



Itasca Water Legacy Partnership (IWLP) 2011 Annual Report

Mission and Guiding Principles

The mission of the Itasca Water Legacy Partnership (IWLP) is to work collaboratively on water issues and mobilize on-the-ground actions that encourage diverse sustainable use, protection, recovery and enjoyment of Itasca County's world-class water and shoreland resources that are critical to a strong economy.

Organizational Update

Local water quality advocates came together in late 2006 to identify and implement a set of activities that would ensure clean water resources and quality habitat in the major watersheds of Itasca County. IWLP formalized its operations as a community coalition by establishing a board and executive committee to guide partnership activities. The first election took place in January 2009. In 2011 IWLP has continued to ask representatives from many walks of life and organizations with varying interests in Itasca County's water resources to join the volunteers of IWLP as Board members and to assist with assuring that IWLP is sensitive to the concerns of all Itasca County citizens. IWLP's Certificate of Incorporation and Articles of Incorporation as a nonprofit organization were filed under the laws of the State of Minnesota on December 23, 2010. A request for a 501 (c) 3 status with the IRS was approved on March 3, 2011.

Important Events and Accomplishments in 2011 Include:

- Continued **implementation of a strategic plan** through a subcommittee structure focused on three goals: 1) building local capacity for water quality assessment, 2) encouraging personal practices that sustain high-quality waters, and 3) assessing the full economic value of clean water;
- Hosted the **May 20th, 2011 Water Summit**: Team Up for Clean Waters;
- Continuing a **water quality testing** program in partnership with Itasca Community College (ICC) and the Itasca County Soil and Water Conservation District (SWCD) by collecting and analyzing water samples from lakes and streams in Itasca County;
- Continuing operation of a state certified water testing and assessment **laboratory at ICC**;
- **Continued a diagnostic study of Deer and Pokegama lakes** to complete baseline water quality assessments under a Clean Water Partnership (CWP) grant;
- **Maintained and enhanced a web site** (www.itascawaterlegacypartnership.org) showcasing IWLP and making our administrative tasks (communicating with the public and members, grant progress tracking, fundraising, and membership) much more efficient;

- **Honored as “Best of the Minnesota Community Pride Showcase”** and received a cash prize (\$500) from the Bush Foundation in recognition of IWLP’s achievements in collaboration, innovation and progress to improve the Itasca County community;
- Selected as the 2011 **recipient of Minnesota Waters Outstanding Citizen Monitoring Program of the Year**;
- Completed and prepared a final report on the **Natural Shoreland Buffer Incentive (NSBI) project to** encourage adoption of improved shoreland buffer management practices in Itasca County;
- Actively participated in **environmental education celebrations for children** at Robert J. Elkington Middle School and “Children First” Fair, both in Spring, 2011; and
- Presented **informational material through personal appearances** at lake associations and submitted information through meetings and the local media to many citizens and landowners in Itasca County.

Strategic Planning

In late 2010 the IWLP board drafted a 5-year strategic plan that was approved and implemented in early 2011. The Plan reaffirms the mission and values and in that context sets objectives over the next five years and addresses external organization impact and results as well as internal organization efficiency. A review of our first year accomplishments and missed opportunities is underway for action by the Board in 2012.

Membership

IWLP’s impressive accomplishments for 2011 were made possible, in large part, by generous support from its members and dedicated volunteers. Financial contributions enable IWLP to carry out its mission by providing funds for educational outreach, special events, and operational costs not covered by grant monies. Projects could not be completed without the personal commitment made by volunteers who share IWLP’s vision for maintaining our quality water resources and IWLP thanks all who so generously shared of their time and talent.

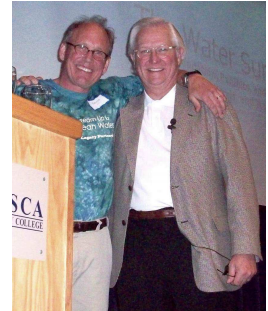
As of December 2011, membership units (individuals, families, businesses and non-profits) totaled 140, an increase of 48% since 2009. We received 81 renewals and 44 new members in 2011 for a total income of \$7,610.00.

The Membership Committee worked on fulfilling its commitment to the Strategic Plan by developing its outreach goals to include a broader section of Itasca County citizens. Part of that outreach is to keep the public informed about IWLP’s activities through the website at www.ItascaWaterLegacyPartnership.org, a Facebook page, and by developing handouts, i.e. progress reports and a brochure that introduces the public to IWLP’s mission and accomplishments.

Water Summit

The 2011 Water Summit was co-sponsored by IWLP and Itasca Community College (ICC). It was made possible through a grant from the Blandin Foundation and financial support from Minnesota Power.

Pictured at right is Dave Lick, IWLP President, with Don Shelby, Keynote Speaker. There were 190 participants (including 17 speakers) at ICC during the day and about 100 people attended the evening activities at the KAXE Rotary Tent. The Summit also included an early-morning birding tour and a very popular rain garden tour in the afternoon. About two dozen people who attended the Summit subsequently became IWLP members. Post-event evaluation indicates that the Water Summit was a great success.



There was a 53% return rate on the post-event evaluation forms with a majority being very positive. Fifty-five out of a total of 92 respondents indicated the Summit would change their behavior with water and how they use or think about water resources and a majority said they would like to see similar programs in the future.

Communications and Public Relations

The Communications/PR Committee continues work on more creative ideas to promote IWLP. A brochure has been created that can be used for various means, including mailings, booth displays, and lake association meetings.

Plans have been laid and letters have been prepared to send to Itasca County businesses inviting them to join IWLP and highlighting reasons for joining IWLP and partnering with the "Team Up for Clean Waters" community.

The Communications Committee has plans for creating a display that can be used at public events to further get the message out about the importance of water quality and IWLP's mission and projects. The display would feature photos, power point slides and a tri-fold display panel that would provide for changes to accommodate for new information.

Education/Outreach

"TEAM UP TO GREEN UP" was the 3rd Annual Environmental Education Celebration at Robert J. Elkington Middle School in April 2011. IWLP had a strong presence at the event with many adult and youth volunteers (including members of IWLP, Izaak Walton League, Girl Scouts, DNR) staffing several informational tables and demonstrations for many students, families, and community members attending. There were about 100 people in attendance from 9:00 am - noon.

The IWLP theme was "Team Up for Clean Waters!" and showcased the following activities:

- Groundwater Model: Kathy Loucks, Itasca County SWCD, demonstrated the "Enviro-Scape" showed a miniature model of a typical neighborhood and how water is used, collected, and moved throughout the system;

Pictured at left is Dave Hayes & Kathy Loucks demonstrating the same water models at the Water Summit in May as were used at the “Team Up for Green Up Event” in April.



- Rainwater Run-Off: Dave Hayes and David Lick demonstrated a groundwater model that allows viewers to see how water percolates through different materials in the ground. The model shows how surface water drains through soils and could potentially seep into a lake, wetland or water well. Students who participated in this groundwater model were able to see how non-point source pollution affects water quality, the efficacy of native buffer strips, and the effects of rainwater run-off in a neighborhood;
- Water Use Collage: "How do YOU use water in your home, your yard, your school, and at nearby lakes? Children drew or selected a variety of photos from magazines to create a colorful collage of the many ways we all use water in Minnesota;
- Water Habitat Headbands: Children learned about a variety of Minnesota wildlife that depend on water for their survival. They selected birds and animals that use water as their homes, for food, or for escaping predators and they made colorful headbands to wear depicting these water critters;
- Lead Free Lures: Susan Swanson organized a booth on lead free fishing lures.

The spring "CHILDREN FIRST FAIR" was an important educational event for area families. IWLP garnered attention with the activities outlined above as well as additional exhibits, such as:

- Minn-Aqua, in partnership with IWLP to offer information on clean waters and a "Fish Printing" art activity for children;
- IWLP members donated prizes to winning participants.

Itasca Community College and Water Testing

Lake and stream samples collected by ICC students and technicians over the past four years have been analyzed at the ICC Water Testing Laboratory. Funded by grants from the MPCA, the Itasca County Environmental Trust Fund, and with additional financial support, technical guidance and/or assistance from Iowa State University, University of Missouri, Itasca Community College, Itasca Soil and Water Conservation District, MN DNR, University of MN Extension, Itasca County and Itasca Water Legacy Partnership, the certified ICC Water Testing Lab is the crux of a much larger initiative to establish baseline data on water quality and subsequently to monitor water quality in Itasca County lakes, streams and groundwater while also providing educational opportunities and experience in water quality testing and analysis for students at ICC and other community colleges and universities.

The ICC Water Testing Laboratory is not limited to lake water testing. The laboratory technicians have processed rainwater run-off samples collected by volunteers for

shoreland buffer research conducted by the University of MN Extension. The results will enable researchers to determine the levels of pollutants (nutrients and sediment) entering the lake from a wide variety of shoreland landscape practices, ultimately enabling them to fine-tune our landscaping to better protect our lakes. Of nearly 1,000 lakes in Itasca County, 275 have been sampled. See <http://limnoweb.eeob.iastate.edu/itascalakes/> for results of the analysis. Students have been trained to use cutting-edge field and lab equipment as well as science methodology.

Monitoring and Assessment at the ICC Water Testing Laboratory

Students and staff from ICC continued to work cooperatively with the Itasca SWCD and Iowa State University on major projects during 2011. Work on a Surface Water Assessment Grant (SWAG) that was managed by the SWCD was completed in the spring of 2011. The initial SWAG no. 1 project "First water quality inventory of Itasca County's developing lakes" was completed in 2010. This project established baseline data for 147 lakes; data will be used to detect changes in individual lakes as well as to establish regional patterns. SWAG no. 2 grant titled "Assessing Itasca County's Small-Medium Sized Lakes" began in 2010 when 42 Itasca County lakes were assessed. SWAG no. 2 is nearing completion; a preliminary report was submitted to MN PCA in October 2011 and the final report is due June of 2012.



Water testing at the ICC Water Laboratory that was done for 2011 under contract with Wabana and Turtle Lakes has been completed.

ICC lab has continued to analyze samples of storm water runoff collected by participants of the Natural Shoreland Buffer Incentives (NSBI) program interested in learning what, if any, pollutants (nutrients or soil) from their shoreland property are entering the lake after each rainfall event. This project will provide quantitative information on the water quality benefits of shoreline vegetation.

Grants

IWLP investigators have sought funding for projects that would fit the priorities established by Itasca County's Comprehensive Land Use Plan and the Local Water Management Plan. They accomplished this through partnerships with Itasca County, Itasca County Soil and Water Conservation District (SWCD), Itasca Community College (ICC), Iowa State University (ISU), University of Minnesota, University of Wisconsin, MPCA, MN DNR, US Forest Service and lake associations.

Grants Approved (Underway or Completed)

Surface Water Assessment Grants (SWAG)

Since 2008, two SWAG grants have been received from MPCA in partnership with SWCD and ICC. SWAG number 1 was for \$327,350 in 2008 – 2009. SWAG number 2 was for \$121,816 in 2010 – 2012. The purpose of these grants was to sample and assess

water quality for Itasca County lakes and the Bigfork River Watershed and included lakes that had never been sampled in the past.

Deer and Pokegama Lake Diagnostic Study (Clean Water Partnership)

In 2010, a 3-year (2010 – 2013) Clean Water Partnership (CWP) grant (\$249,986) was received from the MPCA. This innovative study analyzes “nutrient input-output” samples from lakes and streams, precipitation and groundwater associated with Pokegama and Deer Lakes and is a collaborative effort of Itasca SWCD, ICC, IWLP, lake associations, and citizen volunteers.

The following text was prepared by Dr. John Downing –

The first field-season in 2011 for the Pokegama & Deer Lake Diagnostic study was wrapped up successfully, preparing the groundwork for the second and last field-season, in 2012. It could not have succeeded without the excellent work of Noel Griese and the staff at the Itasca SWCD, Ben Lakish and the students and staff at ICC, Jake Smokowitz and his collaborators at ISU, and, of course, the volunteers and helpers on and around Pokegama and Deer Lakes. The purpose of this first-of-its-kind study is to figure out how these unimpaired lakes work so that the knowledge can be used to ensure the long-term sustainable use of these and other outstanding Itasca County lakes. As with any scientific study, the first stage of study needed to be adaptive, because one never can be sure of the outcome of the work before you begin. If we had known what would be found, there would have been little need to do the study! We who have tried to guide the work through its early stages are grateful for the forbearance of all who have been involved. We now understand the functioning of these lakes a little better so the second field-season should unfold much more smoothly.

This is a huge undertaking – and I hope it will be a source of community pride when it is complete. The influence of precipitation and run-off on lakes is well known, possibly because they are visible and obvious. The most unknown aspect of these lakes is the relative role that groundwater plays in their function. In the planning stages of the work, we foresaw two types of groundwater and planned for their analysis. These are shallow, near-shore inputs and outputs (measured with seepage meters) and deep, long-range inputs and outputs, measured using the many private wells around the lakes. One aspect that we will investigate further in the coming year concerns the areas of concentrated, near-shore seepage that many of us call “springs”. We now know, from Jake’s work and the help of Dr. Bill Simpkins (ISU), that shallow seepage around the lakes moves water an average of between 0.02 and 0.3 feet per day (7 to 73 feet per year). This means that, depending on soil structure and the tilt of the water table, water percolating into the soil 300 feet from the lakes may flow away from them or get into them in between 4 and 43 years. Stable isotope studies suggest that this water consists of groundwater in the shallows (rainwater that percolated down into soils) while deep groundwater may be mixtures of groundwater and lake water.

During summer 2012, we expect to learn much more about groundwater in this region and also find out how much the “springs” might be contributing to the overall water and nutrient budgets of the lakes. My expectation, based on this year’s data, is that groundwater plays a much larger role than we had expected. The surface water studies (lake water, tributaries, and outflows) proceeded according to plans. SWCD and other

cooperators will take winter samples and we will all be looking forward to an early start next spring.

Project cooperators are now busy submitting data to MPCA and will soon be analyzing the mountains of information that will allow us to know the overall water and nutrient budgets of these two important, bell-weather lakes. MPCA is very interested in the first-ever diagnostic study of lakes that have not suffered major water quality degradation. The results of this study will give the whole community a clearer picture of how these valuable lakes work, how lakes in the region are functioning, and how the community can ensure the sustainable use of these outstanding natural resources.

Thanks again to all the cooperators and volunteers who made this 2011 season successful.

Sensitive Lakeshore Identification in Itasca County

In collaboration with the DNR and SWCD and with support from the Itasca County Board of Commissioners, IWLP was supportive of submitting a grant request to the LCCMR Review Committee for a project titled "Itasca County Sensitive Lakeshore Identification." The LCCMR Review Committee approved a grant of \$160,000 to be awarded with Paul Radomski (DNR) and other DNR technical staff providing guidance and teams to search for environmentally sensitive shoreland sites that may need special protection because of rare, threatened or endangered species. The Minnesota legislature has approved this grant as part of an appropriations bill that was signed by the Governor. Funding is available for expenditure and field studies will begin in 2012.

Given the increased demands for water and shoreland, continued habitat fragmentation, loss of species diversity, and exotic species expansion, protection of sensitive lakeshore is critical. Data on the distribution and ecology of rare plants and animals, native plant communities, and vulnerable lakeshores are needed to prioritize actions to conserve and manage lake ecosystems. By working cooperatively with lake associations and other groups to identify restorable shorelines, this project will improve the capacity of outputs to effectively inform state and local government decisions that impact the conservation and management of lake ecosystems. Itasca County Environmental Services will engage in updating zoning and ordinances to provide higher standards for new developments and additional protection to sensitive shoreland. Field studies will begin in the summer of 2012 and a final report and associated products will be submitted to LCCMR in 2013.

Purple Loosestrife Control

With continued funding from the US Forest Service, the purple loosestrife control project that had been managed by the Turtle Lake Association was continued in the summer of 2011 by IWLP under the direction of Dale Hill who had been director of the project since it was started in 2007. Two students were hired to do the fieldwork during the summer. In 2011 adult beetles (94,400) were released in the lakeshore of Turtle, Bowstring and Sand/Portage Lakes. Lakes that were surveyed in 2011 and newly found to be infested with purple loosestrife were: McAvity, Hartley, Swan and Twin Lakes. Seven infested highway sites were newly found or revisited and treated in 2011. Fifteen lakes were resurveyed and found to be infested and were treated.

Natural Shoreland Buffer Incentive (NSBI) Grant

In 2008, grants were received from the Itasca County Environmental Trust Fund (\$10,000) and LCCMR (\$75,000) to pilot an incentive program for maintaining or restoring shoreland buffers, filters of vegetation that reduce runoff of nutrients, eroding soil and other pollutants. The grant ended in October 2011 and the initial report was filed in November 2011.

Plans call for going back to harvest more data from the study in the future. There were buffer installations on three lakes with citizens monitoring the research effort. The data show some interesting run-off results from such things as fire rings and steep slopes. It was a great way to engage citizens with the science involved. Results will be published and will be available to the public.

Master Gardeners were involved with the "Lake Challenge Worksheet." The Lake Challenge Worksheet is an effective educational tool that has received statewide attention. A separate group of Master Gardeners is also being trained on rain gardens. The next step is to pull together community resources and there will be a meeting of interested parties at KAXE on 1-24-12.

Grants Submitted

Funded –

Itasca County Partnership to Control Purple Loosestrife (National Fish and Wildlife Foundation)

This project seeks to control purple loosestrife in Minnesota's lake country using biological controls, herbicides, hand pulling, and public education. The proposed project is the result of a partnership between the Itasca Water Legacy Partnership, Itasca County, Minnesota Waters, the Minnesota Department of Natural Resources, and the Chippewa National Forest. The project's first priority will be to reduce purple loosestrife at 50 surveyed sites across Itasca County. Field technicians will work to achieve this goal by distributing beetles that feed exclusively on purple loosestrife at sites with large populations of the invasive plant. This approach will reduce the impacts to native vegetation and retain diversity of riparian vegetation. In areas that have smaller populations of purple loosestrife, targeted use of broadleaf, aquatic-friendly herbicides and hand pulling will be used, especially along roads and public areas that pose a threat to spreading of the plant. Necessitated by a seven-year seed bank, a prolonged effort over the course of the project will aim to eradicate purple loosestrife from these locations as possible. The secondary priority is aimed at educating the public about purple loosestrife in order to limit the spread of this invasive plant. Information on awareness, identification, and control of purple loosestrife will be provided at 12 area seminars annually and will also be distributed through 1,000 booklets each year.

Total amount requested: \$31,940.

Proposed grant period: 05/01/2012 – 04/30/2014.

Notice of award: January, 2012. (Awarded \$30,000 for 2 years.)

Not Funded –

Protecting Itasca County's Water and Shoreland Resources (Temper of the Times Foundation)

Increased awareness of threats to Itasca County's water and shoreland resources and adoption of practices by residents to "Team Up for Clean Water" will be promoted by 2 action steps: 1) producing and distributing printed materials, advertizing space in local newspapers, airtime on radio and TV and for visual aids used in presentations at the Grand Rapids Library Program describing the serious harm to water quality and fish and wildlife habitat and economic losses caused by aquatic invasive species and 2) sponsor a clean water day celebration for 300 5th graders on May 24, 2012, led by retired science teachers who will manage 20 stations that will excite and instruct students in aspects of water science and aquatic flora and fauna, provide supplies for hands-on exercises and provide information to parents and other adults who accompany and communicate with the students.

Amount requested: \$12,000.

Proposed grant period: 2012.

Notice of award: January, 2012.

Awards Received in 2011

Minnesota Community Showcase

The Itasca Water Legacy Partnership was honored as "Best of the Minnesota Community Pride Showcase at the 2011 Minnesota State Fair during Community Pride Day. The Community Pride Showcase recognizes courageous communities and their members who are working to improve their towns and neighborhoods. It kicked off in June with a statewide request for individuals and groups to share their success stories. In July, a group of judges selected the top 30 entries from the 67 submitted that demonstrated collaboration with the highest combined amount of partnership, innovation and progress. "Time and again we are shown that cooperation among community members is the essential ingredient in solving problems and creating opportunities," said Jane Leonard, Senior Manager at the Bush Foundation and coordinator of the Showcase.

Minnesota Waters Citizen Monitoring Program of the Year

The Itasca Water Legacy Partnership was selected as the 2011 recipient of Minnesota Waters Outstanding Citizen Monitoring Program of the Year Award. The statewide nonprofit dedicated to empowering citizens to protect and improve lakes and rivers of Minnesota, presented the award to the Itasca Water Legacy Partnership during the 10th Annual Minnesota Waters Awards Ceremony in Excelsior, Minnesota. Each year, Minnesota Waters presents this award to honor citizen volunteers who have made exceptional commitments to protecting their local lake or river. Minnesota Waters believes an engaged citizenry will effectively protect and restore Minnesota irreplaceable natural assets – clean and healthy lakes and streams – for current and future generations.

Dr. John Downing (left) was presented with an original oil painting done by Harold Dziuk (right) at the October Board meeting in appreciation for all that Dr. Downing has done for Itasca Water Legacy Partnership.



(1-26-2012)