

May 28, 2009 -

Dear Neighbors,

Happy Spring. Hope you all had a good winter, we know we all are waiting for summer.

We hope that you will attend our Annual Meeting - we have several important issues to ponder.

After several meetings last fall, it has become clear that DNR is discouraging treatment of Flowering Rush on our lake (and others). They have greatly increased obstacles for treatment, and seem bent on limiting the extent of treatment. Current plans call for greatly escalating permit fees. Lake Detroiters must be in the forefront of efforts to overcome this opposition.

The Highway 10 Overlook area is to be the focus of a major "restore the shore" project by several cooperating partners (including Lake Detroiters). LDA will contribute money and volunteers.

Becker County COLA has been reorganized and rejuvenated. Comprised of 28 lake associations, representing almost 3000 lakeshore residents, COLA can be a powerful ally in pursuing Lake Detroiters' mission.

These and other important topics will be a part of discussions during our annual meeting to be held. June 27 at 10 AM at the Holiday Inn in the Pelican Room. Coffee and rolls will be served beforehand.

And, remember, we always want new members. Some lake associations have 90-95% representation from residents – Lake Detroiters has only 30%. Please encourage your neighbors to attend the meeting (and join the organization).

Sincerely,

Dick Alsop President

Lake Detroiters

ANNUAL MEETING

Saturday, June 27

9AM - Rolls n' Coffee

10AM - Meeting

Clubhouse (Pelican Room)

Lake Detroiters' Mission

"to promote the protection and enhancement of Detroit Lakes water quality"

The current board seeks to accomplish the Lake Detroiter's mission by...

- providing information about water quality in general, and those processes which impact the water quality of Detroit Lakes in particular, to Lake Detroiters members, other Detroit Lakes residents
- promoting the adoption and consistent enforcement of zoning laws, regulations and policies aimed at improving water quality of Detroit Lakes,
- undertaking and supporting measures which improve water quality in Detroit Lakes
- promoting a strong Lake Detroiters Organization

2009-2010 Board of Directors

President: Dick Alsop 847-3790

Vice President:

Secretary: Ruth Olson

Treasurer: Renee Alsop 847-3790

COLA Rep: Dick Alsop

Board Members: Carl Fingalson, Ginny Imholte, Bev Dobrenski, Laurie Olson, Wayne Olson,

Dick Hecock, Lyle Dahl, Rick Kalinoski, Ed & Vicky

Welke

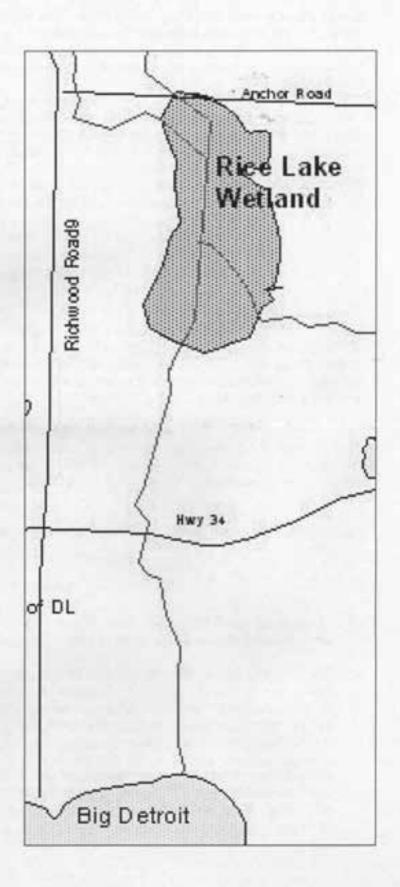
Rice Lake Project Update

In 1913 a ditch was constructed along the course of the Pelican River from Little Floyd Lake to Big Detroit. A major component of this largely failed project was the partial drainage of Rice Lake. The remnant, located about 2.5 miles north of Big Detroit is a 900 acre wetland complex.

As early as the 1970's the PRWD was aware that elevated nutrient levels were being discharged from the Rice-Lake wetland. Such nutrient problems are known to be associated with ditched wetlands in other parts of the state, and have to do with complicated chemical interactions between the water, oxygen and sediments, as well as the flushing effects promoted by the ditching.

After detailed studies of area, and the options, the PRWD decided to proceed with some measures that will partially restore Rice Lake and adjacent wetlands. The project will retard flows through the wetland system, and spread water more broadly into the adjacent wetlands. It is believed that this approach will significantly reduce downstream discharges of orthophosphorus, an important culprit in causing deteriorated water quality.

The project will entail construction of two low dams. Currently District officials are in the middle of a process of acquiring flood easements from property owners in the Rice Lake area. The construction of the dams and the replacement of Anchor Road will begin soon after obtaining the flood easements.



Welcome Back Snowbirds

It was a wet and cold winter. Thirty-three inches of precipitation fell in 2008, that's about nine inches more than the long-term average. But the real news is the 15 inches that fell between October and April – in addition to lots of rain, there was almost 70 inches of snowfall. December set a record, and we had another episode of late-winter snowfalls, with thirteen inches of the heavy wet stuff at the beginning of April.

And December and January were pretty cold, both below average. There were 60 days with below-zero lows, and four days with low temps in the minus-30's. On 12 days the high temperature was below zero. So much for the balmy winters of the last ten years.

But it was an average ice year. Ice left the lakes on April 23rd, only three days later than average. The freeze-up date was also a a few days later than average, so the ice-duration was pretty normal.

A Very Clear Lake?

Clarity is one of the important indicators of water quality. As lakes deteriorate, clarity suffers, so obtaining lake water clarity readings on a weekly basis permits a judgment of the current water quality of the lake as well as trends. In order to give a reliable indication of average clarity for a season. In most years, Volunteers and PRWD staff have obtained many readings on Big and Little Detroit, though we lack a good historic record for Curfman.

Last spring Detroit Lakes was exceptionally clear. The clear phase extended through June and betterthan-average conditions extended through July. The 26 feet recorded on June 1st was the highest recorded in 15 years of observations. While in late July and August clarity declined a bit, the season-long average at 12.8 feet was the best number in a 28-year record dating back to the early 1970's.

We are starting off well in 2009 too. We have already had a couple of readings at around 25 feet for Big Detroit.

Dying Fish?

Once again there have been some resident concerns about dead fish on the shorelines of Big and Little Detroit; large numbers of panfish, and even some northern pike have been reported.

The Minnesota DNR says that the die-off is quite a normal phenomenon which occurs on many lakes. It seems that a bacteria, Chondrococcus columnaris, is widespread and persistent among fish populations in our area. It causes a disease, called Columnaris, mostly affecting fish in the spring, when water temperatures rise quickly and the fish are spawning. There is no practical cure for the disease.

While it may appear that huge numbers of fish have died, fish populations are usually not significantly depleted from *Columnaris*. Gamefish from a lake having experienced die-offs may be eaten so long as they are normal in appearance and behavior, according to the DNR.

BE SURE TO OBSERVE SLOW-NO WAKE SIGNS AND STEER CLEAR OF MARKED SWIMMING AREAS

Boating Checklist:

(check to make sure you are in compliance - DNR does!)

- Current license placed correctly on boat/pontoon
- Boat lights must be used between sunset and sunrise
- · horns that work (boats over 16 feet)
- Throw cushion required in each boat
- Life jackets for each passenger in the boat (recent regulatory change allows use of inflatable life-jackets in some instances) – life jackets must be "accessible" (not in closed bags or in storage lockers)
- Fire extinguisher, hom required on boats longer than 16 feet
- · Licensed boat trailer, with lights that work.

See the DNR Boating Rules for full details (they are on the DNR website).

Caution

Boaters should avoid driving through stands of Flowering Rush whether they are emergent (above the water) or below the surface. It appears that boat engines uproot the plants, allowing them to float to away to establish a new colony.

GOVERNOR VETOES FUNDING FOR MINNESOTA STAR LAKES AND RIVERS PROGRAM

The new program was established to encourage and reward citizen-based lake and river associations that actively participate in protecting and enhancing surface waters of Minnesota. The enabling legislation reflects a belief that broad citizen participation provides a very cost effective means of protecting our water resources. The Star Lakes initiative is designed to foster broader citizen participation through financial incentives, educational efforts, and public-private partnerships. Lake Associations may apply for a Star Lake designation. A successful designation not only brings recognition to the Lake Association and its efforts, but Star Lakes would be given priority when applying for special project grants. The program was stripped of its funding by Governor Pawlenty.

THE BIG DETROIT OVERLOOK SHORELINE RESTORATION PROJECT

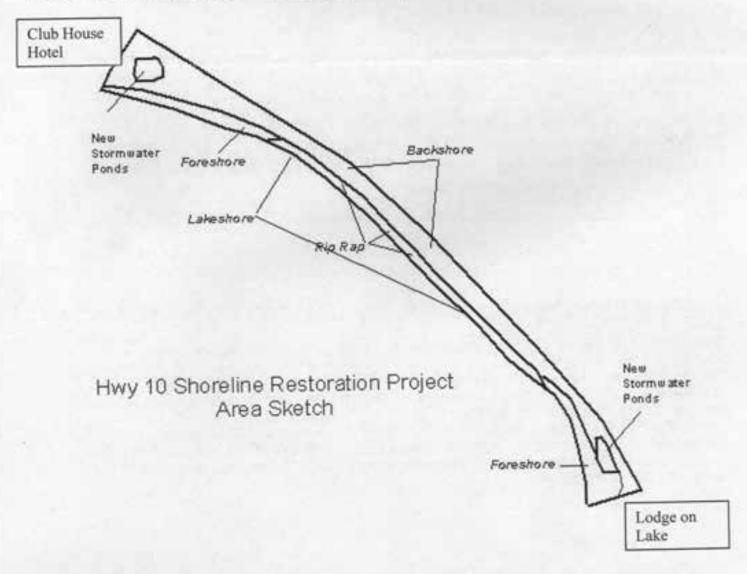
For several seasons Lake Detroiters have been inconvenienced by the construction projects on Highway 10 and 59. We hope that the inconvenience is worth it. Aside from the improved traffic flow and safety, the changes are expected to be lake-friendly too.

Numerous measures have been incorporated into the highway designs that are specifically aimed at protecting the Lake Detroit and the streams which lead to it. As a result of the project much more of the City of Detroit Lakes stormwater runoff will be detained and treated prior to discharge to the Pelican River or other waterways leading to the lake. Similarly, there will be important stormwater detention/treatment devices next to the lake, on either end of the Highway 10 lake Overlook, adjacent to the Holiday Inn and the Lodge-on-the-Lake.

The Pelican River Watershed District, together with Lake Detroiters, the City of Detroit Lakes, and other partners, have secured funding to do a major "restore-the-shore" project along the Highway 10 overlook. Non-native vegetation will be removed and replaced by native species, rip-rap will be inter-planted with shrubs and trees to improve aesthetics. Upon completion, the area will be the focus of a major education effort to acquaint local residents and passers-by with the relevance of shoreline protection.

This project may be the largest such project in Minnesota. It will involve planting 80 trees, 350 shrubs, 200 flowering plants, and 10,000 forb and grass plugs. Walkways, fences, and signage also will be part of the project. The project budget is about \$200,000 plus in-kind donations from MNDOT, City of Detroit Lakes, Master Gardeners and others.

Lake Detroiters has agreed to contribute \$2000, and to provide some labor.



Detroit Lakes "Weed Harvest" Project

Having been perceived as a problem on Detroit Lakes for many decades, various forms of weed treatments have been tried. Aquatic plant removal on Big Detroit Lake was a part of the ice-harvest operations which ended in the late 1960's. In the early 1950's Lake Detroiters Association paid for mechanical harvesting of lake weeds. In the mid-1950's, the association began to use chemicals (sodium arsenite and copper sulfate) to control rooted plants and algae.

Between 1987 and 1989, PRWD contracted with lake shore owners on Deadshot Bay and Little Detroit for some mechanical harvesting operations, mainly aimed at Flowering Rush control. Following a petition by Detroit Lake residents in 1990, the Pelican River watershed District began mechanical harvesting and roadside pickup on Big and Little Detroit. The Project grew out of concerns about the rapid spread of Flowering Rush.

The Minnesota DNR is responsible for protecting aquatic plants in lakes which are critical to the health of lake ecosystems. Over the years, the DNR has increased its scrutiny, and limitations placed upon harvesting activities by PRWD. Coincidentally it was determined that mechanical harvesting, previously the DNR recommended method of Flowering Rush control, is not effective (and may even contribute to its spread). After 2003 the District's use of mechanical harvesting equipment has been severely curtailed, but the DNR authorized the use of herbicides to control the exotic species, Flowering Rush.

In 2003, the District began experimenting with various herbicides to control Flowering Rush. In 2004, one herbicide, Habitat, was selected for further testing in 2005, and for full-scale applications in 2006, 2007 and 2008. One of the important attributes of this particular chemical is that it does not affective native submerged plants. The District's expectation is for only partial control in any given season, because submerged (young) Flowering Rush plants are unaffected by the herbicide treatment. Variable water levels, winds, waves, boating activities and other factors diminish the effectiveness of control too. Under the best of circumstances, several years of treatment will greatly reduce population of flowering rush, but total elimination is not anticipated, not least because the plant is often found mixed with desirable and protected species.

The DNR has become much more involved in Flowering Rush management efforts. Previously the agency mainly contributed funds for research on the plant and its management. More recently the agency has mapped the spread of the plant, and now has taken direct control over the determination of treatment locations. In 2009 DNR has mandated that permission slips be signed (see related article), and have delayed issuance of a treatment permit until current flowering rush infestation mapping is complete in July.

Other PRWD treatment activities in 2009 will be limited to Mechanical harvesting of curly-leafed pondweed on Detroit in late spring and early summer.

In 2009 PRWD treatment of Flowering Rush along shorelines will be restricted to those areas in which the District has secured written permission of shoreline landowners within 150 of the treated area (areas of Flowering Rush more than 150 feet from shore are not subject to this requirement). Securing these permissions is time-consuming process and costly to the project; we believe it will result in some areas that are not treated this year.

Lake Detroiters strongly encourages those landowners who have received permission cards to return them immediately.

Those who think they should have received a card but did not, should contact the District immediately (218 846-0436).

Unfortunately, as DNR Rules stand now, this permission process will be required every year. The District has vigorously objected to this requirement, but has no choice but to comply.



Map of Properties potentially affected by Flowering Rush. These properties have been asked to return signed post-cards authorizing treatment of FR in front of their shoreline.

Political Action

The Minnesota DNR has adopted policies and rules which have made it much harder for governmental units to deal with aquatic plant problems. For example, the Pelican River Watershed District was notified that in order to obtain a permit for Flowering Rush or Curly-Leafed Pondweed treatment it is necessary to obtain written permission from all shoreline property owners whose shoreline is within 150 of any treatment activity. Over 700 signatures must be obtained on the seven lakes which are involved in this year's treatment. Moreover, a change in DNR rules for 2010 will require PRWD to pay as much as \$70,000 in permit fees to undertake Flowering Rush treatment. (This amount is greatly in excess of the cost of the treatment). Accordingly both Lake Detroiters and the City of Detroit Lakes have been trying to get these onerous requirements changed. Following is a letter sent to key legislators in April.



April 26, 2009

Dear Representative.

I represent about 400 tax-paying property owners on the shores of Detroit Lake in Becker County. We are greatly concerned about the presence of Flowering Rush, and Curty-leafed pondweed, two invasive species which already have interfered with the recreational uses on the take replaced native aquatic vegetation in some areas. If untreated, these plants have the potential of greatly diminishing the values of the take and our properties.

We are not satisfied with the response from Minnesota's Department of Natural Resources to our problems. Though not a problem of our making, the DNR has provided little financial or technical assistance to address the problem. Indeed, the DNR's Management Plan, formulated in the 1990's has made the problem worse. Moreover, the agency has increased restrictions on control efforts and has made it much more difficult to obtain permits for these efforts. Also, the agency has threatened to greatly increase the fees for such permits.

While we believe that the State should assume more responsibility, including financial, to control invasives in public waters, we recognize Minnesota's current financial problems make that unlikely. However, we do urge that the State should reduce the barriers for local efforts to deal with invasive problems.

- Permit fees should be eliminated for all aquatic invasive treatments. Eurasian Milfoll and Purple Loosestrife are exempt from permit fees, but other invasives are not. Given DNR estimates for permit fees in 2010, the cost of acquiring a permit for Detroit (about \$40,000), will exceed the treatment costs.
- 2. The requirement that riparian consent forms be obtained should be abolished in the case of invasives. This is the only instance in which the DNR unequivocally defers to riparian landowners regarding the public waters of the state. The requirement runs counter to other laws dealing with nuisance species (for example, farmers and other landowners must control thistle on their land whether they want to or not). In the case of Detroit Lakes, since Flowering Rush is a shallow-water plant, nearly every one of the 400 riparian landowners must be contacted, and must agree to treatment. This effort adds enormous amounts of time and expense to the efforts to deal with invasives. Failure to obtain all signatures may greatly reduce the efficacy of treatment efforts.

We urge you to consider helping to change these conditions so that we can move forward with control efforts that are effective and affordable.

Likay

Dick Alsop President A similar letter was sent to State Senators, and a City of Detroit Lakes Council resolution with similar content was sent to state officials.

Long-term Aquatic Plant Management Planning Underway

In the face of changes in DNR policies governing aquatic plant management, as well as the problems associated with exotic species, the Managers of the Pelican River Watershed District began a two-year planning process that will lead to harvesting plans for the chain of lakes which includes Curfman (Deadshot Bay), Big and Little Detroit, Pelican River, and Melissa, Sallie, Muskrat and Mill Lakes. The planning effort started with a \$40,000 mapping project which has been contracted with Lake Restoration, Inc. That company produced maps of native species and exotics throughout the seven lakes and three stream segments.

Another important step involved soliciting opinions from lakeshore owners on the affected lakes, and others who have a role to play in determining the future of the lakes. Such a meeting was held on February 3, 2009 and a wide range of views were heard on the subject.

Currently, the preparation of a draft plan is underway; upon completion, the public will be invited to comment.

City of Detroit Lakes Applies for Aquatic Plant Treatment Permit

Public beach areas are given more leeway with respect to treatment of nuisance aquatic plants. Therefore the City of Detroit Lakes has applied for a DNR permit that will allow 2009 chemical treatment for submerged plant species and for the treatment of the snails which carry swimmer's itch. Hand-removal of Flowering rush (like last year's "Crush the Rush" effort) is also included in the permit application.

The control of submerged plants with the product *hydrothol* is planned for early in the season (in late May or June). The goal is broad-spectrum control of submerged plants, including FR before it emerges. Success with FR is not assured since *hydrothol* is not "labeled" for FR control.

Watch for "CRUSH THE RUSH" Notices. This year Flowering Rush hand-removal is being coordinated with chemical treatments. The goal is to make our City Beach a fun swimming experience for our summer guests. Many volunteers will be needed for hand removal of Flowering Rush. You will be asked to wear chest waders, bring garden rakes, cultivators and globes.

Private property owners also MAY engage in aquatic plant control

Riparian property owners are allowed to hand-remove submerged aquatic plants in an area up to 2500 square feet to enhance swimming or boating without a permit. The dimensions of the cleared area along the shore may not exceed 50 feet, or half the width of the property's frontage, whichever is less.

The use of chemicals or mechanized methods (weed rollers) or the removal of emergent plants, including Flowering rush, requires a permit from the DNR. While the criteria for granting such a permit are complicated and extensive, most are issued only when plants interfere with an applicant's ability to use watercraft, swim or engage in other traditional recreational uses. Permits for control of swimmer's itch and transport of cattail bogs also must be obtained. Permit application forms can be obtained on-line at the DNR's website, or at the Lake Sallie Area DNR office.

Roadside pickup is available from June 1 through September 30, 2009

PRWD's collection of raked up aquatic plant debris will continue as in previous years, BUT there is still the continuing problem of residents placing the piles on the roadway or bike path causing unsightly traffic hazards for other roadway users. Be considerate of non-lake residents.

Create a pile on your own property, not on someone else's. The waste material pile should be accessible to a Bobcat loader, away from plantings and poles. The lawn will be damaged, so plan accordingly. Consider sharing a common area with a neighbor.

Please talk to your new neighbors. The Pelican River Watershed District only picks up aquatic plant material from beaches. Garden wastes, branches, etc. are not picked up by the Watershed or by the City of DL. It is the responsibility of each homeowner to haul these items to the appropriate site north of DL (North of Detroit Lakes – drive one mile north on Hwy 59, watch for yard waste sign, turn West on Stoney Road).

Aquatic Plants, Native plants, Shoreline Plantings

We live on a natural body of water, complete with a life cycle of its own. Aquatic plants and algae growth follow a weather related relationship with the available nutrients. We can all learn so much through observing the natural growth patterns of the lakes plants and organisms.

Native plants provide food and shelter for numerous lake creatures, fish and birds. These plants protect the shoreline from erosion and stabilize the bottom sediments, as well as controlling the runoff from our lawns. The lake also creates ice ridges to control this run in from lawns. Replacement if lawn with plantings along the shoreline will catch more rain water, phosphorous and nitrogen.

The plentiful weed growth in our lake is a result of nutrient build-up in the lake bottom sediments. When weather conditions are right, an algae bloom occurs. The native emergent plants: reeds, cattails and bulrush help utilize these nutrients. Detroit Lake has lost much of its native emergent vegetation, but several residents have worked hard, with DNR assistance, to restore such plantings.

Lake Detroiters Association Welcomes Fisherman and Recreational Boaters!

Be considerate and share the lake with recreational boaters and fisherman. Make an effort to avoid fisherman or skiers that are already in the area of the lake you are on!

Note: From time to time water skiers and wake boarders have courses set up on the lake. It is legal for temporary docks and buoys to be set up between sunrise and sunset without permits. Minnesota's DNR boating and safety guide has more details.

Mystery Snails

(reported by Dick Hecock, 8/1/07)

There have been several recent reports of unusual numbers of large snails washing up on the shores of area lakes. Minnesota Department of Natural Resources (MNDNR) experts suggest that these are *not native* to Minnesota and belong to a specie known as the Chinese Mystery Snail (CMS), an exotic found in many Minnesota lakes. The CMS has previously been found in Lake Detroit, and has been identified in other area lakes.

The CMS shell is spiral shaped with an olive-brown coloration which varies from light to dark. The banding and colors on s of dead snails are more pronounced. The shell may reach two inches in length.

So far attempts to control the non-native snails have been largely unsuccessful. MNDNR is investigating control options. While not ruled out, chemical control measures seem unlikely because of impacts on native species.

Wisconsin DNR reports that the mystery snails do not carry the swimmer's itch parasites.

The "mystery" in Chinese Mystery Snails (and other mystery snails) has to do with the habit of sudden hatches of fully-developed young snails "mysteriously" appearing. They also have a (somewhat) mysterious ability to achieve dormancy when removed from water.

Becker County Coalition of Lake Associations

Dick Hecock is serving as interim President, as the organization seeks to recast itself into a more effective change agent. Working with key members during the last winter, there have been major changes in by-laws, the conduct of meetings, and the mechanisms for communication among lake associations.

You will soon notice the results of two COLA initiatives – the erection of signs in Dilworth, and on either side of DL on Highway 59, warning boaters of the perils of transporting invasive species. Another COLA project is the soon-to-be published Shoreline Owners Manual, which will contain a large amount of information relevant to shoreline ownership.

COLA has been active at both local and state levels in promoting more flexible, but lake-friendly zoning regulations. COLA is a member of Minnesota Waters, a state-wide organization aimed at lake protection.



Mission:

To Protect and enhance the quality of water in the lakes within its jurisdiction and to ensure that wise management of streams, wetlands, lakes, groundwater and related land resources which impact these lakes.

Board of Managers

President: Dennis Kral

Vice President: Orrin Okeson

Secretary: David Brainard Treasurer: Ginny Imholte

Member: Janice Haggart

Member: Bill Jordan Member: Bill Wickum

Staff

Administrator:

Tera Guetter Tera.Guetter@arvig.net

Senior Advisor:

Dick Hecock;

Richard.prwd@arvig.net

Water Resource Technician:

Monica Almeida

m.almeida@arvig.net

Aquatic Plant Harvesting:

Terry Anderson

2008 Summer Interns:

Samantha Brunner, Ben Langworthy



Mailing Address: Pelican River Watershed District PO Box 1043 Detroit Lakes, MN 56502 Office Address:
Pelican River Watershed District
211 Holmes Street West(Wells Fargo Bank Bldg)
Detroit Lakes, MN 56501

Phone: (218) 846-0436 Fax: (218) 846-0778 Website: www.prwd.org

2008 Water Quality Report - Some PRWD Initiatives



Rice Lake Wetland Project: To reduce large phosphorus loads to Big Detroit Lakes, the District is partially restoring the hydrology of the upstream Rice Lake Wetland. The District hopes to eliminate the flush of nutrients from the wetland to downstream water bodies. The project will include installation of two small dams along the Pelican river to increase the water level of the wetland, improvements to Anchor Road, and installation of various agricultural best management practices. The federal Wetland Reserve Program (WRP) and Reinvest in Minnesota (RIM) programs, along with Minnesota Pollution Control Agency Clean Water Partnership grant and loan monies, will assist with funding the project construction. In 2008, the District began to obtain flowage easements from landowners within the project area.

Highway 10 Overlook Restoration Project: The District is the lead agency, undertaking a major remedial effort along one-half mile of Big Detroit lakeshore. Phase one, which includes construction of the new overlook, the addition of a bike path, reconstruction of a pervious boat launch and removal/alteration of rip-rap to restore to a more natural condition, was completed in 2008. Phase two will begin in the spring of 2009. Phase two includes the removal of non-native vegetation, replaced with native species. Rip-rap will be inter-planted with shrubs and trees to improve aesthetics. The last phase of the project will include educational signage and curriculum. Many thanks to MN DOT, MN DNR, City of Detroit Lakes and other individuals who helped make this project possible.

The Monitoring Program: In 2008 the PRWD monitored 21 lakes and 19 stream sites. Staff, including summer interns, made thousands of observations and collected hundreds of water samples to help determine problems and evaluate solutions to make the best possible management decisions for our district.

Education. Presentations were made to numerous organizations and lake association groups. The District provided special emphasis on rain gardens through booth displays. These efforts together with the District's website and printed materials are aimed at increasing awareness and understanding of water quality problems and solutions, and effecting long-term changes in behaviors detrimental to water quality.



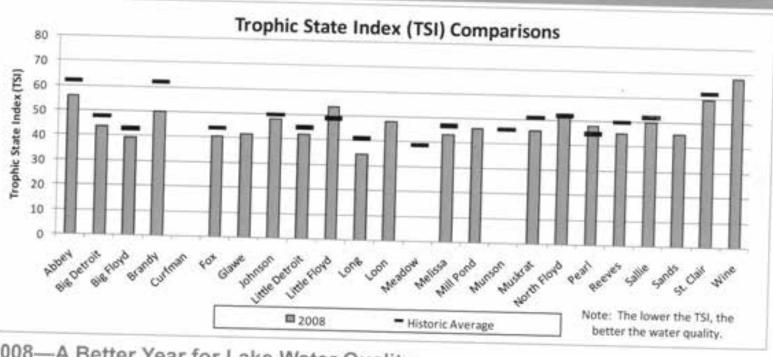
Water Management Rules. In 2008, 54 District permits were issued for land alterations in shore impact zones, impervious surface changes, subdivisions and highways or parking lots in the District. The Engineering firm, Wenck Associates, assists in reviewing plans and applications. The District also coordinates with Becker County and City of Detroit Lakes zoning departments. The District works closely with MN DOT on many projects. Major improvements to storm water runoff treatment from the highway were constructed resulting in significant sediment and phosphorus reductions to Detroit Lake. Also the project included a re-designed public access boat ramp on Detroit Lake that was constructed using porous concrete — the first such application in the State of MN.



Aquatic Plant Management -Project 1 B-Sallie/Melissa & Project 1C Detroit. These projects were petitioned by the citizens to assist with controlling aquatic plants. Recent focus has been on the control of exotic species, especially Flowering Rush. Herbicides were applied to all known Flowering Rush sites in 2008. The District is anticipating additional treatment for 2009 conditional upon the success of the treatment in 2008.

Aquatic Plant Management Plans. With assistance from the MN DNR, the District is developing "Lake Vegetation Management Plans" (LVMP) for seven lakes aimed at identifying additional aquatic plant treatment needs. The first step was to map aquatic plant populations for all lakes involved in the planning area. Starting November 2008, the District has been soliciting input from the public and various governmental agencies for the plans. It is anticipated the plans will be completed in late 2009.

2008 Water Quality Report - A District Overview



2008—A Better Year for Lake Water Quality

Monitoring data suggests that 2008 was a very good year for lake water quality. Improvements were seen in all lakes for which there is a substantial monitoring history. For the 18 lakes sampled for at least five years, in 2008 all but two showed better conditions. Lower TSI values are symptomatic of an increase in water clarity, lower total phosphorus concentrations and a decrease in algal biomass.

mprovements in water quality this year may be related to temperature and precipitation patterns. Spring 2008 had lower rater temperatures for a longer period of time compared to the average for that time of year. Lower temperatures may ave suppressed algae growth, extending the clear water phase further into the growing season. Total winter precipitaon from November through March was less than in previous years, leading to decreases in spring runoff and nutrient pading to our lakes. While fall precipitation was high resulting in increased nutrient levels, water quality was unaffected.

he accumulation of data since the early 1990's provides an accurate representation of the water quality for many of the istrict's lakes. As a result, monitoring since 2007 has been scaled back on these lakes so that focus can be shifted to btaining data on newer lakes. Stream sampling to help determine nutrient sources and loads remains a significant emponent of the monitoring effort.

TSI	Lake Characteristics for Trophic State Index (TSI) Ranges		
Less than 30	Oligotrophic; Low nutrients, very clear water, oxygen throughout the year at all depths, cold water, oxygen- loving fisheries in deep lakes.		
30-40	Oligotrophic/Mesotrophic; Good clarity, but some shallower lakes may become low in oxygen during the somer, few algal blooms and low plant growth.		
40-50	Mesotrophic; Water moderately clear, but increasing probability of low oxygen in deep water during surincrease in algae blooms, moderate to nuisance plant growth. Over 46 is "At Risk"		
50-60	Eutrophic; Decreased water clarity, no oxygen at lower depths during the summer, high incidence of nuisance plant growth and algal blooms, warm-water fisheries only. Over 51 is "Problem"		
>60	Hypereutrophic; Dominance of algal blooms possible throughout the summer with algal "scums" probable, ex tensive plant growth problems, undesirable for water-based recreation, deteriorating or absent game fishery. Over 60 is "Damaged" and greater than 80 is "Point of No Return"		

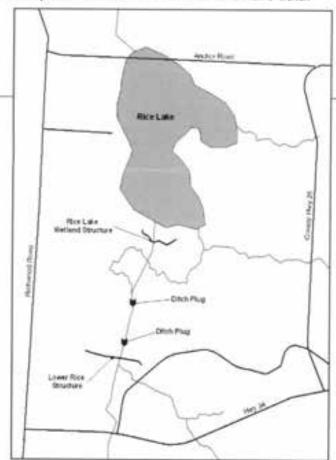
2008 Water Quality Report- Detroit Lake

Prepared by Monica Almeida and Dick Hecock, Pelican River Watershed District

A Very Good Year for Detroit Lakes

Detroit started the year with record-breaking clarity and good conditions continued well into mid-summer. Lower spring and early temperatures may have suppressed algae growth, but even after temperatures returned to normal clarity remained relatively high, resulting in average conditions better than any previously recorded. Phosphorus and Chlorophyl-a samples showed similarly good results.

When clarity, phosphorus and Chlorophyll-a are indexed, averaged and compared to previous periods as in the TSI Chart to the right, 2008 emerges as a very good year compared to previous decades for which we have data.



Map of Rice Lake Project

Trophic State Index (TSI)					
Year	Big Detroit	Little Detroit	Curfman		
1970's	49				
1980's	48	51			
1990's	49	47			
2000's	48	46	49		
2008	44	42			

It is unlikely that this one year represents a trend. Even with good 2008 values in comparison with previous years, the District still considers these three lakes as "at risk" due to the fact that they have a history of being close to the eutrophic condition described on the previous page.

If 2008 does suggest improving conditions, credit probably goes to better storm water treatment, improved shoreline management, less fertilizer use, and centralized sewage treatment.

In any case, Big Detroit continues to serve as a buffer, protecting Little Detroit from nutrients brought by the Pelican River, and the future health of both lakes depends upon controlling nutrients from that source. The District has high hopes for the Rice Lake Project.

Over 50 Secchi disk readings and approximately 20 TP and Chlorophyll samples were taken for Detroit Lakes in 2008. Many thanks to our lake observer volunteers: Dick Hecock and Ed Welke For all their hard work. With their help the District can increase data collection and analysis to aid in better protecting our lakes.

The Rice Lake Project

A significant contributing source of phosphorus loading to Big Detroit is from Rice Lake. Rice lake was drained down to a wetland state in the early 1900's. Wetlands often act as filters, filtering out nutrients from water that passes through. At some point, the Rice Lake wetland reached it's capacity to filter nutrients and became a source of nutrient loading to downstream locations.

A project is in place to restore the original hydrology of this area to reduce the export of nutrients from the wetland. Restoration efforts include constructing two small dams along the Pelican River to increase the water level. The District is obtaining flowage easements to compensate landowners for possible inundation effects that will occur near the edges of the wetland area. The goal is to obtain a 50% reduction in nutrients entering Big Detroit lake.

Noteworthy Websites:

- City of Detroit Lakes: www.ci.detroit-lakes.mn.us/
- Becker County <u>www.co.becker.mn.us</u>; for airphoto and tax parcel maps: http://gis-server.co.becker.mn.us
- Minnesota Department of Natural Resources: http://www.dnr.state.mn.us/index.html
- Pelican River Watershed District: www. Prwd.org
 Make this site a "favorite" for info on...

Flowering Rush spraying schedule
Ice damage info and permits
Water quality data
Road side pickup schedule
Rain garden fact sheet
Use the District's aerial map to zoom in on your neighborhood.

Join Lake Detroiters Today! Dues are \$25 per year! See enclosed envelope

> Lake Detroiters Association, Inc.

LAKE DETROITERS ASSOCIATION

PO BOX 1310 Detroit Lakes, MN 56502-1310

Why Join Lake Detroiters?

You are invited to join Lake Detroiters' Association. If you haven't already joined us, please read on to see why it is important to do so, and why the organization is worthy of your support and membership.

- You protect your property values by protecting your lake
- You have a voice in your concerns regarding the lake
- You voice will be heard at the City Planning Commission, the Pelican River Watershed Diustrict, Becker County, and the Becker County Coalition of Lakes Association.
- You have available to you a variety of free information such as shoreline landscaping, erosion control, water quality, and more

Established in 1943, Lake Detroiters' Association is one of the oldest organized lake groups in the area. It is dedicated solely to maintaining the quality of life in and on the waters of Big and Little Detroit Lakes.

If you are fortunate enough to live on the lake, you have inherited a responsibility to maintain and oversee these beautiful waters and shoreline. As more vacationers and boats use the lakes each year, and as more intensive development takes place in and around the lakes, the impact on water quality is evident. There are more weeds,

more shoreline erosion, more sediments into the lake, and a host of other issues concerning the lake.

Lake Detroiters' concerns itself with these issues and addresses them. It works closely with the Pelican River Watershed District, the City, the MN DNR, and the Coalition of Lake Associations. The organization is here to represent the land owners of the lake shores – without your membership and input, representatives voices cannot be heard.

Lake Detroiters' Board meets once a month from April through November. These meetings are open to the public.

A lake directory was published in 2006 and copies are still available. It contains property owners' information as well as historical articles, guidelines for shoreline landscaping, building/remodeling rules, and much else.

A spring newsletter is sent to each of the 600 lakeshore property owners. Help us to maintain a strong organization to help and know our lakes.

Lake Detroiters' Association membership is open to every lakeshore property owner on Big and Little Detroit Lake, Deadshot Bay (Curfman) and others with property within 1000 feet of the these waterbodies.