

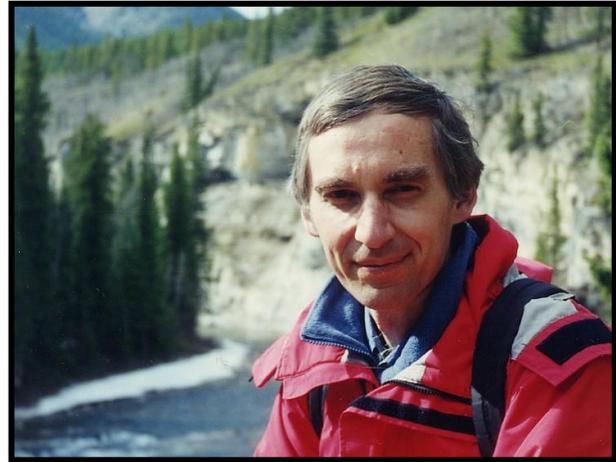
2012 NALMS Notes



February 2012

President's Message

This month I'd like to write about the kinds of support that NALMS provides to students and ways that you can contribute. Participation by students is very important to the renewal and long-term success of NALMS. A new student support fund (the Eberhardt Memorial Student Fund) was created in the spring of 2011 when the board of directors decided to merge the Eberhardt Memorial Fund, created to honor the memory of Tom and Elinor Eberhardt, with the student travel grant fund. The much older student travel grant fund was supported by the proceeds of the silent auction and direct donations at the annual symposium each fall.



The intention of the Eberhardt Memorial Student Fund is to provide support to encourage student membership and conference attendance. There is currently more than \$5,600 in this fund, and it now receives donations throughout the year plus proceeds from the silent auction. These funds are all available to support student attendance at each fall's symposium, this year at Madison, WI. This past year, 46 student memberships were also donated by a number of NALMS members and directors, following the example of one kind and generous member who has offered to pay for three student memberships for the past two years. For students wishing to apply for travel support, details are available on the NALMS web site (www.nalms.org).

You can contribute to the [Eberhardt Memorial Student Fund](#) by bidding on items at the silent auction each fall at the symposium, and by filling out [our Donation form](#) and sending it to the office. All donations are considered charitable contributions, and receipts will follow each donation. In the coming months, a student mentoring program will also be developed. Once this program is in place, there will be opportunities for NALMS members to help guide the careers of future lake managers and researchers.

Al Sosiak
President – NALMS
Al.Sosiak@telus.ne

WITHIN NALMS

Membership in Motion – Greg Arenz

Well it's February and Wisconsin's most famous marmot, Jimmy the Groundhog, has just predicted an early spring. As much as I typically enjoy complaining about Wisconsin winters, I'm unable to this year because our mild winter has made spring seem right around the corner since November. Nonetheless, Jimmy's prediction puts me in a spring mood and though it's early I'm already looking forward to spring prep activities like getting the last of the raised beds installed in the garden and helping my father prep his 1959 Dorsett for cruising on Lake Waubesa.



While spring may be a ways off yet, we're prepping a number of items here at NALMS as well. Planning activities continue for the [National Water Quality Monitoring Conference](#) coming up in April as well as this year's Symposium in Madison. And while I'm busy wrapping up our current renewal period, I'm already prepping renewal efforts for our March 30th renewal period. It seems like some of you are feeling the same way as we've had a number of early renewals for March already. Thank you to those of you who have already renewed for March! For those who haven't, keep an eye on your inbox and mailbox as I will start sending renewal reminders out soon.

As for the past December renewal period, I thought I would give a status report on NALMS' current membership. This period turned out to be more about maintenance and less about growth. While this is fairly typical of past December renewal periods, we were hoping to continue our trend of modest growth from the last two renewal periods. As of right now, NALMS is made up of 935 members, a nearly identical number to our last renewal period. Unfortunately member retention was lower than our 90% goal with an 83% rate of renewal among NALMS members whose memberships were set to expire on December 31, 2011. NALMS also experienced a 60% decrease in new members gained in this period compared to the last two periods.

Membership retention and new member growth are very important factors in continuing NALMS mission. As such, it is important that we rebound during the upcoming March renewal period. If your membership has expired, please consider renewing today either [online](#) or via [our mail-in application](#). And if you know of an individual that might be interested in NALMS, please contact me, and I will introduce them to the NALMS website and a sample of our LakeLine publication.

Now, I'd like to recognize all new and renewing members from the last month! We're delighted that we share a common goal for the management and protection of our lakes and reservoirs, and we look forward to the opportunity for continued growth and partnership with you over the years. And if you are interested in taking the next step with NALMS, please contact me about NALMS volunteer and committee opportunities.

New NALMS Individual Members:

Kamal Alsharif, Steve Bartosh, Marvin Boyer, Dean Hamontree, Ken Kelln, and Shay Shih

Renewing NALMS Individual Members:

Thomas Amidon, Martin Auer, Douglas Ball, Don Bonneau, Greg Boyer, Shannon Brattebo, Michael Chimney, Scott De Leon, Ray Drenner, Stephen Duda, Paul Easley, Anthony Gabriel, Kevin Grace, Mike Happe, Dave Hayman, Linda Heimburg, Steven Heiskary, Jim Hyde, Marian Keegan, George Kipphut, Paul Lucas, Jacob Macholl, Darrin Martin, Kellie Merrell, Fred Reimherr, Carroll Schaal, Jeffrey Schloss, Truman Sherk, Scott Stoodley, Steven Weber, Keith Williams, David Austin, Luis Bravo-Inclan, Deepayan Debnath, Stan Geiger, Albelee Haque, Brent Parsons, Clayton Penniman, John Rueter, Holly Hudson, Nancy Mesner, Lindsey Witthaus

Renewing NALMS Organizational Members and Libraries:

[Maine Volunteer Lake Monitoring Program](#) and [IEPA Library](#)

Finally, like last month, I want to again highlight a NALMS Membership Benefit of which you may not be aware. Through the NALMS/Taylor & Francis partnership, which brings many of you the *Lakes and Reservoir Management* journal, NALMS is able to offer all individual Professional, Lake Leader, Student and Emeritus members an additional gratis journal subscription each year!

NALMS members can choose from one of the following publications for free:

[Aquatic Ecosystem Health and Management](#)
[Coastal Management](#)
[Critical Reviews in Environmental Science and Technology](#)
[European Journal of Phycology](#)
[International Journal of Environmental Studies](#)
[International Journal of Water Resources Development](#)
[Journal of Environmental Policy and Planning](#)
[Journal of Land Use Science](#)
[Reviews in Fisheries Science](#)
[Society and Natural Resources](#)

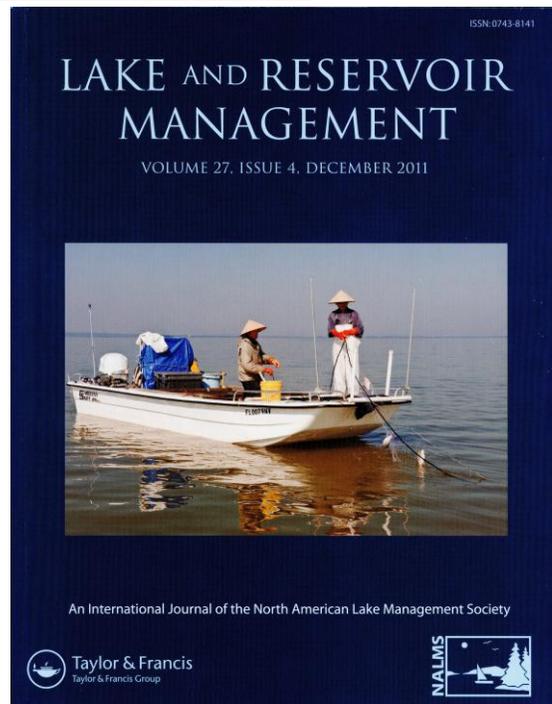
To take advantage of this offer, NALMS individual members should email me at garenz@nalms.org with the title of the journal they are interested in and a current email address where Taylor & Francis can send an access code.

Please, don't hesitate to take advantage of all your membership benefits! And as always, if you have any questions or concerns about your membership, please contact me at 608-233-2836.

Greg Arenz
Membership Services Coordinator
garenz@nalms.org

What's New in Lake and Reservoir Management (LRM)?

The scientific journal of NALMS, LRM publishes original scientific research and reviews with clear application to the management of waterbodies. Every issue has useful information in it, but the December issue of 2011 has the follow up to Lehman et al. 2009, in which the very positive result of removing phosphorus from lawn fertilizer was first demonstrated. Now with three years of data, the Lehman et al. 2011 paper indicates the reduction in several forms of phosphorus that can be expected when use of phosphorus-laden fertilizer ceases. This paper has very important management implications and will be on [the Taylor and Francis website as an open access paper for a limited time, starting very soon](#). If you do not subscribe to LRM and want to get a copy, get online and check it out while it is free. Of course, there are lots of other useful papers in the journal as well, and the December 2011 issue also has papers on the relation between average and maximum chlorophyll, results of biomanipulation, how to use periphyton to assess shoreline threats to water quality, and use of paleolimnology to inform lake management decisions. This is a great resource, so check it out!



UPCOMING CONFERENCES & EVENTS

NALMS 21st Annual Southeastern Lake & Watershed Management Conference

<http://science.kennesaw.edu/~jdirnber/SELM%202012/Conference.html>

This year's conference will be in Columbus, Georgia from May 13 to the 15th. The abstracts were due February 15th, and registrations are due now. Contact Marty Williams, Conference Coordinator, if you have any questions (gls@georgialakes.org).



NALMS is putting out a Call for Papers for this year's 32nd International Symposium

(www.nalms.org)

NALMS will hold this year's Symposium in Madison, WI from November 7th to the 9th. Abstracts are due by June 1, 2012. Registrations for accepted presenters will be due by August 24, 2012. Abstracts can be submitted online at:

<https://nalms.conference-services.net/authorlogin.asp?conferenceID=3171&language=en-uk>

Please see [our Call for Papers brochure](#) for more details on how to submit and contact the NALMS office at 608.233.2836 or at info@nalms.org if you have any questions.



Register for Webinar on Tool for Comparing Impaired Waters Restorability

Join EPA's Watershed Academy for a free webinar titled "Recovery Potential Screening: A Tool for Comparing Impaired Waters Restorability" on February 22, 2012 from 1:00 p.m. to 3:00 p.m. EST.

This webinar will help states, watershed groups, and others become acquainted with a new website and methodology for analyzing and comparing restorability differences among watersheds. The webinar will highlight the new recovery potential website, www.epa.gov/recoverypotential, which includes step-by-step screening directions, time-saving tools for calculating indices and displaying results, summaries of over 120 ecological, stressor and social indicators, a recovery literature database, and several case studies.

The recovery potential screening website was developed to assist complex planning and prioritizing, provide a user-customizable but systematic and transparent comparison approach, and help improve restoration program results. To register for this webinar, please visit www.epa.gov/watershedwebcasts.

EPA Announces 6th Annual Rachel Carson Intergenerational Contest

The U.S. Environmental Protection Agency invites the public to submit creative projects to the 6th annual Rachel Carson intergenerational "Sense of Wonder" contest. There are four categories: photography, essay, poetry, and dance. This year, in honor of the 40th anniversary of the Clean Water Act, the contest will focus on a "Sense of Water."

Contest submissions are encouraged to focus on the various properties of water – how it tastes, what it sounds like, how it feels, and what water means to the entrants.



The deadline for entries is June 1, 2012, and winners will be announced in September 2012. A panel of judges will select finalists in each category, and the winners will be determined by a public online vote that will begin in August 2012.

Carson is considered to be the founder of the contemporary environmental movement through her landmark book, "Silent Spring." The contest seeks to spur and instill the same sense of wonder Carson had among all generations.

The contest is sponsored by EPA, the Dance Exchange, the Rachel Carson Council, Inc., and Generations United.

For more information about the contest and to see the works of previous winners please see <http://www.epa.gov/aging/resources/thesenseofwonder/index.htm>

Save the Date – North Carolina Spring Workshop March 15, 2012

NC Lake Management Society Spring Workshop titled Fields of Green: Nutrient Management for Jordan and Falls Lakes will be at the Spruce Pine Lodge in Durham, North Carolina.



This all-day workshop will include presentations and discussions on water quality, State rules for nutrient management, how cities can reduce nutrients, managing nutrients from sand filter and septic systems, and others! Registration materials will be posted on the website at www.nclakemanagement.org. For vendor or speaker information, contact Michelle Woolfolk at the City of Durham, (919) 560-4326.

LAKE NEWS & INFORMATION

Lack of Ice and Winter for the Great Lakes and Surrounding States

From National Weather Service and NOAA

<http://www.glerl.noaa.gov/pubs/brochures/ice/ice.pdf>

The National Weather Service posted this satellite image of the Great Lakes on February 3rd. The Midwest and other areas of the lower 48 states have had a mild winter so far.

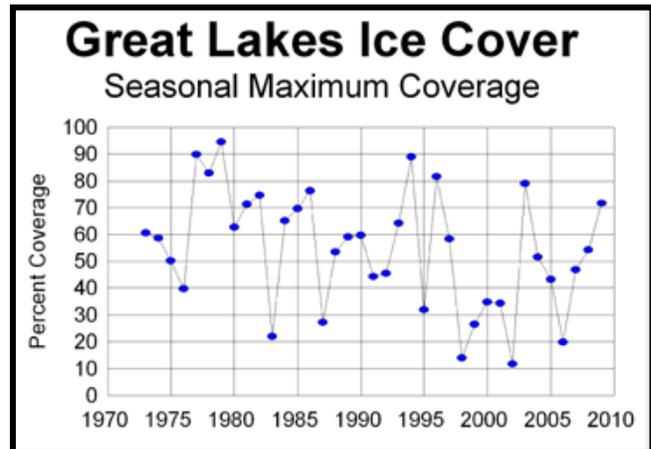
Approximately 90% of the Great Lakes are ice free (or only 10% is covered with ice). Comparing this to the chart of seasonal maximum coverage from NOAA, this year could be on the low side.



An image of a nearly ice-free Lake Michigan and Lake Superior -- a rare sight in late January -- was captured Friday by a National Weather Service satellite. "It's an incredible lack of ice this winter," the National Weather Service said.

With more exposed open water, there can be larger lake-effect snow storms for the remainder of the winter since more moisture can get into the atmosphere. Milder winds can also blow off of the open water causing warmer than normal conditions in the Great Lake states.

Other impacts caused by the lack of ice include more evaporation and higher dissolved oxygen. There are still isolated bays and edges of the Great Lakes that covered with ice so from the shores it may look like a typical year. This is a good reminder how satellites can help with monitoring the Great Lakes.



Super Blooms of Algae in Indian River Lagoon in Florida

From Florida Today (<http://www.floridatoday.com/article/20120130/NEWS01/301300008/Lagoon-algae-super-bloom-studied>)

Biologists had never seen anything like it in the Indian River Lagoon: a massive green algae “super bloom” spanning from Titusville to Melbourne.

Scientists with the St. Johns River Water Management District described a bloom of unprecedented proportions and duration, with fatal consequences for fish and seagrass. Usually, such blooms of the algae, called *Reesootia*, last a few weeks. This one began in April of 2011, worsened for months and still lurks nearly a year later, although at lower levels.

Reesootia, which propels itself with whiplike tail, is not known to be toxic to fish or humans. But too much of any algae can starve fish of oxygen in the water. And by blooming this past spring and summer, the algae blocked sun from seagrass beds during their prime growing time.

Seagrass is vital habitat for fish, crabs, and other marine life and is considered the best barometer of the lagoon’s ecological health. Each acre can provide food and hiding spots for thousands of fish.

The *Reesootia* “super bloom” startled district officials into recently creating a coalition of university and government scientists to study the bloom and suggest ways to prevent similar blooms in the future. They plan to produce a position paper toward the end of this year.

Flushing of Torrens Lake in Australia Failed to Reduce Algae

From ABC News

(<http://www.abc.net.au/news/2012-02-01/torrens-algae-water-footbridge-engineers/3804862?section=sa>)

Up to 40 megalitres of water per day were released from the Hope Valley Reservoir to boost flows through the river and city lake, but



algal blooms forced the lake's closure more than a week ago. This trial cost close to \$1.2 million.

A likely reason why the flushing did not work is because of the quality of the water used to flush Torrens Lake.

SA Environment Minister Paul Caica says other measures will have to be investigated to ease the pollution.

Eleanor Ely Passed Away

From Linda Green and Alice Mayo

Eleanor Ely, longtime editor of [*The Volunteer Monitor*](#) newsletter, passed away on January 26, 2012 after a four-year battle with ovarian cancer.

Ellie was one of the stalwarts of the volunteer monitoring movement, a prominent leader from its very beginnings. She was the editor and driving force behind *The Volunteer Monitor* – the voice of volunteer monitoring -- from 1990 to 2010, researching and writing many of the articles herself. *The Volunteer Monitor* was the critical link connecting the thousands of diverse members of the volunteer monitoring community. Ellie's persistence, patience, and unique editorial insight ensured that her publication was timely and timeless; an invaluable resource for the entire monitoring community. Most remarkably, Ellie translated the most arcane bureaucratic doublespeak or scientific technospeak into plain, clearly understandable English. She cared very much about the newsletter's technical and editorial quality and was just as wholly dedicated to the volunteer monitoring movement itself; she knew more about individual volunteer monitoring programs, and their leaders, than any other person in the U.S. She was always eager to share her knowledge, experience, and connections with others and to help forward the cause of volunteer environmental monitoring. Ellie also edited the *National Directory of Volunteer Monitoring Programs* and proceedings of four national conferences and wrote or edited a variety of other environmental and science publications.



In 2006, Ellie received the Elizabeth J. Fellows Award for outstanding achievement in the field of water quality monitoring, awarded by the National Water Quality Monitoring Council in recognition of her work as editor of *The Volunteer Monitor*.

Ellie will be remembered by so many for her gentle humor, her incisive mind, her remarkable writing and editing skills (her attention to detail was legendary among those who wrote articles for *The Volunteer Monitor*), her constant dedication to the volunteer monitoring community, her strength and courage in facing her illness, and most of all, for her wonderful friendship to those of us who had the privilege to work with her.

Surfing on other Great Lakes is Growing in Popularity

From

Gates-Chili

Post

(<http://www.gateschilipost.com/feature/x582076795/For-some-surfers-Lake-Ontario-and-the-Great-Lakes-are-the-last-frontier?img=2>)

About a year ago, we shared a surfing story with you about Lake Michigan. Now surfing is becoming a popular sport on Lake Erie and Lake Ontario. From the small group that likes to surf year round on these Great Lakes, a documentary is being filmed, and it is called, "Preconceived Noceans". It is about lake surfers, and it even has its own website (<http://www.preconceivednoceans.com/>).



There is even a chance to take lessons during the summer on one of the Great Lakes. It looks like surfing is here to stay for the Great Lakes.

Another Sign of a Warmer Winter – Sebago Lake Derby Tournament Canceled in Maine

From *The Portland Press Herald*, Deirdre Fleming (http://www.pressherald.com/news/ice-is-too-thin-so-sebago-lake-derby-canceled_2012-02-03.html)

Since it was started by the Windham Rotary Club, the Sebago Lake Rotary Ice Fishing Derby has been canceled in three years, 2002, 2007 and now 2012, and ended early in 2010 after seven people and a number of vehicles fell through thin ice.

Last year, the derby created a buzz with the introduction of a \$100,000 prize for anyone who could break the state record for togu, lake trout. The record was set in 1958 when Hollis Grindle of Ellsworth caught a 31-pound, 8-ounce trout in Beech Hill Pond in Otis.

The \$100,000 offer now will apply to all lakes in Maine during the statewide derby, which also is run by the Windham Rotary Club.

Losing the crowds that would have come to the Sebago Lake region this month for the derby will affect small businesses. Close to 6,000 people come for the Sebago Lake Derby and other related events during the icy winter. The loss could end up being part of a larger problem in this generally warm winter: a widespread drop in tourism.

Good or Bad for the Lake – You Decide

Many times, we read, hear, or see a quick news item about a local lake having a problem or a lake manager, city department, or lake association deciding what to do about a lake problem.

As a well-educated lake expert and member of NALMS, you should question these situations and ask if the lake is truly having a problem and if the management technique is the right way to go. It is your job as a NALMS member to determine whether or not the next lake news item is "Good" or "Bad" for the lake.

The Lake – Prospect Park Lake (Brooklyn, NY)

The Problem – avid park walkers noticed cut tree scraps laying in the water along the southern shore as city forestry workers started uprooting and trimming dozens of diseased lakeside trees last

month that were in danger of falling. The park spokesperson said that the debris accidentally fell into the water and was not dumped intentionally. Park activists are not happy with having a large section of the lakeshore covered with floating and partially submerged tree scraps and some people who fish the lake want it removed so they won't get their lines hooked.

Is this "Good" or "Bad"? Is it good to provide fish habitat with the cut tree branches? Should the woody debris be taken out for aesthetic reasons? If taken out, will it disturb the sediments? Will the debris help or hurt the fish? Should the trees have been left along to fall naturally? You decide.

Full article is at

http://www.nypost.com/p/news/local/brooklyn/trees_float_in_brooklyn_vaQCTOraW93DpQ1xYwxKIJ.

Invasive Species in the Everglades – Burmese Python

From ABC News, David Tate (<http://www.wset.com/story/16644481/vt-researcher-sounds-python-alarm-for-everglades>)

A Virginia Tech researcher has co-authored a book that raises the alarm about non-native pythons stripping the Everglades of wildlife. It is a rare example of an invasive species being represented so high on the food chain as a predator.

The Burmese python earned its way onto the invasive species list in Florida as scientists started noticing its impact on native wildlife 11 years ago. Since that time, researchers have been studying the problem trying to understand just how big it is, which has turned out to be bigger than expected. Researchers have seen declines that are dramatic in many of the mammals that are in the everglades; over 95% declines in the last 10 years.

At risk are mammals ranging from raccoons to Key deer. Others are known to attack alligators. The problem in the Everglades is just one of many biologists are dealing with nationwide.

Although there are various types of pythons taking up residence in the Everglades, it's the Burmese Python that is causing the biggest problems. There are no documented attacks on people in the Everglades, but one python found last year had an intact 80 pound deer carcass in its stomach.

Idaho Phosphorus Mine Understates Impact on Fish

From Reuters, Laura Zuckerman (<http://www.reuters.com/article/2012/02/03/us-mining-idaho-idUSTRE8121TU20120203>)

The findings come as Smoky Canyon Mine, run by the J.R. Simplot Company near the Wyoming border, is asking the Idaho Department of Environmental Quality to relax restrictions on the amount of selenium that the mine may drain into tributaries of the Snake River, a world-class trout stream.

Environmentalists' concerns about selenium, an element released as a byproduct of the mining operation, prompted a U.S. Senate panel to ask contaminant specialists with the U.S. Fish and Wildlife Service to evaluate whether Simplot's request would harm wild trout and other species.

The agency's scientific review, released recently, analyzed studies of selenium impacts on trout health that Simplot had conducted to bolster its argument that waterways downstream of the mine would not be impaired by higher levels of selenium than are currently allowed in Idaho.

The Fish and Wildlife Service review of Simplot's own studies showed the company overestimated how much selenium fish (brown trout) take in without risking fatal deformities.

Toxicologists, hired by Simplot to test selenium exposure in developing brown trout, found many died and others were hatched with two heads, according to the government's review. Many of the deformed fish they observed were offspring, hatched in a laboratory, of wild adult trout contaminated by selenium at the mine site. Such abnormal larval fish would be unlikely to survive in the wild.

Fish and Wildlife Service scientists found Simplot underestimated rates of deformity and mortality in the wild linked to selenium exposure. The agency said Simplot had failed to account for deformities of trout that had died, skewing the rate of abnormalities in the company's favor.

Moreover, government biologists predicted only one in five trout fry were likely to develop normally after exposure to the concentrations of selenium that Simplot had recommended as acceptable. Using Simplot's models, federal biologists also determined that such levels would impair reproduction of other wildlife, such as mallard ducks. They predicted 85 percent of duck eggs would fail to hatch.

They concluded the water quality exemption for selenium proposed by Simplot would "cause serious harm to fish and wildlife". It seems highly doubtful that the proposed site-specific criterion would comply with the Clean Water Act's mandate to protect wildlife.

Selenium is a naturally occurring mineral that in trace amounts is required for the proper functioning of living cells. But large doses can be toxic when released into the environment and concentrated as it progresses up the food chain.

Smoky Canyon Mine taps a reserve of phosphate, which is used to produce fertilizer and livestock feed supplements. With 200 workers, the mine is a major employer in southeastern Idaho, where it has operated on U.S. Forest Service land since the early 1980s.

How much Money Does a Fishing Tournament Bring in?

From The Daily Commercial, Chris Gerbasi

(<http://www.dailycommercial.com/News/LakeCounty/020312bassimpact>)

The fishing was good and so was the financial haul from last month's Bassmaster tournament in Tavares, Florida. The three-day tournament had a direct economic impact on the city and Lake County of \$553,000 and an indirect and induced impact of more than \$1.65 million, according to the city's economic development department.

Lauren Farrell, economic development coordinator, said she compiled data from surveys of nearly 400 anglers who participated in the Bass Pro Shops Southern Division Bassmaster Open on the Harris Chain of Lakes. They also brought about 400 guests. About three-quarters of the anglers arrived early for pre-fishing and stayed for several days, benefiting hotels, restaurants, and shops in Tavares, as well as in nearby communities.

In addition to 108 anglers from Florida, participants came from 31 other states, along with three from Canada and one each from Italy and Australia. Anglers were asked to estimate their range of expenditures per day for lodging, food, fishing supplies, fuel and oil, and shopping and entertainment. The total paid lodging nights wound up being 1,846, with 23 percent of anglers spending \$76 to \$100 a night. Inn on the Green, Holiday Inn Express, Best Western and America's Best Value Inn were the most popular hotels. RV spots like Black Bass Resort, Lake Harris Lodge, and Fisherman's Cove also booked anglers. Fifty-nine percent of anglers spent \$25 to \$50 per day on food, 49 percent spent that much on fishing supplies, and 29 percent spent that figure on fuel and oil. Fifty-three percent of the anglers spent \$35 to \$50 a day on shopping and entertainment.

Their total direct expenses for the five categories ranged from \$434,606 to \$671,600, leaving the total average direct expenditure at \$553,103. A multiplier of three was used to get the \$1.65 million figure for indirect and induced impact.

Direct impact is the measurement of actual dollars spent in the community, such as \$100 on a hotel room. Indirect impact is the measurement of secondary spending as a result of the direct impact dollars, such as the hotelier spending the \$100 on employee wages and other costs. Induced impact is the rollover of the spending of the indirect dollars, such as the hotel employees spending their wages in the community.

The survey did not include Bassmaster staff and sponsors, so the total expenditures were probably a little higher.

But by generating at least half a million dollars and nearly 2,000 hotel room nights, the tournament provides one of the larger economic boosts among county events, according to county tourism staff.

Oil Pipeline would Tunnel Beneath Lake Sakakawea

From CBS News, AP (http://www.cbsnews.com/8301-505245_162-57370425/oil-pipeline-would-tunnel-beneath-lake-sakakawea/)

Enbridge Inc., one of western North Dakota's major oil shippers, is asking state and federal regulators for permission to build a new oil pipeline beneath Lake Sakakawea.

The lake is the Missouri River's largest reservoir. The request comes six months after an Exxon Mobil Corp. pipeline beneath the Yellowstone River, a Missouri tributary, ruptured and leaked more than 63,000 gallons of crude.

The Yellowstone joins the Missouri River about 20 miles southwest of Williston, N.D. The Yellowstone pipeline leak occurred near Laurel, Mont., more than 300 miles to the southwest.

Members of North Dakota's Public Service Commission said they would scrutinize the request closely. The commission is in charge of determining the pipeline's route and specifics about how it will be built. Other oil pipelines have been built beneath the lake without incident.

In a regulatory filing, an Enbridge vice president, Mark Sitek, said the pipeline would carry up to 60,000 barrels of oil daily, or more than 2.5 million gallons. It would cost \$136 million to build. Enbridge wants to start operations by the end of 2013.

The 12-inch pipeline would run for 36 miles from Enbridge's Beaver Lodge pumping station

southeast of Tioga to a location east of Watford City, in McKenzie County. The company's proposal includes a 2.1-mile section of pipeline beneath the lake. It is likely to be buried 50 to 150 feet beneath the riverbed.

Website of the Month – www.usawaterquality.org/volunteer/

This National Water Resource Project has created a comprehensive support system for Extension volunteer water quality monitoring and citizen science efforts across the country. The goal is to expand and strengthen the capacity of the existing Extension Volunteer Monitoring Network and to support development of new programs.

Update Contact information:

Please let the NALMS Office (garenz@nalms.org) know if you have or are planning to change your contact information, so we can make sure you do not miss any of the NALMS monthly news letters, updates, or general NALMS announcements. NALMS appreciates this.

Your Newsletter Co-Editor – James Vennie

James recently retired from the Wisconsin Department of Natural Resources, Lakes Partnership. He worked on Wisconsin Lakes for 32 years. He is a Professional Hydrologist, Limnologist, Hydro geologist, and WI-DNR's expert on Algal Toxins. James graduated from University of Wisconsin – Stevens Point in Water Science. He is the past Chairman of NALMS Technology Transfer Committee for many years. Also, started the first NALMS website and supported E-Mail distribution system Lakes-L for decades.



Open Invitation to Add to the Next E-newsletter

If you are having a conference, have a lake-related question, need advice, looking for similar lake problems/solutions, have an interesting story to share, or just want to be heard throughout NALMS, please send your material to Steve Lundt at slundt@mwr.dst.co.us. All e-newsletter material is due to Steve Lundt by the first Friday of each month to be considered for inclusion in that month's e-newsletter. The newsletter goes out electronically monthly.}}