



Stewardship Award Recipients

Whitefish County Water & Sewer District and Colleen Sullivan honored by the Whitefish Lake Institute for their contribution to water quality in the Whitefish Area

The Whitefish County Water & Sewer District (WCWSD) was presented the Whitefish Lake Institute’s 2016 *Stewardship Award*. The organization is being honored for more than 30 years of dedication to supporting water quality initiatives in the Whitefish Lake Watershed.

The community first benefitted from a grant sponsored by the WCWSD to support the University of Montana Flathead Lake Biological Station’s *Limnology of Whitefish Lake* study by Golnar & Stanford in 1984. In 1986, a Department of Natural Resources & Conservation Renewable Resource Grant & Loan (DNRC RRGL) program grant sponsored by WCWSD allowed the *Investigation of Septic Contaminated Groundwater Seepage as a Nutrient Source to Whitefish Lake* which eventually led to the partial sewerage of the East Lakeshore.

The community again benefitted from their sponsorship for funding the 2003 *Whitefish Lake Water Quality* study by Craft, Stanford & Jackson. The WCWSD then sponsored a DNRC RRGL grant for the Whitefish Lake Institute’s *Investigation of Septic Leachate to the Shoreline of Whitefish Lake* (Curtis & Koopal, 2012), and both DNRC RRGL and Treasure State Endowment Program (TSEP) grants to conduct a Preliminary Engineering Report (PER) for the Lion Mountain neighborhood in 2015/2016. Most recently, the WCWSD once again sponsored a DNRC RRGL (*continued on page 2*)...

Zebra Mussel Update

The Whitefish Lake Institute (WLI) is in the final stages of developing a local response plan to the increased threat of zebra mussels to Whitefish Lake.

On March 6th, WLI will meet with the Whitefish City Council to present the FY2018 Whitefish Aquatic Invasive Species (AIS) Management Plan. The Whitefish City Council has supported the plan as recommended by WLI since 2013.

The plan will call for significant changes to the watercraft inspection program and describe the need for a watercraft decontamination station for high risk watercraft before they launch in Whitefish Lake. WLI is coordinating this effort which involves many partners.

The plan will also call for the on-going control and eradication of Eurasian Watermilfoil in Beaver Lake and early detection monitoring for all AIS species on local lakes.

Inside this issue of *LakeFront*—

2016 Stewardship Award Recipients.....	1
Zebra Mussel Update.....	1
The Ripple Effect Scholarship Program.....	3
Publication Updates.....	3
Wetland Trail Update & Annual Closure	4
Winter Photos.....	4
WLI Supporters.....	5
Become a WLI Member.....	6

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Founded in 2005

The Whitefish Lake Institute is committed to science, education, and community stewardship to protect and improve Whitefish Lake and Whitefish area water resources today, while providing a collective vision for tomorrow.

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(continued from page 1)... grant for a PER which will be completed in 2017 for the East Lakeshore neighborhood. The WCWSD also supported the development of the *Living Wetlands Interpretive Nature Trail* and makes annual contributions to the Whitefish Lake Institute to support water quality monitoring on Whitefish Lake.

Retired Whitefish School District educator Colleen Sullivan was presented with the 2016 *Chris Ruffatto Excellence in Education Award*. Sullivan was honored for her nearly 40 years of extraordinary dedication to education in the Whitefish Lake Watershed including time as a biology and physical education teacher and coach for all three Whitefish district schools. Sullivan coached Whitefish High's first volleyball team, was one of the first teachers to keep grades electronically, and was likely the first woman to teach science at Whitefish High.

In 1978, after two years of teaching in Baker Montana, she was hired to teach PE at the high school that had lost its gym to a fire and it had not yet been rebuilt. A creative educator, Sullivan was undeterred. She coached track from 1978 to 1984, volleyball in 1978, 1979, then from 2003 through 2008, and again in 2015. She began teaching biology in 1986 when classwork focused on plant and animal systems. Things changed significantly since then with students now learning on more of a molecular level. Again Sullivan employed her creativity in the classroom, which she has been known to attribute to a handful of former teachers who helped guide her throughout her career. Sullivan retired in 2016 after an amazingly career in the Whitefish School District, contributing to the community, and to the students who have and will become the stewards of the Whitefish Lake Watershed.



*Colleen Sullivan accepts the Chris Ruffatto Excellence in Education Stewardship Award from WLI Executive Director Mike Koopal.
Photo courtesy Whitefish Pilot.*

The Ripple Effect Scholarship Program

As most of you know, the Whitefish Lake Institute (WLI) was built on three pillars; Scientific Research, Education, and Community Stewardship. In the education arena, we have been committed to educating citizens of all ages about water ecology and water quality issues since our inception. In addition to educational programs for grades K-12, high school job shadow opportunities, educator in-service training, presentations to civic groups, and the *Living Wetlands Interpretive Nature Trail*, WLI has been hosting college interns for several years. We believe that one of the most important aspects of our educational programming is encouraging and mentoring students to follow their curiosity and continue their studies. The *Ripple Effect* exists to accomplish these goals and formalizes WLI's scholarship program.

Upon learning of WLI's desire to further formalize and expand its education programming with more robust internship opportunities, long-time WLI members who share a great interest in advancing water quality and natural resource education made a commitment to the program. They provided funding to move programming and internship grants to the next level enabling WLI to now offer scholarships through three opportunities:

High School Student Entering a Four Year University Majoring in the Environmental Sciences

This \$500 scholarship is available to any Whitefish High School senior entering a four year university with plans to major in an environmental science field. Eligible majors include; environmental studies, environmental engineering, biology, and sustainability. Other majors will be considered if they demonstrate a link to an environmental emphasis.

University Student Who Completes an Internship at WLI

This \$1,000 scholarship is awarded to an upper level university student who completes a successful internship with WLI during the course of a summer.

Graduate Thesis or Dissertation

Students with thesis proposals specific to Whitefish area water resources are encouraged to submit inquiries to WLI for consideration. Support to a thesis may be financial, advisory, and/or equipment to assist in their study design and execution.

To learn more about the *Ripple Effect* and to find program applications, visit our website: www.whitefishlake.org.

Publication Updates

Montana Lake Book – Third Edition

We are pleased to announce that we have begun working on a major revision to the popular Montana Lake Book. The second edition was published in 2010 and distributed to 10,000 people. The book describes how lakes function and how they are vulnerable to human activity. It also details simple actions citizens—regardless of their proximity to lakes—can take to help protect and preserve the lakes of Montana. A team of experts has been assembled to make updates and suggest additions to the book under the direction of Mike Koopal and Lori Curtis. Partners include representatives from Flathead Basin Commission, Flathead Conservation District, Flathead Lake Biological Station, Flathead Lakers, Flathead National Forest, Montana DEQ, Montana FWP, Montana DNRC, Montana Watershed Coordination Council, and Whitefish High School.

Flathead Watershed Sourcebook Second Edition and Educators' Guide

Authored in 2010 by WLI's Science & Education Director, Lori Curtis, The Flathead Watershed Sourcebook has been reprinted in a second edition with some minor updates. The 264-page book is filled with over 300 full color photos, graphics, and maps, as well as numerous scientific and informational sidebars. It includes chapters on natural history, species habitats and biodiversity, land ownership and natural resources management, local food production, economics, recreational opportunities, water quality and usage, human influences, conservation programs, a glimpse into the long cultural history of the area, and much more.

Developed with extensive content contributions from the Flathead Community of Resource Educators (CORE) Watershed Education Committee, the book and its companion website were developed with participation from individuals throughout the Flathead. In addition to the main content of the book, there are 57 *Watershed Perspectives*—short narratives written by or as the result of interviews with these individual contributors. The project exemplifies the importance and effectiveness of joining forces to describe, appreciate, and protect our home at the watershed level.

In fall of 2016, the Flathead CORE released the *Flathead Watershed Sourcebook Educators' Guide*, a companion curriculum for use with the book. The goal was to make it easy for teachers to implement, help them meet teaching standards and introduce them to conservation concepts through diverse and engaging exercises and activities. The Guide will be available on our website in late February.

Wetland Trail Update & Annual Closure

We hope you have been enjoying another great year of the Living Wetlands Interpretive Nature Trail! We know that hundreds of students and educators have delighted in our annual fieldtrips, and many individuals and families have appreciated the quiet, educational, wheelchair and stroller friendly path through the wetland. Thanks to funding from the Montana Fish, Wildlife & Parks Recreational Trails Program and the expertise of the folks at Forestation, we were able to address some damage to the trail that occurred from extensive runoff in prior years. Some sections of the trail received important water-moving culverts and resurfacing. Next year, we'll be raising money to add new plantings between the trail and the Viking Creek development to provide a little privacy and separation for both trail users and homeowners.

Please keep in mind that we are approaching the annual **March 15th to May 1st** trail closure. As a reminder, this closure helps to maintain the structural integrity of the trail, protect native vegetation, and to avoid potential spring wildlife/human conflicts. Until then, enjoy your winter walks along the trail, and don't forget to check out the animals we've captured on our motion sensitive cameras over the years at www.whitefishlake.org/wetpres.php.

Winter Photos



Lori Curtis navigates her way through the wetland forest to download images from one of three motion sensor cameras.



A whitetail buck makes it way through the Averill's Viking Creek Wetland Preserve.



Mike Koopal accepts a coffee mug from the Whitefish Lions Club in appreciation for his presentation on aquatic invasive species. WLI staff are available to give presentations upon request.



Lori Curtis enjoys a grey winter day on Whitefish Lake before it iced over. In recent history, the lake didn't freeze over the winters of 2011/2012, 2012/2013, and 2015/2016.

—Past Issues of *LakeFront* are available on our website www.whitefishlake.org—

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