

COOPERATIVE LAKES MONITORING PROGRAM for 2009 - DESCRIPTION OF MONITORING PROJECTS

	VALUE OF PARAMETER MEASURED	ENROLLMENT LIMITS	ENROLLMENT CUTOFF DATE	LAKE SELECTION PROCESS	EQUIPMENT AND OTHER NEEDS	TRAINING REQUIRED
SECCHI DISK TRANSPARENCY	Water clarity is measured by lowering an eight inch, black and white disk into the water until it disappears. Measurements are taken weekly or every other week from mid-May until mid-Sept.	There is no limit on enrollment.	May 1st	All lakes enrolled by the cutoff date.	A Secchi disk and measuring line. The disk may be built or purchased from ML&SA.	Training is provided at the ML&SA annual meeting. This training is recommended but not required. Participants are provided with written sampling procedures.
SPRING TOTAL PHOSPHORUS	The greater the phosphorus concentration in a lake the more weeds and algae produced. Most lake management programs are designed to reduce phosphorus going into the lake. Spring is a good time to measure phosphorus in a lake, because the lake is entirely mixed.	250 lakes	March 1st	The first lakes enrolled	Sample bottles provided by MDEQ. Since samples are taken 2 weeks after ice out a boat and volunteer sampler must be available in early spring.	Training is provided at the ML&SA annual meeting. This training is recommended but not required. Participants are provided with written sampling procedures.
SUMMER TOTAL PHOSPHORUS	Summer total phosphorus along with chlorophyll and Secchi dish transparency are used in the Carlson Trophic State Index to measure and evaluate the quality of lakes.	250 lakes	May 1st	The first lakes enrolled	Sample bottles provided by MDEQ. As with spring phosphorus, samples must be delivered to MDEQ collection centers.	Training is provided at the ML&SA annual meeting. This training is recommended but not required. Participants are provided with written sampling procedures.
CHLOROPHYLL	Chlorophyll is a green pigment in plants. When measured in lake water it is a indication of the amount of algae in the water. Higher phosphorus concentrations in the water produce more algae which reduces water clarity.	175 lakes	April 1st	The first lakes enrolled. Lakes must also be enrolled in Transparency and total phosphorus projects	Composite sampler bottles and filtering equipment must be purchased. (see the application form). Sample bottles provided by MDEQ.	Training is required to participate in this project. Training is provided at the ML&SA annual meeting usually held the last week of April.
DISSOLVED OXYGEN & TEMPERATURE	During the summer, lakes with a depth of 25 feet or more will stratify into 3 layers. Each layer has unique oxygen and temperature properties. In many lakes the oxygen in deep water may be completely lost. Fish will not live in these waters and chemical changes will occur that can impact water quality in the upper layers.	55 lakes	March 15th	Lakes are selected based upon their location to other lakes enrolled. Four or five lakes located near each other share one meter.	A dissolved oxygen and temperature meter is loaned to the volunteer samplers by the MDEQ or ML&SA.	Training is required to participate in this monitoring project. Training is provided at the ML&SA annual meeting usually held the last week of April.
AQUATIC PLANT MAPPING (FULL PROGRAM)	Plants are essential to lakes but sometimes they can become to abundant and cause recreational problems. Some plants like the exotic invaders Eurasian milfoil and curlyleaf pondweed, can be particularly serious problems.	5 lakes	April 1st	The first lakes enrolled	Volunteer samplers must build plant collection rakes and have other supplies.	Training is required to participate in this project. Training is provided at the ML&SA annual meeting usually held the last week of April.
AQUATIC PLANT MAPPING (EXOTIC PLANT WATCH - PILOT PROGRAM)	Plants are essential to lakes but sometimes they can become to abundant and cause recreational problems. Some plants like the exotic invaders Eurasian milfoil and curlyleaf pondweed, can be particularly serious problems.	20 lakes	April 1st	The first lakes enrolled	Volunteer samplers must build plant collection rakes and have other supplies.	Training is required to participate in this project. Training is provided at the ML&SA annual meeting usually held the last week of April.