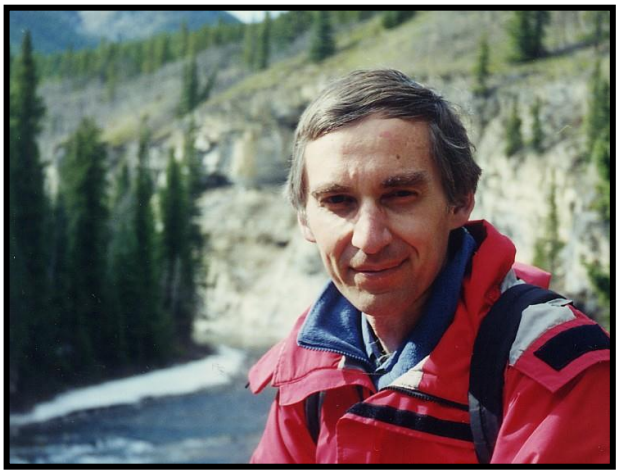
2011 NALMS Notes

December 2011

President's Message



Last week at our monthly board meeting, I learned some wonderful news. The individual membership in NALMS has now reached 966, which is the highest since we started maintaining a digital database - a roughly 16% increase over the past year. Part of that increase is new members that were recruited at the very successful NALMS symposium in Spokane.

Now what I would really like for the holidays is to see that total top 1,000. To achieve that goal, I'd like to ask each member to think of someone in their professional circle or community that would benefit from a NALMS membership and encourage them to join. You members are the best ambassadors for this organization. My thanks to all that recruited new members last year and helped boost our membership.

A NALMS membership also makes a great gift for colleagues and students. It is also a wonderful commemoration for years of service by volunteers in lake and watershed organizations or to honor an exceptional member. My thanks to all that recruited new members last year and those who sponsored and paid for student memberships this past year.

This past month, I've been recruiting chairs for the various committees that do so much of the work that keeps NALMS an effective organization. We have successfully filled most of these positions, but there is one important position I would like to fill without delay. We need someone with experience with web site development and management to lead the group that maintains the NALMS web site. There are a number of enhancements that have been proposed, such as the provision of online voting, an enhanced directory of businesses, and other features. Please contact me if you think you have the right experience and some time to spare and can help us with this important sub-committee. I thank all that have volunteered their time to fill other board and committee positions.

Lastly, at the Annual Membership Meeting in Spokane we announced that the Treasurer's Report and budget for next year would be posted on the web site. These are now posted in the Members Only section.

In closing, I'd like to wish you all a happy and relaxing holiday season with friends and family!

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

WITHIN NALMS

Membership in Motion – Greg Arenz

Although we've only experienced a few flurries here and there, we've definitely transitioned into winter in the upper Midwest. Here at the NALMS office I find myself gravitating to the printer. Why the printer? Well, first off, I recently spent some time there printing December renewal notices. But as these are off and on their merry way to your mailboxes, I find myself returning to the printer because it is next to a window where the sun still streaks into the office. As the days continue to get shorter, I relish these bright moments in my day.

Speaking of bright moments…as Al mentioned above, our membership numbers definitely appear to be headed in the right direction. To continue this trend, we have now begun our December 31st renewal period. At the moment we still have 250 members that have yet to renew. Please don't delay! If your membership is expiring, you can renew on the NALMS website or you can fill out a Membership Registration Form and send it to the office. Our members are NALMS' number one asset so thank you to everyone who renewed and joined during our last renewal period.

In the spirit of the holiday season, I'd also like to suggest a gift idea to all current NALMS members. Please consider offering the gift of a NALMS membership! Do you know a student who could benefit from the *Lake and Reservoir Management* journal or perhaps an intern or a trainee at your company or organization? Maybe you know a lake property owner or a recently retired colleague who might be interested in *LakeLine Magazine*? Simply download our membership form, check gift membership, fill out the rest of the form, and then send it in to the NALMS office. The recipient will receive a NALMS note card stating they received a gift membership from you and welcoming them to NALMS. Feel free to contact me if you would like to include an additional message in the note.

As always, if you have any questions or concerns about your membership, please contact me at 608-233-2836.

Take care,

Greg Arenz
Membership Services Coordinator
garenz@nalms.org

NALMS Office Notes

December is kind of an odd month in the office. Everyone is energized from the conference, we have a new president, new board members who want to start off their terms strong, and we're trying to wrap-up the conference and other end-of-year tasks. We're definitely busy. But at the same time, December is probably the quietest month of the year. The phone isn't ringing off the hook like it was in October, we don't get nearly as many emails, and the ever-increasing darkness as we near the solstice brings a certain peaceful calm that doesn't seem to exist in other months.

Looking back on 2011 now that it's coming to an end, we've had our ups and downs as we do every year. In particular, we've lost some dear friends who will be missed, but the NALMS family is resilient. We're pretty good at supporting each other through difficult times and coming together for a common cause. I've been the recipient of some of that support this year and for that I will be forever grateful. It's made getting through those rough patches a little easier.

Despite those travails, it's been a good year for NALMS. Among the accomplishments this year: membership is growing, finances are in pretty good shape, and we had an excellent conference in Spokane. There have been recent years when we couldn't say any of those things. In nearly 15 years with NALMS, I've experienced a lot of ups and downs, and it feels very much like we're moving in the right direction and that 2012 will be an even better year for NALMS.

Until next year, happy holidays!

Philip Forsberg
Program Manager

UPCOMING CONFERENCES & EVENTS

8th National Monitoring Conference, Portland, Oregon

The NWQMC will host its 8th National Monitoring Conference – *Water: One Resource – Shared Effort – Common Future* on April 30 – May 4, 2012 in Portland, Oregon. This national forum provides an exceptional opportunity for federal, state, local, tribal, volunteer, academic, private, and other water stakeholders to exchange information and technology related to water monitoring, assessment, research, protection, restoration, and management, as well as to develop new skills and professional networks (http://acwi.gov/monitoring/conference/2012/index.html).

Conference themes will cover your water management and science needs, including:

- Applying Innovative Monitoring Technologies and Methods
- Strengthening and Advancing Assessment Methods and Models
- Addressing Climate and Water Availability Issues
- Communicating Science and Data to Decision Makers and the Public
- Managing and Sharing Water Quality Monitoring Data
- Strengthening Monitoring Collaboration and Partnerships at all Scales
- Addressing Emerging Contaminants and Emerging Threats to Water Quality
- Evaluating and Managing Water Protection and Restoration Activities

Job Opening

Lake Superior National Estuarine Research Reserve Monitoring Coordinator position. You can find this job opening and others at www.usawaterquality.org/volunteer/Special/jobs.html.

EPA Proposes Plan to Remove Contaminated Sediment from Bottom of Pompton Lake; Public Hearing Slated for January 5

From Information: David Kluesner, (212) 637-3653, kluesner.dave@epa.gov (http://yosemite.epa.gov/opa/admpress.nsf/0/b82734ca64c738728525794f006902df?OpenDocument)

EPA is encouraging members of the public to comment on its proposal to dredge approximately 68,000 cubic yards of mercury contaminated sediment from the bottom of a 26-acre area of Pompton Lake in the Borough of Pompton Lakes, New Jersey and remove 7,800 cubic yards of contaminated soil from a one-acre area adjacent to the lake. Mercury in the sediment can build up in the tissue of fish and other wildlife and pose a threat to people who eat them. Exposure to mercury can damage people's nervous system and harm the brain, heart, kidneys, lungs, and immune system.

The E.I. du Pont de Nemours & Company, Inc. operated the Pompton Lakes Works facility, located at 2000 Cannonball Road, from 1902 to April 1994. Products manufactured at the facility included explosive powder containing mercury and lead, detonating fuses, electric blasting caps, metal wires, and aluminum and copper shells. The manufacturing operations and waste management practices contaminated soil, sediment, and ground water both on and off-site. Lead and mercury from its operations were released into Acid Brook, which flows through the eastern part of the facility and discharges into the Acid Brook Delta of Pompton Lake. The proposed cleanup of the Acid Brook Delta is the specific focus of the proposed cleanup plan, which requires a permit modification under the federal Resource Conservation and Recovery Act. Once EPA's proposal is final, it will be reflected in the modified permit that legally requires DuPont to fund and perform the work. Cleanup will be performed under EPA oversight and is expected to begin in spring 2012.

The proposed cleanup is designed to remove 100% of the mercury contamination in the near shore sediment in the Acid Brook Delta of Pompton Lake and clean up soil in the adjacent area to levels that meet stringent standards to protect people and the environment. All of the removed sediment will be sent to a licensed disposal facility. EPA will hold a public hearing on the proposal on January 5, 2012 at 7 PM at the Pompton Lakes High School, 44 Lakeside Avenue in Pompton

Lakes. Those who cannot attend the hearing can submit written comments by the January 13, 2012 deadline. After the close of the public comment period, EPA will consider the comments and decide whether to finalize its decision and issue a proposed modified permit for the cleanup of the Acid Brook Delta.

LAKE NEWS & INFORMATION

Coal-Fired Ferry on Lake Michigan might go Green

From Greenbay Press Gazette, AP
(www.greenbaypressgazette.com/article/20111122/GPG03/111220416/Lake-Michigan-s-S-S-). Badger-make-waves-environment)

A coal-burning Lake Michigan ferryboat could become a demonstration vessel for a pilot study on the use of alternative fuels on the Great Lakes. The S.S. Badger is being proposed to study the feasibility of natural gas as a marine fuel.

The 410-foot vessel travels between Ludington and Manitowoc. The Badger began hauling rail cars on the lake in 1953 and was refurbished to carry passengers and their vehicles in the early 1990s. It's the nation's last steamship powered by coal.

The SS Badger came under fire from the EPA and environmental groups in late 2008 because of its daily practice of dumping untreated coal ash from its boilers directly into the waters of Lake Michigan. Coal ash is a byproduct of the SS Badger's propulsion system. In an effort to continue to minimize the environmental impact to the lake, the SS Badger has explored a number alternatives including, storing the ash on board and unloading upon arrival in Ludington and the use of compressed natural gas. Natural gas would allow the historical boiler system to be maintained and making the SS Badger the first "green" ship on the Great Lakes.

Winter Lake Carnivals and Festivals

From www.lakelubbers.com/newsletter-12-2010.html

Here is a quick list of winter lake festivals that have a long history of celebrating the cold winter.

Lake Tahoe (NV): Lake Tahoe offers every imaginable winter sport, so come join the 31th Snowfest in early March when snow conditions are great and the sunny days are getting longer. Opening night ceremonies include a laser show, a torchlight parade down the mountain, and

fireworks. Enjoy or participate in the Snowfest Parade, the Polar Bear Swim, the snowman building contest, the cross-country Great Ski Race, the Wacky Winter Human Bowling (with snow saucers), and lighting of the snow sculpture that is under construction all week long.

Saranac Lake (NY): Nestled within New York's Adirondack Mountains are the Saranac Lakes: Lower Saranac Lake, Middle Saranac Lake, and Upper Saranac Lake. The Village of Saranac Lake, located on the northern tip of Lower Saranac Lake, will host the 115th winter carnival. The 10-day event begins with lighting of the spectacular Ice Palace, built from ice harvested from the lake, and the coronation of the Winter Carnival king and queen. Sports competitions, dances, parades, performances, and fireworks showcase this community celebration.

Lake Elmore (VT): Known as the "Ski Capital of the East," Stowe's 38th Winter Carnival continues its tradition of fun-filled events for the whole family. Whether spectator or participant, you can come join the zany Snowgolf and Snowvolleyball tournaments and Kids Carnival Kaos. Winter fun continues at nearby Lake Elmore and Elmore State Park with ice fishing, ice skating, cross-country skiing, snowshoeing, and snowmobiling.

Lake Louise (Alberta): Snuggled in the Banff National Forest and framed by the Rocky Mountains, Lake Louise is renowned for its emerald-turquoise color. The first Banff Winter Carnival was held in 1917, cementing the region's place as a vacation destination. You can help to continue the tradition in 2012 by watching artisans as they compete in the prestigious International Ice Carving Competition. The Little Chippers Festival teaches children the art of ice carving.

Lake George (NY): Sitting pretty at the base of New York's majestic Adirondack Mountains, Lake George's nickname is "Queen of American Lakes." Thomas Jefferson wrote in 1791 that "Lake George is without comparison, the most beautiful water I ever saw." So what better setting could there be for the 51st annual winter carnival featuring an ice castle sculpture, Mardi Gras parade, outhouse races, hot air balloon tethered rides, cook-offs (chowder, chili, BBQ, chicken wings), giant ice slide, snowmobile and ATV poker runs, geocaching scavenger hunt, bonfire on the beach with fireworks, and a polar plunge!

Payette Lake (ID): Stunning Payette Lake is Idaho's four-season playground. The residents of the town of McCall, on Payette Lake's southern shore, take their winter sports seriously with groomed snowmobile trails, a year-round ice arena, ski resorts, and myriad festivals geared toward tourism - such as the famed McCall Winter Carnival. The 47th annual carnival will feature incredible snow sculpting competitions, a neon light parade, Mardis Gras parade, Monte Carlo casino night, monster dog pull races, sleigh rides, and fireworks over the lake.

San Francisco having Blue-green Algae Problems

From Huff Post San Francisco, www.huffingtonpost.com/2011/11/01/blue-green-algae-san-francisco-water_n_1070473.html

(On November 1st, the below article was sent out to folks in San Francisco to explain why people's drinking water had a different taste and odor. As always, it relates back to an algae growth in some obscured drinking water reservoir. They just know they can run their faucet at night for their "evening tea and that it is sticky.)

Has your juice gone bad? Is there mold in your building's washing machine? Or is it that new dish soap that's causing everything to smell and taste funky? According to the San Francisco Public Utilities Commission, it's the water.

In a release on the commission's website, the SFPUC reported that San Francisco water has seen a spike in blue-green algae (Cyanobacteria) due to an algae bloom in the Calaveras reservoir. The algae is highly common (present in nearly every water source) and tends to multiply in warmer weather. But at high levels, it can cause rashes and allergic reactions, and, at very high levels, can cause serious illness or death.

Fortunately, according to the SFPCU, the current level in San Francisco water is not enough to harm anyone but is enough to lend a foul taste and smell to your evening tea.

"The algae bloom causes taste and odors in the drinking water, but is not a health concern," said the SFPUC in a release. "The levels we are talking about are so small that it is not a health-related issue. [...] The impact of this algae bloom is only aesthetic in nature."

San Francisco pulls water from several sources, but the city has been taking a higher percentage than usual from Calaveras in an effort to drain the reservoir so workers can begin a dam replacement project.

The SFPUC predicted that the water would return to normal quickly. In the meantime, San Franciscans can use carbon filters or refrigerate water to alleviate the odor and taste. And we might recommend holding off on that bubble bath.

Downspout Deadline for Toronto

From The Star.com, http://www.thestar.com/news/article/1087994, written by David Rider

Owners of about 120,000 Toronto homes had until November 20th to meet the city's deadline for disconnecting their downspouts. The mandatory disconnection was part of a city program to reduce basement flooding and the release of polluted storm water into Lake Ontario and other waterways.

The central part of the city was chosen as the top priority because it's where sanitary sewers, carrying dirty water from toilets, are interconnected with storm sewers, carrying surface runoff water. Residents who didn't disconnect their downspouts can be served with a notice of failure to comply with the bylaw. If they still don't act, they can face a fine.

Residents of properties where disconnection may not be technically feasible or where it may create a hazardous situation can apply for an exemption. Seniors and disabled Torontonians with a household income under $50,000 per year can apply for a grant of up to $500 to defray disconnection costs.

New Pesticide Chemical Search makes it Easier to Find Regulatory Information on Pesticides

From EPA

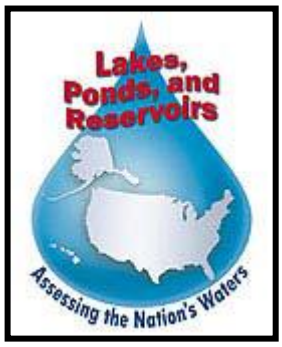
EPA has released Pesticide Chemical Search, a new Web-based application that will allow users to easily access chemical-specific information from the Office of Pesticide Programs' website and several other important sources. Pesticide Chemical Search is designed to consolidate information related to pesticide chemicals (active ingredients), making it easier to find related regulatory and scientific information: www.epa.gov/pesticides/chemicalsearch.

The new application collects existing web pages on specific chemicals on EPA's Office of Pesticide Programs' website and allows users access to this information through a single portal. Users will also be able to quickly find the current status of a chemical and where it is in the review process. Another key feature is the ability to determine if there are any dockets open for public comment for a given chemical.

Other key features of Pesticide Chemical search include: 20,000+ regulatory documents such as fact sheets and REDs, links to over 800 dockets in Regulations.Gov, links to important information, including pesticide tolerances in the eCFR, web services that provide a wide variety and depth of information about a particular chemical, and 100,000+ chemical synonyms to power the search engine.

Pesticide Chemical Search will be expanded to include pesticide product labels and other relevant information in the near future.

The National Lakes Assessment: Round Two



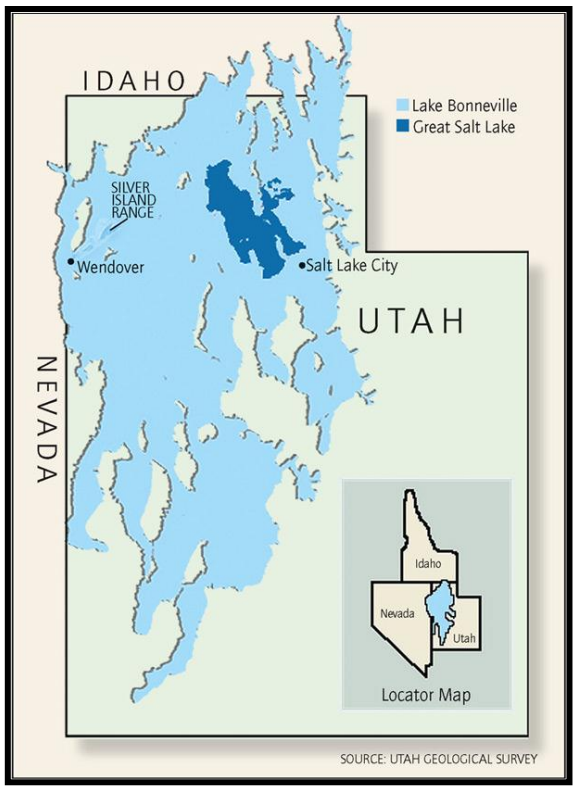
EPA, in collaboration with States, Tribes, Federal, and other partners, will conduct the second National Lakes Assessment (NLA) in 2012. This survey is one in a series of National Aquatic Resources Surveys (NARS) carried out by EPA and state partners to improve understanding of the quality of the Nation‘s waters. The results of the NLA 2012, including analyses of changes from 2007, will be published in December 2014, with repeat surveys every five years. Preparations and final planning is currently underway for the NLA 2012 survey.

For the NLA 2012, approximately 900 lake sites were randomly selected using a survey design that ensures the assessment will provide representative information on the condition of lakes at national and regional scales. Approximately one half of these sites were sampled in 2007 and the others are newly selected lakes. Some States are investing additional resources to supplement the survey design to provide State-scale reporting. As with the NLA 2007 and other NARS surveys, the NLA 2012 will use a reference based approach to assess lake quality, comparing survey data to assessments of high quality lakes within similar ecoregions. The selection of NLA 2012 indicators and field methods started with an evaluation of those used in NLA 2007. Several additions and changes were recommended by the Steering Committee including the addition of a pesticide screen.

For more information, go to: http://water.epa.gov/type/lakes/lakessurvey_index.cfm, or contact: Amina Pollard, pollard.amina@epa.gov.

Lake Bonneville, How Drying of the West Changed a Major Lake

From High Country News, October 31, 2011 issue by Douglas Fox, www.hcn.org



A curious horizontal line runs across the range, a notch cut into the mountains like a railroad bed, visible from many miles away. It snakes around every gully and ridge, 600 feet above the playa where the Donners hauled their wagons. Floating Island Mountain, visible to the east above a perpetual mirage, also shows this line. The same thing can be seen across much of Utah, inscribed into every mountain and hill like a celestial constant.

That line records the shores of a massive lake, called Lake Bonneville, which once sprawled across the region. You can spend half a day driving across Bonneville's dusty beds on Interstate 80, beneath hundreds of feet of vanished water, without ever coming up for air. The lake's irregular tendrils stretched for 150 miles east-west and 250 miles north-south; it covered modern-day Salt Lake City and reached across the Nevada and Idaho borders.

The lake, today called Lake Bonneville, is long gone, but traces of it remain in the geology of the Great Basin. Within those traces is a story even older than the bristlecones of the Methuselah Grove.

The story of the great lake's rise and fall is interesting for its own sake, but it tells us something about the future as well. The lake's long-ago shifts imply that droughts have had outsized effects on the hydrology of the West. As climate change drives drought, the already dry West is likely to get a whole lot drier.

Chicago River Clean up

From Chicago Public Media radio station, http://www.wbez.org/story/feds-okay-chicago-river-cleanup-93801, by Jennifer Brandel

After months of back and forth, EPA has approved Illinois' new water quality standards for several Chicago area waterways. For more than a year, EPA has encouraged Illinois to make the Chicago and Calumet Rivers clean enough to swim in.

Chicago is one of the few big cities in the country that doesn't disinfect sewage before discharging it. But this past May, EPA's encouragement became a demand. After overcoming political

opposition from local water officials, the Illinois government was forced to change its quality standards. Local water officials will now have to disinfect water discharged into the river system.

Another Damn Dam Removal Project in the Making

From San Francisco Chronicle

The nation's biggest-ever dam removal project, knocking down four aging structures along the Klamath River on the California-Oregon border, took years of dickering among farmers, tribes, environmentalists, and policymakers. Now it faces another high hurdle: Washington politics. A bill introduced last week opens the way for the $1 billion demolition of the four dams along the upper Klamath. Across the country, scores of smaller dams have come down to restore river flows, water quality, and fish populations but none approaches the scale or political temperature of this project.

Ghost Town Emerges from the Depths of Lake Buchanan

From Kcentv.com, reporter/photographer Joshua Skurnik

There is not much left of Bluffton, Texas since it was flooded 75 years ago. Since 1937 when the gates on the Colorado River closed and Lake Buchanan filled with the small town of Bluffton in the center of the new reservoir, this small town has been under 20 feet of water until now.

The drought in Texas has the water level so low that Bluffton actually emerged from the depths. For the fifth time since the town went under, drought has people finding pieces of the past. Old tombstones and foundations are visible for local historians to explore.

Less Lakes and Reservoirs for 2012

From The Wall Street Journal, by Jim Carlton at jim.carlton@wsj.com

The Colorado Division of Water Resources pulled the plug on Bonny Lake in September of 2011 as part of a legal requirement to send more water to Kansas and Nebraska. Since 1951, when the U.S. Bureau of Reclamation dammed the Republican River, creating Bonny Lake in eastern Colorado, the local community has enjoyed a recreational and economic livelihood.

Now, as the waters recede, Burlington is joining dozens of other communities across the U.S. that must readjust as dams that once gave birth to new waterways and thriving economies based on tourism, irrigation farming, and hydropower are altered or dismantled, reverting landscapes to the way they were decades ago.

Many of the nation's 85,000 dams were built more than 40 years ago when the nation was immersed in a frenzy of infrastructure construction. But since then, many dams have become weakened by age, deterioration, and a build-up of sediment, according to a 2009 report by the Association of

State Dam Safety Officials. According to the report, the number of deficient dams has more than doubled to 4,095 as of 2007, the latest period for which it had statistics, from 1,348 in 2001.

In one case, the dam on Iowa's Lake Delhi burst last year, transforming an 11-mile reservoir into a river, threatening a lake-based tourism economy that brought in $20 million to the community. The community earlier this month passed a $6 million bond measure to help repair the dam and restore the lake.

In North Carolina, Hope Mills Lake has drained twice since 2003, the first when an 88-year-old earthen dam failed, and last year when a sinkhole opened under a concrete replacement. The town of 2,000, which owns the dam, is seeking funds from private donations and federal grants to repair the dam so the lake can be refilled again.

Back in Burlington, Bonny Lake has been a big draw for anglers and local tourists, generating about $20 million in annual revenues. Roughly one out of every five jobs in the town of 3,700 is tied to lake-related businesses.

Another problem confronting dams is the threat of lawsuits and government regulations challenging operations on environmental grounds. For example, the federal government has required some dams in the Pacific Northwest to install expensive structures that allow salmon to pass through unharmed, while environmentalists and groups such as local tribes have sued to try and remove dams that they contend lack measures to protect fish runs.

In Washington State, PacifiCorp breached its Condit Hydroelectric Project dam in October to comply with federal rules on fish passage. The result was the draining of the 92-acre Northwestern Lake to restore the White Salmon River to its original course.

The Portland, Ore. utility had agreed in 1999 to punch a hole in the 98-year-old dam to avoid as much as $100 million in costs to install structures to allow fish to pass. But before doing so, local economic concerns were raised, and PacifiCorp wasn't able to follow through with the plan until agreeing in 2010 to pay two counties, Klickitat and Skamania, $675,000 to help offset damages, such as impacts to nearby cabin owners from loss of the lake, according to company documents.

On the Klamath River in Oregon and California, PacifiCorp also has agreed to calls from environmentalists and others to dismantle four hydroelectric dams, a move that some critics, including local farmers, say could hurt the local economy. The Interior Department is set to decide by March if the removals will go forward.

The threats are being aimed not only at smaller regional lakes, but massive ones like Lake Powell in Utah and Arizona, the second largest man-made lake in the U.S. Although Lake Powell serves as a backup to the nation's largest man-made reservoir, Lake Mead, on the Colorado River, some environmentalists want it drained to restore scenic canyons and wildlife. However, that effort has gained little traction so far.

Europa's "Great Lake", maybe a Limnologist will go to the Moon After All

From BBC News, Richard Black (http://www.scientificcomputing.com/news-DS-Europas-Great-Lake-112211.aspx

In a significant finding in the search for life beyond Earth, scientists from The University of Texas at Austin and elsewhere have discovered what appears to be a body of liquid water the volume of the North American Great Lakes locked inside the icy shell of Jupiter's moon, Europa.

The water could represent a potential habitat for life, and many more such lakes might exist throughout the shallow regions of Europa's shell. Further increasing the potential for life, the newly discovered lake is covered by floating ice shelves that seem to be collapsing, providing a mechanism for transferring nutrients and energy between the surface and a vast ocean already inferred to exist below the thick ice shell.

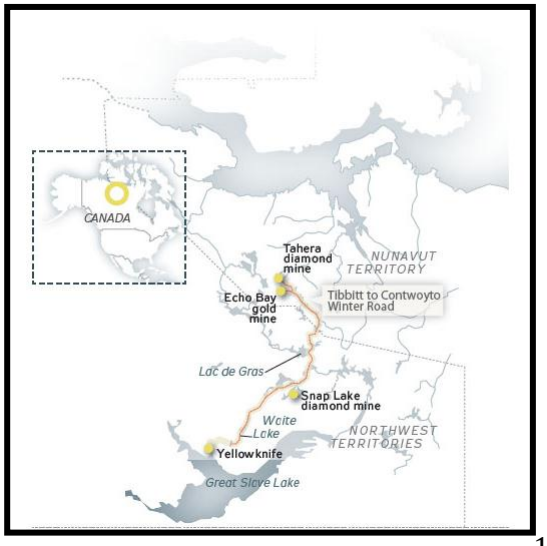
The scientists focused on Galileo spacecraft images of two roughly circular, bumpy features on Europa's surface called chaos terrains. Based on similar processes seen here on Earth, on ice shelves, and under glaciers overlaying volcanoes, the researchers developed a four-step model to explain how the features formed on Europa. It resolves several conflicting observations, some of which seemed to suggest that the ice shell is thick and others that it is thin.

The scientists have good reason to believe their model is correct, based on observations of Europa from the Galileo spacecraft and of Earth and from years of studying Earth's ice sheets and lakes below thick polar ice. Still, because the inferred lakes are several kilometers below the surface, the only true confirmation of their presence would come from a future spacecraft mission designed to probe the ice shell. Such a mission was rated as the second-highest priority flagship mission by the National Research Council's recent Planetary Science Decadal Survey and is currently being studied by NASA. On Earth, radar instruments are used to image similar features within the ice and are among the instruments being considered for a future Europa mission.

Canadian Ice Roads

From Popular Mechanics,
www.popularmechanics.com/technology/engineering/infrastructure/4212314

It is 10 below zero. The location, in the middle of frozen Waite Lake in the Northwest Territories, 1,000 miles north of the U.S. border.



Fifty yards away, a tanker truck hauling 40 tons of fuel oil inches forward, its huge diesel rumbling. The ice makes a sound like shattering window glass. A few yards from the road, Waite Lake's smooth surface rears up in jagged shards; beyond is a pool of black water. The formation is called a blowout, a slow-motion upheaval of ice that produces what looks like a bomb crater. As the tanker eases past, the water raises, laps the blowout's shattered margins, then subsides. When

it's your job to maintain a road made of ice, the last thing you want to see is water.

Here in the Northwest Territories, the terrain is all but impassable for much of the year, a vast wilderness of lakes, boreal forest, and spongy tundra. Nearly twice the size of Texas, the Northwest Territories are home to only 42,000 souls and just 570 miles of paved road.

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Then, in early November, winter comes. As temperatures plummet, the lakes freeze over and the marshes turn rock solid. Once the ice is a foot thick, usually by late December, snowplows fan out into the hinterlands, blazing routes to native villages and mining camps by clearing insulating snow off the ice to speed the thickening process.

When it comes to epic northern engineering, nothing tops the Tibbitt to Contwoyto Winter Road, a superhighway of ice that extends 370 miles from north of Yellowknife into the neighboring territory of Nunavut. To build it, 140 workers from the Nuna Logistics construction firm struggle through 20-hour nights and wind chills that dip to 70 below. By the end of January, they have completed the longest heavy-haul ice road in the world, as wide as an eight-lane highway. When the ice thickens to 40-plus inches, typically in late February, it is capable of supporting 70-ton eight-axle Super B Train articulated trucks.

The road services mines that tap into rich deposits of diamond-bearing kimberlite. Since the first samples were found here in 1991, Canada has gone from marketing no diamonds to being the world's third largest producer by value (after Botswana and Russia). Last year, two mines in the territories produced more than 12 million carats, worth $1.5 billion (U.S.). This year another mine will open at Snap Lake, halfway up the Tibbitt to Contwoyto road. To operate the mines, 300,000 tons of fuel, explosives, steel, and concrete must be hauled in over the ice each year.

In those days, before diamond mining, a typical winter saw 700 to 1,000 truckloads run north on the ice road, mostly to the gold mine. Fast forward seven years: With the diamond business exploding, demand for haulage has increased tenfold. But there's one problem facing the ice roads, a little thing called global warming.

‘Twas the Night before First Ice

From http://www.nodakoutdoors.com/poemphp.php, By Nick Simonson

‘Twas the night before first ice, and all through the lake, not a fish had been stirring, not even a splake. The buckets were filled with my rods and my tackle, in hopes that the perch would like jigs trimmed with hackle.

The tip-ups were strung with nylon and leaders, to deal with the teeth of big predator feeders. The minnows were purchased and set on the steps, the Vexilar charged to read various depths. When out under the ice there arose such a clatter, I sprang into my coveralls to assess the matter. In the dark to the pickup I flew like a flash, and drove to the station to fill the auger with gas.

The full moon on the breast of the new-frozen water, meant the ice-season action could not get much hotter. Alone toward the lake I started to steer, soon the roar of the auger was all I could hear. Setting tip-ups and jigging on the ice all around, searching for fish like a veteran bloodhound. More rapid than lightning to my baits they came, I hooted and hollered and called them by name. Now, NORTHERN, now WALLEYE, now BLUEGILL and CRAPPIE! Come, RAINBOW and YELLOW PERCH and you don't have to stop-pie! To the treble of tip-up, to the jig or the spoon! Now bite good and hard and I'll be here past noon!

The excitement, the passion, the fins and the tails, impossible to measure with rulers and scales. The colors of fishes of varying size, the wonder of nature that lit up my eyes. And then, in an instant, I set the hook hard, I looked down and saw her – she must measure a yard! In gold and silver and tipped with white, she promised to battle me into the night. Rolling and twisting with her strength she did brag, as from my reel she pulled on the drag. I cranked and it squealed as her head neared the hole, grabbing her quickly, I achieved my goal. Her eyes – twinkling silver, her gills how they flared, sharp curved white teeth, her pointy mouth bared. I unhooked the spoon with a twist of my plier, and gazed at a walleye anyone would admire. Better suited she was for story than plate, watching her swim away, I had to feel great.

To let free such a whopper to catch one day again, is a thing that is done by the greatest sportsmen. In the picture I took she was preserved for all, and the photo was enough for me to hang on the wall. The sun was then setting, and the day felt complete, to the truck I went packing with snow at my feet. Though cold all around and night beginning to fall, I was warmed with a memory that could top them all. As I drove away, the lake leaving my sight, I thought long and hard of that day and that night. And the next time I'm bothered with everyday chores, I'll just remember this time, spent in…our outdoors.

Website of the Month – www.natice.noaa.gov National Ice Center

The National Ice Center (NIC) is a multi-agency operational center operated by the United States Navy, the National Oceanic and Atmospheric Administration, and the United States Coast Guard. The mission is to provide the highest quality, timely, accurate, and relevant snow and ice products and services to meet the strategic, operations, and tactical requirements of the United States interests across the global area of responsibility. Products include: ice and snow maps, daily ice analysis, polar ice reports, and updates for Great Lakes, Chesapeake Bay, Delaware Bay, and Potomac River.

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.

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@mwrd.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.**}}}**