

Join us. Add your voice to those of your neighbors and friends around the lake who share a love for Lake Vermilion.

Complete the membership form, DETACH THE ENTIRE PAGE and mail with your check, made payable to Sportsmen’s Club of Lake Vermilion.

Thank you.

☐ NEW MEMBER (Check one, please) ☐ RENEWAL

SPORTSMEN’S CLUB OF LAKE VERMILION, INC.

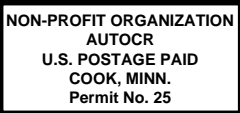
Mardy Jackson, Membership Records
P.O. Box 696
Tower, MN 55790

Enclosed is \$10 for a single membership for one year (Jan. 1, 2007____ to Jan. 1, 2008____) or \$15/yr. for couple membership or \$20/yr. for the "family" membership or \$50/yr. for a business/organization in the Sportsmen's Club of Lake Vermilion.

Name _____
Address _____
City _____ State _____ Zip _____

Please send, also, Shoulder Patches at \$2.00 and Car Window Decals at \$1.00 each.

HELP US MAKE A BEAUTIFUL LAKE EVEN BETTER!



the vermilion sportsman



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A non-profit organization, founded in 1968 and dedicated to the improvement of Lake Vermilion"*

Vol. 32, No. 4 1800 MEMBERS COOK & TOWER, MN NOVEMBER 2006

PRESIDENT’S MESSAGE

Got your ice-fishing gear all set to go? It won't be long now (as the monkey said who got his tail caught in the lawn mower).

Time is simply flying by and right now we're in a "wait and see" period. We're waiting to see WHAT the County Commissioners will do about the Vermilion Land Use Plan WHEN it's presented to them for approval and implementation. Hard to believe that it was five years ago this December when the Steering Committee started working on it! Then, too, we're waiting to see if US Steel Minntac will be permitted by the MPCA to dump their tailings water into the St. Louis River (thence to Lake Superior). Third, we're waiting to see what US Steel is finally going to propose for their "3 Bays on Vermilion" subdivision. As I said, it's "wait and see" and be prepared!

On a lighter note, I hope that all annual meeting attendees enjoyed Dr. Lynn Rogers' presentation on his life and living with bears. I know I enjoyed it immensely. We can thank our meeting arrangers Paula, Rick and Bob. If any of our members know speakers who would be interesting to hear, please let a board member know ASAP so that we can get them locked in for future meetings.

At our annual meeting, we elected Marti Wivell, Ed Tausk and Ed Zottola to the board to fill the open slots created by the departure of John Zwieg, Joe Panichi and Cathy Raps. I want to welcome the new board members to the group. We did lose one more board member, Miller Friesen, who decided he wanted to spend more time in the south — Eagan, MN to be exact. Thank you, Miller and Julie, for your efforts on behalf of the SCLV and the Greenwood community. We are sorry to see you go and wish you all the best in your retirement years (second retirement that is). We have a person in mind to step into Miller's slot on the board and if he accepts, I'll let you know next newsletter.

We've also had sad (bad) news to report on. I won't go into detail, but the big "C" has struck our board member Dale Lundblad and one of our contributing

feature writers, Tom Morrow. Tom has sold his place on Vermilion and moved to Omaha, NE to be near family and receive treatment there. Dale has been receiving treatment at the Mayo Clinic in Rochester, MN. Please keep these two fine gentlemen in your thoughts and prayers as they fight cancer.

Early in September, Wayne Suoja, my wife and I attended a three-day conference in Duluth presented by the Minnesota Waters Association. It was extremely well organized and presented tons of data and information on the state of one of our greatest assets — water. There is just too much to include in the newsletter, but we are including a short report by Wayne that sums it up. We felt that we probably should have had several more members attend in order to cover more of the sessions. The sessions covered what the status is at present, what individuals can do to protect our greatest asset, why individuals and organizations need to get involved at the local level, how to get government bodies involved at all levels and much, much more! I believe our club's membership in the Minnesota Waters Association is definitely an asset.

Due to Dale's being in Rochester for treatments at this time, he is unable to do a late dock pullout this year. As you know, for the past couple of years he has pulled the docks out at three DNR landings approximately the second weekend in November. Scott Kelling, the DNR Trails and Waterways chief, has agreed to schedule two of the sites to be pulled out last. They are the Frazer Bay and Wake-em-up Bay landings. If anyone has comments please let us know. Also, if any member has a 3/4- or 1-ton 4-wheel-drive pickup (these docks are heavy) and would like to volunteer to help in the removal in the future please let us know. Or if you feel this is unnecessary please let us know that, too!

Wishing you all great ice-fishing (remember to release all ice chunks between 17 and 26 inches) and snowmobiling on our wonderful Lake Vermilion! Be careful! Enjoy the beauty of the lake!

Walt Moe, President

→ DETACH HERE →

“The Changing Landscapes of Minnesota Waters,” *a conference hosted by the Minnesota Waters organization*

(reported by club member Wayne Suoja)

This annual conference was extremely valuable to illustrate the impacts of shoreline development, showing proper and improper methods and design. I would highly recommend it be attended by town board members, county commissioners, county planners and shoreline contractors and developers.

I attended four of the six total sessions. The first was “Storm water: It’s Not Just Rain — A Protection Approach on the Shore of Lake Superior.” In 2002, a group of 21 communities and agencies at the headwaters of Lake Superior came together to form a Regional Storm water Protection Team (RSPT) to deal with runoff issues. They developed a two-level approach that includes both awareness through education and involvement of its citizens.

The second session conducted by a county planner was “Planning for Growth and Protection of Natural Resources: A Case Study of Crow Wing County.” The North Central Lakes Region of MN is expected to grow by 60%, while other lake regions of MN will also experience high growth rates as people seek to move near water. How will these counties accommodate this growth while protecting the natural resources? The case study dealt with land-use planning, taking into consideration the waters and sensitive natural resources. Also of concern was the effective management of onsite septic and cluster systems.

The third session was titled “Using Low Impact Development (LID) to protect Minnesota Waters.” I would highly recommend this presentation by Jay Michels, who is the project manager for EOR (Emmons & Oliver Resources) — E-mail: jmichels@eorinc.com or the website www.eorinc.com. LID is a proven cost-effective, technology-based approach to storm water management that treats the raindrop as the “resource” that it is, as opposed to the “waste” product that we have made it. LID uses techniques that capture, store, infiltrate and retain storm water. These approaches are the “heart and soul” of the DNR’s new Alternative Shoreland Regulations, and an important “underused” tool to meet NPDES Phase II Construction Permit requirements. LID uses a “Conservation Design Development” that facilitates development while maintaining the most valuable features and functions of a site. Developers are on the front line of water resource management and protection. I would definitely recommend that every lakeshore contractor and developer planning individual homesites and cluster development contact EOR as they will assist with designing rain gardens, erosion control and infiltration systems. Rain gardens are simply methods of keeping the rainfall where

it lands by making barriers and planting inside those barriers.

The fourth session dealt with Beauty Lake in Hubbard County which is the site of an ongoing study designed to track the cumulative impacts of shoreland development. This was an undeveloped 54-acre lake, and in the late 1990’s, the entire shoreline was platted as residential lots and block developments. The study provided a unique opportunity to set a baseline on water chemistry values and changes in aquatic plant population and zooplankton, and also provided an erosion model. The lake had very steep shorelines and was very sensitive to shoreline development. The building plan had a covenant that stated no disturbance of the shoreline for 75 feet to be enforced by the lakeshore owners. Some property owners have already clear cut their shoreline, and the erosion model shows an increase of 1000% of erosion.

In summary, as one presenter stated, “Our lakeshore property owners are not dumb, they are just uneducated about the importance of reducing runoff from the shorelines.” We as individuals have to learn to be better stewards of our own shorelines and resources. We also have to educate others about the fact that rainwater itself and exposed soil contain phosphorus and nitrogen, and the cumulative effects of runoff can be devastating to our lakes. One pound of phosphates can produce over 300 pounds of algae. A natural shoreline with a buffer zone has only about 10% runoff whereas a clear-cut mowed shoreline increases runoff to 55%. I have heard the comments from some lakeshore owners that it is my property, and I pay taxes, and I can do whatever I want to do on my own property. Unfortunately, these people do not realize that their actions on the shorelines affect everyone on the lake and can affect the overall health of the lake.

Every hour, Minnesota loses seven acres to development. Seven acres of oaks or pines, prairie grasses, and wild, black-eyed Susans; habitat for whitetail deer, butterflies, and bluejays. Seven acres that will never be regained, as traditional developments spread out over large parcels.

Summary Of Lake Vermilion Muskie Management

(Continued from Page 10)

FUTURE MUSKIE MANAGEMENT ON LAKE VERMILION

New Regulation Proposed For Lake Vermilion

The DNR is proposing new regulations for many muskie lakes in Minnesota, including Lake Vermilion. The proposed regulation for most of the affected lakes, including Lake Vermilion, is a 48-inch minimum length. If adopted, the new regulation would replace the 40-inch minimum length currently in place on most muskie lakes in Minnesota. Early in 2006 the Minnesota Muskie Alliance requested the DNR consider increasing the minimum length limit for muskie. The group contended a more restrictive regulation was needed to maintain fishing quality in light of increased fishing pressure on muskie lakes. After a review by DNR Fisheries managers, it was decided the proposal had merit and a decision was made to proceed with a proposal for new regulations on a lake by lake basis through the special regulations process. While a 48-inch minimum length is being proposed for most lakes, less restrictive regulations are being proposed on a few lakes that don’t have good growth potential. If adopted, the new regulation would go into effect in 2007.

Stocking Reduction Being Considered

Since 1993, all muskie stocked in Lake Vermilion have been fin-clipped in order to evaluate potential natural reproduction. When muskie are sampled during population assessments, the fins are checked to see if the fish was stocked or was a naturally reproduced fish. About 25% of the muskie sampled during population assessments in 2005 and 2006 were fin-clipped, indicating substantial natural reproduction is occurring. During the coming year, the fin-clip data will be analyzed further and a decision on future stocking rates will be made. With natural reproduction occurring, it is probably not necessary to stock at the current rate to maintain the population. Reducing stocking would also make fish available for other lakes in Minnesota being considered for muskie management.



Duane Williams, Large Lake Specialist
DNR Fisheries — Tower

“The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value.”

— Theodore Roosevelt

Installing a Dock in Minnesota Public Waters

What are some dock restrictions to ensure public safety and protect the environment?

Width and length restrictions. A dock may not be more than **8 feet wide**. Picture 1 shows a dock more than 8 feet wide. Additionally, a dock may not be combined with another dock or platform so as to create a larger structure. Picture 2 shows a structure that has a combined width greater than 8 feet. A dock platform (illustration 3) is available from some manufacturers in a 12-foot width; installing that would be a rule violation. Finally, a dock may only be as long as needed to accomplish its intended use, including reaching navigable water depths for a boat.

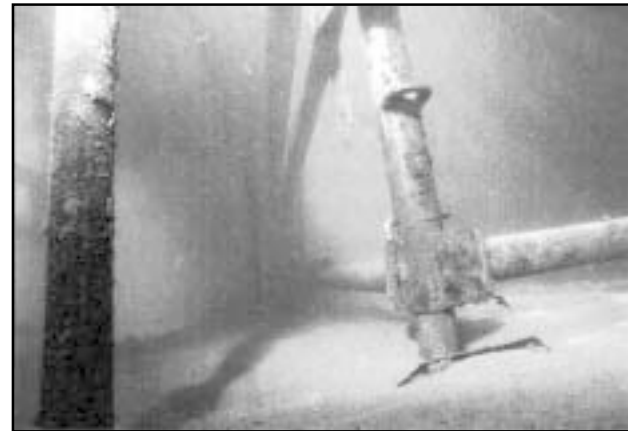
1.



2.



3.



Restrictions to reduce impacts on fish and wildlife habitat.

No dock may be installed that would be detrimental to fish or wildlife habitat, nor may it be constructed in a posted fish spawning area. A survey of 44 Minnesota lakes showed that 50 percent of medium docks and 49 percent of large docks were likely to have no nearby vegetation. In contrast, only 39 percent of small docks were likely to have no nearby vegetation (small, less than 215 square feet; medium, 215-376 square feet; large, greater than 376 square feet).

This picture shows the legs of a dock and boat lift. Studies in Wisconsin and elsewhere show that docks and boat lifts shade out important aquatic plants and eliminate critical habitat where fish spawn, grow, find bugs and other food, and seek shelter from predators.

DNR Contact Information



DNR Waters website lists Area Hydrologists:
www.dnr.state.mn.us/waters

DNR Waters in St. Paul:
500 Lafayette Road, Box 32
St. Paul, MN 55155
(651) 259-5700

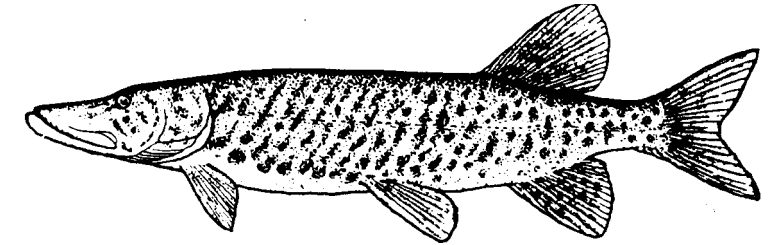
DNR Information Center

Twin Cities: (651) 296-6157
Minnesota toll free: 1-888-646-6367
Telecommunication device for the deaf (TDD):
(651) 296-5484
TDD toll free: 1-800-657-3929

Summary Of Lake Vermilion Muskie Management

History

Muskie were not known to be native to Lake Vermilion, although there are a few old historical accounts of muskie being caught in the lake many years ago. The first muskie stocking was in 1968 with a strain of fish that originated in Shoepac Lake near International Falls. Shoepac Lake strain fish were also stocked in 1969, 1972, and 1984. It was eventually found that Shoepac Lake strain muskie rarely grew larger than 20 pounds and the Minnesota DNR switched to other strains of muskie for stocking. A strain of muskie that originated in Wisconsin was stocked in 1985. Beginning in 1987, Leech Lake strain muskie have been used for stocking Lake Vermilion and other Minnesota waters.



An intensive muskie management program was started on Lake Vermilion in 1987. Lake Vermilion was a good candidate for muskie management for several reasons; the large size of the lake, relatively low abundance of northern pike, diverse fish habitat, and abundant forage species including sucker and tullibee. Leech Lake strain muskie were stocked annually from 1987 to 1994, and every other year starting in 1996. The current stocking quota is 5,000 fingerlings every other year, although the actual number stocked can vary depending on supply. Muskie fingerlings are usually 10-12 inches long when stocked. Stocked muskie were fin-clipped starting in 1993 to differentiate stocked fish from natural reproduction. Stocking may be reduced in the future if population assessments indicate substantial natural reproduction is occurring. Some natural reproduction has been documented in recent years. *(Continued on Pages 10-11)*

Historical Muskies Stocking In Lake Vermilion

Year	Size Stocked	Number Stocked	Muskie Strain	Fin-Clips
1968	Fingerling	475	Shoepac L.	
1969	Fingerling	500	Shoepac L.	
1972	Fry	21,921	Shoepac L.	
1984	Fingerling	1,536	Shoepac L.	
1985	Fingerling	1,040	Wisconsin	
1987	Fingerling	4,979	Leech L.	
1988	Fingerling	4,973	Leech L.	
1989	Fingerling	5,513	Leech L.	
1990	Fingerling	6,648	Leech L.	
1991	Fingerling	7,969	Leech L.	
1992	Fingerling	4,995	Leech L.	
1993	Fingerling	4,999	Leech L.	Right Pelvic
1994	Fingerling	7,784	Leech L.	Left Pelvic
1996	Fingerling	4,739	Leech L.	Right Pelvic
1998	Fingerling	7,749	Leech L.	Left Pelvic
2000	Fingerling	5,995	Leech L.	Right Pelvic
2002	Fingerling	5,000	Leech L.	Left Pelvic
2004	Fingerling	3,955	Leech L.	Right Pelvic

“Invasive Species”

by Bob Wilson

You have heard the old cliché, “It’s better to be lucky than good.” When checking for the spread of invasive species on Lake Vermilion you want luck on your side. In this past summer season while inspecting boats, your SCLV volunteers did not find a single case of “exotics” being transported into the lake. We would like to think that our boat inspections, advertising “stop aquatic hitchhikers” in local papers and on the radio, writing to fishing tournament directors and holding a public education session on the subject led by the Sea Grant Organization, etc. is responsible for our good fortune, but we know boats continue to enter Vermilion from other water bodies that contain “invasives.” Look over the chart below! Is it inevitable that our beautiful lake will eventually become contaminated with floating mats of tangled Eurasian Milfoil or become full of Zebra Mussels clinging to dock poles, boat bottoms and even attached to clams? No one knows! What is clear is that doing nothing will only increase the odds that “exotics” will penetrate the lake. The SCLV will continue to tackle this potential problem in ways our resources and educational opportunities permit. The light of publicity on the subject still remains a key to prevention. Check out “protectyourwaters” on the web to see what the national campaign is doing on this issue. See you in the spring newsletter!!

The boat being inspected last came from what lake or river?

(A) No. of boats inspected from this lake/river over the 2006 summer season.

LAKE	(A)	LAKE	(A)	LAKE	(A)	LAKE	(A)
Abrams	1	Everglades, Fla	1	Pelican	1	* Superior (Great Lk)	1
* Big Marine	1	* Forest	2	Pokegama	1	Tofte	1
Big Round (WI)	1	Gull	3	* Prior	2	* Turtle	1
Big Sturgeon	2	Iron Ore Pit	1	Rabbitt	1	Twin	1
Birch	2	* Island	1	* Rainy	2	Unidentified	5
Brooks	1	Lac Suile (Canada)	1	Renstrom	1	<u>Vermilion 58%</u>	<u>105</u>
Crane	1	Lax	1	Roberts	1	Wausota (WI)	1
Dark	2	Lk of the Woods	1	* Rock	1	Web	1
* Deer	1	* Long	2	* Rush	1	* White Bear	2
Devils Lake (ND)	1	* Michigan (Great Lk)	1	Snowbank	1	White Iron	1
Eagles Nest 3	1	* Mille Lacs	5	* St. Croix River	1	Whiteface	1
Eliason	1	* Minnetonka	3	* St. Louis River	1	Whitefish Chain	1
Elk River	1	* Mississippi River	2	St. Marys	1	Wisconsin (WI)	1
Ely	1	Moses	1	Sturgeon	1		
Totals - >	<u>17</u>		<u>25</u>		<u>16</u>		<u>122</u>

Total Boats Inspected - 180

*lakes & rivers containing one or more “Exotics” — Eurasian Milfoil, Zebra Mussels, Spiny Waterfleas.

Boat Check Info & Statistics

Boats checked at Hoodoo Point, Moccasin Point & Timbuktu
Time frame: Memorial Day, July 4th & Labor Day weekends (Friday & Saturday)
Ramps were staffed for a combined 54 Hours, Approximately 125 Person Hours.
Boats last came from 55 lakes/rivers including Lake Vermilion
*18 of these lakes/rivers are known to harbor invasive species

“Exotics Close to Home!!”

Reprinted from The Tower News — Friday, October 27, 2006

Spiny waterfleas found in Namakan Lake



Voyageurs National Park staff confirmed the presence of spiny waterflea (*Bythotrephes longimanus*) in Namakan Lake on Oct. 10. Spiny waterflea, a non-native zooplankton, was found on Rainy Lake this summer, but detection monitoring at that time on the Namakan Reservoir did not reveal the presence of the waterflea. Staff from the University of Minnesota’s Sea Grant program later observed the waterflea in Namakan Lake in early October and alerted Park managers. Park staff sampled the site using a plankton net and observed and confirmed the presence of the aquatic exotic species.

Experts believe spiny waterflea originally arrived in the U.S. from Eurasia in the ballast water of cargo ships when they were found in Lake Ontario in 1982 and Lake Superior in 1987. Boaters and anglers have most likely spread them to inland waters since then. Waterfleas collect in masses on fishing lines and downrigger cables. The masses can resemble gelatin or cotton batting with tiny black spots, which are the creatures’ eyes. Individual animals are difficult to distinguish without magnification because they are only 1/4- to 5/8-inch long.

Since spiny waterfleas are new to these lakes their impact can be potentially devastating to aquatic organisms. Spiny waterflea will compete with native zoo-

plankton and minnows for food. This competition can disrupt the food chain at its base with potentially significant effects farther up the chain. This winter Park staff and partners will develop a strategy to prevent the spread of spiny waterflea to uninfested waters, to research the effects of the introduction, and to educate the public in ways they can help in the fight against this aquatic nuisance species.

STOP AQUATIC HITCHHIKERS!™



Prevent the transport of nuisance species.

Clean all recreational equipment.

www.ProtectYourWaters.net

When you leave a body of water:

- Remove any visible mud, plants, fish or animals before transporting equipment.
- Eliminate water from equipment before transporting.
- Clean and dry anything that comes into contact with water (boats, trailers, equipment, clothing, dogs, etc.).
- Never release plants, fish or animals into a body of water unless they came out of that body of water.

MINNTAC DISCHARGE... *An Update*

On August 1st this year U.S. Steel submitted their formal permit application to the Minnesota Pollution Control Agency (MPCA) seeking permission to discharge up to 7 million gallons per day from its Minntac tailings basin into the St. Louis River watershed. This confirms the company's decision to seek a permit to discharge to the south as opposed to their earlier plan which had some of the tailings basin water entering the Pike River system flowing into Lake Vermilion.

Minntac has been meeting with the MPCA every 2-3 weeks to work out the technical details of their proposed discharge. The major concern with the discharge is the potential role of the high sulfate levels in the basin water causing increased mercury methylation that bioaccumulates in fish and is harmful to humans. Current plans call for development of a much larger packed bed reactor than earlier proposed to reduce the sulfate levels in basin water prior to discharge. They are also exploring the use of reverse osmosis to help reduce the chloride levels in the basin water. Based on their permit application, Minntac officials estimate that the sulfate levels in the seepage water that

currently flows towards Lake Vermilion would be reduced by 45 percent in five years.

Two additional public meetings are scheduled to review and receive input on Minntac's proposal. The first is scheduled for late November in Duluth as a follow-up to the environmental review process that led to the company changing the direction of their discharge to the St. Louis River. The second meeting will occur when the MPCA releases the draft permit for public review early next year. The agency is required to hold a public meeting to receive input on the draft permit within 10 days after the permit is released for public review. The period for written comments extends for 30 days after this release date. MPCA must then respond to all of the comments before reaching a decision on the permit application sometime next year.

— Mel Hintz

SPORTSMEN'S CLUB WEB SITE

<http://www.LakeVermilion.com/SCLV>

BOARD OF DIRECTORS and OFFICERS 2006-2007

(All Area Codes 218)

COOK (55723)

Ray Harris, **Vice Pres.** 7341 Oak Narrows Rd. 666-2300
Dale Lundblad 9082 Little Sweden Rd. .. 666-2316 (B.I.C. 666-5352)
Ed Zottola 2866 Vermilion Drive 666-5542
Marti Wivell 9145 Voss Road 666-2888
Ed Tausk Vermilion Dam Lodge 666-5418
Rick Borken 2810 Niles Bay Forest Rd., Buyck 55771 .. 666-0579

TOWER (55790)

Bob Wilson, **Treas.** 1501 Echo Pt. 753-5544
Paula Bloczynski, **Sec.** 4443 Big Rock Rd. 753-2107
Mel Hintz 6119 Pike Bay Drive 753-2401
Mardy Jackson, **Mem. Rec.** 2065 County Road 77 753-3549
Walt Moe, **Pres.** 3331 Nisen Dr. 753-3816

SCLV Board Meetings are held monthly on the second Wednesday, and are open to all SCLV members. Check with a board member for time and location.

What can *you* do?

Reprinted from the "COUSTEAU DISPATCH"

Wondering whether you can do anything to slow the pace of global warming? The answer is yes, definitely. There are many Internet resources, and here are a few of our favorites from www.climatecrisis.net. These actions reduce your impact on the emission of greenhouse gases — and they make your life easier.

The average American generates about 1,250 pounds of carbon dioxide every month, mainly from home energy use and personal transportation. By focusing on these two areas, you can reduce your impact on the environment, save money and often save time.

In the home

By using energy more efficiently, you can reduce your emissions and lower your bills by more than 30%.

* **Replace a regular incandescent light bulb with a compact fluorescent light bulb** that uses 60% less energy. This will save about 300 pounds of carbon dioxide a year.

* **Move your thermostat down 2° in winter and up 2° in summer.** This could save about 2,000 pounds a year, and you probably will notice no difference.

* **Clean or replace filters on your furnace and air conditioner.** A clean air filter can save 350 pounds a year, as well as cut down on allergens.

* **Use less hot water.** Install a low-flow showerhead (350 pounds saved per year) and wash your clothes in cold or warm water (500 pounds saved per year). Run the clothes washer and dishwasher only when they are full.



Cousteau Society

710 Settlers Landing Road
Hampton, VA 23669-4035
Tel. 800.441.439S



* **Turn off and unplug electronic devices.** Simply turning off your television, DVD player, stereo, and computer when you're not using them will save thousands of pounds a year. If you go out of town, unplug things like hairdryers and cell phone chargers. The energy used to keep memory chips working accounts for 5 percent of total energy consumption and spews 18 million tons into the atmosphere every year!

* **Get a home energy audit and switch to green power when available.** Many utilities offer free audits to find where your home is poorly insulated or energy inefficient. You can save up to 30% off your energy bill and 1,000 pounds a year. In many areas, you can switch to energy generated by clean, renewable sources such as wind and solar.

On the road

Almost one-third of the carbon dioxide produced in the U.S. comes from our cars, trucks and airplanes.

* **Reduce the number of miles you drive.** Avoiding just 10 miles of driving every week would eliminate about 500 pounds of emissions a year! Combine errands.

* **Keep your car tuned and your tires properly inflated.** When just 1 percent of car owners properly maintain their cars, nearly a billion pounds are kept out of the atmosphere. Properly inflated tires can improve gas mileage by more than 3 percent.

When it is time for a new car, choose a more fuel efficient vehicle. You can save 3,000 pounds every year if your new car gets only 3 miles per gallon more. You can get up to 60 miles per gallon with a hybrid.

* **Try telecommuting.** Telecommuting can help you drastically reduce the number of miles you drive. Present a plan to your employer that would allow you to work from home.

www.cousteau.org

Summary Of Lake Vermilion Muskie Management

(Continued from Page 9)

Population Assessments

Muskie population assessments are done on Lake Vermilion to monitor the status of the muskie population. Large trap nets are set at standard locations shortly after ice-out to capture fish as they seek spawning areas. Population assessments are done every four years, although the two major lake basins, East Vermilion and West Vermilion, are done in different years due to the large size of the lake. Population assessments were done in 1993-1994, 1997-1998, 2001-2002, and 2005-2006.

Trap net catches and the average length of trapnetted muskie have increased over time as the muskie population has developed from the initial stockings. Both trap net catches and average length will stabilize when the muskie population reaches the full potential of what the lake can support. That population level has probably been reached and it is unlikely trap net catches will increase much in the future.

Historical Muskies Trap Net Catches and Average Length From Population Assessments

Year	Number/Net	Average Length
1993-1994	0.1	35.9
1997-1998	0.3	39.5
2001-2002	1.0	42.9
2005-2006	1.5	44.5

Creel Survey

Creel surveys are conducted two years out of every six years on Lake Vermilion in order to obtain estimates of fishing pressure and fish harvest. There have been four cycles of creel surveys on Lake Vermilion to date: 1984-1985, 1990-1991, 1996-1997, and 2002-2003. The next cycle of creel surveys will be in 2008-2009.

The muskie fishery was not yet established when the first two cycles of creel surveys were done. By 1996 the muskie fishery was doing well, with high catch rates, although the average size was relatively small. By the 2002-2003 creel surveys, Lake Vermilion had become discovered as a quality muskie fishery. There was a large increase in the number of muskie anglers fishing the lake and the number of muskie caught was much higher than catches observed in 1996-1997. The catch rate declined during the 2002-2003 creel surveys, as many of the muskie in the lake had become “educated” from the large increase in fishing pressure. The average length of muskie caught in 2002-2003 was 38.3 inches, with the largest fish reported caught during the survey being 52 inches long.

Estimated Angler Muskies Catches, Catch Rates, and Average Length of Muskies From Creel Surveys

Year	No. Muskies/Year	Catch Rate (Fish/Hour)	Average Length (in.)
1984-1985	0	0	-
1990-1991	143	No Data	No Data
1996-1997	1,309	0.042	32.0
2002-2003	2,255	0.020	38.3

These estimates are for all muskie caught, nearly all of which were released. The catch rates are only for those anglers targeting muskie.

Installing a Dock in Minnesota Public Waters



DO I NEED A PERMIT FOR MY DOCK?*

No permit is needed to install, construct or reconstruct your dock on property you own if you comply with the following conditions:

- The structure is not a hazard to navigation, health or safety.
- The structure will allow the free flow of water beneath it.
- The structure is not used or intended as a marina.
- The structure is consistent with the guidelines of the local unit of government.
- The dock is no longer than needed to achieve its intended use, including reaching navigable depth.
- The structure is not more than 8 feet wide, and is not combined with other similar structures so as to create a larger structure.
- Docks placed on rock-filled cribs are located only on waters where the bed is predominantly bedrock.

RESTRICTIONS ON DOCKS AND OTHER STRUCTURES*

You may not place a dock or other structure in public waters if the structure:

- obstructs navigation or creates a hazard;
- is detrimental to fish or wildlife habitat;
- is placed in a posted fish spawning area;
- is intended to be used for human habitation;
- is designed or intended to include walls, a roof or sewage facilities;
- will take threatened or endangered species;
- is located on property you do not own or have rights to use.

If you have questions concerning this information, contact your DNR Area Hydrologist. See contact information on page 4.

**Based on Minnesota Rules, Chapter 6115.*

What should I know about installing a dock?

Rules based on property rights, safety, and resource issues

Docking on lakes is regulated by the state because owners of lake homes and shoreline put their docks in public waters. The Department of Natural Resources (DNR) regulates such residential docks for public safety and resource protection under Minnesota Rules, Chapter 6115.



Owners of shoreline have riparian rights, which include the right to install a dock that provides reasonable access to navigable water depth. The permitted and prohibited features of placing a dock enforced by the DNR are listed in the box at left. **Local units of government may have additional dock rules related to public safety and social issues.**

Ownership of shoreline and a dock does not confer ownership of the lake bed or water near the shore. An owner’s lot lines usually end at the water’s edge and do not extend under water. Additionally, private property in the water, such as a dock, does not extend property rights to the water around the dock. Conflicts sometimes occur when anglers in boats are discouraged by dock owners from fishing near the owners’ docks.

Many citizens remain concerned about the impact of lakehome and shoreland development on fish and wildlife habitat. Most lakehome owners do not intend to harm fish and wildlife habitat with their docks, but the negative impacts of these structures are well documented. Some citizens also are concerned about the impact on scenic views of installing large docks and boat lifts. What dock configurations and dimensions are appropriate is a topic of concern to the DNR, lake associations, anglers, lakehome owners, and others. The appropriate balance for the dock owners and the natural resources will require collaboration by all of those interests and other citizens.

