

BIG HOLE WATERSHED COMMITTEE

SUMMER 2024 NEWSLETTER

Collaborative conservation
for the Big Hole River watershed
since 1995.



BIG HOLE
WATERSHED COMMITTEE
Conservation Through Consensus.

P.O. Box 21
Divide, Montana 59727
406-960-4855
bhwc.org



In the stunning Big Hole Valley, our collaborative watershed group is creating a legacy of environmental stewardship that resonates from valleys to mountains. Read on to learn about the Committee's relentless work to conserve, manage, and enhance our valuable river, along with the communities and wildlife that rely on it!

Big Hole Watershed Committee

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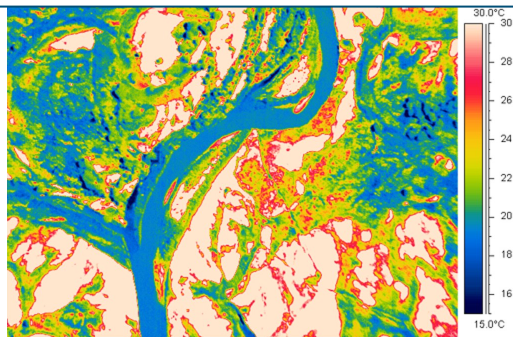
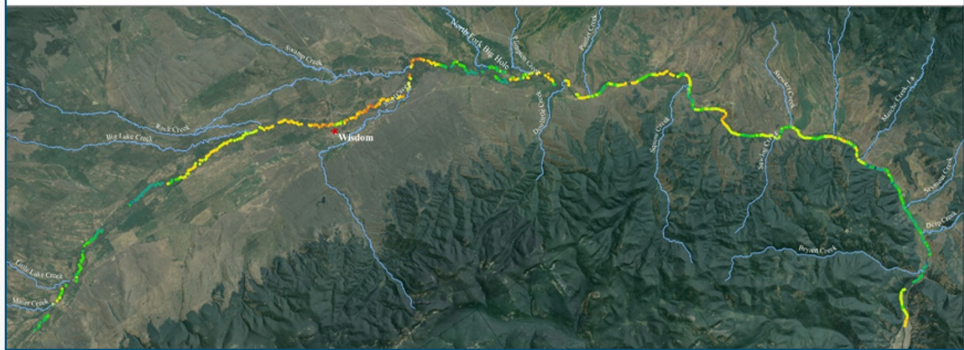
Pedro Marques
Executive Director
Tana Lynch
Associate Director
Ben LaPorte
Program Manager
Chet Robertson
UBH Range Rider
Johnathan Costa
Wildlife Program Tech
Justin Cottingham
Wildlife Program Tech
Emma Roginski
2024 Summer Intern

If Ecosystems were a Stock Market, How Would You Invest in Them?

Thoughts from Pedro Marques, Executive Director

It is well-known that the slow but consistent growth from long-term index fund investments have the best returns over time. Don't try to predict the market, they say. Don't react to every up and down. The opposite of this approach would be a high-risk, high-reward day trading strategy, highly sensitive and reactive to market fluctuations. Maybe you get lucky, but the ride is stressful.

Appendix A: Map 1. Temperature Profile (°C) of the Big Hole River: Little Lake Creek Road to Dickie Bridge



Thermal image of Big Hole River, July 30th 2009.
Note the darker, colder return flows from flood irrigation.

*With so much riding on the water resources in the Big Hole, we learned nearly 30 years ago that knee-jerk reactions to changing natural conditions do not advance our goals. It may get attention, but we should be concerned with outcomes. What we need is steady investment in what works: meaningful projects, voluntary conservation, informing ourselves with good science, and always seeking consensus. Edward Abbey put it another way: “**Conservation ... is a positive***

exercise of skill and insight, not merely a negative exercise of abstinence or caution.”

Conservation is what we do, and it is grounded in the lived experiences and insights of those who manage our private and public lands. We add science, like this Thermal Temperature study we funded (see images), to hone in on opportunities to make a difference.

The bounce in fish numbers this year was a good reminder that, as one outfitter quipped recently, “The sky is not falling.” The fish now large enough to be counted in this year’s survey are the offspring of survivors of the 2021 water year, one of the worst on record. Last year’s abundant water should produce an even stronger recruitment class next year. Turns out, our biggest obstacle to conservation is time! Taking the long view and building on what works allows us to avoid the temptation to be reactive, sporadic, or inconsistent.

Making management changes and seeing the results on the ground takes time. Writing grants, waiting for the money, following procurement laws, and reporting about how funds were spent—these things all take time. We invite you to read up on the continued progress we are making toward advancing conservation, and we hope you see the value in investing in us, for the Big Hole, for the long-haul!

Welcome, Emma!

Our 2024 Summer Intern

We are excited to introduce the newest member of our team: intern Emma Roginski. Emma will support our restoration work on Mount Haggin. She is originally from Menlo Park, California and is studying Environmental Science and Management at UC Davis.



Emma learned about BHWC last summer during a course with the Wild Rockies Field Institute and reached out to ask us how to get involved. We were happy to feed her enthusiasm and invited her to spend a summer in the Big Hole!

Emma loves being outdoors, hiking, camping, and rock climbing. She hopes to learn about restoration methods and technical strategies for approaching environmental issues this summer. We can't wait to work with her!

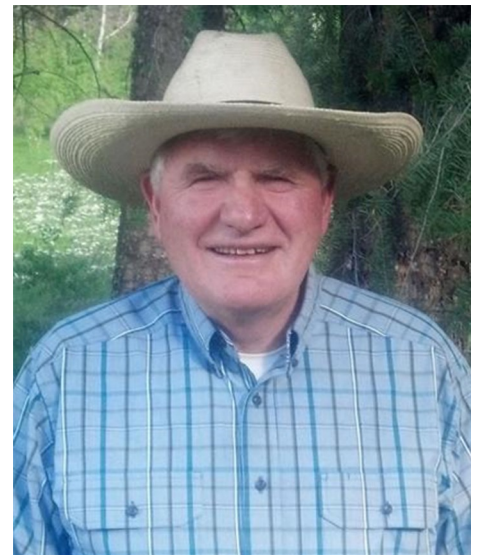
A New Chapter Begins

Honoring Decades of Dedication



Exciting changes are underway within our steering committee, marking the beginning of a new chapter for our organization. After nearly 30 years of dedicated service, our esteemed chairman, Randy Smith (photo, left), is stepping down from his role. Randy's leadership and commitment made this organization the force that it is today. We extend our deepest gratitude to Randy for his remarkable contributions and tireless efforts over the years, and will continue to rely on his insights as a Governing Board member.

We are pleased to announce that Jim Hagenbarth (photo, right), our longtime vice chairman, will be stepping into the role of chairman. Jim's extensive experience and passion for our cause make him the perfect successor! We are confident that he will lead us with the same dedication and vision that Randy did. Additionally, we are excited to welcome Dean Peterson (photo, below) as our new vice chair. Dean brings a wealth of knowledge and fresh perspective to the steering committee, and we are thrilled to have him in this leadership role.



All three of these men are not only committed to our mission but are also ranchers who understand the importance of our work from a very personal perspective. Their shared experiences and insights will continue to guide us as we move forward.



We believe these changes will infuse our committee with renewed energy and enthusiasm. Jim and Dean's leadership promises to bring fresh ideas and continued dedication to our efforts. We are excited about the future and look forward to the positive impact this new chapter will bring.

Big Hole Watershed Committee

Activities & Events

Join Us in Divide or on Zoom

Monthly Public Meetings at the Divide Grange

Join us for our monthly public meetings on the 3rd Wednesday of each month, except July and December. We gather at 7 PM (or 6 PM in February and November) at the Divide Grange Hall. Alternatively, you can participate via Zoom. Our meetings include committee reports, project updates, new business, time for discussion, coffee & snacks, and special topic presentations. For more information, visit bhwc.org/monthly-meetings.

Have a relevant topic you'd like to share with us? Reach out to Associate Director Tana Lynch at tlynch@bhwc.org or (406) 267-3421 to get on our list of monthly meeting speakers!

Be “Smarter than the Average Bear”

Join Us for an Educational Evening on Grizzly Bears

We are thrilled to invite you to an engaging and informative event about one of nature's most magnificent creatures — the grizzly bear! This free educational event will take place on July 17th at 6 PM at the Divide Grange Hall.

Our evening will kick off with a delightful potluck meal. We are providing the main dish (elk burgers, buns, and fixin's, donated by BHWC board members) , so we encourage attendees to bring drinks or desserts to share. It's a wonderful opportunity to enjoy a meal together before diving into our program.

Our special guest speaker, Cecily Costello, is a renowned wildlife biologist who will share fascinating insights into the lives, habits, and conservation efforts surrounding grizzly bears. You'll learn about their vital role in our ecosystem, the challenges they face, and how to be “Bear Aware” in the Big Hole.

Whether you're a wildlife enthusiast, a land steward, or simply curious about grizzly bears, this event promises to be both educational and enjoyable. It's also a great chance to meet like-minded individuals and discuss ways to support local wildlife conservation. We look forward to seeing you there and sharing this incredible experience together.

But wait! There's more. Kim Johnston with People and Carnivores will join us to offer bear spray training, answer questions, and provide free bear spray, while supplies last. You won't want to miss this fun, educational, DELICIOUS event.



What: Join us for a free and informative presentation on GRIZZLY BEARS!
Who: Biologist Cecily Costello, PhD, MT Fish, Wildlife & Parks will present.
The presentation will be preceded by a potluck meal, with the main dish of elk burgers provided by BHWC. Please bring a side dish, salad, or dessert!
When: Wednesday, July 17, 2024

Dinner at 6:00 pm, Presentation at 7:00 pm

Where: Divide Grange Hall - Divide, MT

Sponsored by: Big Hole Watershed Committee



PEOPLE AND CARNIVORES



info@bhwc.org



406-960-4855

Support the Lifeline: Invest in the Big Hole River Today

Your Donation Helps Secure a Healthy Environment for Future Generations

Our beloved river, the lifeline of our communities and ecosystems, flows with a timeless rhythm, nurturing all it touches. However, this vital resource now faces unprecedented challenges that threaten its health and the well-being of those who depend on it. This is where we need your help.

At the Big Hole Watershed Committee, we are passionately committed to enhancing and restoring our river and the communities and habitats it sustains. Our work encompasses vital activities such as removing harmful pollutants, restoring native vegetation, and ensuring the river's flow remains cold, clean, and abundant for the diverse species that call it home.



But we cannot do this alone.

We invite you to join us in this crucial mission.

Your support will enable us to:

- Implement innovative conservation and restoration projects.
- Restore and enhance natural habitats, ensuring a thriving ecosystem for wildlife.
- Engage and educate our communities on resource issues and ways to safeguard our river for future generations.

Every contribution makes an impact. With your help, we can roll up our sleeves, put on our waders, and take the necessary action to maintain this precious lifeline.

Please consider making a donation today. Together, we can ensure that our river continues to flow with life, strength, and beauty, sustaining the communities and ecosystems that rely on it.



There are many ways to contribute:



- **Online:** Point your phone's camera at this QR code or visit bhwc.org
 - We have one-time, monthly, and round-up options!
- **By text:** BIGHOLE to 26989 to donate from your phone
- **By mail:** Send checks to P.O. Box 21, Divide, MT 59727
- **Livestock:** Click for more information: bhwc.org/giving/livestock
- **By supporting partner businesses** in the [Big Hole Conservation Fund](#)

Big Hole Watershed Committee

Building Drought Resilience in the Big Hole

Butte's Big Dam Projects Demand More Water from Big Hole

Join Us at the Montana Folk Festival

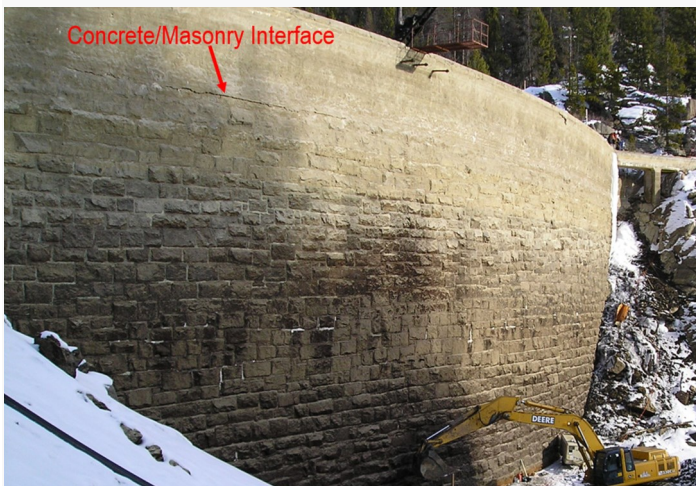
We are excited to announce that we will be partnering with the Butte Silver Bow Water Utility Department to host a table at the 2024 Montana Folk Festival! This fantastic event will take place in Butte, July 12-14, and we are thrilled to be part of it.

Our booth will feature a water filling station for festival attendees. We'll also be sharing valuable information about the critical link between the Big Hole River and the City of Butte's water supply. Did you know that Butte sources 40-60% of its water from the Big Hole River, pumping it over the Continental Divide?

This year, Butte's water demand will be higher due to two significant restoration projects at the Basin



Creek and Moulton Dams. The original, 60-foot Basin Creek Dam was built from granite masonry blocks in 1892 (see photo, above). In 1913, an additional 13 feet of concrete was added to the top of the dam (see photo, left). Remarkably, the granite holds steady, while the concrete addition is now failing. BSB is planning to reinforce it with ten 35-foot steel anchors to preserve the integrity of this high hazard dam. The Moulton Reservoir will be getting a new spillway and liner. These projects are essential for maintaining a reliable water supply for the City of Butte, but they also mean that every drop of water counts more than ever this year. See the graph below to understand the Basin Creek Reservoir impacts on the Big Hole River's water supply before and after the new wastewater treatment facility was opened in 2018.

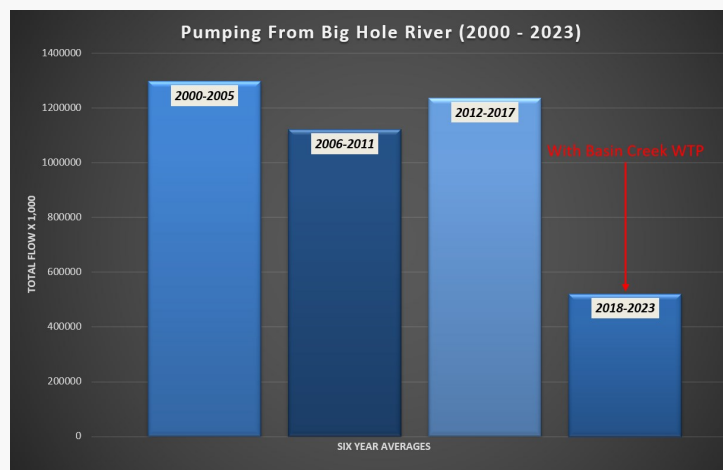


If you live in Butte, you can support the Big Hole

River by reducing your water usage. Simple actions like watering your lawn less frequently, turning off the tap while brushing your teeth, and fixing leaks can make a big difference. Your small steps help ensure that we have enough water to meet everyone's needs.

We'll do our part just like we always do to keep water on the landscape through our restoration projects, encourage water conservation through our Drought Management Plan, and investigate innovative solutions to a limited water supply, like cloud seeding, beaver mimicry, and natural water storage opportunities.

We look forward to seeing you at the Montana Folk Festival! Stop by our table, refill your water bottle, learn more about conserving this precious resource. This cooperative project has been funded in part by the U.S. Environmental Protection Agency through a mini-grant from the Montana Association of Conservation Districts.



Building Drought Resilience in the Big Hole

View River Conditions in Realtime

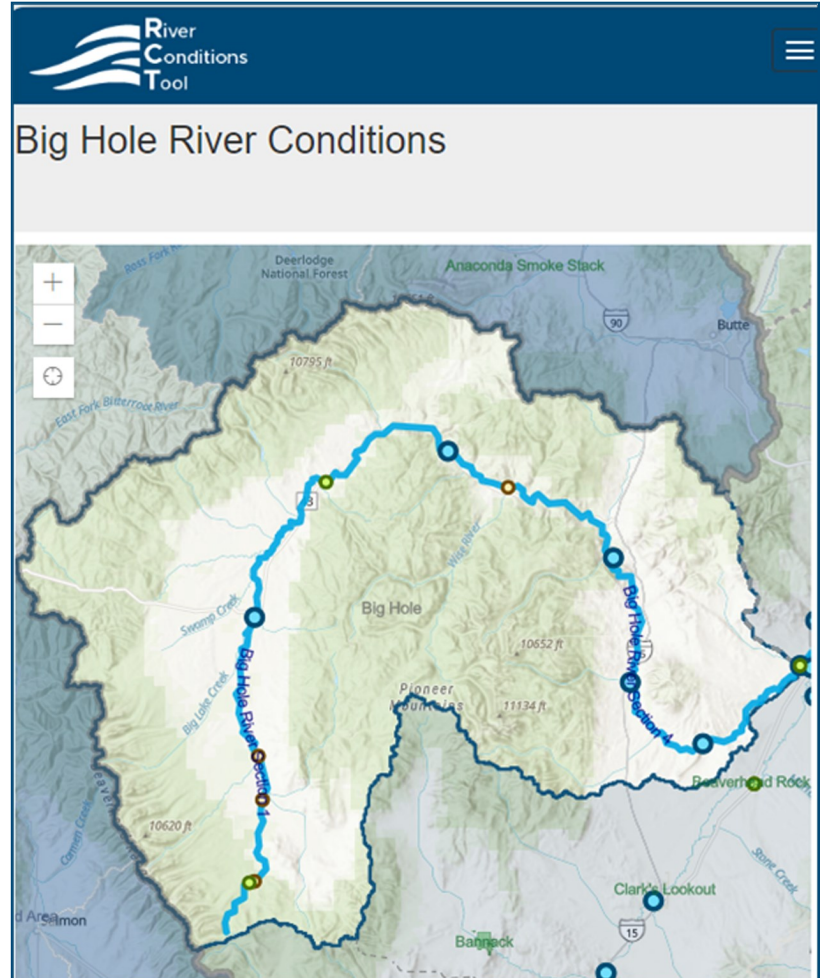
Via Our Website, bhwc.org

Did you know you can view all of the Big Hole River's stream gages on our River Conditions webpage? Check it out at bhwc.org/river-conditions!

Our River Conditions map displays stream gage locations and readings, Drought Management Plan (DMP) trigger locations, and developing streamflow and temperature trends. It also displays river restrictions and conservation status by section as well as links to the DMP and other useful resources.

The River Conditions web tool was created in 2018 by the USFWS and the Missouri Headwaters Partnership in with input from the BHWC and based on an earlier model made by BHWC in 2016.

Thank you to our friends at George Grant Trout Unlimited for covering the costs of the Big Hole River's three temperature gages (at Dickie Bridge, Maidenrock, and Tony Schoonen Fishing Access Sites) for BHWC each year since 2021!



Weekly Water Supply Reports

Text DROUGHT to 26989 to sign up



Text messages sent weekly
May - October

Check the Flow Before You Go

Live River Conditions Online, Via Text

How are the river flows today? Is the river open?

Imagine every week, having essential information on river flows, water temperatures, 3-day trends, and the status of various river sections right at your fingertips. Weekly updates are available via both text message and email.

Sign up now and let the currents of knowledge guide your next aquatic adventure! Simply text "DROUGHT" to 26989.

Big Hole Watershed Committee

Fish & Water

Culling Culverts on Mount Haggin

Restoring Passage to Benefit Native Fish

This summer, BHWC and partners will remove or replace four undersized and perched culverts on the Mount Haggin Wildlife Management Area. These culverts impede the movement of native fish, specifically Arctic grayling and Westslope cutthroat trout. They are located within the French Creek watershed, an area with a rich history of gold and silver mining dating back to 1864.

By removing or replacing these barriers, we aim to restore approximately 8.4 miles of upstream passage, significantly benefiting the native fish populations in this critical habitat. Two culverts will be removed entirely, while two will be replaced with larger, more fish-friendly structures. This project builds on previous successful efforts in the French Creek drainage, which now represents one of the largest interconnected populations of native trout in Montana.

RE Miller has been hired to implement this project with construction slated to begin mid-July 2024.

Thank you to our project partners: USFWS, MFWP, RE Miller & Sons.



Closing (Parts of) Coolidge

Ongoing Planning Efforts at Elkhorn Mine

This will be our fourth summer investigating and planning for the eventual remedy and restoration at the Elkhorn Creek, Mine and Mill, where soil and water still exceed DEQ contamination standards decades after mining operations ceased. BHWC and partners have been working for years to assess and address the environmental challenges posed by this historic mining site. It's a long haul, but we are confident our efforts will pay off!

We are now turning our attention to the deteriorating physical condition of the old Mill building and its failing foundation. In order to safely clean up the soils in and around the old Mill site, the structure must first be stabilized and its concrete foundation and columns repaired. We have contracted Pioneer Technical to complete the designs and hope the repairs can begin this year. Pioneer will also be finishing up the Engineering Evaluation/Cost Analysis (EE/CA) and working through the soil removal design.

Please note that the Elkhorn Mine and Mill site is currently closed to the public due to ongoing safety concerns. The closure will remain in effect until December 31, 2025 unless rescinded. The nearby Coolidge ghost town remains open to the public. Stay tuned for further updates on our progress and efforts to improve the safety and ecological integrity of this site. **Photo, above-right: Severe cracking and deterioration on one of the Mill columns (2023).**

You can learn more about this project here: bhwc.org/project/elkhorn-mine.

Thank you to our 2024 project partners: USFS, DNRC, and Pioneer Technical Services.



Fish & Water

Reeling in Success with Fish Reintroductions

Restoring Vital Fish Habitats in First Chance Gulch

Straightened and incised stream channels are just one of the many impacts of the extensive mining, logging, and smelting history of the Mount Haggin Wildlife Management Area (dating back to the 1860s) — and this means bad fish habitat. In order to thrive, salmonid species need not only clean, cold water, but also stream features that allow



them to navigate the stream, indulge in periods of rest, and spawn. One of the streams in the French Creek drainage lacks these important features, which is why BHWC and partners plan to construct 50-80 simple log step structures along a 1.5-mile reach of First Chance Gulch. The structures will be hand-crafted using on-site lodgepole pines. By strategically placing logs across the stream and securing them with erosion-control fabric, we will help the stream create the conditions fish need. **Photo, left: French Gulch habitat log structures, installed 2016. The same structure design and approach will be used in our First Chance Gulch project.**

BHWC and partners have been working for the last decade to improve and prepare the French Creek drainage for eventual reintroduction of native fish, with projects in adjacent tributaries and nearby Superfund sites to reduce sediment and enhance habitats. The newly introduced populations of Westslope Cutthroat trout and Arctic grayling will benefit from the improved habitat in First Chance Gulch, creating an important stronghold for these native species. Implementation is planned for August 2024.

Thank you to our project partners: MFWP, Watershed Restoration Group.

Ongoing Projects

Other Ways We're Maintaining and Enhancing the Watershed

- Reducing conifer encroachment in the Eastern Pioneers & Trail Creek (with USFS & BLM, construction 2025).
- Smith Sage Springs Phase 2: Reconnecting to the North Fork Big Hole River (design 2024, construction 2025).
- Revegetating streambanks on the mainstem Big Hole near Wise River (funding secured, construction 2025).
- Soliciting funding and making plans to improve spawning habitat in a spring creek near Wise River.
- Planning and preparing for potential beaver reintroduction at Moose Creek (in the Highlands).



Big Hole Watershed Committee

Wildlife & Uplands

Welcome, Justin!

Our Newest Employee

We are excited to announce the newest addition to our team for the carcass removal and composting program. Please join us in welcoming Justin Cottingham, our new Wildlife Program Technician, who has already proven to be a valuable asset during his first season with us. Justin lives with his family near Wisdom.

Justin has demonstrated exceptional skill and dedication in his role, ensuring the efficient and timely removal of livestock carcasses from producers in the Big Hole Valley. His hard work and commitment have helped make our program a success.

Our service is provided free of charge to livestock producers and involves transporting carcasses to our compost site outside of Wisdom. This crucial initiative helps prevent carnivores like wolves and bears from being attracted to calving and lambing areas, where they pose a threat to livestock and the safety of ranchers and their families.

Thank you, Justin, for your expertise and enthusiasm! And thank you to our 2024 project partners: USFWS – Red Rock Lakes NWR, Montana Livestock Loss Board, Tash T. Diamond Post and Pole, John Jackson, and local ranchers.



Dam Good Neighbors

Helping Beavers and Landowners Live in Harmony

We are pleased to announce a new initiative aimed at assisting landowners in resolving conflicts with beavers on their property. As beavers are vital contributors to our ecosystem, it is essential to find ways to manage their presence using non-lethal methods, ensuring they can share the landscape with ranchers.

New funding from the Broad Reach Foundation will help our organization offer several effective solutions:

- **Culvert Fencing:** If beavers are plugging culverts, we can install fences to prevent blockages and maintain water flow.
- **Pond Levelers:** For instances where beaver activity leads to flooding of roads or pastures, we can install pond levelers to control water levels and prevent unwanted flooding.
- **Tree Protection:** To safeguard trees from beaver activity, we can install protective fencing around vulnerable areas.

Having completed several of these projects successfully, our team has developed the expertise needed to address these challenges efficiently and effectively. We are dedicated to supporting both the beaver population and the needs of landowners through these innovative and humane methods.

If you are experiencing issues with beavers or would like to learn more about our solutions, please contact Restoration Program Manager Ben LaPorte at blaporte@bhwc.org or (303) 808-5611. We are here to help you find the best approach for managing beaver activity on your property.

To learn more about our work with beavers, visit

bhwc.org/projects/beavers.



Wildlife & Uplands

On the Range Again—Gearing Up for Another Field Season

Enhancing Safety and Wildlife Monitoring with Our Range Rider Program

As we prepare for another field season, we are excited to continue our Range Rider Program, a vital initiative we started in 2011. This year, our dedicated range rider, Chet, will once again be on the ground, monitoring USFS grazing allotments to assess livestock health and condition, as well as keeping a close watch on carnivore activity, particularly wolves and bears.

The importance of this program has never been greater. We are witnessing an increase in grizzly bear sightings in the Big Hole, and it's only a matter of time before a female grizzly takes up residence in our valley. When that happens, male grizzlies will inevitably follow, leading to the establishment of a resident grizzly bear population. This scenario mirrors what the Blackfoot Valley experienced 20 years ago, and we must prepare for the expansion of grizzly bear numbers and territories.

At BHWC, we are committed to using non-lethal methods to manage and coexist with these majestic creatures. Our comprehensive approach includes:

- **Range Rider Program:** Chet will be actively monitoring livestock and carnivore activity to ensure the safety and health of both.
- **Carcass Management Program:** By removing livestock carcasses, we reduce the attraction for predators near calving and lambing areas, thus minimizing conflicts.
- **Educational Events and Bear Spray Trainings:** These initiatives aim to educate the community on bear behavior and safety, equipping residents with the knowledge and tools needed to live safely alongside bears.
- **Provision of Bear-Resistant Garbage Cans:** We offer bear-resistant garbage cans to local residents to prevent bears from being attracted to human food sources.



As we continue these efforts, your support and participation are crucial. Together, we can create a safer environment for both wildlife and our community. Stay tuned for updates on our activities and how you can get involved.

Thank you to our 2024 project partners: USFS, Montana Livestock Loss Board, and program enrollees.

Big Hole Watershed Committee
P.O. Box 21
Divide, MT 59727

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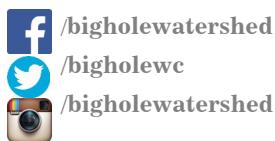
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Conservation Through Consensus Since 1995

Mission: To seek understanding and agreement among individuals and groups with diverse viewpoints on water use and management in the Big Hole River watershed of Southwest Montana.

BHWC is a consensus-driven, multi-stakeholder entity that works closely with other conservation organizations as well as local, State, and Federal agencies on watershed restoration and management plans.

Established in 1995, the Big Hole Watershed Committee (BHWC) is a collaborative organization representing diverse regional interests, including ranchers, sportsmen, conservationists, tourists, and community members. For nearly three decades, BHWC has taken a leadership role in enhancing the vitality of the Big Hole River, the surrounding watershed and communities, and the diverse and rare wildlife that inhabits the Big Hole Valley. The Big Hole River is the lifeblood for the surrounding area's natural and agricultural legacies, and the foundation for the region's economy. By proactively working to conserve this precious resource, BHWC is enriching one of Montana's last, best places for local residents and visitors from around the world.

The Big Hole Watershed Committee is a non-profit, tax-exempt charitable organization under Section 501(c)(3) of the Internal Revenue Code. Donations are tax deductible as allowable by law. *Our tax identification number is 11-3737644.*

Donate online!
Visit bhwc.org and click
the "Donate" button.