

the vermilion sportsman



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

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Update on the Proposed State Park on Lake Vermilion

Terri Yearwood, Project Manager — Department of Natural Resources — January 21, 2008

On January 15, 2008 the Minnesota Department of Natural Resources Advisory Task Force on the Proposed Lake Vermilion State Park presented its recommendations to DNR Commissioner Mark Holsten. Task Force members Steve Abrahamson, Mayor of Tower, and Rod McPeak, of Breitung Township, spoke on behalf of the group. Commissioner Holsten answered questions and gave an update on the proposal status.

This meeting was the culmination of the Advisory Task Force's work, which began in September 2007. The DNR Commissioner brought together this group of representatives from local units of government and other key stakeholders to provide recommendations on the local and regional issues related to the park proposal and the types of experiences that might be made available at the new state park.

Since then the Task Force met monthly to develop recommendations. In November, the DNR and the Task Force also hosted an Open House in the City of Tower where citizens could ask questions and provide their comments about the proposed park. In December, the Task Force met to finalize its recommendations and then attended a public meeting hosted by the City of Tower and Breitung Township for an additional question & answer forum.

The Task Force discussions centered on the range of opportunities, desired future resource conditions, and types of state park experiences that could be provided at a new state park on Lake Vermilion. The group also identified local economic and political, outdoor recreation, and natural and cultural resources issues to be addressed in the park master planning and natural resource assessment processes. Highlights of the Advisory Task Force Recommendations are included below.

Next Steps for the Proposal

U. S. Steel has given the State of Minnesota a one-year window of opportunity to reach agreement on a purchase price

for approximately 3,000 acres along the eastern shore of Lake Vermilion and adjacent to Soudan Underground Mine State Park. The time line for this proposal began in July 2007. Since then, the DNR has initiated an appraisal process, which is still under way as of this date. The recommendations from the Commissioner's Advisory Task Force are being used by the DNR to prepare the cost estimates for park development. Once the purchase price is agreed upon, Governor Pawlenty will present a funding recommendation to the legislature, which convenes on February 12, 2008. From the Governor's 2008 Capital Budget Recommendations:

(Continued on Page 3)

***We're all invited to
the Sportsman's Club
40th Birthday Party!***

***It's a party! -- to celebrate our 40th birthday.
Hard to believe, but our
Sportsmen's Club of Lake
Vermilion is turning 40 in
2008 -- and we're planning
a PARTY!***



1968 - 2008

***We've reserved the ballroom at Fortune Bay
Resort on Saturday evening, August 9th-- DNR
Commissioner Mark Holsten will be on hand
to help us celebrate -- the officers and directors
of the club promise to keep business to
a minimum -- the buffet and door prizes will
be terrific -- and we're looking forward to an
evening of sharing our memories and our
accomplishments.***

Plan to be with us. More details later...



PRESIDENT'S MESSAGE...

Once again, greetings from the frozen tundra! Time to sit back, snuggle up with a good book (or three or four), a HOT drink of your choice and dream of being out on the lake bobbing up and down in the gentle waves, caused by high-powered boats racing from one hot spot to another in search of the perfect fishing hole! This winter has had a couple of real old-fashioned cold snaps in the -25 and colder range. Blame it on global warming — allowing all that Canadian air infiltrating over the border without passports! However, I don't think terrorists would be too anxious to come across under shelter of the cold weather.

Several Sportsmen's Club board members have been actively participating with the State Park Advisory Committee that finalized its report to the State Legislature this past January. It was submitted to the Legislature in February. The board voted to support the effort to establish a State Park on Lake Vermilion because the majority opinion was that it would preserve that property for future generations to enjoy. The Board, of course, cannot speak for every club member. We realize there are still some negatives that need to be addressed such as tax loss to Breitung Township. We also think that these negatives can and will be fairly handled by our legislators. Please take the time to contact our local and other state legislators to express your thoughts. We (the Board) would also appreciate hearing from you. This is a one-time opportunity to establish the first major State Park on a large lake in Minnesota!

U.S. Steel is continuing to pursue the subdivision of that property for sale to private parties if they cannot reach agreement with the State to purchase it. They presented another proposal to the St. Louis County Planning Commission on the 25th of January. We'll update you in the next newsletter.

Duane Williams, MNDNR, will be addressing our March board meeting giving us the "State of the Lake" and telling us about a new walleye fry marking program. "This project involves marking all walleye fry stocked back into several lakes that have major

egg-take stations, including Vermilion, Winnibi-goshish, Ottetail, and Woman. The walleye fry will be marked by immersion in a solution containing oxy-tetracycline, which leaves a permanent mark on the fish's bony structures that can be identified at later stages of life. There is no other effect on the fish. Marked walleye fry will be stocked in these lakes for five years, beginning this spring. The goal of the project is to determine how many walleye fry are produced naturally in these lakes and what level of stocking will maximize return of walleye to anglers. Similar marking projects were done on Red Lake and Leech Lake in recent years and contributed greatly to the understanding of walleye reproduction and early life history in those lakes." (See article on page 7.)

We are moving ahead with the Coast Guard Auxiliary's "Boating Safety Course" scheduled for Saturday, April 12, 2008, at the Greenwood Town Hall. We need a good turnout for this course in order for us to sponsor it so please consider it! Most insurance companies will give premium discounts for having completed this course, as it's a nationwide program. More information is included in this newsletter.

I mentioned in a previous newsletter that Greenwood was considering an aerial survey to detect areas of excessive pollutants being dumped into Lake Vermilion. Greenwood has advertised for bids and this will be discussed further at the township annual meeting in March.

Just eight weeks more of winter, then we'll be getting our summer stuff out again, reading up on planting gardens and dreaming of fishing. Keep the snowmobile suits ready for opening weekend, of course! By the way, the DNR is considering moving the opener ahead by one week so it doesn't interfere with Mother's Day. What are your thoughts on that?

To another great year on Vermilion!
Walt Moe, President

CALLING ALL HISTORIANS AND PACKRATS!



We need your help! 2008 is the 40th anniversary of the founding of the Sportsmen's Club of Lake Vermilion and we are trying to pull together a comprehensive history of our progress. We need ISSUES OF THE VERMILION SPORTSMAN PRIOR TO 1992. If you have any copies you are willing to share (they will be returned if you wish), or other historical items, please contact Judy Moline at judymoline@hughes.net or at 8780 Raps Road, Cook, MN 55723. Your efforts will be rewarded at the Annual Meeting on August 9th, 2008, at Fortune Bay Casino.

State Park continued from front page...

The Governor supports this action to acquire land and develop a new state park on Lake Vermilion in Northern Minnesota, but he is not making a specific request at this time because cost of acquisition is unknown. When a purchase price is negotiated, he will make a supplemental capital budget recommendation to cover the cost with user-financed general obligation bonds with the environmental trust fund being the source of user financing.

(<http://www.finance.state.mn.us/>)

For complete coverage of the proposed Lake Vermilion State Park visit: http://www.dnr.state.mn.us/state_parks/lake_vermilion/index.html

Commissioner's Advisory Task Force Recommendation Highlights

Goals for Natural & Cultural Resources

- Preserve the integrity of the lake by keeping it as natural as possible.
- Protect the shoreline, steep slopes, wetlands, and scenic vistas.
- Work with the Bois Forte Band in the management of cultural resources within the park.

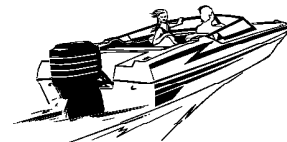
Park Development

In addition to the facilities that are already in place at Soudan Underground Mine State Park, planning efforts should use the topography and terrain to lay out a set of roads, trails, and facilities for park visitors.

Provide a wide variety of outdoor recreation for

(Continued on Page 4)

BOATING SAFETY CLASS OFFERED



Have you ever noticed a reckless boat driver while enjoying a day on the lake? Have you ever wished EVERYONE would be more informed and careful? Do you shudder when you hear of a boat accident on the lake and give thanks that it wasn't someone you know? Are there times when you wish you or others were more confident in a scary situation? If so, we have a top-notch course for you.

This is a U.S. Coast Guard Auxiliary OFFICIAL class offered nationally to promote boating safety. It includes a 58-page manual covering types of boats, propulsion methods, laws, EPA issues, safety equipment, safe boat handling techniques, tips on safe docking, navigation aids and rules, boating problems with great solutions, trailering and storing hints, waterskiing, PWCs, hunting and fishing tips and river boating. The course is a one-day session and will be held at the Greenwood Township Hall on Saturday, April 12, 2008, at 9 a.m. with Tim Engrav from the Ash River Coast Guard Auxiliary as teacher. There will be coffee and a light lunch served. Successful completion of the course will result in a certificate you can present to your insurance agent which might result in a premium discount. Cost of the course is \$40. To register, complete the form below and mail it with a check to the Sportsmen's Club of Lake Vermilion to BOATING SAFETY COURSE, SPORTSMEN'S CLUB OF LAKE VERMILION, P.O. BOX 696, Tower, MN 55790. This is a great opportunity for you and members of your family to get SAFE on the lake, so sign up today.

REGISTRATION FORM FOR BOATING SAFETY CLASS

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

PHONE NUMBER _____

E-MAIL _____

Return Form To: Boating Safety Course
Sportsmen's Club of Lake Vermilion
P.O. Box 696
Tower, MN 55790

Course cost: \$40 Enclose check payable to SCLV

Remember Minnesota's nongame wildlife fund on your MN Individual Income Tax Return



It's tax time once again and as we fill out our Minnesota Individual Income Tax Returns, Minnesotans will notice the checkoff line where they can contribute to the state's Nongame Wildlife Program. The line is marked on the tax form with the silhouette of a loon. This opportunity to donate directly to the wildlife fund has been available to taxpayers since 1981.

What is this money used for and how does it help wildlife? Donations to this fund are used by the DNR's Nongame Wildlife Program for a number of comprehensive statewide efforts to help protect and manage the state's nongame wildlife species, which includes more than 700 kinds of birds, mammals, reptiles, amphibians, fish, butterflies and selected invertebrates that are not traditionally hunted or harvested. This also includes conservation efforts for threatened and endangered species. Specifically, the species that have benefited from these efforts are bald eagles, trumpeter swans, peregrine falcons, eastern bluebirds, Blanding's turtles, bats, timber rattlesnakes, great blue herons and other colonial water birds like egrets and grebes.

The money raised also helps acquire land and easements to protect habitat, manage prairies, forests and wetlands, create buffer zones along lakeshores, assist private landowners and local governments with habitat management, and fund educational programs.

Donations of any amount are welcome. According to the DNR, it is the smaller contributions -- in the one to ten dollar range -- that have been the mainstay of the program throughout the 27 years of the fund's existence. Please remember our nongame wildlife and "look for the loon" on your MN Individual Income Tax Return.

(Information supplied by the office of Carrol Henderson, DNR Nongame Wildlife Program supervisor.)

State Park continued from Page 3...

visitors, from physically active pursuits to quiet, passive activities.

There may be an opportunity for a portion of the park south of Highway 169 to be used for skill development that involves unique features or space from other activities. In order to realize this opportunity, a bridge or culvert connecting the two pieces of property should be part of the park development.

Provide WiFi connections for the benefit of the visitors to access the Internet, download park information, and create park experiences such as geocaching and natural resource research.

Demonstrate and interpret environmentally friendly development and operating practices.

Trails

Provide low-impact activities such as hiking and cross-country skiing.

A spectacularly designed cross-country ski touring

trail that includes overlooks for the northern lights and trails through the big pine along the lake and by the rock outcrops would attract visitors from a long way away to the community.

Provide bike trails within the park and provide connections to local trails, including the Mesabi and Taconite trails, for park access and egress for motorized and non-motorized users.

Youth Attractions

In order to attract youth, the facilities at the park should create excitement about Lake Vermilion, the forest and wetland, and the cultural history of the Tower-Soudan area.

Electronic communications such as WiFi and podcasts will be key in connecting with youth and providing current and valuable information to make their activities more challenging and rewarding.

Incorporate healthy lifestyle skills with fun activities that youth will see of value to their future. Activities may be passive (photography center, food harvesting, nature

(Continued on Page 5)

State Park continued from Page 4...

walks) or active (hunting and fishing skills, rock climbing, 'survivor' game skills) but relate directly to the park and its resources.

DNR could build a youth camp to help develop another generation of citizens who have an appreciation for Minnesota's natural and cultural resources. This could be done in cooperation with non-profits, schools, and churches in the area.

Camping

Consolidate camping development to reduce impact to the resource.

Examine and analyze a variety of camping experiences to balance opportunity and impacts.

Build a limited number of camper cabins, which will provide a rustic experience along a trail system.

Lake Access

The park will need a good prevention program of monitoring and checking boats for invasive species and could serve as a model for other lakes and even other public ramps on Lake Vermilion.

In providing access to and from Lake Vermilion, work within the limitations of shallow bays by establishing no wake zones and locating ramps, launches, and docks to avoid visual impacts from the lake and traffic congestion on the shore.

Provide lake access for people without boats, such as a pier, where visitors, especially children, can see the lake, fish, etc.

Interpretation and Education

Lake Vermilion can be used to educate visitors about healthy water ecosystems.

The park could serve as a leading resource for education on invasive species prevention by incorporating literature and classes with other nature learning opportunities.

Use the park to educate visitors about the land ecology, about a site located in a transition zone, and about the effects of climate change on this particular site.

The geology of the site can be used to understand the history of human inhabitation of the area with displays, interpretive trails, and a connection to Soudan Underground Mine State Park.

This area has a wealth of history for educational and interpretive opportunities, including American Indians through the Bois Forte Band, the ethnic groups that make up the area's population, Soudan Underground Mine and the Stunz Bay historic district, the early logging history of the area, and the lake's fishery and history of lake transportation.

A year-round park could include a focus on winter experiences: the opportunity to learn about the winter world and winter recreation skills such as camping, hiking, cross-country skiing, dog sledding, snowshoeing, and ice fishing.

Technology can be used for education and interpretation programs, to acquaint potential visitors to the park, and to lessen impacts to the resource.

Benefits to the Local Community

Developing the state park could result in a greater customer base for existing businesses and an increased amount of money being spent in the local community.

The park should provide an affordable experience for visitors. DNR should strive to create a facility that is an attraction 12 months of the year.

A park would give the opportunity for local businesses to provide private concessions and result in a positive local real estate effect in general area.

Consider creating a Park Advisory Board to include local and tribal government, business, Lake Association, and other appropriate groups.

Use electronic communication technology to share information on private recreation available in the area and to update resorts and businesses on park activities and information.

Issues & Concerns

There are four major issues for Breitung Township with the proposed state park on Lake Vermilion:

- Loss of local property tax base—develop strategies to address this issue
- Limited opportunity for commercial development regardless of local zoning options
- Increased traffic and noise—find ways to mitigate the negative impacts; work with MnDOT to determine what park visitation projections would mean for capacity on Highway 169.
- Use of Stunz Bay for a park boat launch—continue local community access to the boat launch and boat-houses, address potential traffic congestion and user conflicts.

Share communication and training between the park and the community on how to respond to emergency incidents at the park.

A major concern is the introduction of invasive species through increased boat access to the lake.

A park on Lake Vermilion should provide a different opportunity for visitors and not duplicate local marina and resort services. Focus on what is unique about this area—its natural resources and its rich history and culture.

THE GOOFY SEASON IS UPON US

BREEDING SEASON THAT IS

We (my wife and I) live full time on Lake Vermilion in a remote location. One of the most interesting aspects of our life here is the mid-winter breeding season of the timber wolves, red fox and bald eagle.

Wolf packs are a family group consisting of a breeding pair and their young of a few years. The pack that has its territory where we live seems to have on average eight or nine members, and territories can be 50 to 120 square miles. Personally, I think there are more wolves than that. Last year (2007) in February-March the pack stayed close and sang-howled a lot at all times of day and night, sometimes distant and sometimes very close. In fact, one cold morning last February, as I went out, I discovered that a wolf had investigated us. It had walked in close and completely circled the house and then stepped onto the deck before continuing on its way. And no, there are no pet dogs that big in the area. All the noise, clamor and territorial “marking” has to do with the season. It continues this year, “08.” As I travel to work in the mornings I’m amazed at the marking that the wolves and the red fox have done since last night.

The red fox is not a pack animal, so no pack noise. The only sounds that I think came from fox was some sharp barking and snarling that sounded too “small” to be from a wolf. Most of the entertainment from the fox has been the inline tracks in the snow and all of the “advertising.” And, if you are lucky enough to watch a fox hunting, the leaping and pouncing on mice or whatever, it’s fun.

It won’t be too long before the eagles will start their aerial acrobatics, soon followed by the other birds.

Time seems to fly and it’s never very long before something interesting is going on, in and around the shores of our great Lake Vermilion.



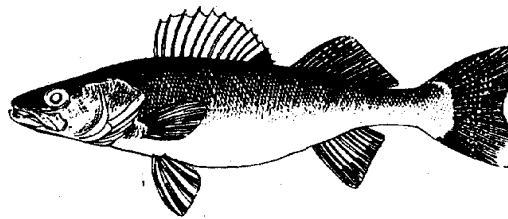
Gary Lundquist
Board Member

Walleye Fry Marking Project Starts on Lake Vermilion This Spring

The Minnesota DNR Section of Fisheries will begin a research project this spring to evaluate walleye natural reproduction and fry stocking on several Minnesota lakes that have walleye egg-take stations, including Lake Vermilion, Lake Winnibigoshish, Woman Lake, and Ottertail Lake. The project involves marking all walleye fry stocked into these lakes over a five-year period beginning in 2008. The fry will be marked by immersion in an oxytetracycline bath, which leaves a permanent mark on the fish's bony structures that can be identified at later stages of life. There is no other effect on the fish. Small walleye will then be checked for marks later in the summer and estimates of wild fry will be calculated. Walleye will also be checked for marks later in life to determine long-term survival and return to anglers.

Similar marking projects were done on Red Lake, Leech Lake, and Woman Lake in recent years and contributed greatly to the understanding of walleye reproduction and early life history in these lakes. Researchers found the walleye egg-hatch rate in the wild can be much lower than previously thought. It has been DNR policy on egg-take lakes to stock at least 10% of the egg production back into the parent lake to compensate for egg removal. This far exceeds the number of fry the harvested eggs would have produced in the wild. Researchers also found the number of walleye fry needed to produce strong year classes was much lower than previously thought. A number of strong year classes were produced on Red Lake, Leech Lake, and Woman Lake at total fry densities (wild fry and stocked fry combined) under 650 fry per littoral acre. The littoral area of a lake is the portion under 15 feet deep and is the most productive area of a lake. Put-back stocking on egg-take lakes has ranged from 1,000 to 6,000 fry per littoral acre, well above the number needed to produce strong year classes. This has raised concerns that these high stocking rates could be counterproductive, result-

ing in increased competition, slower growth and poor survival. Our assessment program on Lake Vermilion has shown that first year growth is very important to producing strong year classes. Small, slow growing young-of-the-year walleye generally have poor over-winter survival and produce poor year classes.



The goal of this project is to determine what level of total fry abundance (wild fry and stocked fry combined) will give the best return of walleye to anglers. Various levels of total fry abundance will be tested over the five-year period; from 250 fry per littoral acre to 2,000 fry per littoral acre. Researchers will predict wild egg and fry production

with a model that is based on assessment gill net catches of mature females the previous fall. Stocking rates will then be adjusted to reach the desired level of total fry abundance. This methodology worked well on Red Lake, Leech Lake, and Woman Lake. The various stocking rates will be evaluated by how many 2-year-old walleye are caught during population assessments two years after the stocking.

Because fish production on lakes is limited by fertility and other factors, stocking excessive numbers of walleye is unlikely to produce more fish, and may actually be detrimental. Too many small fish could increase competition, slow growth, and reduce survival. This research will better define the optimal number of walleye fry needed to produce strong year classes and provide a tool to maximize the number of walleye available to anglers. If anyone has questions about this project, please feel free to call, e-mail, or stop by our Tower office for a visit.

Duane Williams, Large Lake Specialist
Phone: 218-753-2580 ext. 224
E-mail: duane.williams@dnr.state.mn.us

SPORTSMEN'S CLUB OF LAKE VERMILION COMMENDED BY MINNESOTA ASTRONOMICAL SOCIETY

The Sportsmen's Club recently received a letter from the Minnesota Astronomical Society congratulating our organization for its efforts in promoting outdoor lighting practices which help to preserve the quality of the nighttime sky in the Lake Vermilion area. In addition to publishing educational articles in the newsletter, Club board members, serving on citizens' advisory committees have successfully encouraged the inclusion of language in the proposed Vermilion Plan and Lake Vermilion State Park recommendations which strive to protect the "night sky" experience. Residents and visitors have, historically, associated nighttime on Lake Vermilion with the ability to view the northern lights and a spectacular sky filled with stars and planets. A copy of that letter follows:

Minnesota Astronomical Society

*P.O. Box 14931 — Minneapolis, MN 55414
952-467-2426 — www.mnastro.org*

*Sportsmen's Club of Lake Vermilion
P.O. Box 456
Cook, MN 55723*

January 15, 2008

The Minnesota Astronomical Society would like to congratulate the Sportsmen's Club of Lake Vermilion for its efforts to control outdoor lighting and preserve the quality of the nighttime sky in the Lake Vermilion area. The Sportsmen's Club clearly recognizes the beauty and majesty of the nighttime sky and has worked to control unnecessary lighting. Proper nighttime lighting is good for the environment because it doesn't waste energy and does not disturb the habits of wildlife. Just as land management preserves landscapes, controlled outdoor lighting preserves the nightscape and can even help to preserve property values.

The Minnesota Astronomical Society thanks you for your efforts and encourages you to continue to help preserve the night sky for all to enjoy.

*Signed,
Bill Kocken
Secretary,
Minnesota Astronomical Society*

THE ADVANTAGES OF BEING “DARK SKY - FRIENDLY”

*The following article from SkyandTelescope.com —
“Saving Dark Skies - Your Home Lighting Guide” —
provides some good basic information on this timely topic.*

How to light your home safely

How to light your home safely, save energy, and decrease light pollution at the same time.

by Rachel Thessin

We astronomers are engaged in a long, difficult effort to fight light pollution and regain our dark, starry skies. But do we practice what we preach? Take a look outside your home. Do your fixtures shine light into your neighbor’s window and toward the sky, or do they send all their light onto the ground? Can you see the bare bulbs from a distance, or are they shielded? Do you illuminate your house when no one is awake to admire it?

Reducing the glare from your home’s exterior lighting is a common-sense courtesy to your neighbors, who, like you, have every right to a dark bedroom at night. But it is in your best civic interest as well: to promote a safe, pleasant nighttime environment, many jurisdictions are passing laws that prohibit light trespass, rays that shine from one property onto another. What’s more, “dark-sky-friendly” practices will reduce your electricity bill. How? By ensuring that all your fixtures direct their light onto the ground, instead of spraying it up and all around, you can achieve the desired level of illumination with lower-wattage bulbs. Each watt saved means more money in your pocket.

Home lights waste even more energy (and money) when they shine unneeded throughout the night. Let’s look at converting a 200-watt security light from continuous dusk-to-dawn operation to having it on only when triggered by a motion sensor. Shining all night, it will be turned on about 4,100 hours over the course of a year and use 820 kilowatt-hours of electricity, costing you \$82 (at \$0.10 per kilowatt-hour) in the process. However, the same light, activated by a motion sensor a few times each night, will shine for no more than about a half hour during darkness and use less than \$4 in electricity annually. These remarkable savings recover the \$20 cost of a standard motion sensor in the first three months.

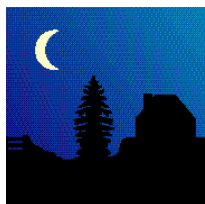
Poor Lighting Increases the Chance of Crime

Beyond this needless expense, however, poor lighting may actually increase the chance of crime against your home and family. In its Recommended Practice Guideline 33 (issued in 1999), the Illuminating Engineering Society of North America states: “Too often people associate more light or brighter light with safer surrounds. It can be easily demonstrated that too much light, or poorly directed light, causes a loss of visibility.” When you look toward a glaring, poorly shielded fixture, the pupils of your eyes constrict in response to the bright light — despite being in otherwise dark surroundings. As even novice skywatchers know, your eyes then require several minutes to readapt before they can again see properly in the dark. Such glare can temporarily incapacitate your vision, making it uncomfortable (if not impossible) to view anything near its bright source. Worse, overly bright lights cast harsh shadows in which intruders can hide from view.

A shielded fixture with a lower-wattage bulb, on the other hand, disrupts your dark adaptation less and allows you to see more of everything around you. Arranging your home’s lights for evenly distributed illumination will minimize harsh shadows. And, of course, your eyes will adapt to the dark faster as you leave the proximity of your house.

Let’s face it: for most homeowners, an outdoor-lighting “makeover” is long overdue. With this in mind, we researched more than 20 manufacturers of residential lighting, talked to lighting contractors, and visited major U.S. retailers to create a consumer guide to purchasing dark-sky-friendly light fixtures.

(Continued on Page 10)



(Continued from Page 9)

THE ADVANTAGES OF BEING “DARK SKY - FRIENDLY”

Preliminary Considerations

Before heading to the hardware store, consider what you are trying to illuminate and why. Is your lighting for security, increased visibility, or aesthetics? Do you really need to cover your entire yard, or just specific areas next to your house? The intended use of the light affects how bright it needs to be. Usually low-wattage fixtures suffice for an entryway or for decorative illumination, while something stronger might be warranted to light up a patio or parking area. As shown below in “Bulb Basics,” some sources create light more efficiently — or have longer lifetimes — than others.

The intended purpose also determines how long a fixture should remain on each night. For example, you may have decorative lighting to accent your home’s exterior or landscaping. If so, consider installing a timer so it operates only while members of your household are awake.

With few exceptions, no security light needs to be on from dusk to dawn. Unless you’re in the habit of looking out your bedroom window all night long, such continuous operation merely provides the means for a criminal to survey your home’s exterior from afar or, worse, to show where to break in. If you’re concerned about safety, choose a motion-sensing fixture, because by turning on it alerts you and your neighbors that someone (or something) is moving around outside. Most models have manual override switches to keep them turned on (or off) continuously.

Ideally, everyone would choose to install full-cutoff fixtures, which emit no light above horizontal. Let’s be realistic, however. Most homeowners are unlikely to put up poles in the middle of their yards just so they can illuminate the surrounding areas with full-cutoff lighting. Instead, you’re going to attach a fixture to the side of your house, then point it to shine the light outward. So if illuminating your entire yard is important, at least try to minimize the damage: aim the fixture and use glare shields to fine-tune exactly where the light shines, and place it high on your house so that it can be aimed down as much as possible and still illuminate the yard. Attach the light to a motion sensor, and always use the lowest light output that you need.

Sometimes the offending light isn’t yours but a neighbor’s. Obviously, such situations need to be approached diplomatically. Offering a little guided tour of the night sky through your telescope can be used to bring up the subject, or you can always take a more direct — but friendly — approach. (Don’t forget to emphasize the possible cost savings.) If your neighbor agrees that some modification is in order, you could try to shield the existing light. Unfortunately, shields are almost never available for residential outdoor lighting — you will probably need to fashion one yourself. If it’s worth it to you to have glare-free nights, just consider buying your neighbor a new fixture!

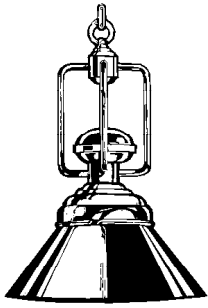
Bulb Basics



Bulb Type	Watts	Mean Lumens	Lifetime (years) ¹ dusk-to-dawn	Lifetime (years) ² motion sensor	Power cost 1-yr ³ (d-to-d)	Power cost 1-yr ³ (m-s)	Power cost 5-yr ³ (d-to-d)	Power cost 5-yr ³ (m-s)
Incandescent (flood)	150	2,000	0.5	11	\$61.50	\$2.75	\$307.50	\$13.75
Mercury vapor	100	3,230 ⁴	6	— ⁵	55.35	—	276.75	—
Quartz halogen	100	1,400	1.5	20+	41.00	1.85	205.00	9.25
Incandescent (frosted)	100	1,690	0.2	5	41.00	1.85	205.00	9.25
Incandescent (frosted)	60	840	0.2	5	24.60	1.10	123.00	5.50
High-pressure sodium	50	3,600	6	— ⁵	27.10	—	135.50	—
Compact fluorescent	25	1,750	2.5	— ⁵	10.25	—	51.25	—

¹Based on an average use of 11.25 hours per day (4,100 hours per year). ²Based on six 5-minute cycles per night. ³Based on actual wattage used by fixture and electricity costing \$0.10 per kilowatt-hour. ⁴Initial lumen output is 4,100; output decreases significantly over time. ⁵Long warm-up time precludes use in motion-sensor applications.

(Continued on Page 11)



Roaming the Aisles

Three categories of exterior lighting await you at your neighborhood home-improvement store: “security,” decorative, and path. Unfortunately, many outdoor-lighting offerings control their output poorly and waste energy needlessly, so learn to discern the good from the bad by asking questions and examining various fixtures carefully. But if you must choose from among the “lesser of evils” that you find at local retailers, here are some basic guidelines:

- Ask for “glare-free” or “neighbor-friendly” lights — many retailers and manufacturers were confused when we mentioned “dark-sky-friendly” or “full-cutoff” fixtures.
- Look for fixtures that direct the light where you want it — down, toward the ground.

These will have an opaque cover that hides the bulb itself from view to the side, or they may have glare shields.

- Buy lights with motion sensors, if possible, or buy one that allows you to attach a motion sensor yourself.
- Be wary of a fixture that merely claims to be dark-sky friendly. Determine for yourself whether it will create glare, or is simply too bright for your intended purpose. (Note that “Energy Star” fixtures contain energy-efficient bulbs, but they still may shine much of their light toward the sky.)
- Remember that fixtures are frequently marked with the highest-wattage bulb that they accept — but choose instead the lowest wattage that you need.

You may have some luck finding a dark-sky-friendly security or area light, as a few good ones have been introduced recently. In any case, look for the lowest-wattage floodlights possible (as mentioned earlier, an excessively strong source can do more harm than good), and if you have to angle the floodlight slightly upward, attach a shield so that the light goes only where needed.

If you’re determined to have a light stay on all night, consider dual-brightness fixtures with motion sensors; these shine at partial brightness until activated by someone walking by, at which point they temporarily switch to full intensity. Expect to spend \$35 to \$50 for a good area light and \$10 to \$90 for a motion sensor with floodlights attached. You can also buy motion sensors alone (\$10 to \$60) that can be screwed or wired into your existing fixtures.

Good decorative fixtures are much harder to come by. Designed to look nice in daylight, almost all have glass sides that expose the glaring bulb to direct view and spill light in all directions at night. So if you must have these outside your home, base your purchase on performance, rather than good looks alone, and use low-output bulbs. Hampton Bay (Heath Zenith), Regent, and Surveillance brands all offer \$30-to-\$50 decorative fixtures equipped with motion sensors, or you can attach a sensor to your existing light.

Path lighting is least problematic from the dark-sky standpoint. Closely spaced and low to the ground, these lights use low-output bulbs and tend to be well shielded. Individual fixtures run from \$6 to \$70, and many are solar powered. But displayed along with these you’ll often find landscape lighting, which is used to illuminate trees and buildings from the ground up. They send most of their light skyward — hardly dark-sky friendly — though many models use low-wattage bulbs. If you use landscaping lighting, whenever possible place the fixtures well above ground level (look for tree mounts) so that the light shines down, and place the lights on a timer so that they are on only when people are around to admire them.

You may not find a specific fixture on the store’s shelves. However, both Lowe’s and Home Depot allow you to special order any product that their manufacturers offer; Lowe’s even has catalogs in the aisle for your perusal. Sears Hardware maintains a “buy list” from which you can order. You can also head online to search for fixtures that are truly dark-sky friendly.

Please refer to this web site for further information and specific recommendations on outdoor lighting equipment: www.skyandtelescope.com. Our local electric utility, Lake Country Power, also offers security lighting designed to limit light pollution. Call the Lake Country Power Call Center - 1-800-421-9959 and ask for information on security lighting.

Dale Lundblad — Board Member

INVASIVE SPECIES

by Bob Wilson



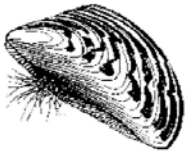
A friend of mine had his grandchildren visiting over the Christmas holidays. As one way to keep these energetic youngsters occupied he decided some ice fishing might be a good experience for them. Not wanting to venture too far from shore on snow covered ice that could be a little soft and occasionally watery underneath the snow's surface, he cut a hole very near their dock. He reported that the boys did not catch any fish, but did manage to bring in a large Rusty Crayfish. On Vermilion, we know about Rusty Crayfish. It seems they never rest. They are one more unnatural intrusion in our beautiful lake brought about by some fishermen (in the late '80s it's estimated) dumping their leftover Rusty Crayfish bait buckets over the side when they discovered our Vermilion fish weren't interested in them. One message here is always empty your bait bucket on land, not in the water and never dip your bait or minnow bucket into one lake if it has water in it from another lake.

Concern about Invasive Species continues to be the subject of countless articles and much research. Below are three headlines and a brief summary of each that has caught my attention. Have you seen them in your local newspaper?

Dogs sniff out tiny invaders that imperil pipelines!

(Detecting the mussel is vital to prevent water system breakdowns)

Kyrie, a three year old golden-coat Malinois, isn't barking at the birds. She's waiting for the word from her owner to leap into action again. Kyrie had just sniffed out a clump of Quagga mussels on a boat trailer, detecting the tiny shellfish in a crack behind the wheel. The dogs can find the patch of Quagga in a couple of minutes explained the Game Warden. A "sniffer" like Kyrie can cost between \$8000 and \$12,000 to train. The California State Department of Fish and Game said using the dogs saves the department about 800 work hours annually. The U of California-Davis has stated the Quagga is potentially disastrous for the state's pumping and irrigation systems.



ZEBRA MUSSEL

Inspector catches truck transporting zebra mussels! (November 07)

An inspector on duty at the St. Croix, MN weigh station caught a truck coming from Vermont and headed to No. Dakota that was weighted down with thousands of zebra mussels. The state impounded the truck and ordered it to be washed. The pump in the truck was used to suck algae from lakes and reservoirs. The company owner was quoted as saying, "We are an environmental company and never wanted to transport an Invasive Species." Train the employees to recognize "exotics" I say!

Oceangoing ships to dump ballast water before entering Great Lakes!

Proposed new rules would require oceangoing ships to flush their ballast tanks with salt water before entering the St. Lawrence Seaway. Ocean freighters are believed to be a leading cause of the invasive species invasion of the Great Lakes. The proposed regulations are scheduled to take effect in late March 08 before the shipping season begins. Under the proposed rule, ships carrying even small amounts water or sediment would have to rinse their tanks with salt water at least 200 miles off any North American shore. Environmental groups say the rule will be helpful, but does not go far enough.

Have a great winter wherever you are and help
"Stop Aquatic Hitchhikers!"



**STOP AQUATIC
HITCHHIKERS!**

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

A New Sportsmen's Club Website is Born

A few weeks ago, our new Sportsmen's Club website debuted at
HYPERLINK "<http://www.sportsmensclublakevermilion.org>" www.sportsmensclublakevermilion.org.
We invite you to check it out.

On the main page you'll find a section on "news" at the lake and a calendar of upcoming events. Inside the site there's information on the club's major activities, plus an archive of past newsletters. You'll also find information on how to join or renew your membership, how to volunteer to help with club projects that interest you and links to other websites related to our mission.

Our goal is to re-establish our website over time as a first class communication channel and resource for our members. Please let us know how we're doing and what you want the website to do for you. You can use the email link at the bottom of each website page or contact Jeff Lovgren at 218-753-2413.

	<h2>Sportsmen's Club of Lake Vermilion, Inc.</h2> <p>Since 1968, a non-profit organization dedicated to the improvement of Lake Vermilion</p>	<p>Cook, MN 14° F Light Snow at 3:15 PM</p> <p>Click for Forecast</p>
<p>Home Page</p> <p>President's Letter</p> <p>Our Mission</p> <p>Major Activities</p> <ul style="list-style-type: none">-Loon Count-Water Quality Monitoring-Invasive Species Prevention-Shore Lunch Sites-Night Navigation Lights-Northern Pike Spawning Area-Boating Safety-Rough Fish Removal-Scholarship Program <p>Contact Info</p> <ul style="list-style-type: none">-How to Join or Renew-How to Update Member Records-How to Volunteer-Contact an Activity Coordinator-Contact a Board Member	<h3><u>What's New at the Lake</u></h3> <p>The Sportsmen's Club Has a New Website!</p> <p>As you can see, the Sportsmen's Club of Lake Vermilion has introduced its new web site. Please look around and let us know what you think. We're still fixing a few problems and expanding several of the topics, so it'll probably look a bit different the next time you stop by.</p> <p>We would appreciate your suggestions and feedback. Please contact Jeff Lovgren at 218-753-2413 or feedback@sportsmensclublakevermilion.org.</p> <p>Don't forget to add this site to your browser's "Favorites" or "Bookmarks."</p> <p>----- ##### -----</p> <p>Proposed State Park on Lake Vermilion</p> <p>In July 2007, Minnesota Governor Tim Pawlenty announced a proposal to create a new state park on Lake Vermilion. It would be Minnesota's first new major state park in over 30 years.</p> <p>Mark Holsten, Minnesota Commissioner of Natural Resources, created an Advisory Task Force to provide recommendations on the local and regional issues related to the park proposal and the types of experiences that might be made available. The Task Force report, presented to Commissioner Holsten on January 15th, will form the basis of the concept plan presented to the legislature.</p> 	<h3><u>Mark Your Calendar</u></h3> <p>2008 Annual Meeting Sat, August 9, 2008 Fortune Bay Resort</p> <p>Mark Holsten, Minnesota DNR Commissioner, will join us to help celebrate our 40th anniversary as an organization. Please plan to be there, too! More info coming later.</p> <p>----- ##### -----</p> <p>Ice House Removal Deadline Sat, March 15, 2008</p> <p>Time to park the ice house for the off-season. And to turn your attention to getting the boat ready.</p> <p>----- ##### -----</p> <p>Boating Safety Course Saturday in April Greenwood Town Hall</p> <p>Instructor: Tim Engrav, Ash Lake Coast Guard Auxilliary. Two 4-hour sessions with light lunch. Completion of course may provide discount on boat insurance. [More Info]</p> <p>----- ##### -----</p> <p>Ice Out on Lake Vermilion</p>

TO OUR MEMBERS

Thanks to such a large percentage of you for so promptly returning your dues.

Following is a list of members who didn't receive their membership card for reasons the post office sent back because of "Unable to Forward," "Forward Time Expired," etc. Please review the list to see if you can be of help to me in locating them. Thanks!

Mardy Jackson, 218-753-3549
Membership Records
Box 696, Tower, MN 55790

Lannon and Mary Brown - 216 S. 11th St., Montevideo, MN 56265
Mr. and Mrs. Oscar Carlson - 2501 S. Soderholm Beach Rd., Cook, MN 55723
Ed Coppola - 13455 Noel Rd. Ste. 400, Dallas, TX 75240
Bob and Mary De Angelo - 2604 Indian Tr., McHenry, IL 60051
Timothy and Corinne Hannon - 5311 Sand Lily Dr., Naperville, IL 60564
Mr. and Mrs. H. Kern - P.O. Box 161280, Big Sky, MT 59716
Ron and Doris Nessett - 8979 Wakemup Village Rd., Cook, MN 55723
Mrs. Ethel Nehls - 202 Mitchell Circle, Duluth, MN 55811
Gordon DeLaRonde - 8766 Newburg Rd., Rockford, IL 61108
Gary A. Rathbun - 414 Charter Oak Pl., Dahinda, IL 61428
Mr. and Mrs. David Schaeffer - 5002 16th Ave. S., Apt. 205, Fargo, ND 58103
Tom Stenklyft - 4120 N. Woodridge Dr., Appleton, WI 54913
Mary Thorne - 117 111th St. NE, Blaine, MN 55435
Joe and Sue Tonko - 4451 Moccasin Point Rd., Tower, MN 55790
Eleanor Wren - 66 E. St. Marie St., Apt. 203, Duluth, MN 55803



BOARD OF DIRECTORS and OFFICERS 2007-2008

(All phone numbers are Area Code 218)

COOK (55723)

Ray Harris..... 7341 Oak Narrows Road 666-2300
Dale Lundblad 9082 Little Sweden Road. 666-2316 (B.I.C. 666-5352)
Ed Zottola 2866 Vermilion Drive..... 666-5542
Ed Tausk..... Vermilion Dam Lodge 666-5418
Judy Moline 8780 Raps Road..... 666-5716
Gary Lundquist..... PO Box 236 666-2756

TOWER (55790)

Walt Moe, **Pres.**..... 3331 Nisen Drive 753-3816
Mel Hintz, **Vice Pres.** 6119 Pike Bay Drive..... 753-2401
Paula Bloczynski, **Sec.**..... 4443 Big Rock Road..... 753-2107
Bob Wilson, **Treas.**..... 1501 Echo Point 753-5544
Jeff Lovgren..... 2113 Birch Point Road 753-2413
Mardy Jackson (Mem. Records)..... 2065 County Road 77 753-3549

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.

BOARD MEETS WITH STATE RESEARCH SCIENTIST ON WATER QUALITY

BY: Mel Hintz

In our last newsletter, we reported that the Sportsmen's Club had been selected by the Minnesota Pollution Control Agency (MPCA) to participate in the Citizen Lake Monitoring Program Plus (CLMP+) during the upcoming summer season. At our November Board Meeting, Jesse Anderson, MPCA Research Scientist provided further information on the program. He outlined the support provided by the MPCA and described the role of SCLV volunteers in conducting the monitoring program.

Mr. Anderson said \$40 million was set aside in the last legislative session under the Clean Water Legacy Act to be used for clean water initiatives by the MPCA, the DNR, and Soil and Water Conservation Districts. The MPCA has the statewide goal of collecting water quality data on all lakes over 500 acres in size.

Under the CLMP+, the MPCA provides all equipment, training, and covers all laboratory costs, estimated at \$15,000 for Lake Vermilion. SCLV volunteers will be responsible for collecting and processing the water samples and then delivering them to the DNR Tower Office for shipment to the lab for analysis.

Eight sites will be sampled twice monthly this summer from May through September. The MPCA will collect the first sample in May, the last one in September, and one of the samples in July with SCLV volunteers responsible for collecting the remainder of the samples. Due to the large size of Lake Vermilion, our plan is to divide the lake in two; east and west ends with a team of trained volunteers for each end responsible for four sites. Collection and processing of the samples for the four sites will take approximately six hours. Training for volunteers will take place in early May. If you are interested in volunteering to help with this program, please see our new website or call me at 753-2401.

MISSION STATEMENT of The Sportsmen's Club of Lake Vermilion, Inc.

— To promote and enhance the outdoor experience of Lake Vermilion for present and future generations by

- a. Maintaining and improving the Lake Vermilion fishery
- b. Promoting "Catch and Release"
- c. Promoting safe boating practices
- d. Establishing and maintaining a "Night Navigational Aid System"
- e. Establishing and maintaining shore lunch/picnic sites
- f. Monitoring and protecting area wildlife

— To protect and improve the water quality of Lake Vermilion by

- a. Monitoring water quality in cooperation with interested government agencies
- b. Promoting shoreline preservation and re-vegetation
- c. Monitoring exotic species and preventing their spread
- d. Promoting sound conservation practices in the Lake Vermilion watershed

— To educate club members and the public regarding issues which impact Lake Vermilion by

- a. Publishing a periodic newsletter and distributing it to club members and the public
- b. Maintaining an internet website containing previously published newsletters and other information about the club and Lake Vermilion
- c. Publishing news releases and articles pertaining to club activities in other publications

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, 2008____ to Jan. 1, 2009____) 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, Car Window Decals at \$1.00, and Game Fish/Invasive Species ID Cards at \$1.00 each.

HELP US MAKE A BEAUTIFUL LAKE EVEN BETTER!



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COOK, MINN.
Permit No. 25

→ DETACH HERE
→