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CLEARWATER NEWS

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IN THIS ISSUE

- Seasonal Update
- Thank You SLSD
- Big Sky Lake Fuels Project
- New BSWC Member
- Winter Snowshoe
- Water Quality Monitoring

Photo by J. Harrits



Contact Us at 406-677-0069

CLEARWATER RESOURCE COUNCIL IS AN EQUAL OPPORTUNITY EMPLOYER

CLEARWATER NEWS

OUR MISSION:

The mission of the Clearwater Resource Council is to engage the community and facilitate efforts that will enhance, conserve, sustain, and protect the natural resources and rural lifestyle of the Clearwater Watershed for present and future generations.

OUR GOALS:

- Build community capacity to resolve issues;
- Create opportunities for interaction among citizens, businesses and agencies;
- Build common ground by consensus process;
- Facilitate timely collection and dissemination of information;
- Enhance the understanding of cumulative effects of land management practices; and
- Develop and support responsible resource stewardship programs.



Caryn Miske,
Executive Director



Jon Haufler, Board of
Directors President
and CRC co-founder

Clearwater Resource Council

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CLEARWATER NEWS

SEASONAL UPDATE

Dear CRC members,

Glimpses of Spring are already emerging throughout the Clearwater Valley. The snow is melting, birds are chirping, and children are riding outside on their bicycles. Rachel Carson, a writer and lover of nature, took solace in the changing of the seasons. "There is something infinitely healing in the repeated refrains of nature—the assurance that dawn comes after night, and spring after winter," Carson wrote.

Here at CRC, we are anticipating and preparing for the Spring season that is to come. However, we are also reflecting back on our accomplishments from the Winter months. From fuels mitigation projects to community events, we are excited to share the work we have done in the Clearwater Valley with you. Thank you, members, for your continued support!



THANK YOU, SEELEY LAKE SEWER DISTRICT!

CRC has worked closely with the Seeley Lake Sewer District in recent months to develop a plan for microbial source tracking in Seeley Lake. Microbial source tracking, or MST for short, is a series of water tests that allow scientists to identify major sources of fecal contamination in a body of water. The sources of fecal contamination can include animals such as dogs, deer, geese, and humans. CRC is excited to begin MST testing in Seeley Lake this upcoming May. CRC could not have done it without the help and support of the Seeley Lake Sewer District. Thank you, Seeley Lake Sewer District!



CLEARWATER NEWS

BIG SKY LAKE FUELS MITIGATION

The Big Sky Lake Fuels Reduction Project was a landscape-scale logging project involving 45 landowners and covering about 50 acres. The purpose of the project was to reduce hazardous fuels on the property of the homes surrounding the lake. Years of fire suppression and lack of forest management have led to unhealthy tree densities that pose several risks to structures and personal property. By logging these areas, risks from wildfire decrease significantly. One benefit is ladder fuel reduction – ladder fuels allow fire to move from the ground into tree canopies. In addition to reducing risk, the project aimed to improve the health of the trees surrounding the lake. Tree health was improved by thinning out overgrown, disease-prone stands, creating space for more sunlight to hit the forest floor allowing grasses and shrubs to grow, and increasing nutrient availability for the remaining healthy trees.



Photo by J. Harris

The forestry project began with individual landowners and the Big Sky Lake HOA coming together and partnering with Clearwater Resource Council to begin a planning phase. This phase took nearly two years – attempts to increase participation via educational efforts, assessing each property individually, flagging trees above a certain diameter for removal, deciding on contractors, securing grant funding. The grant funding was made available through CRC by Coalitions and Collaboratives (a Colorado based organization), the Montana DNRC, and other hazardous fuels grants. Grant funding, or cost-share programs, function by organizations, such as CRC, receiving state or federal funds that are passed along with the purpose of completing fuels reduction projects. The term “cost share” refers to landowners and grant funding dollars sharing the cost together.

Following the planning phase was the implementation phase involving two forestry contractors and lots of coordination between landowners and CRC. Westslope Forest Management began in December 2021 by removing merchantable timber with heavy equipment. This merchantable timber will be sold to Pyramid Mountain Lumber in Seeley Lake, benefitting a local sawmill and reducing costs to landowners in the form of profits from log sales. Westslope’s work will be followed up by Brushbull Forestry’s handcrew who will hand thin smaller diameter trees, clean up and stack the slash and burn the piles once the weather permits. The positive track record of the two companies has proven to be successful as they manage tree felling operations near powerlines, structures and steep slopes. The two local forestry companies, CRC, Big Sky Lake HOA and all of participating landowners have made it possible to complete a complex fuels reduction project of this size. Removing fuel loads near structures is a high priority when it comes to reducing wildfire risk and this community has certainly stepped up to the challenge. To obtain more information about hazardous fuels reduction or CRC’s forestry work in the community, check out our website at: <http://crcmt.org/fuels> or reach out to CRC Community Forester Ryan Bell at commforester@crcmt.org.

CLEARWATER NEWS

CRC WELCOMES NEW BIG SKY WATERSHED CORPS MEMBER

This January, CRC welcomed a new Big Sky Watershed Corps (BSWC) member Amanda Zelnis. BSWC is an Americorps program that pairs individuals with organizations throughout Montana that work on local conservation efforts. Amanda grew up in Pittsburgh, Pennsylvania where she developed a love of the outdoors through summer camps and long days playing outside in her backyard. She graduated from the University of Pittsburgh with a BS in Environmental Engineering and a minor in Sociology. During her undergraduate career, Amanda immersed herself in all things water—from water equity research to water systems engineering to drinking water contamination service projects. Amanda is very excited to both learn from and serve local Montana communities who have lived in harmony with nature for generations. She couldn't be happier to be a part of the Seeley Lake community. In her free time, Amanda enjoys cooking new recipes, trail running, reading, and skiing. She also hopes to experience some of Montana's classic outdoor adventures such as fly fishing and dog sledding.



2ND ANNUAL WINTER SNOWSHOE



As Montanans know, spending time in the great outdoors is not reserved for only warm weather. In fact, Winter is a great time of year to explore and learn more about the critters and creatures that spend all year outdoors. In February, CRC hosted its 2nd Annual Winter Snowshoe to do just that!

The winter snowshoe was guided by current U.S. Forest Service wildlife biologist Scott Tomson and retired wildlife biologist Rachel Feigley. Tomson and Feigley, with their abundance of expertise and experience, taught more than 20 participants about winter track identification. From observing the size and shape of animal tracks to inspecting the track gait, participants learned about the many clues you can use to match the animal to its tracks. Snowshoers observed examples of pine marten tracks, deer tracks, snowshoe hare tracks, and so much more! Thank you to Scott and Rachel for sharing your time and knowledge with us. Additional thank you to Jean Dickey for helping to organize the snowshoe excursion.

Are you interested in participating in the next event? Stay tuned for an announcement about CRC's upcoming Spring Nature Walk! As soon as they are available, details about the Spring Nature Walk will be made available via CRC's website, social media, and emails. Details will also be posted on the Seeley-Swan Event Calendar.



CLEARWATER NEWS

MONITORING THE LIFEBLOOD OF THE VALLEY

Nearly 14,000 years ago, glaciers carved their way through what is now known as Southwestern Montana. They left behind the lakes, rivers, and streams that meander about the Clearwater Valley today. These are the lakes that supply our town with drinking water, the streams where our children catch their first fish, and the rivers that a whole nation fell in love with because of the words of Norman Maclean, the author of *A River Runs Through It*. These are the bodies of water that sustain our community and all the living beings within it; they are the lifeblood of the Valley.

Given all that the bodies of water in the Valley have provided and continue to provide, Clearwater Resource Council is committed to maintaining their health for generations to come. In fact, our mission here at CRC is:



To engage the community and facilitate efforts that will **enhance, conserve, sustain, and protect** the natural resources and rural lifestyle of the Clearwater Watershed for future and present generations.

A large component of CRC's efforts to enhance, conserve, sustain, and protect the water bodies in the Valley is water quality monitoring. Just as you might go to your physician to get your vitals checked and a few other standard tests run, CRC utilizes water quality tests to gauge the health of a water body. These tests can help us detect if something in the water is out of the ordinary. They may also provide hints as to the cause of water quality problems. Poor water quality can pose a health risk to people and entire ecosystems.

In 2021, CRC conducted "baseline" water quality testing in six of the area's lakes and two of the rivers/streams. The six lakes included Seeley Lake, Placid Lake, Big Sky Lake, Lake Alva, Lake Inez, and Salmon Lake. Additionally, water tests were conducted in Morrell Creek and Clearwater River. Altogether, more than 25 sites on those bodies of water were tested.



Photo by J. Holm

Some of water quality tests can be done by CRC staff and volunteers while other tests need to be sent out to a lab. In 2021, CRC sent water samples to the Freshwater Research Lab (FRL) at the Flathead Biological Station to test for nutrients. Nutrients are the chemical elements necessary for the plants and animals in the water to live. Plants take up nutrients such as nitrogen and phosphorus through their roots and leaves from the water, soil, and atmosphere. Lakes and streams with low levels of nutrients are not ideal because they limit the ability of plants and animals to thrive. On the other hand, it is possible for lakes and streams to have too many nutrients. This scenario can result in nuisance algal blooms, an abundance of aquatic plants, and foggy water. Further, in some cases, high nutrient levels can lead to the death or disease of fish and other aquatic organisms.

CLEARWATER NEWS

MONITORING (CONT.)

A number of other water tests are related to nutrient levels. For example, CRC conducted Chlorophyll A and dissolved oxygen tests. Chlorophyll A tells how much algae is growing in the water. High levels of nutrients often correspond to high levels of Chlorophyll A. Dissolved oxygen is the amount of oxygen available in the water for use by aquatic life. When a body of water has a healthy amount of nutrients, there is likely enough dissolved oxygen for the aquatic life to use. When nutrients are increased, excess plant growth uses up a lot of the dissolved oxygen, leaving little to no oxygen for the rest of the aquatic life.

The Freshwater Research Lab also conducted E. coli testing on the water samples collected by CRC. E. coli is a type of bacteria which is most often found in animal and human feces. There are hundreds of strains of E. coli, many of which are not harmful. However, there are a few strains of E. coli that can cause severe illness. Testing for E. coli allows us to understand if there is unwanted feces in the water. This test is especially important for ensuring the health and safety of recreators.

Other water quality tests conducted by CRC include conductivity (measure of water's ability to pass electricity), total dissolved solids or TDS (dissolved salts and other organic and inorganic materials that pass the electricity in the water), and salinity (amount of dissolved salts in water). Conductivity, salinity, and TDS are important measures of general water quality because water bodies tend to have relatively constant levels. A drastic change in salinity, TDS, or conductivity can indicate a potential problem in the water body. Two other measurements taken, temperature and pH, tend to fluctuate in different parts of a body of water as well as at different times of year. Most aquatic life has a range of survivable pH and temperature levels. As with the other tests, though, a major change may signal a need for action.

Analysis of the baseline data collected in 2021 is still ongoing. CRC will release more information and reports on the water quality results from 2021 as soon as it is available. In the meantime, CRC is gearing up to continue collecting water quality data in 2022.



WANT TO GET INVOLVED?

CRC is lucky to have a wonderful group of volunteers who work with us each year. There are many different volunteer opportunities, and we would love to have you join us! No prior experience or knowledge is necessary. If you would like to be part of our team and join the fun, please contact Amanda at (412) 956-0208 or crc.watshd.coord@crcmt.org.

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