs CMP15 project, but will fit better under Directed Lakes.
02/09/2015	Alex Smith	Progress: 75-100% Complete	FY 2015 field work is complete and data is entered in SWIMS. Project moved to Directed Lakes for FY 2016 (project name: Directed Lakes 2015 Smith).

Project Status Detail

Answer Set: DEFAULT

Question	Answer
1. Number of Sample Sites (Enter the station IDs if you know them).	Durphee Lake Deep Hole: Site ID-10041471
2. Number of Sample Events (Indicate how many trips into the field you anticipate for this project).	3
3. Proposed Dates for Sample Collection	7/15/2014, 8/15/2014, 9/15/2014, 7/15/2015, 8/15/2015, 9/15/2015
4. List applicable databases and who will enter data?	SWIMS database, entered by Alex Smith or Mark Sundeen
5. Did you receive competitive projects funding in the previous year?	Yes
6. If yes to question 5, did you complete the projects including data entry and reports as necessary? If not, why not?	Yes, monitoring and data entry in SWIMS is complete. Report will be drafted following completion of project after the second year of monitoring.
7. Reviewer Notes: Identify questions or issues with project (use during review period)	
8. Reviewer Decision: Is this project recommended for funding?	

Actions

Action	Detailed Description	Start	End Date	Status
Monitor Water Quality or Sediment		*******	12/31/2015	PROPOSED

Monitoring Stations

Station ID	Name	Comments
10041471	Durphee Lake Deep Hole	

Assessment Units

WBIC	Segment	Local Name	Official Name
2396800	1	Durphee Lake	Durphee Lake

Lab Account Codes

Account Code	Description	Start Date	End Date
WT142	303D/TMDL MONITORING	05/03/2011	12/31/2014

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Forms

Form Code	Form Name
SECCHI_TEMPDO_PL	Lake Monitoring - Secchi, Temp., D.O., pH, Conductivity
SECCHI_TEMPDO	Lake Monitoring - Secchi, Temperature and D.O.

Methods

Method Code	Description
BASELINE LAKE MONITORING METHODS - LAKE PROFILES	BASELINE LAKE MONITORING METHODS - Temperature/D.O./Conductance Profiles
LAKES_LTT_2008	Lake Sampling Procedures – Long Term Trend Water Quality

Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
07/17/2014 10:00	COMPLETE	DUR-1-14	10041471	Durphee Lake Deep Hole
08/12/2014 11:30	COMPLETE	DUR-2-14	10041471	Durphee Lake Deep Hole
09/09/2014 14:30	COMPLETE	Durphee 3-14	10041471	Durphee Lake Deep Hole

Documents

Title	Description	Author	Published	Comments
Durphee Lake Air Photo				2008 Air Photo captured from Internal Surface Water Data Viewer.

Budget

Budget Description: July-December 2014 **Start Date:** **End Date:**

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	20	Hours	$0.00	$0.00	
LTE SAL	LTE Salary	20	Hours	$13.00	$260.00	
LTE FR	LTE Fringe				$64.22	
LTE IND	LTE Indirect				$52.43	
LTE TOT	LTE Total Cost				$376.65	
SUPPLY	Supplies	3		$10.00	$30.00	Shipping
EQUIP	Equipment				$0.00	
MILEAGE	Mileage	200	Miles	$0.72	$144.00	
MEAL	Meals	0	Meals	$9.00	$0.00	
LODGE	Lodging				$0.00	
TRAVEL	Travel Total				$144.00	
BUG	Bug Contracts				$0.00	
OTHER	Other Contracts				$0.00	
USGS	USGS Costs				$0.00	
TOTAL	Total Cost (excludes SLOH)				$550.65	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost

Total SLOH Lab Costs: $0.00
Total Budget: $550.65

Budget Description: July-Dec 2015 **Start Date:** **End Date:**

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Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	20	Hours	$0.00	$0.00	
LTE SAL	LTE Salary	60	Hours	$13.00	$780.00	
LTE FR	LTE Fringe				$192.66	
LTE IND	LTE Indirect				$157.28	
LTE TOT	LTE Total Cost				$1,129.94	
SUPPLY	Supplies	3		$10.00	$30.00	Shipping
EQUIP	Equipment				$0.00	
MILEAGE	Mileage	200	Miles	$0.72	$144.00	
MEAL	Meals	0	Meals	$9.00	$0.00	
LODGE	Lodging				$0.00	
TRAVEL	Travel Total				$144.00	
BUG	Bug Contracts				$0.00	
OTHER	Other Contracts				$0.00	
USGS	USGS Costs				$0.00	
TOTAL	Total Cost (excludes SLOH)				$1,303.94	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost

Total SLOH Lab Costs: $0.00
Total Budget: $1,303.94

Combined Budgets: $1,854.59
Combined SLOH: $0.00
Combined Total: $1,854.59

Funding

Organization	Source	Type	Amount	Start Date	End Date