Free Flows

A Quarterly Publication



Spring 2019 In This Issue

Water Quality Monitoring Update Board & Staff Changes Tech Science Fair Winners Kid's Day on the Big Hole Land & River Management Trout in the Classroom

The Big Hole River Foundation's mission is to conserve, enhance and protect the free-flowing character of the Big Hole River, its unique culture, fish and wildlife.

Dear Friends,

There is a lot going on and much news to report.

The Times They are a-Changin'

The Treasure State is growing and so are the stresses on her resources. In the Big Hole Valley, folks have their eyes on a new housing development and oil & gas development. At the same time, the fragile Arctic Grayling is up for review again for the Endangered Species Act (ESA) protection and the Environmental Protection Agency (EPA) is rolling back river protections. Our beautiful landscapes, hardworking ranch families, and fly fishing economies really depend on a healthy and pristine Big Hole River.

Holistic, Continuous Water Quality Monitoring

The Big Hole River Foundation has launched a program to provide all Big Hole River stakeholders with current, cohesive data and is developing an annual roadmap for tackling main-channel Big Hole water quality issues.

The last comprehensive Big Hole assessment was conducted over 10 years ago and at that time the river was not meeting water quality standards for five different pollutants in 63 waterways in the Big Hole watershed.

Under the Clean Water Act (CWA), each state must assess its waterways. This is an unfunded mandate and Montana is only 60% of the way through studying its waterways today. The state passed a law to re-examine all impaired waterways every five years but has not had enough funding to complete round one

As a result, we don't know if we're getting better or worse on the Big Hole. What we do know is the state would love to remove the Big Hole from its impaired list and we'd love to help them do so.

To that end, we've spent the past year compiling existing water quality data and meticulously designing a holistic, annual water quality monitoring program which will identify today's baseline health and

Board of Directors

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New Board Member John Carreon



John is Chief Advancement Officer for Make-A-Wish Foundation serving its mid-west chapter of Ohio, Kentucky and Indiana.

Prior to accepting his role at Make-A-Wish, John

operated The Carreon Group. His firm drew on over twenty plus years of nonprofit experience to partner with clients in organizational assessment and advancement planning activities to empower them to achieve their goals. John lead The Big Hole River Foundation in a vision based process that assessed and provided an objective overview of BHRF's current organizational readiness while helping us to define sustainable governance practices, operational practices, and alignment of our mission and vision with effective communication to our Big Hole community, donors and members.

For the past 15 years, John has also served as a Faculty member for the Indiana University Lilly Family School of Philanthropy. John's teaching focuses on major gift development, organizational culture and planning, strategic planning, advancement audit and planning methodologies, ethics of fundraising and leadership development.

We are excited to have John join our Board of Directors and his knowledge and non-profit expertise will benefit us all.

Welcome John!

Long Time Operations Manager Corky Logan Retiring



Seventeen and a half years ago, I came to the Big Hole River Foundation as the Administrative Assistant to then director Jen Dwyer (Boyer). I had jumped at the opportunity to leave the regular workplace and instead work in the non-profit world for an organization that protected the river I loved the most, the beautiful Big Hole.

Through the years, I took on more and more responsibilities and became the Operations Manager. We were involved in stewardship fencing, native trout and grayling restoration projects, Trout in the Classroom, water quality monitoring and more. We grew our membership and outreach with Kid's Day on the Big Hole, Big Hole River Day, trivia nights at the local brewery, donor appreciation events and many more community involvement opportunities. I have many great memories such as riding on the back of an ATV up Six Mile Creek with Jim Olsen to see the cutthroat restoration dam project near Mill Creek. I had fun trying to come up with trivia questions to stump the very knowledgeable Butte crowd at Quarry Brewing, and best of all, attending our founder, George Grant's 100th birthday party and having time to talk to him about fishing the Big Hole.

The organization has been led by a diverse and ever changing board of directors, many of whom I will forever call friends. Their dedication to the cause has kept me going these past 17+ years but I find it is time to slow down and spend some time fishing and camping here in Montana. My hubby of over 38 years says, "If you don't retire, I will be camping by myself this summer." Well, I just can't have that!

I cannot possibly express how much it has meant to me to do this job for the Big Hole River Foundation. I have enjoyed meeting so many wonderful members and donors from all over the country, seeing the kids enjoying learning to tie flies at Kid's Day, watching people win the coveted drift boat raffle prize, and being totally exhausted at the end of Big Hole River Day.

Whatever knowledge I have left in my head, I will gladly pass on to my successor and I will remain a member and donor of this organization for years to come. I wish you all well and hope to see you on the water this summer.

Corky Logan



Meet Our New President!

It is my pleasure to introduce you to Brian Wheeler, our new President of the Big Hole River Foundation. Brian comes to us from the Community Support Center in Dillon, MT, where he has served in the roles of Executive Assistant and Development / Grant Writer for almost five years.

Brian and his wife, Ande and their three dogs live in Dillon. In addition to his work at the Community Support Center, Brian has been working as a fly fishing guide during the summers for several area lodges and outfitters. On the volunteer front, he is currently serving as president of

the newly named Chuck Robbins Chapter of Trout Unlimited. His appreciation for the mission of BHRF and his passion and care for the integrity of the Big Hole River became quite apparent in our very first conversation with him.

It has been our goal all along to hire a full time President (formerly titled Executive Director), who lives near the Big Hole, has an understanding of the various dynamics that come into play in our community and who has strong fund raising experience. We have found such an individual and are looking forward to you getting to know Brian when he begins his full-time role with us on August 12th.

Welcome Brian!

Sarah Ashworth Vice-Chair

Chank You

We are grateful to the following members and donors who have renewed or made recent contributions and gifts in 2019 in support of our mission as of May 25, 2019

Every effort has been made to maintain accuracy in our donor lists. If we have made any errors, please call 406-560-7089 or email bhrf@bhrf.org.

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Free Flows

Dennis Dietl Matt Frey Marshal Moser Robert Saffle Paul Vang

Water Quality Monitoring Program by David Dockery



Sampling has begun and I could not be happier to be spending a summer in the beautiful Big Hole watershed! Over the past year, I have focused on reviewing literature relevant to water quality monitoring, developing connections with the various agencies working in the region and water quality monitoring programs throughout the region, consulting water quality specialists, and synthesizing available information and data on the Big Hole watershed. Results from this work have been compiled in a report that will guide and inform the program and future directors for years to come. The report will continue to evolve and grow as field experience and further research is incorporated.

The broad objectives of the program include assessing current water quality conditions, identifying trends and pollution sources, and fostering stewardship of water resources among the public and youth. The program will help evaluate the effectiveness of past and current restoration work as well as inform future restoration work so that resources are applied to areas where they will have the largest positive impact. The program will facilitate early detection of any negative water quality trends, allowing nascent issues to be identified at an early stage when they are more easily addressed.

Specifically, the program will focus on nutrient and sediment monitoring. While nutrients are necessary components of the primary production that supports the food chain, excessive nutrient concentrations can affect a water body's ability to support its aquatic life, fisheries, drinking water, and recreational uses. Excessive nutrients can lead to undesirable levels of algal growth that can reduce the quantity and quality of habitat for aquatic insects, interfere with fish spawning, and decrease the level of dissolved oxygen, sometimes with lethal effects on aquatic organisms. Similarly, excessive sediment can inhibit fish survival and reproduction by reducing aquatic insect and fish spawning habitat and inhibiting oxygen transport to eggs. Excess sediment can also fill pool habitats; reducing habitat diversity and refuge areas from warm water temperature and predators. Nutrient and sediment monitoring will be complemented with biological monitoring of aquatic insects and algae.

Thank you for the continued support and interest in protecting the Big Hole, I look forward to expanding our understanding of the Big Hole watershed and conserving this incredible resource!

George Grant - Montana Conservation Hero



At a public ceremony in Helena last December, 16 conservation heroes-living and deceased-were inducted into the Montana Outdoor Hall of Fame. Nationally renowned conservation leader and author Jim Posewitz of Helena, for years a biologist and conservation advocate with Montana Fish, Wildlife & Parks, founded the hall of fame in 2012 with support from the Montana Historical Society, which verifies the histories and significance of nominees. A volunteer board of representatives from Montana's Outdoor Association, Montana Trout

Unlimited, and FWP select new inductees every two years. Posewitz, himself a 2016 inductee, introduced the 2018 inductees and our own founder George Grant was one of the 16 chosen this year.

To see the complete list of winners and full write up about George, pick up a copy of Montana Outdoors March-April 2019 edition or visit their website at: www.fwp.mt.gov/mtoutdoors

Wise River School Brings Trout in the Classroom



Using Trout Unlimited's model for Trout in the Classroom, Wise River teacher, Felicia Lubeck introduced the program to her students this year and the kids have been having a great time with it as they prepare to release their maturing fish soon.

From costuming in an astronaut's suit at Halloween to writing a grant to help fund the egg hatching program, Felicia has been taking special effort to get her students involved in the "fun" side of science. While Trout in the Classroom helps to increase student knowledge of water quality and coldwater conservation, it is also effective at getting them actively engaged with the process in a "hands on" way.

Wise River is one of three schools in the Big Hole Valley that are participating in Trout in the Classroom this year. Thank you Wise River, Twin Bridges and Divide for taking the time to encourage your kiddos in this way.

Good Summer Fish Wishes to All!







Chairman's Message continued from page 1

eventually identify pollution trends to help us identify pollution hotspots. This data will allow us to better inform restoration efforts to maximize bang-for-buck river protection on the Big Hole River.

In order to adequately carry out our mission, the Big Hole River Foundation needs to have our finger on the pulse of waterway health and equip as many agencies, river protection groups, landowners and visitors with a complete picture so we can all come together and form an effective plan. There's no time like the present.

Grayling Litigation: Back to Square One

Last Summer, the 9th Circuit remanded the 2016 District Court decision to not list the Arctic grayling as threatened or endangered. A three-judge panel found Fish and Wildlife failed to supply evidence of an increased population of the Arctic grayling in Montana rivers, and didn't properly account for climate change when it declined to list the species as endangered in 2014. The panel ordered the agency to reconsider the listing with a fuller account of the scientific record on hand.

The case will now go back to Judge Haddon's desk and he will take a hard look at not only grayling numbers, but water temps, river conditions, and the Candidate Conservation Agreement with Assurances irrigation scheme before deciding whether or not the Endangered Species Act requires further protection for the grayling. The Big Hole River Foundation will do as much as we can with the funds we raise to help him more fully see the current picture. In doing so we will help make a showing that stakeholders in the Big Hole are committed to a good recovery plan.

Oil & Gas Drilling in the Big Hole: Lease Sale Whack-a-Mole

Oil and gas leases in the Big Hole watershed were proposed twice last year by the Bureau of Land Management. Although these leases are currently in a three-month deferment, they have not been withdrawn and could pop back up at any time in the future.

Oil and gas development creates nasty direct impacts like marred landscape and cumulative impacts like groundwater contamination, degraded wildlife habitat, and pollution that affects everything from livestock to drinking water.

With our monitoring program in place, we'll be able to pinpoint changes in water quality that signal something is wrong, and in turn, take quick action to protect the river. When it comes to oil & gas drilling in our area this type of ongoing data is crucial: the stakes couldn't be higher than protecting the future of the Big Hole. Clean water is our Valley's greatest asset and the only way wildlife, pristine habitats, and thriving communities can be protected for generations to come. Stay tuned as we watchdog future lease sales and explore a long-term block on oil and gas drilling in the Big Hole Watershed. We'll be asking for your comments if another lease pops up in the meantime.

Waters of the United States: Rolling Back Protection of Big. Hole Feeder Streams

In the face of all this, a proposal of repeal of the Waters of the United States Rule is currently on EPA's desk. The proposal would strip wetlands, tributaries, and streams that aren't connected directly to waters classified as "traditionally navigable."

In the Big Hole, the Clean Water Act would no longer provide protection for ephemeral streams or intermittent streams. These are streams fed by snow and rain that contribute to the Big Hole's waters above ground in times of high water and then go underground and return through the aquifer to the center of the river throughout the summer. As we all know, when creeks and wetlands throughout the Big Hole Watershed go underground, they don't disappear. They join underground rivers and lakes that are the lifeblood of the river through the dry months of the year — and they need protection.

The Big Hole River Foundation is a science-based organization and we join 20,000 aquatic scientists opposing these rule changes. They believe, as we do, that we need rules and guidelines, based on science, protecting the things we love. We have a responsibility to protect the natural systems of the Big Hole Valley and to protect it in its entirety.

Big Program, Big Budget

As you can see, we are in a David-Goliath scenario, but we're up to the challenge. As you can imagine, the budget required to succeed is proportional to the value gained. I ask each and every member and a friend to contribute to our 2019 Water Quality Monitoring Program - be it \$5 or \$5,000 every single, dollar makes a big difference.

We are most grateful for your care for this wonderful river we share. Thank you for your continued support and participation in our efforts.

Good summer wishes to you!

Sincerely, Wade Fellin, Chairman

Land and River Management - by Hans Humbert

Rivers as we know them are a result of management. Whether we fish or not changes the fish population and how we fish affects populations as well. Currently, we fish the Big Hole with artificial bait, live bait, ospreys, otters, pelicans, eagles and a host of other predator types.

As river users and managers of private land, we need to realize the long reaching effects of the changes we make. The Big Hole River still supports a population of fluvial Arctic grayling unlike several of the surrounding watersheds. As managers, we need to move slowly with our eyes open to the results of any change in land operation we make. The ecology of these rivers can be affected in subtle ways over time by more or less of any treatment. Changes in the land use within the watershed can have unforeseen effects on our rivers.

A large driver in private land management is economics. Turning irrigation water back to the river during drought condition is not in the interest of grass production. Other factors cause the water to flow in the river at these times. Struggle as we do with the intricacies of river and land management, the wildlife are not the ones at fault. All river users need to understand the effects of their use on the river and its other users.

Hans Humbert has been a board member of the Big Hole River Foundation for over a decade. He is a rancher west of Wisdom and is always willing to contribute his vast knowledge of range land management and cattle production.

How YOU Make a Difference Through The Big Hole River Foundation By Sarah Ashworth

Whether you are a fly fisher or not...there are so many other gifts that the Big Hole River Valley offers to those who live, work, play or occasionally visit here.

I learned this in spades on my first trip to Wise River a number of years ago. My experience at the Big Hole Lodge was beyond exceptional. Yes....the food was divinely delicious; my guides were wonderful and welcoming, and Craig and Wade clearly deserve Orvis's Fly Fishing Lodge of the Year in 2017. But, what brought me back multiple times until I purchased my home and moved here permanently was this....the quiet, warm embrace of surroundings uninterrupted by the sounds of heavy traffic and the rush and frenzy of a techno based world, seeing wildlife and native fish just "doing their thing" in an unencumbered habitat and chatting for a long while with folks just because.... Moving slow and breathing deep as I always like to say.

While this lifestyle is not for everyone, I would submit that the preservation and care of it is essential and necessary for ensuring a balanced ecosystem for nature and humankind. The Big Hole Valley is at a pivotal stage and we are presented with a uniquely fortunate opportunity for directing our efforts to preserving our pristine river. We are seeing a new wave of youth returning home to Montana and Wise River from bigger city colleges because they want to be back with nature and the river and they miss the wholesomeness they got so attached to growing up. Young and old alike are unified in their desire to protect the innocence of this bliss and make a living from it. This is a good thing! We all know that once land gets developed...there is no getting it back.

Making a donation to The Big Hole River Foundation supports the health of our free flowing river; the fish who live in it; the community of people who reside here or who come to enjoy it; and the up and coming generations who want to protect and ensure its healthy existence in the future. And if you want a more tangible reason to write a check to BHRF, we can promise to use your gift for the purchase of much needed office equipment and additional supplies for our Water Quality Monitoring Program.

On behalf of the Board of Directors, thank you for your continued support and for making a difference through The Big Hole River Foundation. We are forever grateful!

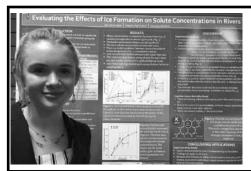
"Many go fishing all of their lives without knowing that it is not fish they are after." ~ Henry David Thoreau







The 2019 Montana Tech Science Fair Award Winners - Congratulations to Ella DeGranpre, Wyatt Casagrande and Hannah Pankratz



Ella DeGrandpre - 12th grade Hellgate High School, Missoula, MT

Project Title: Evaluating the Effects of Ice Formation on Solute Concentrations in Rivers

Ella is a past BHRF winner and colleges she is considering are Columbia, NYU and Berkeley.



Wyatt Casagrande - 6th grade Ramsay Elementary School, Ramsay, MT

Project Title: Removing Harmful Bacteria from Your Water in the Wilderness



Hannah Pankratz - 8th grade Chief Joseph Middle School, Bozeman, MT

Project Title: How Does Climate Change Affect Fish Populations

Note Received from Hannah's father - I just wanted to express thanks to FWP staff and the Big Hole River Foundation from my daughter, Hannah (7th grade). My daughter presented a science fair project at the regional competition at MT Tech in Butte yesterday. With the help of data received from FWP Fish biologists, the fishMT website, and the USGS she analyzed the effects of changing stream temperatures to surveyed rainbow and brown trout populations over a ten year period. It was pretty fascinating as we together compared data from the Smith, Missouri, Yellowstone, and Madison rivers and learned a lot about trout biology. She was extremely proud to receive awards and recognition from FWP (Year subscription to MT Outdoors. Thanks Tom!) and the Big Hole River Foundation at the event.

KID'S DAY ON THE BIG HOLE 2019



See you next year!

BHRF Merchandise

The Big Hole River Foundation has books, logo fishing shirts, vests and hats for sale.

To order, please visit our website at www.bhrf.org.

Montana's Last Best River: The Big Hole and it's People by Pat Munday. George Grant signed edition \$59.95 + S&H Dave Whitlock print edition \$49.95



Books by George Grant Grant's Riffle Montana Trout Flies The Art of Weaving Hair Hackles \$20 each plus S&H Ten Book Series - see website \$200 Free shipping





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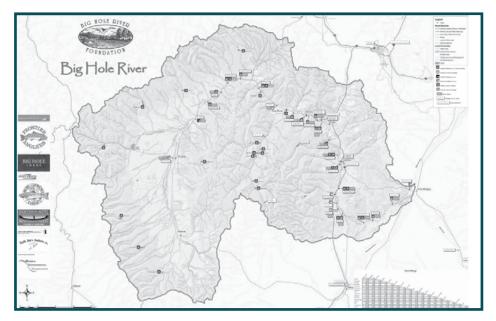
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Montana artist Monte Dolack's "Montana Grayling" posters These beautiful posters of Arctic grayling are worthy of fine framing \$25 each plus S&H

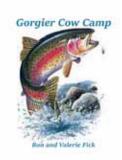


Big Hole River Maps available in local shops or order online at www.bhrf.org for \$9.95 + S&H



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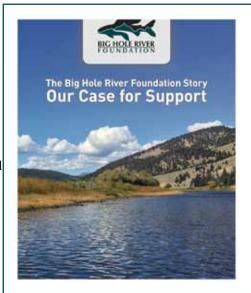
Be sure and ask about our Case for Support which highlights:

- -Why the Big Hole River is Important
- -Our New Primary Initiative for Water Quality Monitoring
- -How we are championing the cause through Research and Conservation
- -And much more....

The scope of our efforts to conserve the Big Hole is profound and foundational....and yes, challenging. We are in this for the long haul and we would like you to be in it with us too. In the Big Hole River Valley, conservation is more than just an intellectual or monetary buy-in to preserving or restoring the pris-tine characteristics of the river, its fisheries and ecosystem. It's personal...it's the protection of a community's living space and soulful serenity for many a generation past and future.

Give us a call, send us an email or better yet make a donation (all amounts matter)!

Thanks in advance!



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