

PROGRESS REPORT 2013



Scientific Research



Education & Outreach



Community Stewardship



Science & Education Today...A Vision for Tomorrow

From our Executive Director...

Dear Friends and Supporters,

A business plan can never account for all of the unknowns of an organization. When I wrote the business plan for the Whitefish Lake Institute in 2004, it was easy to list many resource goals for the lake, but it wasn't easy to gauge the level of community support that the organization could expect.

As you review this progress report, it will become readily apparent that the passion and commitment to keep our beautiful lake clean is shared by many. From the volunteer board of directors and committees to our supporting members, volunteers and staff, our resource now has a voice.

That voice has spoken through many successful resource projects that have benefited the lake. From baseline trend monitoring to addressing specific public health and lake ecology issues, our research is pertinent and timely based on the ever-increasing demands of a wildland/urban interface lake.

As you review the project highlights timeline at the bottom of this report, you'll notice that many of these tasks take time to come to fruition. Patience and perseverance are requisite traits of our organization to successfully navigate natural resource issues.

The Whitefish Lake Institute is fortunate to have a talented and dedicated staff that consistently performs above expectations. We are here to work for you and your lake. We'll be asking the community to partner with us as we move many scientific and educational goals forward.

The business plan provided the initial nuts and bolts strategy for the organization. Deep down, my sincere hope was that the Whitefish Lake Institute would be in place long after we're gone to ensure a clean and safe resource for those that will follow. We're on our way!



Mike Koopal
Founder, Executive Director



MISSION STATEMENT

Founded in 2005, the Whitefish Lake Institute is committed to acquiring scientific research and engaging the local citizenry to protect and improve the Whitefish area lake resources of today, while providing a collective vision for tomorrow.

The Whitefish Lake Institute board of directors and staff are proud to provide you this first progress report of the organization. The report will be updated in 2015, marking our 10 year anniversary.

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OVERVIEW

WHAT WE DO

The Whitefish Lake Institute (WLI) is a science and education based 501(c)(3) non-profit corporation led by a volunteer board of directors and assisted by two volunteer committees—the Science Advisory Committee and Citizens' Advisory Committee. WLI is not an advocacy organization—we conduct research and provide scientific data. WLI accomplishes its work through three key program areas, **Scientific Research, Education & Outreach**, and **Community Stewardship**. Within these three focus areas, we establish programs appropriate to achieving the goals of our mission. WLI is funded by a broad base of members, research and education grants, special events, and through programmatic partnerships with other organizations and resource agencies. Together, we're investing in our future.



HOW WE DO IT

WLI partners with other organizations to creatively fund research and develop programs that benefit Whitefish Lake and other local water resources. Data resulting from our Scientific Research programs is provided to the community and to resource managers to enable them to make informed decisions about water quality issues. WLI focuses most of its research work on Whitefish Lake and its tributaries, but also researches other lakes—through special project funding—in Flathead, Lake, Lincoln and Missoula Counties. Efforts through our Education & Outreach program include classroom visits to grades K-12, in-house college internships, educator in-service training, presentations to civic groups, and Road Scholar programs for seniors. Through our Community Stewardship Program, citizens participate in activities that protect Whitefish Lake and its tributaries, and WLI recognizes citizens and organizations that make extraordinary stewardship efforts. Collectively, these programs allow us to reach almost 1000 citizens of all ages annually. WLI also trains volunteer citizen scientists in monitoring lakes through the Northwest Montana Lakes Volunteer Monitoring Network (NWMTLVMMN).



WHITEFISH WINE AUCTION *Montana's Premiere Public Wine Event*



The Whitefish Wine Auction is WLI's annual fundraising event. Held at the beautiful Lodge at Whitefish Lake, proceeds from the event benefit WLI's science, education, and community stewardship programs. The event is typically held over two evenings. The first night is a relaxing evening of wine tasting and hors d'oeuvres in an unmatched setting under the tent on the shores of Whitefish Lake. Winemakers and their distributors offer an international tasting journey accompanied by music and a raffle for a special selection of items, services and adventures. On Friday night, guests enjoy a four-course family-style meal—each course paired with wines from our featured wine sponsor. Each year a special guest emcee and auctioneer make for an exciting and entertaining event. Guests have the opportunity to bid on specialty wine lots, wine tours, adventures and unique items in the live and silent auctions. Join the fun and support water quality on Whitefish Lake!



BOARD OF DIRECTORS



Andy Feury, President Andy is the principal partner in Western Pacific Plastics and is involved in Feury Family Farms, LLC, a fourth generation farm that produces grains, oil seeds, and cattle. He has extensive experience with a wide range of community issues thanks to over 14 years serving city government including Whitefish City Council from 1991-1998, Mayor 2000-2007.



Karen Reeves, Vice President Karen has a forestry degree from the University of Montana and has spent time as a fire lookout and timber cruiser. Karen is an avid community volunteer, and serves on the Flathead Resource Advisory Committee, and is active in long range planning issues especially as they relate to natural resources.



Charlie Abell, Secretary/Treasurer Charlie retired as President of the Whitefish Credit Union in 2009 after 44 years of employment. Over the years Charlie has volunteered his time for numerous community organizations and remains active in the Lions Club, American Legion, Whitefish Cemetery Committee, and Meals on Wheels.



John Collins retired in 2009 as vice chairman of Guy Carpenter, the parent company of Marsh & McLennan Cos, to which he sold his entrepreneurial venture John B. Collins Associates. His extensive business career followed his earning both a BS and MBA. He is the former president and director of the Flathead Valley Ski Foundation that supports youth skiing.



Susan Fletcher enjoyed a successful career as a petroleum geologist after receiving a BS in geology and doing fieldwork in southern Montana. This experience began a life-long love for the west. She has extensive community involvement, volunteering and fundraising for local organizations, including board member of the Stumptown Art Studio in Whitefish.



Greg Gunderson is the owner of Forestation, a forest management company focusing on ecological restoration. He is an active member of the state lands advisory group working to craft a long-term management plan for school trust lands and contributing to a recreational trail system for Whitefish area state lands.



Ed Lieser With a BS in Natural Resources Management, Ed worked for the Forest service for 30 years. Following his retirement in 2008, he started a forestry consulting business. He volunteers for a number of local organizations, co-founded the Whitefish Area Fire Safe Council, served on the Whitefish Water District board and serves in the Montana House of Representatives for District 4.



Sharon Morrison is a partner in the law firm of Morrison and Frampton. She has an undergraduate degree in journalism and speech therapy as well as a law degree. She also serves on the board of the Alpine Theater Project. Her late husband Frank, who served on the first Board of Directors of the Whitefish Lake Institute, was Justice on the Montana Supreme Court.



John Muhlfeld is a professional hydrologist and owner of River Design Group, Inc., a Whitefish-based firm offering river, wetland and fisheries restoration services. He currently serves as Mayor of Whitefish after service as Deputy Mayor and as a City Councillor. He has a BS in Geoscience and Watershed Hydrology and has served on numerous community boards.



Frank Sweeney is the City Council Appointment to WLI. An attorney with a JD and over 30 years of experience in business, construction, consumer, divorce, family and real estate law, he runs the Law Office of Francis J. Sweeney. His volunteer service on a number of community boards and support of nonprofits is extensive.



Dan Weinberg is driven by social justice issues. With a Ph.D. in Clinical Psychology, Dan was a dedicated mental health clinician. He served as a Montana State Senator from 2005 to 2009 and is the Founder and President of the *Montana Innocence Project*, an organization dedicated to exonerating innocent Montanans and preventing wrongful convictions.



Jordan White is the manager of Two Bear Properties of Whitefish and a Two Bear Air helicopter pilot. He spent 16 years in public service roles including emergency medicine, rural firefighting, and law enforcement. He volunteers emergency management, property management, and diverse resource integration expertise in the community.

STAFF



Mike Koopal, Executive Director & Founder Mike has a biology degree and a diverse background in aquatic research. With a range of experiences in consulting, agency work, corporate environments, and the nonprofit sector, Mike takes a watershed scale approach to project management. He received an Individual Achievement Award by the Montana Chapter of the American Fisheries Society in 2009 for his *outstanding contribution to the protection and enhancement of fisheries resources in Montana*. Mike was a co-coordinator for the *Montana Lake Book*, now in its 2nd Edition.

Lori Curtis, Science and Education Director Lori ensures that WLI's programs perform to their potential. She has a Master of Science in conservation biology, a Bachelor's degree in business management, and has managed research programs in both aquatic and terrestrial ecosystems. Lori is the author of the *Flathead Watershed Sourcebook: A Guide to an Extraordinary Place*. She received the 2011 Outstanding Writer Award from the Montana Chapter of the American Fisheries Society and Partner of the Year award in 2010 from the Northwest Regional Resource Conservation & Development.



Josh Gubits, Environmental Scientist, Coordinator of the Northwest Montana Lakes Volunteer Monitoring Network (NWMTLVMN) Josh has a Bachelor's degree in environmental studies, is a Certified Montana Master Naturalist, and spent four years teaching more than 10,000 teachers, students and volunteers about water quality on stream across Western Montana. Josh received the Montana Environmental Education Association *Montana Water Teacher of the Year* award in 2009 and the *Flathead Audubon Conservation Achievement* award in 2013.

Jen Croskrey, Finance & Administration Manager Jen has a Bachelor's degree in psychology and is an experienced naturalist and educator. She worked as a program supervisor directing staff, counseling youth, and handling administrative tasks for the Montana Academy therapeutic boarding school. More recently, Jen was a substitute teacher for kindergarten through 8th grade, including special education. With a number of years raising her two boys and as administrator for her husband's general contracting business, Jen has mastered multi-tasking and brings a wealth of administrative and organizational experience to WLI.



Chris Ruffatto, Associate Environmental Scientist Chris taught Earth Science and Power and Energy Technology at Whitefish High School from which he retired after 25 years teaching. Chris worked in the field of Water Resources since 1975 and helped develop the Whitefish High School FREEFLOW Program focused on providing field experience in water quality for students and teachers throughout the Flathead Valley. Chris was the first recipient of WLI's *Chris Ruffatto Excellence in Education Award* named in his honor and the 2006 *Annual Stewardship Award* by the Flathead Basin Commission.



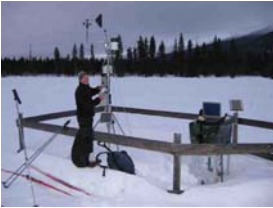
BASELINE MONITORING



WLI has been collecting baseline water quality data at two permanent sites on Whitefish Lake and its tributaries since 2007. Data collection typically starts in April and runs through November. Tributaries sampled include; Swift Creek, Lazy Creek, Smith Creek, Hellroaring Creek, Beaver Creek, and Viking Creek. In addition, WLI collects data on the Whitefish River and documents atmospheric deposition. WLI also conducts annual samplings of Whitefish Lake for Aquatic Invasive Species (AIS) such as Eurasian watermilfoil, zebra and quagga mussels.

Because most pollutants and water chemistry changes are invisible to the naked eye, we cannot evaluate water quality solely by visual inspection. Similarly, because water chemistries and conditions change seasonally and annually, we cannot understand overall lake dynamics by monitoring it for a year or two. It requires that specific measurements be evaluated in respect to one another over time to gain a holistic understanding of the resource and to determine water quality trends.

WEATHER STATION



WLI installed and maintains a Weather Station near Lazy Bay from which we collect wet and dry precipitation and other atmospheric data.

2005

The Whitefish Lake Institute (WLI) was founded by Mike Koopal on January 6th, 2005

WLI governance is established with a board of directors and two advisory committees

WLI receives 501(c)(3) designation from the IRS

WLI begins the process of acquiring equipment to conduct research

WLI begins a study looking at the potential health effects of gasoline constituent loading to Whitefish Lake

Chris Ruffatto, Power and Energy Technology teacher at Whitefish High and program FREEFLOW director volunteers to assist in data collection from 2005-2010

RESEARCH

NORTHWEST MONTANA LAKES VOLUNTEER MONITORING NETWORK



The Northwest Montana Lakes Volunteer Monitoring Network (NWMTLMVN) is a partnership between WLI, Montana Fish, Wildlife & Parks, and the Flathead Basin Commission. Program staff train "citizen scientists" to monitor 40 lakes in Flathead, Lincoln, Lake, and Missoula Counties by collecting basic limnological measurements that help establish lake trend data over time, and to monitor for the presence of AIS. The partnership enables WLI to extend its monitoring reach through volunteer efforts, while involving community members in understanding and protecting their natural resources. NWMTLMVN developed a website www.nwmtlmvn.org through which volunteers can access information, report their data, and stay abreast of AIS issues. Volunteers contribute nearly 1000 hours annually to the program.

SCIENCE ADVISORY COMMITTEE



Karin Hilding is Senior Project Engineer in Public Works for the City of Whitefish. She has a BS in Agriculture and Irrigation Engineering from Utah State, an MS in Water Resources Engineering from UC Davis, and is a PE (Licensed Professional Engineer) in Washington and Montana.



Dick Solberg is retired from a distinguished career in academia serving as a professor of botany, academic vice president, dean of the college of arts and sciences, and director of the Flathead Lake Biological Station for the University of Montana. He has a MS in Botany from WSU and a Ph.D. in Botany from



Tony Nelson is a hydrologist for the Montana DNRC. He has worked in watershed management in and around the Flathead Valley since 1993, contributing to Best Management Practices and ensuring compliance with Montana Streamside Management Zone Law. Tony earned a BS in Forest Hydrology from the University of Minnesota.



Brian Sugden is a forest hydrologist for Plum Creek Timber Company where he has worked with foresters in the Flathead Watershed for 20 years on issues including best management practices on forest roads, stream protection buffers, watershed restoration, and water quality monitoring and research. He has a MS in forest hydrology and BS in logging engineering from the University of



Eric Sawtelle is a science teacher and director of the Flathead River Educational Effort for Focused Learning in Our Watershed program (Project FREEFLOW) at Whitefish High School. Eric has a MS in Secondary Science Education from MSU, Bozeman, and a BS in Ecology and Systematic Biology from Cal Poly.



John Wachsmuth is a fisheries conservation specialist for Montana FWP where he promoted development of the NWMTLMVN. He has a BS in Natural Resource Management (emphasis on AIS) from the University of Montana and an MS in Aquatic Natural Resource Management from the University of Denver.

2006

WLI finishes field component of study evaluating gasoline constituent loading to Whitefish Lake

WLI conducts a social survey at three grade levels in the Whitefish School District to determine recreational use levels on Whitefish Lake

WLI begins annual Pond Unit presentation to all Whitefish 2nd graders and annual fish dissection for all Whitefish 4th graders

WLI begins making presentations to local middle school and high school classes.

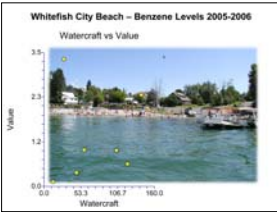
WLI acquires key scientific equipment through a Supplemental Environmental Program Agreement between the City of Whitefish and Montana Department of Environmental Quality

Septic Leachate



In 2011, WLI conducted the *Investigation of Septic Leachate to the Shoreline Areas of Whitefish Lake*. In this study, we used a number of parameters including fluorometry, *E. coli*, and DNA testing, to research potential septic leachate contamination to the littoral (shoreline) area of Whitefish Lake. GIS tools were employed to analyze septic system densities and geological properties pertinent to wastewater treatment and groundwater movement. The study culminated in a map identifying current and future risk of contamination. The results of this study were made available in early 2012.

Gasoline Constituent Loading



This 2005 study examined potential public health risk from motorized watercraft-caused gasoline constituent loading to shoreline areas used for recreation. WLI analyzed the levels of BTEX (benzene, ethylbenzene, toluene and xylene), agents known to cause myriad health problems from cancer and birth defects to nervous system, liver and kidney damage. Results found high levels of benzene at City Beach. WLI concluded that the main mechanism for the high levels of benzene was when a boat owner pulls their transom plug on the boat ramp, petroleum effluent enters the lake adjacent to the swimming area. WLI recommended the installation of a catchment system to collect the effluent. The Whitefish City Council approved financing for the project which is underway.

Lake Usage Data



WLI conducted a survey detailing how Whitefish children in grades 4, 8, and 11 use Whitefish Lake as a recreational resource. With the support of Whitefish Public Schools, WLI achieved a 90% respondent rate of total enrollment. The survey found that 89% of respondents recreated in the lake that year. While fishing was not of great interest to the kids, 87% of them swam in the lake. Of the 87% that swam in the lake, 29% claimed to swim twenty days or more. The social survey provided evidence that since many kids swam twenty days or more, a mechanism of exposure was present for swimmers at City Beach (BTEX can be absorbed through the skin, ingested or inhaled). The social survey provided additional data to support the installation of an engineered solution at City Beach.

Tally Lake



Tally Lake is the deepest lake in Montana and regionally unique due to its morphometric (size and shape) attributes and chemical input (humic matter) from Star Meadows. Those factors, among others, lead to a severe depletion of dissolved oxygen at depth throughout the calendar year. WLI is the first to monitor Tally Lake from the surface to bottom (445 feet). In 2008, a preliminary study was funded by Montana Department of Environmental Quality (DEQ). From 2009 to 2012 work continued via a US Forest Service Resource Advisory Committee grant. Two sampling locations on Tally Lake have been established as well as a site on Logan Creek. The ongoing project includes monitoring for AIS.

2007

WLI begins a long-term trend study, documenting physical and chemical parameters at two sites on Whitefish Lake, five tributaries, and atmospheric deposition data

WLI completes Gasoline Constituent Loading and Motorized Watercraft Use Levels, Whitefish Lake, Montana, 2005-2006 report

Through a donation from Plum Creek, WLI purchases and installs a weather station and bulk precipitation collector at the north end of Whitefish Lake

WLI is contracted by Flathead County to provide technical assistance to the Bigfork Stormwater Project

PROJECTS

Swan Lake

WLI conducted sampling on Swan Lake for the Montana Department of Environmental Quality in 2009, and also donated time to collect Hydrolab data which was submitted to the Swan Ecosystem Center. Monitoring work continued from 2010 through 2013 through combined contracts with the Swan Lakers, Kootenai Lodge Estates and the Swan Ecosystem Center. WLI provided a summary report and presented information at two Swan Lakers Annual Meetings. The final project report is available from WLI.



Blanchard Lake

Blanchard Lake is a warm water lake located about 2 miles south of Whitefish, with relatively shallow depths, and no inflow or outflow of fresh water. Blanchard is broadly vegetated and supports several warm water fish and other aquatic species. WLI maintains two monitoring sites on the lake, where water quality monitoring parameters are collected using a Hydrolab DS5 Sonde. Water chemistry samples are also collected annually as part of the NWMTLVMN program. Reporting on lake water quality is made to the Friends of Blanchard Lake, a group dedicated to protecting the water quality and natural resources of the lake and its surrounding area.



Bigfork Stormwater

Since 2008, WLI has provided technical assistance to Flathead County and the Bigfork Storm Water Advisory Committee during the Bigfork Storm Water Project. WLI developed and implemented a Sample and Analysis Plan to collect water quality samples before and after the installation of storm water infrastructure and treatment devices. Those findings were reported in a technical memo and presented at the 2012 Montana Storm Water Conference. Final project reports can be found on the WLI website.



Aquatic Invasive Species

Aquatic Invasive Species infestations are a serious and growing problem across the country, particularly where there is a concentration of waterways. Vigilance by all resource management organizations and the public will help increase awareness and control the spread of AIS. WLI includes monitoring for AIS during regular visits to local water bodies. The most immediate threats to our water bodies are from Eurasian watermilfoil and zebra/quagga mussels. In 2013, the City of Whitefish approved and funded a WLI AIS Management Plan which contained various line items to prevent the spread of AIS to Whitefish area waterbodies.



2008

Whitefish City Council approves initial funding for mitigation at the City Beach Boat Ramp based on recommendations from WLI's Gasoline Constituent Loading and Motorized Watercraft Use Levels, Whitefish Lake, MT, 2005-2006 report

WLI begins investigation to characterize the physical and chemical properties of Tally Lake

WLI adds the Whitefish River to its baseline monitoring effort

Mike Koopal receives Outstanding Individual Achievement Award for his Outstanding Contribution to the Protection and Enhancement of Fisheries Resources in Montana from the Montana Chapter of the American Fisheries Society

PROGRAMS OVERVIEW

WLI staff believes it is important to educate citizens of all ages about water quality and aquatic ecology. We provide programs for grades K-12, college internships, educator in-service training, presentations to civic groups, and Road Scholar programs for seniors. Our science & education director is also an adjunct instructor of Bioregional Theory & Practice and a graduate thesis advisor.



K-12

Annual presentations by WLI scientists include "aquatic insects" for preschoolers, "pond life" curriculum for Whitefish 2nd graders, fish dissections for Whitefish 4th graders, and 6th grade classes in Somers participate in hands-on aquatic invertebrate biological community identification using "keys." In 2013, Whitefish second graders visited the *Living Wetland Interpretive Nature Trail* for their pond life studies. Whitefish and Kalispell high schools are introduced to general watershed dynamics, lake ecology, and the effects of introduced species on aquatic environments. WLI partners with Whitefish High School Project FREEFLOW for study field trips and research projects, and also hosts the high school job shadow program.

TEACHER IN-SERVICE TRAINING



Whitefish School District teachers have an option for in-service training with WLI, where they learn about Whitefish Lake ecology and are familiarized with water quality data collection techniques aboard WLI's research vessel. WLI plans to add a wetland module in 2014.

SENIOR EDUCATION

WLI conducts weekly lake ecology programs throughout the summer reaching hundreds of seniors through Road Scholar lifelong learning. The programs bring about 700 mostly seniors to Whitefish and Glacier National Park, increasing revenue for local lodging, restaurants, and downtown businesses and employing 20 seasonal staff. Road Scholar conducts 8,000 programs in all 50 states and over 90 countries.



2009

WLI begins a summer college internship program for environmental science majors

WLI brings to attention of the Whitefish City Council the problem with petroleum based leaks from seeps along the Whitefish River

WLI becomes recognized by the Whitefish School District as an In-Service Program for teachers

WLI partners with Montana Fish, Wildlife & Parks to establish the Whitefish to Eureka Volunteer Lake Monitoring Program

WLI begins investigation to characterize the physical and chemical properties of Swan Lake

OUTREACH

INTERNSHIPS

Internships are available to college students upon instructor recommendation. Student interns have a chance to become field assistants in the scientific process; including data collection, database development, and data interpretation. They learn about stream and lake ecosystems, current watershed issues, and the operations of a small nonprofit corporation. WLI has proudly hosted the following interns:



Logan Seipel, 2013
University of Wisconsin: Stevens Point, WI

Carl Talsma, 2012
Cornell University: Ithaca, NY

Meagan Powell, 2012
Westminster College: Salt Lake City, UT

Leif Castren, 2011
Middlebury College: Middlebury, VT

Michael Harrison, 2010
Whitman College: Walla Walla, WA

Kristi Whisler, 2009
Northwestern University: Evanston, IL

Mary Kohnstamm, 2009
St. Lawrence University: Canton, NY

CHRIS RUFFATTO EXCELLENCE IN EDUCATION AWARD

WLI is proud to sponsor the *Chris Ruffatto Excellence in Education Award*—an avenue for recognizing and honoring educators (traditional and non-traditional) who dedicate their lives to engaging and inspiring the next generation of environmental stewards.

2011 Chris Ruffatto



WLI named this educational stewardship award in honor of Chris Ruffatto, its first recipient. Chris was recognized for his lifetime dedication to environmental education. Chris mentored thousands of students during his career as a high school educator, always seizing opportunities to involve young people in contemporary environmental issues and challenging their thinking by introducing them to innovative learning techniques. His extraordinary dedication to establish *Project FREEFLOW* and involving his students in the Montana Envirothon demonstrated his willingness to extend the classroom and engage the next generation of environmental stewards.

2012 Patti Mason



Education & Outreach Specialist/ Watershed Coordinator, Flathead Conservation District

Patti was recognized for her lifelong dedication to natural resource education. She applied boundless passion and expertise from her early years as an instructor at Flathead Valley Community College in geology, earth science, environmental science, and physical geography—to her work as Earth Sciences Specialist for the Department of Natural Resources and Conservation, as an environmental consultant for air and water quality—and finally in her position as Outreach & Education/Watershed Coordinator for the Flathead Conservation District. Patti has led the district's efforts to sponsor educational initiatives that teach all ages about the importance of conserving our natural resources.

2010

WLI brings to attention of Whitefish City Council petroleum based seepage along the shoreline of Mackinaw Bay (Site of 1989 train derailment) and urges the US Environmental Protection Agency to take action on the issue

Mike Koopal from WLI and John Wachsmuth from Montana Fish, Wildlife & Parks co-coordinate the 2nd Edition of the Montana Lake Book

After two years of negotiations, WLI acquires 28.82 acres of wetland habitat near the shores of Whitefish Lake through a development package private donation, and names the area the Averill's Viking Creek Wetland Preserve to honor the donors

WLI hosts the first annual Whitefish Wine Auction, the organization's major annual fundraiser

Our Community Stewardship Program provides opportunities for community members to participate in learning about and protecting our natural resources while supporting responsible growth for coming generations. Through the program, WLI recognizes citizens and organizations that make extraordinary stewardship efforts to protect the Whitefish area water quality resources. Recipients are awarded at our annual fundraiser, the Whitefish Wine Auction for their contributions. Ongoing community participation ensures the success of our programs and is an investment that will reap rewards in the economic health of our community long into the future.

STEWARDSHIP AWARDS

2012 Lifetime Achievement

Jim and Lisa Stack

Jim and Lisa were recognized for their passion and contributions to Whitefish Lake through their long service on the Whitefish Lakeshore Protection Committee, which protects Whitefish Lake through the enforcement of lakeshore regulations. Jim served on the committee for 20 years, chairing the committee from 1998-2012. Lisa served as a volunteer committee administrator for 16 years.

2012 Group Stewardship Award

Haskill Basin Watershed Council

Steve Bryson, Paul McKenzie, John Phelps, Chester Powell, Rockett Van Wye

The Haskill Basin Watershed Council was recognized for streamside restoration work on Haskill Creek and for working with the City of Whitefish on a water conservation management plan that minimizes wasted water at the water treatment plant, leaving as much water as possible in the stream for native westslope

2011 Group Stewardship Award

Point of Pines Communal Septic System

Michael Collins, Tom Cowan Bill Foley, Scott Schmid, and Bill Yunck

2010 Lifetime Achievement Stewardship Award

Sharlot Battin & Margaret Murdock

2008 Lifetime Achievement Stewardship Award

Bill Leonard

2008 Individual Stewardship Award

Kristi Whisler

2008 Individual Stewardship Award

Kaare Hilland

2008 Group Stewardship Award

Whitefish Lakeshore Protection Committee

2008 Group Stewardship Award

Suncrest Homeowner's Association

CITIZEN'S ADVISORY COMMITTEE

The Citizens' Advisory Committee supports WLI's science and education goals and provides a forum for the exchange of information between citizens and WLI. The committee engages in community outreach, provides opportunities for learning about—and engaging in—Whitefish Lake Watershed issues, and comes together each year along with other supporters to plan and volunteer for WLI's annual fundraiser.

Sue Moll



Nicole James

Nancy Svennungsen



Cindy LaChance

Linda Sawtelle



Dan Vogel

Katie Callahan

2011

Based on proceeds from the Whitefish Wine Auction, work commences on building a public interpretive nature trail in the Avenir's Viking Creek Wetland Preserve

WLI presented the inaugural Doris Schumm Community Spirit Award by the Whitefish Community Foundation

WLI hires Lori Curtis as Science and Education Director

WLI hires Josh Gubits as Environmental Scientist and Coordinator of the Northwest Montana Lakes Volunteer Monitoring Network

STEWARDSHIP

AVERILL'S VIKING CREEK PRESERVE

WLI owns and manages this 28.82 acre upland/wetland mosaic, enhancing Whitefish's outdoor amenities. The property was gifted to WLI by the Dan Averill family in 2009 as part of the Viking Creek Development proposal. The primary function of this wetland is water quality and wildlife habitat protection. Since the streams and groundwater of the area drain directly into Whitefish Lake, water quality buffering is vitally important. Bordered to the north and east by the 215-acre Murdock Nature Conservancy Easement, the Preserve makes available a large contiguous habitat for aquatic, terrestrial and avian wildlife. This publicly accessible Preserve is an excellent example of how citizens and developers can work together to protect the health of the watershed, to provide open space in the wildland/urban interface, and to allow for economic growth in the community.



LIVING WETLAND INTERPRETIVE NATURE TRAIL



WLI opened the *Living Wetlands Interpretive Nature Trail* in the Preserve in 2013. WLI's goal in making this trail available to the public is to share the history, science, and beauty of the wetland, and to provide a glimpse into the lives of the wildlife with which we share this habitat. The main trailhead is located on the east side of Wisconsin Avenue, just south of The Lodge at Whitefish Lake. Satellite trailheads are found at Crestwood Park and behind the Viking Lodge.

The wheelchair and stroller friendly trail crosses Viking Creek over three bridges; and six handcrafted benches are placed strategically along the trail. There are 15 interpretive stations pointing out natural features of the wetland, and the companion Trail Guide/Map further expands on the interpretation. In addition to hosting daily visitors, WLI also conducts research in the wetland through a partnership with the Whitefish High School Project FREFLOW, offers an outdoor classroom for K-12 students, and provides Road Scholar senior lifelong learning programs. An *Interpretive Native Plant Garden* at the main trailhead includes examples of regionally unique native trees, shrubs, flowers, and grasses found throughout the wetland. We are grateful for the foresight, patience, funding, volunteer hours, and talented professionals that helped bring this community project to fruition.

WLI partners with Montana Fish, Wildlife & Parks and the Flathead Basin Commission to develop the Northwest Montana Lakes Volunteer Monitoring Program

Lori Curtis receives Outstanding Outdoor Writer Award by the Montana Chapter of the American Fisheries Society

WLI partners with the Education Travel Institute to offer Road Scholar educational travel programs bringing 700 seniors to Whitefish annually

WLI partners with Montana Fish, Wildlife & Parks; City of Whitefish; Whitefish County Water District to create and install educational signs at City Beach

COMMUNICATIONS

WLI uses a number of communication avenues to reach the community, including our website, print and electronic newsletters, media announcements, publications and reports. All of our communications are available on our website www.whitefishlake.org. The site offers current information about our programs, staff, board, and committees. It has links to partner organizations, information about aquatic invasive species, and more.

LakeFront

WLI's quarterly newsletter *LakeFront* includes news and stories from WLI staff, information about water resource issues in and around Whitefish, and a current roster of our members. Back issues are available online from 2005 through the latest issue. The publication is mailed or emailed based on the recipient's preference.



WLI eNews

In 2011, WLI began producing *eNews* which is published in between *LakeFront* publication dates to keep members informed about the work underway at WLI to protect water resources in the Whitefish Lake Watershed, and when there is something special to report to members.

LakeWatch

LakeWatch provides news and information about the Northwest Montana Lakes Volunteer Monitoring Network, including training dates, special notices, and monitoring results.

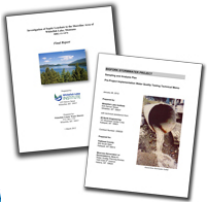


Media Releases & News Coverage

WLI sends out media announcements when appropriate and posts news coverage on our website. Media coverage is available from 2007 forward.

Publications

WLI staff members have coordinated two publications, the *2nd Edition Montana Lake Book* and the *Flathead Watershed Sourcebook: A Guide to an Extraordinary Place* which has a companion website. The *Montana Lake Book* explains how lakes function, how they are threatened, and how they can be protected. The *Flathead Watershed Sourcebook* details the geography, cultures, natural history and economics of the Flathead Watershed of northwestern Montana, and includes 300 graphics and photographs. Both publications are available as links on the site.



Reports

Reports resulting from WLI's scientific research and special projects, and from the Northwest Montana Lakes Volunteer Monitoring Network are available for download from our website www.whitefishlake.org.

2012

WLI completes the report: *Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake, MT* and presents study findings to the Whitefish City Council

The Whitefish City Council adopted Resolution 12-15 establishing the ad hoc Whitefish Community Wastewater Committee to address the septic issue. WLI is appointed to

WLI completes first annual report for the Northwest Montana Lakes Volunteer Monitoring Network describing the current status of over 40 lakes in Northwest Montana

WLI completes the Bigjork Stormwater Project Pre-Project Implementation Water Quality Testing Technical Memo and presents study findings at a Stormwater Conference in Kellspeil

FINANCIAL OVERVIEW

REVENUE

In our founding year of 2005, the Whitefish Lake Institute's total revenue was \$7,220 and the Executive Director worked full-time without a salary. Since that time, the organization has seen steady growth in total revenue and increased diversity in revenue sources.

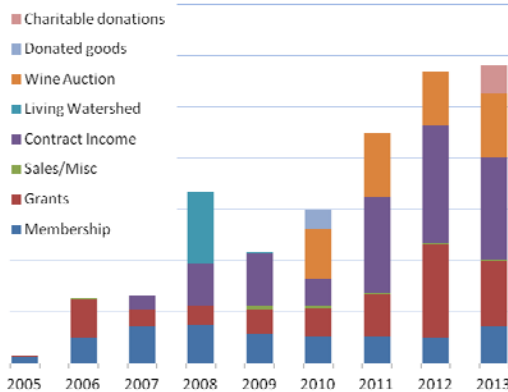
Donated goods have greatly contributed to WLI's ability to conduct its work, with the gifting of a low-mileage Ford F150 work vehicle and pontoon boats which were retrofitted as research vessels. Membership is a valued revenue stream which allows flexibility in meeting the organization's operating costs.

In 2009, WLI was gifted a 28.82 acre wetland property as part of a long-negotiated development proposal. The land added \$1.5 M in value to the organization's total assets (less accumulated depreciation) of \$1.7 M. Total assets are primarily comprised of the gifted land, the gifted truck and research vessel, scientific equipment, and trail infrastructure.

WLI staff works hard to develop creative partnerships and unique ways to increase revenue diversity to provide organizational sustainability. The latest is the new Montana "Whitefish Lake Institute" license plate. Now that the license plate has been produced, the organization can expect passive income for years to come.



WLI Revenue



EXPENSES

The organization has kept operating expenses to a minimum through careful management practices and extremely low facilities expenses. Payroll expenses increased significantly in 2011 with the hiring of two employees and with incremental performance and cost-of-living raises since that time. Another small increase occurred mid-year 2013 with the hiring of a part-time employee. Expenses have leveled off with a full complement of staff to conduct the work of the organization.

WLI awarded \$25K capital grant by the Whitefish Community Foundation in honor of Mary Jane and Russ Street to whom preservation of Whitefish Lake was very

WLI begins producing electronic newsletter LakeWatch to communicate news and information from the Northwest Montana Lakes Volunteer Monitoring Network

The U.S. Environmental Protection Agency supervised the clean-up of 460 cubic meters of contaminated sediment along the shoreline of Mackinaw Bay

WLI hires Jen Crowsley as the Finance and Administration Manager

THE FUTURE

WLI plans to build upon and improve the core scientific, educational, and community stewardship programs that have been developed independently or through creative partnerships. You can expect to hear about these new projects in the near future:

THE LIVING WATERSHED LEARNING CENTER



WLI's ultimate educational goal is to develop and build the Living Watershed Learning Center (LWLC)—a world class environmental learning center located on our Whitefish property abutting the *Averill's Viking Creek Wetland Preserve* which we own and manage. Built for present and future generations, The LWLC will feature large aquariums, imaginative exhibits, and engaging interactive displays designed to entertain while educating visitors.

The facility will also provide meeting and classroom space, it will host presentations, seminars and other outreach programs to promulgate environmental awareness and encourage watershed stewardship. The combination of the *Living Wetlands Interpretive Nature Trail* and the Living Watershed Learning Center will offer a premier indoor/outdoor educational facility unlike any in the state of Montana and differentiated from many other learning centers across the US. WLI is currently in the due diligence phase of addressing the feasibility of this exciting project.

WHITEFISH LAKE WATERSHED STATUS REPORT

WLI is working on a comprehensive *Status Report* for the Whitefish Lake Watershed and Whitefish Planning Jurisdiction. The report will include data collected by WLI since 2007 along with historical information from resource partners. The report will describe the existing health of our local waterbodies and provide recommendations to improve water quality. WLI plans to have the extensive document peer reviewed by resource partners so that it becomes a key management tool for the future.



PHOTO CREDITS Cover/Education & Outreach: Whitefish Pilot; P. 2 What We Do, P. 8 Special Projects/Swan Lake, P. 16 The Future/ Whitefish Lake Watershed Status Report: Gravityshots. All other photos from WLI archives.

2013

WLI opened the *Living Wetlands Interpretive Nature Trail* in the *Averill's Viking Creek Wetland Preserve*

Drafted Aquatic Invasive Species Management Plan that was adopted by the Whitefish City Council

As facilitated by WLI, the Whitefish Community Wastewater Committee submits a management plan to address septic pollution to Whitefish City Council

WLI adds Beaver Creek to the baseline monitoring program

WLI completes a 400 point aquatic plant survey of the Whitefish Lake shoreline

The City of Whitefish selects an engineering firm to mitigate the City Beach boat ramp