

BIG HORN

RIVER ALLIANCE



ANNUAL
REPORT





BIGHORN

RIVER ALLIANCE

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*Executive Committee Member At Large

STAFF

- Anne Marie Emery
Executive Director
- Melissa Lombardozi
Membership & Outreach Coordinator

VISIT WEBSITE FOR
DIGITAL REPORT &
ADDITIONAL INFO

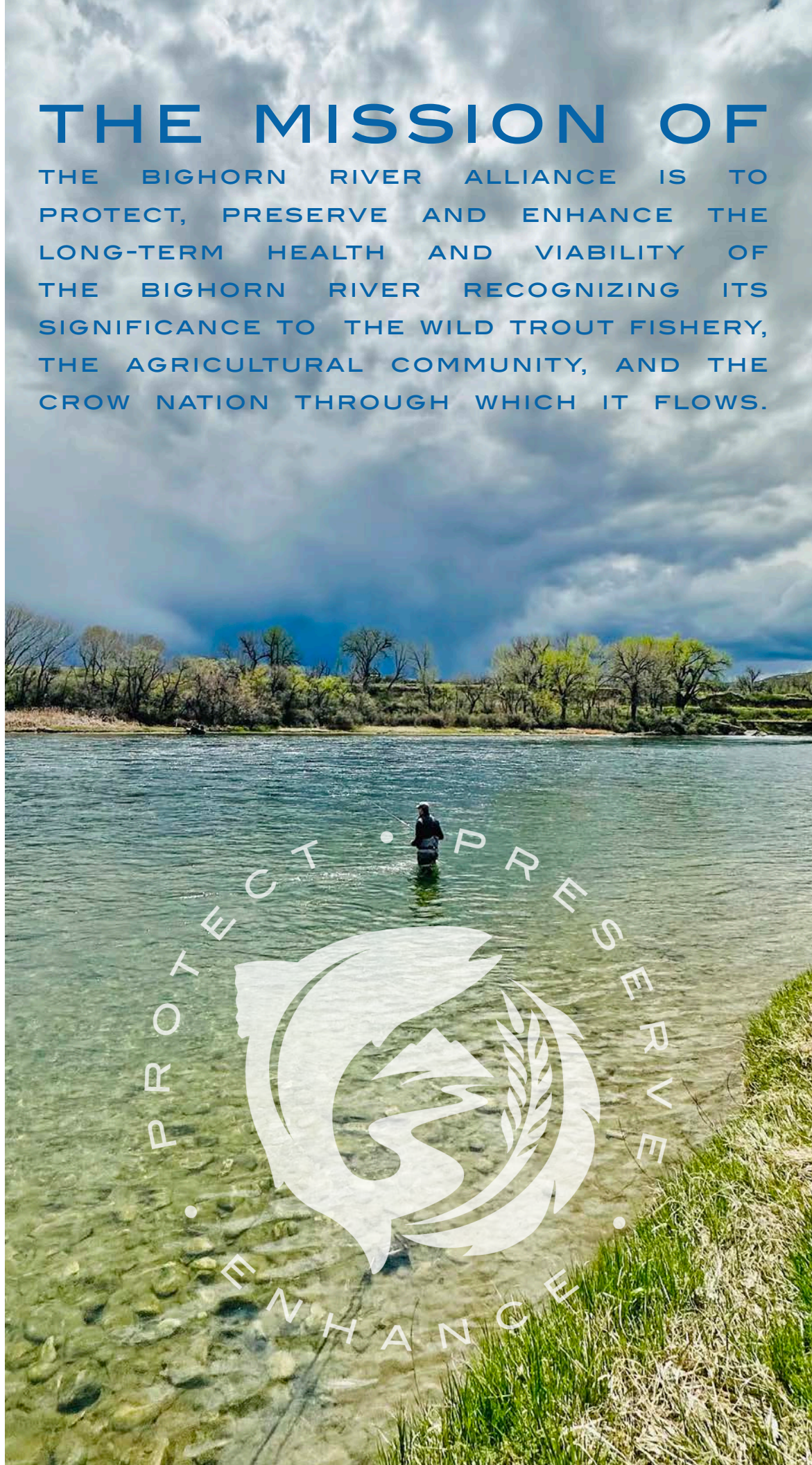


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Front cover photo by John Sindland
Inside cover photo by John Morris

THE MISSION OF

THE BIGHORN RIVER ALLIANCE IS TO PROTECT, PRESERVE AND ENHANCE THE LONG-TERM HEALTH AND VIABILITY OF THE BIGHORN RIVER RECOGNIZING ITS SIGNIFICANCE TO THE WILD TROUT FISHERY, THE AGRICULTURAL COMMUNITY, AND THE CROW NATION THROUGH WHICH IT FLOWS.



MESSAGE FROM THE EXECUTIVE DIRECTOR



It is with great pride that the Bighorn River Alliance (BHRA) shares the many ways it works in benefit of the Bighorn River through its 2023 Annual Report. While this report highlights the projects and programs that align BHRA with its mission, it

also serves as testament to what BHRA members and supporters make possible through annual contributions to the organizations cause. 2023 will go down as one of best overall years for the Alliance because of the people who helped us at every turn.

The BHRA research program continues to preserve and enhance the upper Bighorn River as one of the nation's top tier wild trout fisheries. This past year we increased wild trout habitat by restoring five side-channels, implemented intensive monitoring protocols to assess the success and usage of restored channels over time, refined our aerial drone surveillance of high-use spawning areas, funded and installed a real-time temperature gage and upheld our commitment to the river's long-term health through annual water quality and

macroinvertebrate monitoring. Off river, we had equal impact. We represented the river's interests at numerous water management forums, reviewed and provided comments on the 2023-2026 Montana Statewide Fisheries Plan, presented at community, state and TU forums and maintained collaborative interagency relationships.

You make this possible. In fact, if you question your impact on BHRA and its work to preserve, protect and restore the Bighorn River, consider this: your collective support of the organization accounted for 77% of our total budget in 2023 - the epitome of grassroots giving.

As you wade through this report, I hope you feel tremendous pride at the scale of which BHRA works to protect the Bighorn River and its wild trout. I also hope you feel inspired to continue your support which is fundamental to our growth and projects. It is a phenomenal time to be part of the Bighorn River conservation story and I am incredibly proud of what we are building for the betterment of the Bighorn tomorrow.

Anne Marie Emery

2023 WILL GO DOWN AS ONE OF BEST OVERALL YEARS FOR THE ALLIANCE BECAUSE OF THE PEOPLE WHO HELPED US AT EVERY TURN.





INSTALLING MINDFULNESS

BHRA uses drone technology to monitor, map and measure major rainbow trout spawning complexes to understand how use and size of these habitats change over time and under variable flow conditions. In 2023, BHRA supplemented this study with an educational campaign aimed at reducing angler impact on Bighorn spawning trout. Using high-resolution drone footage, educational signs were created to inform anglers about when and where wild trout spawn on the Bighorn River. Signs were then placed at flyshops and public access sites in hopes that education, along with appreciation for the wild trout life cycle, encourages mindful casts and careful steps into the future.



RESERVOIR DATA SWAYS MANAGEMENT

BHRA monitors reservoir temperatures behind the Yellowtail Dam to learn how different runoff scenarios affect the stratification of impounded waters and to examine how release of impounded waters from various elevations, affects downstream river temperatures. In July and August of 2023, BHRA observed water released from the turbine outlet elevation as being 15-20 degrees warmer than in 2021 & 2022, suggesting that the rapid evacuation of reservoir water in the spring, followed by the re-filling of the reservoir with rainfall as opposed to snowmelt, affected temperature stratification. In response to this data, BHRA worked with MFWP and USBR to successfully negotiate water being released from deeper in the reservoir (from the river outlet), bringing cold water relief to the fishery during the hottest summer periods.





CONNECTING TRIBAL YOUTH TO FLY-FISHING

Part of what makes the Bighorn River special is the Crow lands through which the river flows, and the Crow people who call it home. In recognition of the rivers place within the reservation, BHRA developed Tenkara with the Tribe, a youth fishing program that connects tribal youth to fishing Bighorn waters. In partnership with the Crow Tribe and Patagonia founder Yvon Chouinard, BHRA presented the program on the Little Bighorn River this past August with 12 Crow youth participating. Through integration of culture, fun and patient one-on-one instruction, Tenkara with the Tribe promotes inclusivity in fly-fishing and conservation on the Crow Reservation, while introducing the next generation of tribal leaders to the sport as a form of positive recreation that can be enjoyed, forever.

AQUATIC INSECTS RESPOND TO HIGH FLOWS

Monitoring macroinvertebrates is part of BHRA's commitment to assessing the health of the river. In 2023, BHRA conducted pre- and post-high flow event assessments. Before high flows, spring aquatic insect populations were dense and dominated by midges, scuds, and worms. Following the high flows, revisits showed a decrease in insect abundance but a 'healthier' composition, with more mayflies and caddisflies. This shift indicates that periodic high flow events clear sediment, favoring mayflies and caddisflies over silt-tolerant species. Fall sampling suggests an increase in BWO, Trico, and Tan Caddisfly hatches, especially downstream of Bighorn FAS.



Because of you in 2023

3 Internship opportunities provided to students of Rocky Mountain College.

5 Bighorn Side Channels restored, bringing the total number of channels restored to 7 & increasing habitat by 3.42 miles.

6 BHRA snorkel surveys conducted on 2 restored side channels revealing use by 7 species of fish; predominately trout fry!

11 Wild Trout spawning complexes representing a large proportion of spawning habitat in the upper 13 miles mapped and measured.

12 Crow Youth introduced to fishing as a positive form of recreation on their local reservation waters through BHRA's Tenkara with the Tribe program.

32 State and federal agency meetings attended in representation of the River and its Trout.

72 Miles of water quality measured on the river, its tributaries, and Bighorn Reservoir.

94 Aquatic insect samples collected before and after high flows at 8 long-term river sites and 2 restored channels.

1,303 Data points collected by Bighorn Guides via the BHRA FishLog app, connecting BHRA to real time catch rates, trout health and river conditions.

2,297 Hours donated by BHRA board of directors and volunteers in benefit of BHRA projects, programs and organizational health.



RESTORING BIGHORN HABITAT

The Bighorn River Alliance expands and improves Bighorn River habitat by restoring connectivity between the mainstem river and its side channels. Over the years, and since the construction of Yellowtail Dam, side channels have become increasingly disconnected from the river due to vegetation encroachment and sediment accrual at channel entrances. Understanding the significant role side channels play in sustaining the fishery, BHRA commits to large-scale restoration efforts that restore the wild trout/complex habitat connection.

Following the successful reconnection of two side channels in 2021, BHRA leveraged grant funding and membership support to undertake the restoration of five additional side channels in 2023—marking the most extensive multi-side channel restoration effort on the Bighorn River to date. Adhering to survey design plans, and under the guidance of BHRA contractor Mike Sanctuary (Confluence Consulting), mechanical excavation was used to remove 3,600 cubic yards of sediment from channel heads, with additional work occurring within channel lengths to



**BHRA HAS
RESTORED 7
SIDE CHANNELS,
INCREASING WILD
TROUT HABITAT BY
3.42 MILES**





*Visit the
Side Channel
Reactivation Project
online for videos,
reports and more
information.*



improve habitat and longevity of connection. Work was completed in the fall of 2023, bringing the total number of side channels restored by BHRA to 7, effectively increasing wild trout habitat on the Bighorn River by 3.42 miles.

An integral aspect of multi-side channel reactivation is to assess the long-term viability of restored side channels over time, as well as quantifying the quality of habitat they provide. In 2023, BHRA implemented intense post-restoration monitoring protocol on 2 restored channels that included geomorphic assessments, flow monitoring, fish surveys, aquatic insect monitoring, and orthophotography. Results of this assessment revealed the following:

- Entrances of restored channels remained at, or close to, original design elevations despite record high flows in June/July.
- Flow within restored channels did not mirror that of the main stem releases, potentially due to the influence of aquatic vegetation.
- Snorkeling surveys conducted during the summer indicated the utilization of the restored habitat by various species and size classes of fish, with many young-of-year trout observed.

- Aquatic insect densities within the side channels remained consistent with spring samples but decreased when compared to densities in the main river after the high flow event.

Moving forward, BHRA has plans to restore 4 final channels identified through the Bighorn Side Channel Reconnection Project in 2024, while simultaneously performing monitoring of channels restored in 2023. More information, including study designs and videos can be found on the BHRA website.



Rocky Mountain interns measure flow into Juniper side channel.



2023 FINANCIAL RECAP

REVENUE

*CONTRIBUTED REVENUE	329,317.75
*EARNED REVENUE	88,164.50
TOTAL REVENUE	417,482.25

EXPENSES

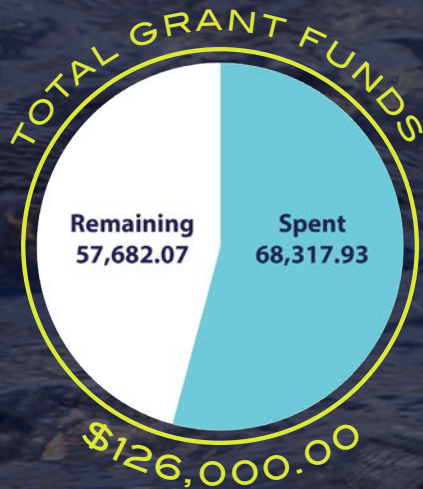
PROGRAMS	177,247.47
ADMINISTRATIVE	97,212.69
FUNDRAISING	48,427.16
TOTAL EXPENSES	322,887.32

TOTAL NET INCOME	94,594.93
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CUMULATIVE NET ASSETS	555,884.83
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*Contributed Revenue = donations & matching gifts

*Earned Revenue = license plate sales, merchandise sales, & boat raffle



2,296 Montana vehicles registered with a BHRA license plate bringing in 56K to BHRA in 2023.



MESSAGE FROM THE BOARD CHAIR



When I first started as BHRA board member in 2008, we had approximately forty paying members in support of our cause. I remember evenings spent at the back of the Trout Shop, stuffing envelopes with other board members, talking about what we hoped the organization would become.

Fifteen years later, the Alliance has evolved in direct benefit to the Bighorn River of which it serves, and the members of which it represents. Led in service by a dedicated board of directors, put into action by a passionate two-person staff, and supported by nearly one-thousand members, we are proud to share the ways your financial support is used to protect and preserve the Bighorn River.

Most of all, it is important that we remain true to our grassroot origins moving forward. As board chair, I remain committed to our mission to preserve, protect and enhance the river that we love for present and future generations. Thank you for your support which makes it all possible.

John Sindland

HELP PRESERVE & PROTECT THE BIGHORN RIVER BY EXPLORING ALL THE WAYS TO GIVE TO BHRA

- **Stock Share Transfers** help you avoid capital gains and increase your charitable deduction.
- **Donor Advised Fund (DAF)** via our website or through your grant administrator.
- **IRA Qualified Charitable Distributions (QCD)** for those 70½ and older, you can meet your Required Minimum Distribution (RMD) & receive credit for a charitable contribution.
- **Legacy Gifts** by naming BHRA as a beneficiary of your estate plan.
- **Matching Gifts** from your employer can double or triple your impact.

Wild Trout Society

CELEBRATING LEADING DONORS

The Bighorn River Alliance expresses its gratitude to all those who supported the organization financially in 2023 and acknowledges those who increased their annual contributions through the Wild Trout Society (WTS) program. The WTS represents a committed cohort of donors who pledge a minimum of \$1,000.00 each year to bolster BHRA's general operations and research endeavors. In 2023, WTS donations accounted for

over half of the BHRA annual budget. We are eternally grateful to all donors but would like to acknowledge the generous support of the below WTS members for helping us sustain our operational and programmatic function in benefit of the Bighorn River.



2023 WILD TROUT SOCIETY MEMBERS

\$20,000 +

Sam & Barb Jampolis

\$10,000 - 19,999

James & Josie Chalmers

Jim Lyon

Allen Neelley

Dee Rolph

\$5,000 - 9,999

Jim Brownlie

James Greene

Holdfast Collective

Donald Jackson

& Beverlee Nelson

Jim & Chris Scott

Douglas Unruh

\$2,500 - 4,999

Tim Hanks

Wink & Libba Hartman

Ryan Majerus

Harry Miller

Courtland Palmer

Mike Parnell

Randy & Alice Randolph Jr.

Simms

Mike Stabolepszy

Dave & Barb Thomas

Michael White

\$1,500 - 2,499

Carolyn Chalmers & Eric Janus

John & Michelle Chalmers

Jerry Connolly

Frank & Delores Corbett Charitable

David Cost Jr.

Bob & Terry Dickens

Mary Emery

Doug Gouge

Thomas Hansen

Ryan Hertzberg (Big Horn Valley Ranch)

Steve & J.J. Hilbers

Thomas Holtz

Mike Kelly

Steve Lerner

Matthew Nicoll

Jack & Pat Shelton

Toby Swank

Stuart & Danny Tanner

Mark & Karen Thomas

Dan Vermillion (Sweetwater Travel)

Tom Welsch & Stephanie Dubravac

\$1,000 - 1,499

Brian Aamlid

Richard Allgood

Craig Armstrong

William Barrett

Brad Bischoff

Brad Boone

Pat Cathey

Shane Colton

Jay Coulter

Clay Crawford

Jeff Deter

Anne Marie Emery

Michael Engel

Paul Fitzgerald

FJ Freenor

Jacen Hamilton

Patricia Hamman

Roger Hile

Charles Jaffe

Sam & Carol Mavrakis

William McMaster

Paul Mesack

Scott & Jeff Minnich

John Morris

Bob Phillips

Larry Pollard

Edward Rossi

John & Debbie Sindland

Steven Smith

Edward Spalty

Dan Stockton Jr.

Michael & Shirley Trapp

Steve Whisler

Steven Zuckerman



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THANK YOU TO EVERYONE WHO HAS SHOWN SUPPORT FOR THE BIGHORN THROUGH THEIR CONTRIBUTIONS OF IDEAS, CONCERNS, AND BOTH PHYSICAL AND FINANCIAL RESOURCES.

BIGHORN RIVER ALLIANCE.ORG