



Michigan's Citizen Volunteer Partnership for Lakes

2018 Annual Summary

Managed By:
Michigan Department of Environmental Quality
Michigan Lake Stewardship Associations, Inc.
Michigan State University Department of Fisheries and Wildlife
Great Lakes Commission
Huron River Watershed Council



TABLE OF CONTENTS



I. Introduction to the CLMP.....	3
II. Map of Participating Lakes	4
III. Summary Statistics of Monitored Parameters	5
IV. DEQ Side-by-side Data Verification	8
V. Thank you, CLMP Volunteers!.....	12
VI. Thank you, DEQ and DNR Employees!.....	19
VIII. CLMP Contacts	20

I. Introduction

The Michigan Department of Environmental Quality (DEQ), Michigan Lake Stewardship Associations (MLSA), the Great Lakes Commission, the Huron River Watershed Council, and Michigan State University have partnered to implement the Cooperative Lakes Monitoring Program (CLMP).

The goals of the CLMP are to:

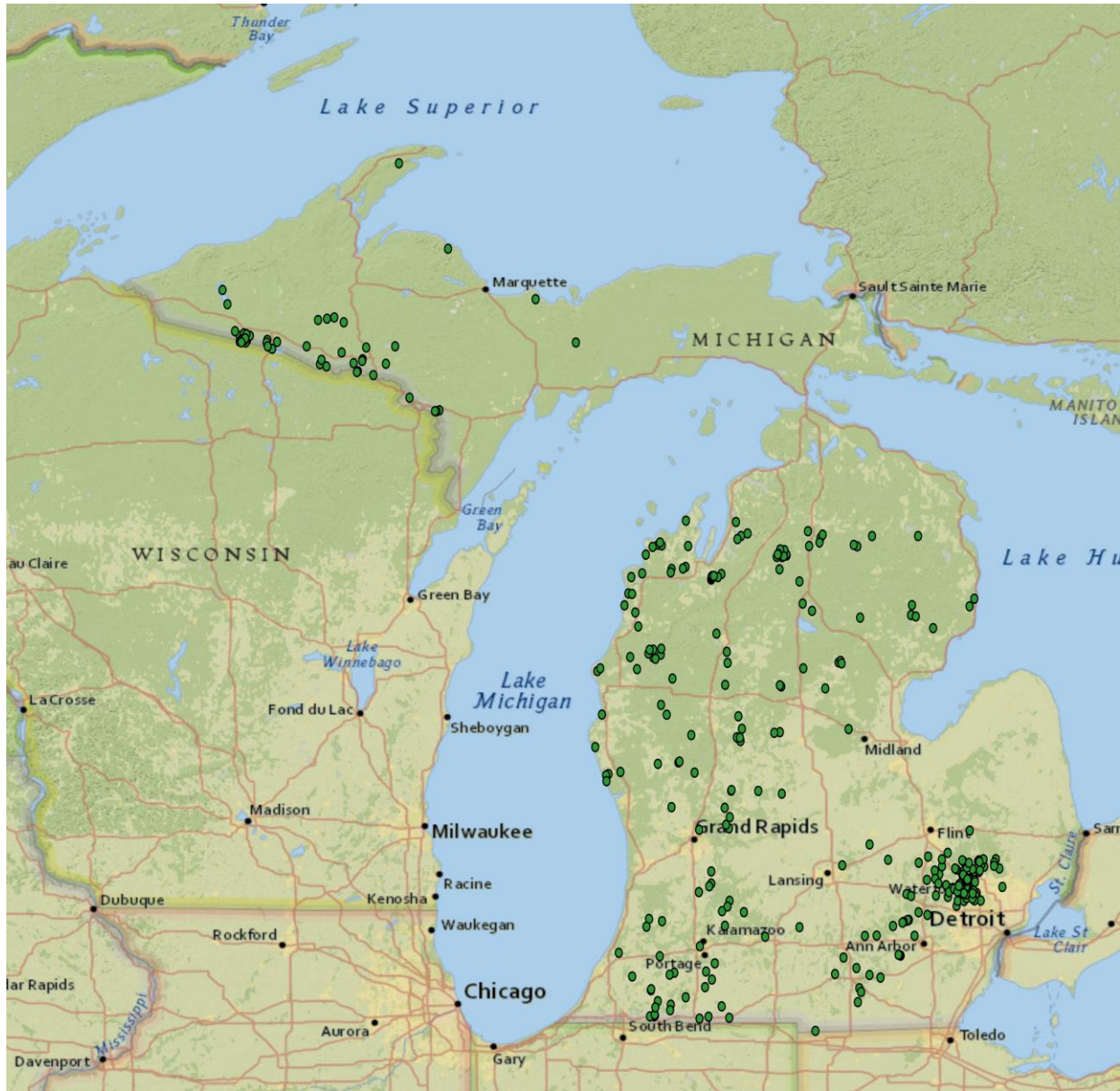
- Provide baseline information and document trends in water quality for individual lakes.
- Educate lake residents, users, and interested citizens in the collection of water quality data, lake ecology, and lake management practices.
- Build a constituency of citizens to practice sound lake management at the local level and to build public support for lake quality protection.
- Provide a cost-effective process for the DEQ to increase baseline data for lakes state-wide.

This report summarizes the 2018 CLMP field season.

To learn more about the CLMP program, there are many other resources available:

1. The Michigan Clean Water Corps website includes a variety of resources including the online database which contains all CLMP data. <https://data.micorps.net/view/lake/>
2. The CLMP Manual contains an overview of the program and the volunteer monitoring procedures: <https://micorps.net/wp-content/uploads/sites/63/2019/03/CLMP-Manual-2019update.pdf>
3. Starting in 2014, each lake enrolling in the program received an individual report summarizing their data. <https://micorps.net/lake-monitoring/individual-lake-reports/>
4. The CLMP Quality Assurance Project Plan (QAPP) is a detailed report on how the CLMP collects and maintains high quality scientific data: https://cdn.cloud1.cemah.net/wp-content/uploads/sites/63/2018/06/QAPP_CLMP_2018.pdf

II. Map of 2018 CLMP Participating Lakes



III. Summary Statistics of Monitored Parameters

A. Secchi Disk Transparency

CLMP volunteers measure water transparency using a Secchi disk from late spring to the end of the summer. Ideally, 18 weekly measurements are made from mid-May through mid-September. Minimum participation requires submitting 1 measurement; full participation is submitting at least 8 measurements.

2018 Secchi Disk Transparency	
No. of sites enrolled	311
No. of sites meeting minimum participation	260 (83%)
No. of sites meeting full participation	230 (74%)
Total no. of measurements reported	3251
Lake with lowest average transparency	1.0' (Cedar, Alcona County)
Lake with high average transparency	33.9' (Torch Lake, Antrim County)
Mean (average) measurement of all lakes	12.1'
Mean (average) TSI of all lakes	42.2'

B. Total Phosphorus

CLMP volunteers collect water samples for total phosphorus during spring overturn, when the lake is generally well mixed from top to bottom, and during late summer, when the lake is at maximum temperature stratification from the surface to the bottom.

2018 Total Phosphorus Monitoring	
<u>Spring Overturn Sampling</u>	
No. of sites enrolled	233
No. of sites submitting valid samples	189 (81%)
Minimum reported value	< 3 µg/L (multiple lakes)
Maximum reported value	110 µg/L (Crockery Lake, Shiawassee Co)
Mean (average) value	12.7 µg/L
<u>Summer Stratification Sampling</u>	
No. of sites enrolled	289
No. of sites submitting valid samples	243 (84%)
Minimum reported value	< 3 µg/L (multiple lakes)
Maximum reported value	100 µg/L (Van Etten Lake, Iosco Co)
Mean (average) value	14.3 µg/L
Mean (average) TSI	39.7

C. Chlorophyll-a

Volunteers collect water samples for chlorophyll-a, an estimator of the amount of algae in the water column, once per month from May through September. Minimum participation requires at least one valid sample be submitted; at least four valid samples must be submitted to be considered full participation in this parameter.

2018 Chlorophyll-a Monitoring	
No. of sites enrolled	141
No. of sites meeting minimum participation	128 (91%)
No. of sites meeting full participation	114 (81%)
Total no. of valid samples	578
Minimum median Lake measurement	< 1 µg/L (multiple lakes)
Maximum median Lake measurement	18 µg/L (Viking Lake, Otsego Co.)
Median Lake measurement	2.1 µg/L

D. Dissolved Oxygen and Temperature

CLMP volunteers measure dissolved oxygen and temperature profiles for their lakes, measured from the surface to within 3 feet of the bottom, at the deepest point in the lake. These profile measurements are made with an electronic dissolved oxygen meter (YSI Pro20 or YSI 550A), ideally every two weeks from mid-May through mid-September.

2018 Dissolved Oxygen and Temperature Monitoring	
No. of sites enrolled	62
No. of sites submitting at least one profile	54 (87%)
Total no. of profiles submitted	380

E. Exotic Aquatic Plant Watch

Volunteers in this monitoring program survey their lakes for invasive aquatic plants of special concern for Michigan lakes: curly-leaf pondweed, Eurasian watermilfoil, Hydrilla, starry stonewort, and European frog-bit

2018 Exotic Aquatic Plant Watch	
No. of sites enrolled	94
No. of sites submitting report	60 (64%)
No. of lakes reporting Eurasian water milfoil:	26 (43%)
No. of lakes reporting curly-leaf pondweed:	18 (30%)
No. of lakes reporting Hydrilla:	0 (0%)
No. of lakes reporting starry stonewort:	23 (38%)
No. of lakes reporting European frog-bit:	0 (0%)

F. Aquatic Plant Identification and Mapping

This program is the most labor-intensive volunteer activity within the CLMP. Typically, a team of volunteers from each enrolled lake is involved, with assistance from a MiCorps biologist. The end result is a plant distribution map and abundance report for all plants growing in the lake, including both native and, if found, invasive species.

2018 Aquatic Plant Mapping	
No. of sites enrolled	12
No. of sites submitting report	7 (58%)

G. Score the Shore

Volunteers motor around the lake, reviewing 1000-foot sections of shoreline for littoral habitat, riparian habitat, and erosion control. Sections with natural habitat will have higher scores than ones with hardened shorelines. Each lake is scored on a 0-100 scale. Scores for each section as well as for the entire lake allow volunteers to review high quality areas as well as sections that would benefit from habitat enhancement.

2018 Score the Shore	
No. of sites enrolled	28
No. of sites submitting report	7 (32%)
Total No. of lake sections scored	55
Avg Score	81

IV. DEQ Side-by-Side Data Verification

A DEQ biologist monitors several lakes a year alongside the CLMP volunteers for phosphorus and chlorophyll. In the early years of the program, the DEQ used its standard operating procedures to collect the data, which differ slightly from the volunteers' monitoring procedures. The goal of the side-by-side visits was to ensure that the volunteer procedures produced accurate data. The correlation between DEQ samples and volunteer's samples has proven to be very high through many years of these side-by-side tests. CLMP and DEQ staff have concluded that the original goal of the side-by-sides has been met.

Starting in 2011, DEQ began to use the volunteer procedures to run the side-by-side data verifications. The new goal of the side-by-side visits are to build relationships with the volunteers and ensure that they correctly follow the volunteer procedures as a check on the training protocols.

A. 2018 Total Phosphorus Side-by-Side samples

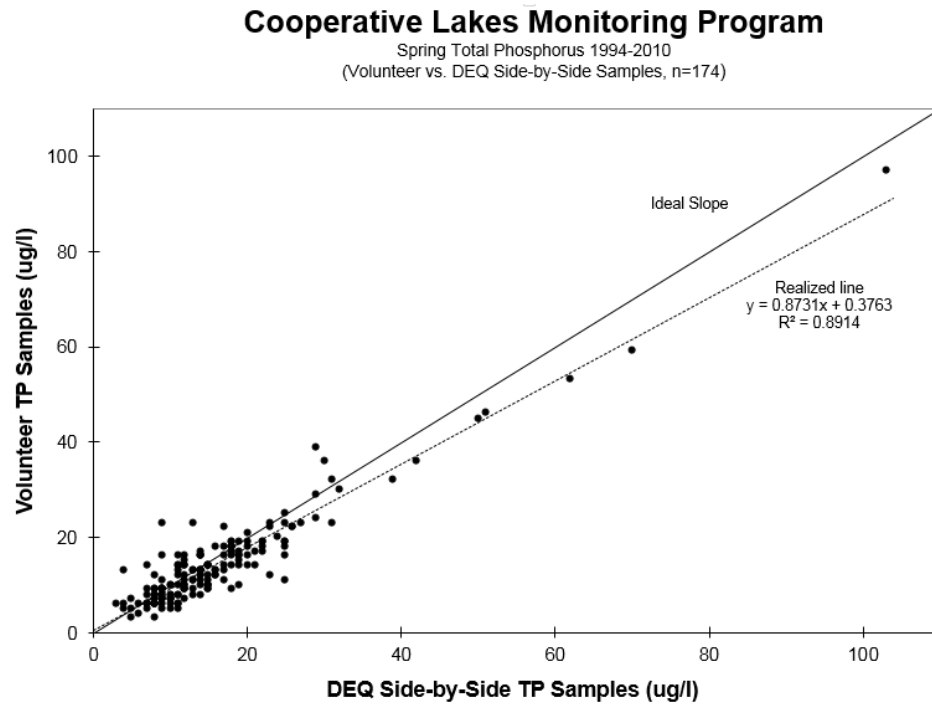
Date	Lake	Lake ID	County	Phosphorus (µg/L)			
				Vol	Rep	DEQ	Rep
9/13/18	Maston	410764	Kent	11		< 5	< 5
9/13/18	Muskellunge	410765	Kent	10		5	5
9/14/18	Middle	440258	Lapeer	12		8	8
9/14/18	Nepessing	440220	Lapeer	18		12	11
9/6/18	Clear	650042	Ogemaw	4		6	7
9/7/18	Arnold	180107	Clare	8		6	8
9/12/18	Derby	590144	Montcalm	10		10	10

B. 2018 Chlorophyll Side-by-Side samples

Date	Lake	Lake ID	County	Chlorophyll (µg/L)			
				Vol	Rep	DEQ	Rep
7/17/18	Round	460304	Mecosta	0.5		2.1	2.2
6/11/18	Scram	410728	Kent	0.5		1.3	0.5
7/12/18	Upper Hamlin	530074	Mason	3.4		6.4	4.8
7/12/18	Lower Hamlin	530073	Mason	0.5		2.3	0.5
7/16/18	Viking	690136	Otsego	12		4.4	4.6
9/6/18	Clear	650042	Ogemaw	3.4		0.5	
9/13/18	Maston	410764	Kent	0.5		0.5	1.4
9/13/18	Muskellunge	410765	Kent	2.4		1.1	2.3
9/14/18	Nepessing	440220	Lapeer	5.2		2.8	5.0
9/7/18	Arnold	180107	Clare	.5		1.7	2.0

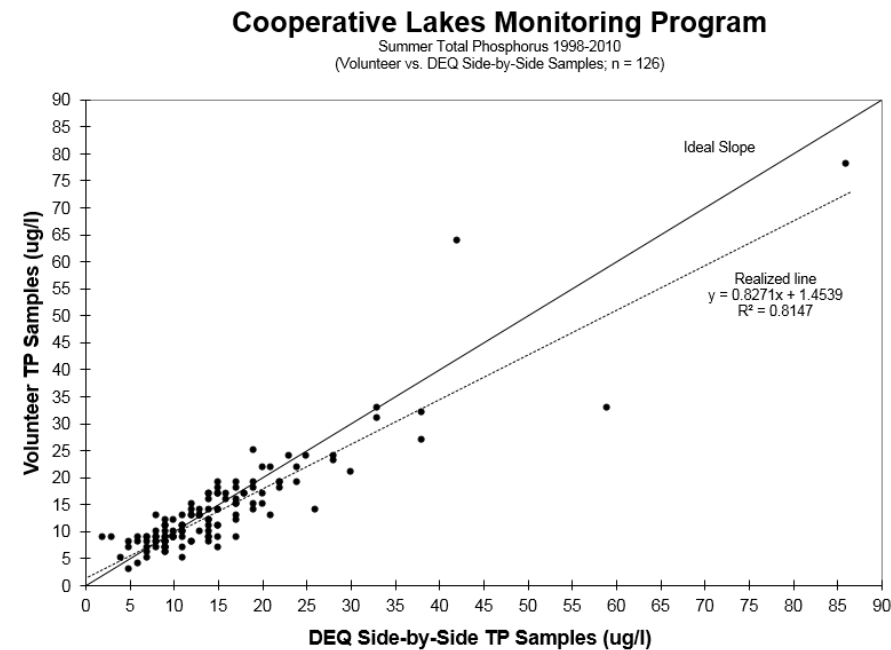
C. Total Spring Phosphorus Side-by-Side Data

1994-2010

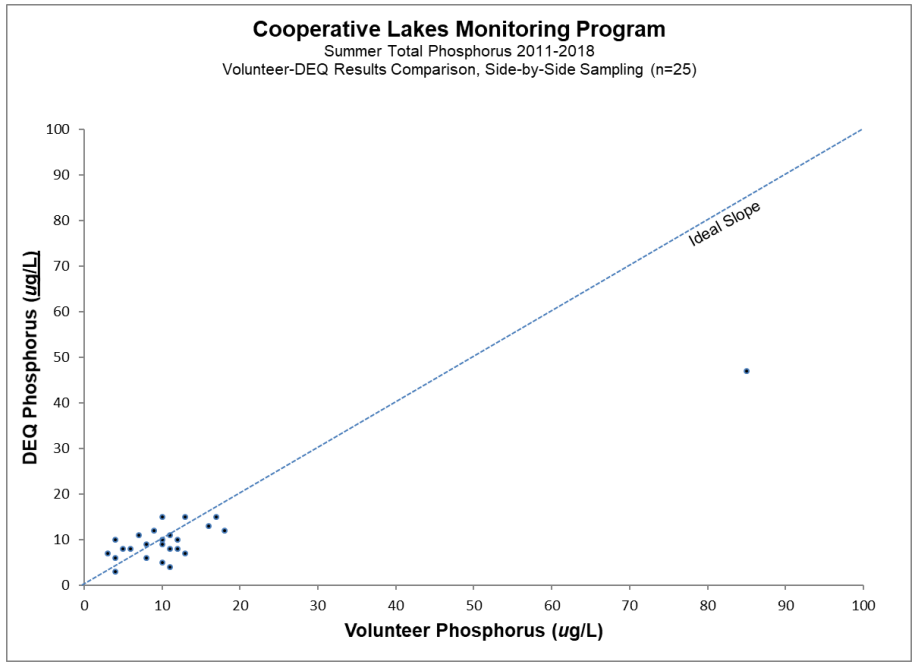


2011-2018: Graph not produced. (Because spring phosphorus is taken quickly after ice out, it is not possible to plan ahead for spring P side-by-sides and these samples are no longer taken).

D. Total Summer Phosphorus Side-by-Side Data



2011-2018

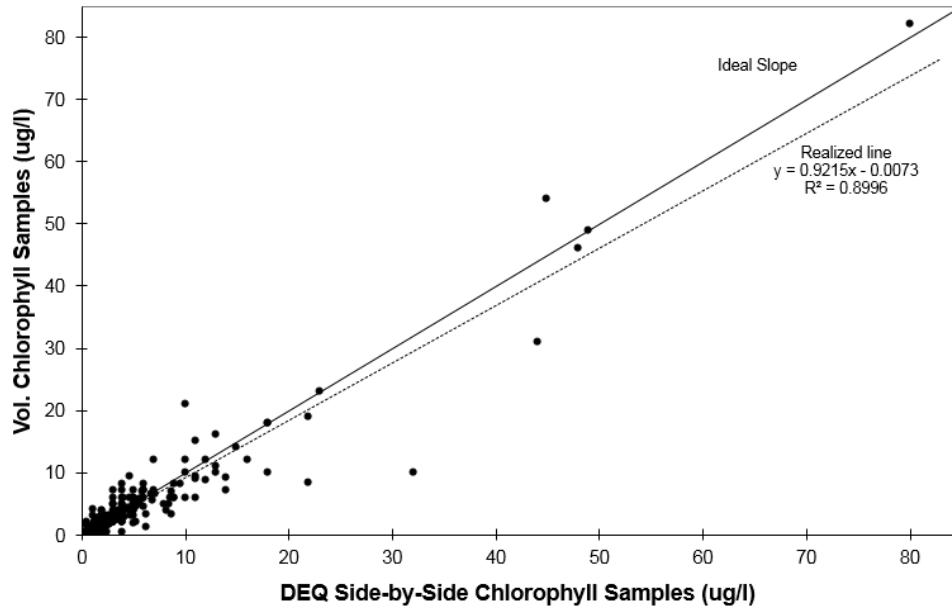


E. Chlorophyll, Side-by-Side Data

1994-2010

Cooperative Lakes Monitoring Program

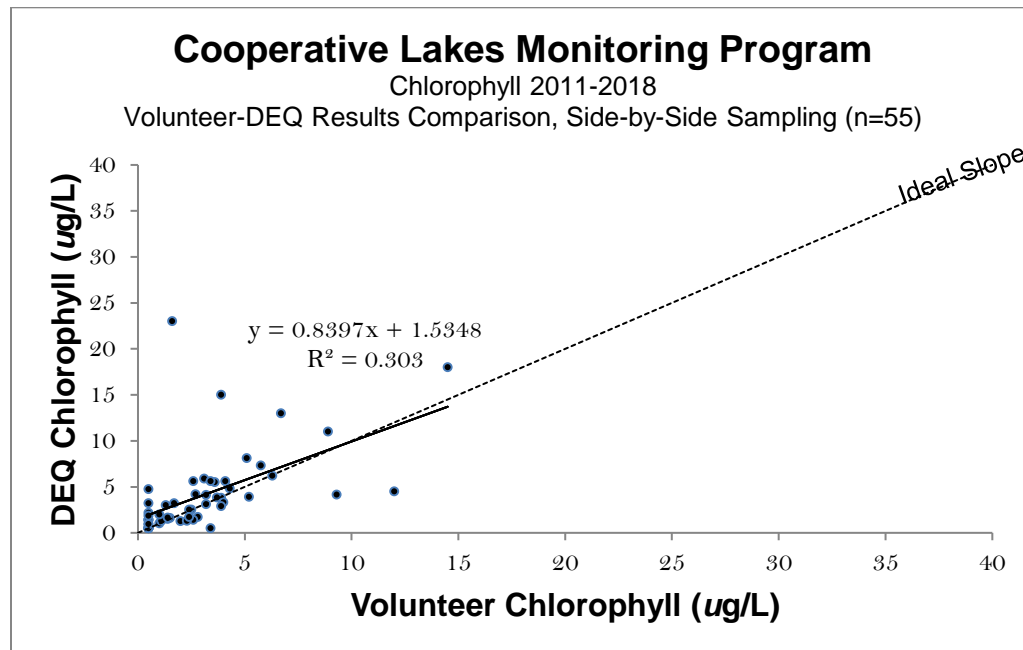
Chlorophyll a 1998-2010
(Volunteer vs. DEQ Side-by-Side Samples, n=198)



2011-2018

Cooperative Lakes Monitoring Program

Chlorophyll 2011-2018
Volunteer-DEQ Results Comparison, Side-by-Side Sampling (n=55)



V. Thank you, CLMP Volunteers!

<u>Lake Name</u>	<u>County</u>	<u>Volunteer</u>
Africa (Big)	Gogebic	Loretta Cornfield
Africa (Little)	Gogebic	Loretta Cornfield
Aginaw	Shiawassee	Richard Kasowski, Jeff Cousins
Angelus	Oakland	Linda Daniels, B.L. Embrey Jr., Steve Presby
Ann	Benzie	David Maxson
Antoine	Dickinson	Connie Jayne
Arbutus # 1,2,3,4,5	Grand Traverse	Robert Johnson
Arcadia	Manistee	Donald Oswell
Arnold	Clare	John Hause
Avery	Montmorency	Lyle Dodson
Avon	Oakland	Gary Beach
Bar Lake (South)	Leelanau	John Peterson, John Collins
Barlow	Barry	Michael Cunningham
Barton	Kalamazoo	Mark Mitchell
Baseline	Livingston	Jon Waitz, Jim Meyer
Bear	Kalkaska	Mike Boss
Bear	Manistee	Charles Wolverton, William Fronk
Beaver	Alpena	Jeff Meyer, Sr.
Bellaire	Antrim	Duane Drake, Christian Stoldt, Norton Bretz, Arthur Hoadley
Big	Gogebic	Loretta Cornfield
Big Star	Lake	Bernard Woltjer
Bills	Newaygo	Ed Waits
Birch	Cass	Paul Fallon, Terry Dugan, Gordon Seyfarth, Rick Russwurm
Bloomfield (West)	Oakland	Jill Forbis
Blue	Mecosta	David Lewis
Blue (Big)	Kalkaska	Neil Barr
Blue (Chancellor)	Mason	Howard Wandell
Blue (North)	Kalkaska	Mary Shaw
Bradford (Big)	Otsego	Gary Johnson
Brendel	Oakland	William Dow, Corey O'Higgins
Bristol	Barry	Ric Rentfro
Brooks	Leelanau	Bruce Lichliter
Brown's	Jackson	Lynn Fredrick
Brush	Newaygo	Luke Cotton
Buckhorn	Oakland	Gisela Lendle King
Buhl	Oakland	Alexander Kriebel
Byram	Genesee	Lawrence Boni, Mark Baynes
Camp	Iron	Gale Cerney, Dennis Cerney
Cass	Oakland	Leslie Clark

Cedar	Alcona	Gary Gross
Cedar	Oakland	Denise Kramer
Cedar	VanBuren	Dave Mason
Cedar Island	Oakland	Jane Moore
Cemetery (aka Middle)	Oakland	Dennis Lietz
Center	Osceola	Harris Iler
Chain	Iosco	Jean Roth
Chemung	Livingston	Virginia Himich, Ryan Hoffecker
Chicagon	Iron	William Rossi
Chief	Manistee	Susan Spencer
Chippewa	Mecosta	Bryan Roels, Paul Phillips
Christiana	Cass	Doug Hansen
Cicso	Gogebic	Loretta Cornfield
Clam	Antrim	Duane Drake
Clark	Jackson	Carolyn Zader
Clear	Jackson	Allen Dyer, Wally Alexander
Clear	Oakland	Sheryl Hugger, Yvonne Dudley
Clear	Ogemaw	David Ball, Kelly Dowd
Clearwater	Gogebic	Loretta Cornfield
Cobb	Barry	Jeff Ulin
Coldwater	Isabella	Charles Walmsley
Corey	St. Joseph	Mary Sue Pollitt
Cranberry	Oakland	Ronald Heady
Crescent	Oakland	Shari Sakall
Crockery	Ottawa	Pat Wolters, Bob Blauwkamp, Dennis Arms
Crooked	Kalkaska	Daryl Allison-Busch
Crooked	Oakland	Alexander Kriebel
Crooked (Big)	Kent	Tom Betts
Crooked (Upper)	Barry	Michael Mutschler, John Hoek
Cross	Oakland	Debbie Marshall
Crystal	Benzie	John Ransom
Crystal	Gogebic	Yvonne Stone
Crystal	Montcalm	Bonnie Kanitz
Crystal	Oakland	Kathalee James
Cub	Kalkaska	Bonnie Isaacs
Darby	Oakland	Rylee Robinson
Deer	Alger	Char McDonnell, Jerry Gerou, Kay Gerou, Bill Dunham
Deer	Oakland	Ken Gill, Fred Daris, Rob Namowlcz
Derby	Montcalm	Thomas Rush
Devil's	Lenawee	Cheryl Zuelke
Diamond	Cass	Robert Clark, Gary Gries
Diane	Hillsdale	Arda Bucher
Dinner	Gogebic	Pat Wendt

Dixie	Oakland	Tracy Stolzenfeld, Mike Mulligan, Ginny Fischbach, Dan Tunnecliffe
Dollar	Oakland	Leslie Clark
Dorner	Manistee	Susan Spencer
Duck	Calhoun	Nanette Hibler
Duck	Muskegon	Thomas Tisue
Duck (North)	Gogebic	Ursula Charaf
Duck (South)	Gogebic	Ursula Charaf, Cherly Pytlarz
Eagle	Allegan	Cary Hamann
Eagle	Cass	Lori Mroczek, James Forlenza
Eagle	Kalkaska	Jane Patterson
Eagle	Oakland	David Hattie
Earl	Livingston	John Hartsig
East Bay	Gogebic	Loretta Cornfield
Elbow	Lake	Susan Spencer
Elizabeth	Oakland	Eric Akkashian, John Green
Ellen	Iron	Michael Finney, Lynn Fleming
Emerald	Kent	Mike Devarenne
Emerald	Newaygo	Becky Walachovic
Evans	Lenawee	Jim Feudi
Farwell	Jackson	Mark Little
Fenton	Genesee	Richard Brown
Fern	Grand Traverse	Treenen Sturman, Kristina Weidenfeller
Fish	Oakland	Kevin Walters
Fish	VanBuren	Connie Selles
Fish Hawk	Gogebic	Loretta Cornfield
Fisher (Big)	Leelanau	Bruce Lichliter, Andy DuPont
Fisher's	St. Joseph	Eric Shafer
Fortune (First)	Iron	Steve Peterman
Fortune (Second)	Iron	Steve Peterman
Fremont	Newaygo	Andy Harrington
George	Clare	Dennis Zimmerman
Gilbert	Oakland	Jim Parker
Glen (Big)	Leelanau	Bruce Lichliter, William Meserve, Mike Litch
Glen (Little)	Leelanau	Bruce Lichliter, John Lund
Gogebic (North)	Gogebic	Mark Gregory, Kent McDonough
Gogebic (South)	Gogebic	Mark Gregory, Kent McDonough
Golden	Iron	Dean Pelkey
Grass	St. Joseph	Carolyn Grace
Gratitot	Keweenaw	Bonnie Hay
Gravel	VanBuren	Greg Garrett
Green	Oakland	George Molnar
Gull	Kalamazoo	Mike Gallagher
Hagerman	Iron	David Gendron

Hamilton	Dickinson	Martin Straka
Hamlin (Lower)	Mason	Bruce Pelletier, Joe Muzzo, Keith Crompton, Wayne Disegna
Hamlin (Upper)	Mason	Bruce Pelletier
Hannah Webb	Iron	Sara Basso
Hawk	Oakland	Gordon Buchanan
Herring (Lower)	Benzie	Mark Smith
Herring (Upper)	Benzie	William Henning, Dave Long
Higgins (North)	Roscommon	R.J. Bolzman
Higgins (South)	Roscommon	R.J. Bolzman
Highbanks	Newaygo	Luke Cotton
Hoags	Mason	Susan Spencer
Horsehead	Mecosta	Bob Forche
Huff	Oakland	Richard Hanes
Hunter	Gladwin	Kathryn Haughton
Independence	Marquette	Sarah Heuer
Indian	Gogebic	Loretta Cornfield
Indian	Kalamazoo	John Wilks, Jeff Schimp, Michael Gildea, Tom Kolwalski
Indian	Kalkaska	Ed George
Indian	Osceola	Andy Tomaszewski
Indianwood	Oakland	Todd Rachel
Isabella	Isabella	Michael Scherba, George King, Gary Clark
Island	Grand Traverse	John Mater
Island (Little)	Iosco	Karl Jacob
Juno	Cass	Doug Hansen
Kelsey (Big)	Cass	Kim Andrews
Kelsey (Little)	Cass	Kim Andrews
Klinger	St. Joseph	Mike Needham, Julie Stutesman
Lake 16	Oakland	William Maass
Lake of the Woods	Manistee	Susan Spencer
Lakeville	Oakland	Jeffrey Banaszynski
Lancelot	Gladwin	Tim Stegeman, Jac Groppuso
Lancer	Gladwin	Tim Stegeman, Jac Groppuso
Langford	Gogebic	James Donlan
Leelanau (South)	Leelanau	Jeff Sanborn
Lindsley	Gogebic	Loretta Cornfield
List	Lake	Susan Spencer
Long	Gogebic	Arnold Domanus Jr.
Long	Grand Traverse	Len Klein
Long	Iosco	Christopher Tyll
Long	Oakland	Laurence Gavin, Collin O'Dea
Long	Oakland	Denise Kramer
Long (Cloverdale)	Barry	Doug Bamfield, Ken Chandler, Shannon Bassette, Chris Lapins
Long (Little)	Barry	John Etcorn

Long (Upper)	Oakland	Ron Cousineau
Loon	Iosco	Patsy Mortimer, Rowan Hood, Jennifer Karas
Loon	Oakland	Robert Locher
Lost	Oakland	Benjamin VanderWeide
Lotus	Oakland	Marilyn Meritt
Louise	Dickinson	Martin Straka
Louise	Oakland	Dwight Woodbridge
Maceday	Oakland	Marilyn Merit
Maggie (Big)	Iron	Robert Willing, Dale Gunville
Maggie (West)	Iron	Robert Willing, Alfred Pieper, Bruce VanEnkerort
Magician	Cass	Mick Braman
Mamie	Gogebic	Loretta Cornfield
Manitou	Shiawassee	Fred Farkas, Charlie Jones
Margrethe	Crawford	Sandra Michalik, Joe Porter
Marl	Oakland	Sherri Ruth
Mary	Dickinson	Martin Straka
Mary	Iron	Paul Dalpra, Emil Kezerle
Maston	Kent	Jon Wilford, Fred Jensen, Jerry Bukoski, Susan White
Mecosta	Mecosta	David Lewis
Middle	Lapeer	Chris Powers
Middle Straits	Oakland	Alan Proulx
Moon	Gogebic	Dale Sharpee, Robert Turnquist
Morley	Gogebic	Loretta Cornfield
Mud	Oakland	William Dow
Murry	Kent	Alan Rumbaugh
Muskellunge	Kent	Jon Wilford
Nepessing	Lapeer	Robert VanDenBrouck
Neva	Oakland	Corey O'Higgins
North	Washtenaw	Richard Frendt
Oakland	Oakland	Richard Sabina
Ona	Oakland	Michael Jensen
Opal	Otsego	Robert Baroni
Ore	Livingston	Kurt Richardson
Orion	Oakland	Michael Kellar
Osterhout	Allegan	Chuck Pugh
Ottawa	Iron	David Gendron
Otter	Oakland	Deborah Emmer, Kim Yelp
Owasippe	Muskegon	Steve Pierce
Oxbow	Oakland	Richard Walklet
Painter	Cass	Doug Hansen
Papoose	Kalkaska	Eldonna May
Park	Clinton	Nola Parkey
Paw Paw (Little)	Berrien	Patricia Nelson

Payne	Barry	Linda Davis
Pentwater	Oceana	Joe Primozich, Bill Bainton, George Richey, Malcolm McCaleb
Perch	Iron	Jim Novitski
Perch	Otsego	Mary Tate Bremigan, Bob Peckham
Perrin	St. Joseph	Stan Grove, Bob Schwartz
Pickerel	Kalkaska	Paul Curell
Pine	Manistee	Susan Spencer
Pine Island (Big)	Kent	Cristal Belk, Scott Demeyer
Platte (Big)	Benzie	Maris Ziemelis
Pleasant	Oakland	Tanya Sharon
Pleasant	Washtenaw	Lon Nordeen, Catherine Roberts
Pleasant	Wexford	William Miner
Pontiac	Oakland	Bodo Lux
Poor	Gogebic	Loretta Cornfield
Portage	Livingston	Jim Collins
Portage (Big)	Jackson	Carmen Burgess
Portage (Big)	St. Joseph	Carolyn Grace, Carol Higgins
Portage (Little)	Livingston	Craig Kivi
Porter	Iron	Dennis Paulin
Posey	Lenawee	Terry Mohler
Puterbaugh	Cass	George Purlee
Rainbow	Oakland	Colleen Davison
Ranger (aka Townline)	Otsego	Curt Horvath
Record	Gogebic	Loretta Cornfield
Rennie	Grand Traverse	Susan LaRose
Round	Lenawee	James Martin
Round	Mecosta	David Lewis
Round	Oakland	Colleen Schmidt, Sue Whalen, Steve Flora
Round	Oakland	Paulette Wcisel, Brian Norloch
Sand	Mason	Susan Spencer
Sanford	Benzie	Dennis Curtice
Sanford	Midland	Jon Morse
School Section	Mecosta	Don Swanson
Scram	Kent	Randy Kaja
Sears	Oakland	Michael LaLonde, Stephen McKenzie
Selkirk	Allegan	Barbara Muth
Seymour	Oakland	David Wilson, Robert Devore
Shavehead	Cass	Jack Delee, Jeff Downing, Steve Cramer
Sherwood	Oakland	T.J. Gurski
Shingle	Clare	Dennis Zimmerman
Silver	VanBuren	Ronald Kreiger
Silver (Green Oak)	Livingston	Dale French
Spider	Grand Traverse	Robert Akins

Square	Oakland	Margaret Remer
Squaw	Kalkaska	Mitchell LaClaire
Squaw	Oakland	Cindy Wright, Glenn McTaggart, Thomasina Kay Collins
Stager	Iron	Thomas Madden
Starvation	Kalkaska	Sharon Roeck
Stone Ledge	Wexford	Mark Lynes
Stony	Oceana	John Stivers
Straits (Upper)	Oakland	Doug Cooper, Jim Cherfoli, Bob Haase
Sunset	Iron	Yvonne Andersen
Susin	Oakland	Steven Vaughn, John Opie, Keith Jones, Lawrence Ziehr
Swan	Iron	Thomas Ollila
Sylvan	Newaygo	Becky Walachovic
Sylvan	Oakland	Deborah Emmer
Tamarack	Livingston	Jim Meyer
Tan	Oakland	Denise Kramer
Taylor	Oakland	Charles Pilar
Theresa	Oakland	Alicia DiGirolamo
Thousand Island	Gogebic	Loretta Cornfield
Three Mile	VanBuren	Michael Versalle
Tie	Alger	Joanne Saari
Timmerman	Manistee	Susan Spencer
Torch (North)	Antrim	Duane Drake
Torch (South)	Antrim	Duane Drake
Townsend	Oakland	Mark Pelkey, Jill Nagi
Tull # 1	Oakland	Joe/Char Jereckos
Tull # 2	Oakland	Gerald Bronersky
Twin	Oakland	Benjamin VanderWeide, Tom Korb, Alex Korb
Twin (Big)	Kalkaska	Marv Kingsley, Jason Broekstra
Twin (East)	Montmorency	John Jackson
Twin (Little)	Kalkaska	Ellen Whitehead
Twin (West)	Montmorency	Ron Compton
Tyrone	Livingston	Jeff Connors
Union	Oakland	Lea Ann Coldren
Van Etten	Iosco	Daniel Stock, Joseph Plunkey, Doug Jager, Lee Mertz
Viking	Otsego	Kent Murray
Vineyard	Jackson	Roger Gaede
Vorheis	Oakland	William Maass
Wahbememe	St. Joseph	Victor Raul, Mike Zander, Jon Amendola
Wall	Barry	Alan Freid
Walled	Oakland	Blair Still
Walnut	Oakland	Katie Parker
Walter's	Oakland	Don Mattise
West Bay	Gogebic	Loretta Cornfield

White	Oakland	Frank Dyson
White (East)	Muskegon	Thomas Tisue
White (West)	Muskegon	Thomas Tisue
Whitewood	Livingston	Diane Tryon
Willow	Oakland	Laurie Orlando
Winslow	Iron	J. Mark Klink
Wolf	Lake	Don Klobucar
Woodhull	Oakland	Jeff Quinn
Woodruff	Oakland	Scott Weickel, Dan Boyd
Woods	Kalamazoo	Steven Clark, Frank Wolf, Heidi Berven

VI. Thank You Sample Collection Center Staff!

These individuals help with the logistics of collecting samples, mailing them to Lansing, and distributing and collecting Dissolved Oxygen meters.

Beth Anderson
James Caron
Kristina Coffey
Debra Frazier
Greg Goudy
Martin Hendges
Sonya Hudson
Nicole McIntyre
Deana Mercs
Amanda Nelson
Deana North
Lindsay Peterson
Jeff Pytlarz
Lucy Robinson
Jean Roth
Crystal Smith

VIII. CLMP Contacts

Questions about enrollment or monitoring equipment:

Jean Roth
Michigan Lake Stewardship Associations, Inc.
989-257-3715, jroth@mlswa.org

Questions about aquatic plants or sample turn-in for any parameter:

Dr. Jo Latimore
Michigan State University
517-432-1491, latimor1@msu.edu

Questions about Dissolved Oxygen/Temperature meters or side-by-side sampling:

Marcy Knoll Wilmes
Michigan DEQ
517-342-4348, KnollM@michigan.gov

Questions about data entry or getting a login/password for the MiCorps Data Exchange:

Laura Kaminski
Great Lakes Commission
734-971-9135, midata@glc.org

Questions about data results and interpretation or anything else:

Dr. Paul Steen
Huron River Watershed Council
734-769-5123 x601, psteen@hrwc.org