

Crystal Lake Association

Since 1932, working for the preservation and improvement of Crystal Lake and its watershed for future generations.

Spring Schedules Arrival At Crystal Lake

Crystal Lake Association Officers & Directors

President

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Vice-President

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Term Expires 2005

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Gerrit Bakker

Term Expires 2003

John Bird

Term Expires 2004

Peter Chris Mason Jr.

Term Expires 2005

Amy Meinhardt

Term Expires 2005

Rena Ray

Term Expires 2005

Phil Woodruff

Term Expires 2004

Dennis Woodworth

Term Expires 2005

Articles

SUMMER SURVEY 2002

On August 14, 2002 AAT Labs Inc. of Grand Rapids, Mi. performed the summer sampling events on Crystal Lake. At the time of the sampling the weather conditions were sunny with an approximate temperature of 72°F, over an inch of rain had fell in the previous 24 hours. The results are as follows:

Temperature and Dissolved Oxygen profile at the Central Basin.

Temperatures and oxygen reading were taken from the surface down to the 50 ft. level. Temperature was registered at (°C [1°F]), and Dissolved Oxygen (mg/L).

At the surface location the temperature was 24.0 or 75°, with dissolved oxygen at 10.6. See the following sampling readings:

Depth	Temperature	Dissolved Oxygen
10 ft	24.0°	10.4
20 ft	22.5°	8.2
30 ft	14.0°	0.0
40 ft	12.5°	0.0
50 ft	12.0°	0.0

Nutrient Data- Central Basin

All sampling was taken at the Central

Basin with measurements registered at the 10 foot depths, in various depths from 10 - 50 foot. Nutrient levels measured were Nitrogen-Nitrate (mg/L) and Total Phosphorus (mg/L).

Depth	Nitrogen-Nitrate	Phosphorus
10 ft	0.33	<10
20 ft	0.31	<10
30 ft	0.32	20
40 ft	0.32	20
50 ft	0.31	40

Transparency and Chlorophylla Central Basin Sampling

Transparency (feet)	Chlorophyll-a (ug/L)
	10.5
feet	1.69

Conductivity and pH Data

	Conductivity (Uhoms/cm)	pH (units)
Surface	336	8.7
10 ft	331	8.7
20 ft	333	8.6
30 ft	386	7.7
40 ft	391	7.6
50 ft	999	7.6

Fecal Coliform Count Central Basin

(#/100 ml)
Central Basin Surface 0 parts

Plankton Identified

Phytoplankton:

Chlorophyta (Green Algae) - 8 types
Pyrrhohyta (Dinoflagellates) - 2 types
Chrysophyta - 5 types
Cyanophyta (Blue-Green Algae) - 4 types
Chrysophyceae (Chrysophytes) - 1 type

Euglenophyta - None Observed

Zooplankton:

Cladocera - Daphnia
Copepod - Calanoid & Cyclopoid
Rotifer spp

CONCLUSION:

Overall I am pleased with the way the summer data looks for Crystal Lake. Nutrient levels for the most part have remained low. Total phosphorus levels look better than the August 2001 sample, where the phosphorus levels ranged from 30 to 40 ug/L throughout the water column. This year's pattern of increasing phosphorus concentration as depth increases is more typical of a lake that experiences thermal stratification. Transparency and chlorophyll-a also improved from the 2001 sampling. However, the difference could easily be the result of the *Microcystis* bloom Crystal Lake was experiencing during the 2001 summer sampling event, which would decrease transparency and increase in the chlorophyll-a concentration.

I am more encouraged about the new sampling schedule the Lake Association has decided on after reviewing the data from this summer sampling event. I think with spring and fall grab samples and summer profile sampling we will have a good handle on any shifts in Crystal Lake's water quality.

Submitted By:
Brian Weiden
Aquatic Biologist

Note: Brian Weiden will be attending the Annual CLA Members Meeting July 5th to explain the testing program and answer any questions.

All analysis are in accordance with "Standard Methods For Analysis Of Water & Wastewater", 19th

Edition 1995 and EPA Approved Methodologies.

NEIGHBORHOOD WATCH PROGRAM

Origin & Purpose

In the fall of 2002 a group of Crystal Lake residents responded to a call from Carol Tomlin to come together to form a Neighborhood Watch Program. The call was issued to the Crystal Community as a response to increasing property crimes and the absence of Police protection for the area. Those who responded to the call resided in the west and southwest corner of Crystal Lake.

At the first meeting in October of 2002 it was confirmed there was a need for a Neighborhood Watch Program. The mutual purpose was to address fire safety home invasion and security. Other benefits included are how to report to and be in touch with neighbors, law enforcement and emergency medical personnel for concerns of personal health and well being of the participants.

Meetings take place once a month at various volunteers members homes. The meeting are facilitated by Montcalm Sheriff Deputy Steffanie Clark and Carol Tomlin, a full time resident residing on Crystal Lake. Topics presented and discussed range from suspected crime reporting to CPR training. Other topics have included drug awareness education, a K-9 demonstration and how the Emergency Medical Response system operates.

You are cordially invited to attend the next *Neighborhood Watch* or any future meeting. Perhaps you may have questions on what, why and how. Please call Carol Tomlin at (989) 235-6377 or Buck Last at (989) 235-4065 to learn time, date and location of the next meeting. It is hoped that other *Neighborhood Watch Programs* will develop in Crystal Township.

W. "Buck" Last

COUNTY POLICE COVERAGE WORKING WELL FOR CRYSTAL

CARSON CITY GAZETTE

**By ELISABETH WALDON,
Gazette editor**

Four months after Crystal Township's police chief resigned, Montcalm County Deputy Mike Kotenko began patrolling the township in December.

"While the township will need to hire additional temporary help for the extra summer traffic in Crystal, everyone appears satisfied with Kotenko's performance."

"I haven't heard anything bad so that's good news," said Montcalm County Sheriff Bill Barnwell. "Mike has been really busy, doing a whale of a job. Everything that I've heard is positive. Mike is familiar the area over there and he's worked on lake patrols for many years."

Crystal Township signed an agreement with Montcalm County Sheriff's Office for a deputy who would answer to the sheriff. The township pays the county \$65,000 a year. The contract is good for one year with a six-month review coming up soon.

"As far as I know he seems to be doing quite well," Crystal Supervisor Bill Powell said of Kotenko. "I really haven't had any complaints."

The arrangement reduces administrative headaches and eliminates automobile upkeep, benefits, expenses and other costs formerly associated with operating the police department.

They have a need especially in the summer months, for additional patrol, with the crowds and the summer (events) over there," Barnwell said. "We plan on probably talking to them (the board) sometime before June 1, I hope, to determine what they want to do and schedule a meeting."

Powell said the township has banded together to play a part in keeping the neighborhood safe.

I do know that they stated a Neighborhood Watch in Crystal," he said. I thought it was a good idea. It's basically more for the town where the houses are close together."

(As reported in the Carson City Gazette, Monday, April 7, 2003 Edition.)

VILLAGE PROJECT UPDATE

Vision

To improve the quality of life for the residents in and around the small urban area of Crystal Lake and to establish a better focus on economic development for the area, business district and protect the significant natural resources in the community.

Goals

Gain greater influence over taxation, road maintenance, zoning, traffic safety and general public health and welfare issues and develop a stronger focus for supporting the business district and lake area.

Objectives

Establish Home Rule form of Village Government and seek approvals by the State Boundary Commission.

Status of the Project Timeline for Forming a Village Updated April 7, 2003

TASK FORCE FORMATION & PREPARATION
(Completed)

PUBLIC COMMUNICATION & EDUCATION
(Completed)

PREPARE PETITION FOR BOUNDARY
COMM.
(Completed)

PREPARE MAPS FOR BOUNDARY COMM.
(Completed)

CIRCULATE PETITION FOR SIGNATURE
(In Process)

FILE PETITION W/STATE BOUNDARY
COMM (To Be Completed)

PUBLIC HEARING CONDUCTED BY

BOUNDARY COMMISSION
(To Be Completed)

BOUNDARY COMMISSION ADOPTS FINDING
(To Be Completed)

DIRECTOR OF DEPARTMENT OF CONSUMER &
INDUSTRY SERVICES ISSUES ORDER
(To Be Completed)

ADOPTION OF CHARTER
(To Be Completed)

ELECT (9) CHARTER COMMISSIONERS
(To Be Completed)

CHARTER REVIEW ER & APPROVED BY
GOVERNOR (To Be Completed)

We will begin the petition drive as soon as the maps are approved for legal sufficiently. We anticipate that being accomplished this month

Written By: *John Bird*
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ECO-FRIENDLY BOATING

Clean water is the foundation for enjoyable boating; every action from an individual boater has a major impact on the water, marine life the near shore and shoreline ecosystem and inhabitants. Some boating activities that impact the environment are: boat sewage, litter, and fish waste disposal; fueling and bilge care; boat repair and maintenance; engine servicing, hull cleaning and painting; and boat operation.

As you implement pollution prevention ideas, you and your fellow boaters will identify more ideas. Your success is only limited by your willingness to try something different, and the payoff could become immense!

→ Separate paper, metals glass, plastics , cardboard, shrink wrap and other recyclables from solid waste and implement a recycling program. Debris such as plastics can choke and suffocate aquatic life such as fish and turtles. Don't litter land or water.

→ Participate in a hazardous waste collection program include antifreeze, paint, thinner, oil, oil filters, bilge water, batteries, gasoline, fluids, solvents, and oily rags. Never pour hazardous materials down the drain, on the ground, or into the surface water.

→ Use drip pans or trays when changing fluids or working on engines. Keep motors finely tuned to increase fuel efficiency, reduce consumption, and discharge fewer pollutants into waterways. Prevent boat repair waste from contaminating storm water runoff.

→ Use a phosphate-free, biodegradable cleaning agent. Nutrients such as phosphorus and nitrogen contribute to algae blooms and nuisance plant growth, making lakes and streams harmful to fish and limiting boating and other water recreation activities. Careful use of cleaning substances is essential to keep them from entering the surface water. Avoid cleaners that emulsify or contain phosphates, ammonia, chlorine, caustic soda, surfactant, or potassium hydroxide; and eliminate in water cleaning. Read the labels and be aware of what they mean.

→ Properly maintain the engine; use non-toxic bilge cleansers. Control accidental losses of oil or other polluting materials. One quart of oil can contaminate up to two million gallons of water.

→ Zebra mussels, ruffe, spiny fleas, and Eurasian milfoil are four destructive and aggressive invader species looking for a ride to a new lake or stream. People, boats and fishing gear easily transport these pests. Prevent the spread of exotic species which cause severe habitat alteration and degradation, with thorough inspection of your boat and fishing gear, Clean all mud and plant debris from your boats hull, trailer, propeller and motor, bilge, live well, and anchors before

- leaving the boat launch. Boat wakes contribute to shoreline erosion and can stir up bottom sediments reducing light essential to submerged aquatic vegetation. Stirring up sediment will cause the water to become cloudy, or turbid, damaging fish gills and making it difficult for fish and aquatic insects to see, breathe, and feed properly. Avoid wakes by reducing boat speed at an appropriate distance from the shore.
- Use suitable facilities for fish wastes. Recycle fish wastes by using in compost and gardens. State regulations prohibit the dumping of fish waste into surface waters.
- Pet wastes left on the ground are carried away by storm water, contributing harmful bacteria, parasites, and viruses to our waters. Therefore insure that all pet wastes are cleaned up properly.

For further environmental information, contact the Michigan Department of Environmental Quality.

Web site: www.deq.state.mi.us/ead

EURASIAN WATERMILFOIL WATCH

Eurasian Watermilfoil is a feathery submerged aquatic plant that can quickly form thick mats in shallow areas of lakes and rivers in North America. These mats can interfere with swimming and entangle propellers, which hinders boating, fishing and water fowl hunting.. Heavy infestations may reduce property values. Matted Watermilfoil can displace native aquatic plants, impacting fish and wildlife.

Since it was discovered in North America in the 1940's, Eurasian Watermilfoil has invaded nearly every U.S. state and at least three Canadian provinces. Eurasian Watermilfoil spreads when plant pieces break off and float on water currents. It can cross land to new waters by clinging to sail boats, personal watercraft, power boats, motors, trailers

Properly dispose of collected and fishing gear. Eradicating established infestations is vital for preventing their spread.

WHAT CAN YOU DO

- ☞ **Learn** how to identify Eurasian Watermilfoil
- ☞ **Inspect** and remove aquatic plants and animals from boat, motor, and trailer
- ☞ **Drain** boat or river water from livewell and bilge.
- ☞ **Dispose** of unwanted live bait in trash.
- ☞ **Rinse** boat and equipment with high pressure hot water (104° F), especially if moored for more than a day, OR
- ☞ **Dry** everything for at least 5 days.
- ☞ **Report** any new sightings — note exact location; wrap a plant fragment in a wet paper towel, place in a sealed plastic bag; and call the Michigan Sea Grant Program in East Lansing, (517) 353-9748 or in Marquette (906) 228-4830; or the U.S. Fish and Wildlife Service in Alpena (989) 356-4056; or Michigan Dept. of Environmental Quality in Lansing (517) 335-4056; the local DNR fishery office.

Please notify your CLA Water Committee Person, Carol Tomlin at (989) 235-6377 and inform her of your sighting, location and etc.

REMINDER: Know the Rules.

Specimens are needed to confirm sightings, but some jurisdictions prohibit or discourage possession and transport of Eurasian Watermilfoil and other invasive aquatic plants and animals. Contact your local natural resource management agency for instructions. Unauthorized introduction of plants or fish into the wild is illegal. Protect your property and our waters.

material.

SPRING AND SUMMER WISHES

The Directors and Officers of the Crystal Lake Association wishes a very safe and happy summer to all.